OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

This report is structured according to our Business Principles, which you can access using the colored tabs above.

This report is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines released in October 2006, at an application level of A+. See the GRI Index









"Welcome to our 2006/7 Sustainability Report. These are challenging times, not only for our Company but for our planet and its inhabitants. The markets for our products are changing rapidly, and there is fierce competition everywhere we operate. Collectively, we face daunting global sustainability challenges, including climate change, depletion of natural resources, poverty, population growth, urbanization and congestion."

Alan Mulally, President and CEO Bill Ford, Executive Chairman



### Fast track to data:

- Products and Customers
- **₹** Environment
- Community
- → Workplace Safety

- Vehicle Safety
- → Quality of Relationships
- Financial Health

### Overview >

Our industry, the business environment and societal expectations continue to evolve, and so does our reporting. Learn about our Company and our vision for sustainability.

### Our Impacts

As a major multinational enterprise, our activities have far-reaching impacts on environmental, social and economic systems. Read about our analysis and prioritization of these issues and impacts.

### Voices >

Nine people from inside and outside Ford provide their perspectives on key challenges facing our industry and how Ford is responding, including "new mobility," good practices in the supply chain and the auto industry's economic impact.





This report was published in June 2007. See also previous reports.

2006 Data overview >



OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### Contact

Preparing this report is a valuable opportunity for us to assess and improve upon our economic, environmental and social progress and performance.

To continue to do so, we need your feedback. We welcome your opinion and perspective through several means:

### Write or call:

Krista Gullo Ford Motor Company One American Road Dearborn, MI 48126 U.S.A.

+1 (313) 206-2654

### E-mail us at:

sustaina@ford.com

For customer service issues or complaints please call 800-392-3673 in the US, 1-800-565-3673 (FORD) in Canada or go to www.customersaskford.com.

OVERVIEW > OUR IMPACTS > VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### **GRI Index**



This report is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines released in October 2006, at an application level of A+. To locate the elements and information contained within the guidelines use the index below. For a detailed explanation of the indicators, visit the <a href="GRI Web\_site">GRI Web\_site</a>.

RELATED LINKS External Web Sites

Yes, this indicator is reported on

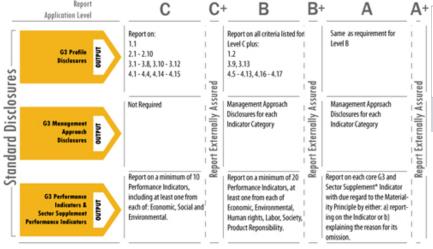
No, this indicator is not reported

Additional indicators are shown in **bold** 

This indicator is partially

reported on

KEY



\*Sector supplement in final version

Click on the click on to see notes related to that indicator, including explanations of core elements and indicators not covered in the report.

Go straight to a section of the GRI Index on this page:

- . 1. Strategy and Analysis
- 2. Organizational Profile
- 3. Report Parameters
- . 4. Governance, Commitments, and Engagement
- 5. Management Approach and Performance Indicators:
  - o Economic
  - Environmental
  - Social: Labor Practices and Decent Work
  - Social: Human Rights
  - Social: Society
  - Social: Product Responsibility

### 1. Strategy and Analysis

Element		Status	Report links	Notes
1.1	Statement from the most senior decisionmaker of the organization (e.g., CEO, chair or equivalent senior position) about the relevance of sustainability to the organization and its strategy.		• Overview Letter	
1.2	Description of key impacts, risks and opportunities.		Our Impacts     Climate Change Risks and Opportunities	

### 2. Organizational Profile

Element		Status	Report links	Notes
2.1	Name of the organization.		Corporate Profile	
2.2	Primary brands, products and/or services.		Corporate Profile	
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries and joint ventures.		Corporate Profile	

top

2.4	Location of organization's headquarters.	Corporate Profile
2.5	Number of countries where the organization operates, and names of countries either with major operations or that are specifically relevant to the sustainability issues covered in the report.	Corporate Profile
2.6	Nature of ownership and legal form.	Corporate Profile
2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries).	Responding to Changing Markets     Financial Context     Focusing on Customers
2.8	Scale of the reporting organization, including: number of employees; net sales (for private sector organizations) or net revenues (for public sector organizations); total capitalization broken down in terms of debt and equity (for private sector organizations); and quantity of products or services provided.	Corporate Profile     Products and Customers Data
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: the location of, or changes in operations, including facility openings, closings, and expansions; and changes in the share capital structure and other capital formation, maintenance and alteration operations (for private sector organizations).	Restructuring the Company     2006 Performance: Accelerated Way Forward Plan
2.10	Awards received in the reporting period.	Quality of Relationships – Awards     Operational Energy Use     Ford Motor China's Corporate Social Responsibility Programs Recognized

### 3. Report Parameters

### Report Profile

Element		Status	Report links	Notes
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.		• <u>Overview</u>	
3.2	Date of most recent previous report (if any).		Overview	
3.3	Reporting cycle (annual, biennial, etc.).		Overview	
3.4	Contact point for questions regarding the report or its contents.		Contact	

### Report Scope and Boundary

Element		Status	Report links	Notes
3.5	Process for defining report content, including: determining materiality; prioritizing topics within the report; and identifying stakeholders the organization expects to use the report.		Materiality Analysis     Quality of Relationships Context	
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.		• Overview	
3.7	State any specific limitations on the scope or boundary of the report.		• <u>Overview</u>	
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations and other entities that can significantly affect comparability from period to period and/or between organizations.		• Overview	
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.		Data Overview	
			Products and Customers Data	
			Environment Data	
			Community Data	
			Workplace Safety Data	
			Vehicle Safety Data	
			Quality of Relationships Data	
			Financial Health Data	
3.10	Explanation of the effect of any re-statements of information provided in earlier		Data Overview	
	reports and the reasons for such re-statement (e.g., mergers/acquisitions, change of		Products and Customers Data	
	the base years/periods, nature of business, measurement methods).		Environment Data	
			Community Data	
			Workplace Safety Data	
			Vehicle Safety Data	
			Quality of Relationships Data	
			• Financial Health Data	
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report.		• Overview	

### **GRI Content Index**

Element		Status	Report links	Notes
3.12	Table identifying the location of the Standard Disclosures in the report.		GRI Index	

### Assurance

Element		Status	Report links	Notes
3.13	Policy and current practice with regarding to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).		Assurance     Ceres Stakeholder Team	

### 4. Governance, Commitments, and Engagement

top

Element		Status	Report links	Notes
.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.		<u>Corporate Governance</u> <u>Sustainability Governance and Integration</u>	
.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).		Corporate Governance	
.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.		Corporate Governance	0
.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.		Stakeholder Engagement	
5	Linkage between compensation for members of the highest governance body, senior managers and executives (including departure arrangements), and the organization's performance (including social and environmental performance).		Systematic Leadership	0
6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.			0
7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.		Sustainability Governance and Integration     Corporate Governance	0
.8	Internally developed statements of mission of values, codes of conduct and principles relevant to economic, environmental and social performance and the status of their implementation. Explain the degree to which these: are applied across the organization in different regions and department/units; and relate to internationally agreed standards.		Key Processes for Integrating Sustainability     Download Resources	0
.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct and principles.		Sustainability Governance and Integration     Corporate Governance	O
10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental and social performance.		Sustainability Governance and Integration     Corporate Governance	0

### **Commitments to External Intiatives**

Element		Status	Report links	Notes
4.11	Explanation of whether and how the precautionary approach or principles is addressed by the organization. Article 15 of the Rio Principles introduced the precautionary approach. A response to 4.11 could address the organization's approach to risk management in operational planning or the development and introduction of new products.	_	Environment Context	
4.12	Externally developed economic, environmental and social charters, principles or other initiatives to which the organization subscribes or endorses.	_	Partnerships as Avenues for Learning and Action     Market, Policy and Technological Framework     Revising Our Code     Partnerships and Memberships Relevant to Climate Change Strategy	
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization: has positions in governance bodies, participates in projects or committees; provides substantive funding beyond routine membership dues; or views membership as strategic.	_	Partnerships as Avenues for Learning and Action     Market, Policy and Technological Framework     Revising Our Code     Partnerships and Memberships Relevant to Climate Change Strategy	

### Stakeholder Engagement

Element		Status	Report links	Notes
4.14	List of stakeholder groups engaged by the organization. Examples of stakeholder groups are: communities; civil society; customers; shareholders and providers of capital; suppliers; and employees, other workers and their trade unions.		Quality of Relationships Context	
4.15	Basis for indentification and selection of stakeholders with whom to engage.		Stakeholder Engagement	0
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.		Stakeholder Engagement     Quality of Relationships Context	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	_	Stakeholder Engagement     Materiality Analysis     Ceres Stakeholder Team     Reporting and Transparency	

### 5. Management Approach and Performance Indicators

### DISCLOSURE ON MANAGEMENT APPROACH

Element	Status	Report links	Notes
Economic		Financial Health	
Environment		Environment Management	
Labor		Workplace Safety Management	
		Quality of Relationships	
Human Rights		Community Human Rights	
Society		Community Management	
		Accountability Management and Performance	
Product Responsibility		Products and Customers	
		Vehicle and Safety Management	

### **ECONOMIC**

### **Economic Performance**

Element	Status Report links	Notes

#### EC1 Direct economic value generated and distrubuted, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and governments. EC2

## • Financial Health Data

### • Quality of Relationships Data

### • Community Data

Report links

Status

## Financial implications and other risks and opportunities for the organization's

### Climate Change Risks and Opportunities Key topic: Legacy Health Care Costs

#### activities due to climate change. EC3 Coverage of the organization's defined benefit plan obligations. Significant financial assistance received from government.

### 0

### **Market Presence**

EC4

Element	
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.
EC6	Policy, practices, and proportion of spending on locally based suppliers at significant

# Quality of Relationships Data

## 0

### Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation. EC7

locations of operation.

### **Indirect Economic Impacts**

Element	
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro bono engagement.

#### Status Report links A Tradition of Giving

### • Volunteer Corps

Community Impacts and Engagement



Understanding and describing significant indirect economic impacts, including the EC9 extent of impacts.

### Economic Impact of the Automotive Industry

### **ENVIRONMENTAL**

### Materials

Element		Status	Report links	Notes
EN1	Materials used by weight or volume.		Materials	
			Environmental Data	
EN2	Percentage of materials used that are recycled input materials.		Materials	
			Environmental Data	

### Energy

	Status	Report links	Notes
Direct energy consumption by primary energy source.		Facility Energy Use and CO <sub>2</sub> Emissions	
Indirect energy consumption by primary source.		Facility Energy Use and CO <sub>2</sub> Emissions	
Energy saved due to conservation and efficiency improvements.		Operational Energy Use	
Initiatives to provide energy-efficient or renewable energy based products and		Operational Energy Use	
services, and reductions in energy requirements as a result of these initiatives.		Renewable Energy Use	
Initiatives to reduce indirect energy consumption and reductions achieved.		Operational Energy Use	
	Indirect energy consumption by primary source.  Energy saved due to conservation and efficiency improvements.  Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Direct energy consumption by primary energy source.  Indirect energy consumption by primary source.  Energy saved due to conservation and efficiency improvements.  Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Direct energy consumption by primary energy source.  Indirect energy consumption by primary source.  Indirect energy consumption by primary source.  Energy saved due to conservation and efficiency improvements.  Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.  Energy saved due to conservation and efficiency improvements.  Operational Energy Use  Renewable Energy Use

### Water

Element		Status	Report links	Notes
EN8	Total water withdrawal by source.		Water Use	
EN9	Water sources significantly affected by withdrawal of water.		• Water Use	
EN10	Percentage and total volume of water recycled and reused.			

### **Biodiversity**

Element.		Ct-t	Downet Selve	NI-4
Element		Status	Report links	Notes
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas		Land Use	
	and areas of high biodiversity value outside protected areas.		Ford Takes Action to Protect Unique Coastal Ecosystems	
			<u>Creating Wildlife Habitat</u>	
EN12	Descriptions of significant impacts of activities, products, and services on biodiversity		• <u>Land Use</u>	
	in protected areas and areas of high biodiversity value outside protected areas.		Ford Takes Action to Protect Unique Coastal Ecosystems	
			<u>Creating Wildlife Habitat</u>	
EN13	Habitats protected or restored.		• <u>Land Use</u>	
			Ford Takes Action to Protect Unique Coastal Ecosystems	
			<u>Creating Wildlife Habitat</u>	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.		• Land Use	
			Ford Takes Action to Protect Unique Coastal Ecosystems	
			<u>Creating Wildlife Habitat</u>	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.			

### **Emissions, Effluents and Waste**

Element		Status	Report links	Notes
EN16	Total direct and indirect greenhouse gas emissions by weight.		Facility Energy Use and CO <sub>2</sub> Emissions	
EN17	Other relevant indirect greenhouse gas emissions by weight.		Vehicle Fuel Economy and CO <sub>2</sub> Emissions	

<u>top</u>

EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.		Ford Response to the Risks and Opportunities of Climate Change	
	5 5	_	Climate Change-Related Commitments and Progress	
EN19	Emissions of ozone-depleting substances by weight.		Other Emissions	
			Volatile Organic Compounds	
EN20	NOx, SOx and other significant air emissions by type and weight.		Other Emissions	
EN21	Total water discharge by quality and destination.			0
EN22	Total weight of waste by type and disposal method.		• Waste	
EN23	Total number and volume of significant spills.		Environmental Compliance	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally.		• Waste	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.			
	s and Services			
	s and Services			
Element		Status	Report links  Ford of Europe Pales Sustainability of Vahicles	Notes
Element	s and Services  Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Status	Ford of Europe Rates Sustainability of Vehicles	Notes
Element	Initiatives to mitigate environmental impacts of products and services, and extent of			Notes
	Initiatives to mitigate environmental impacts of products and services, and extent of		Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility	Notes
Element EN26 EN27	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  Percentage of products sold and their packaging materials that are reclaimed by category.		Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility     Sustainable Mobility Technologies	Notes
Element EN26 EN27 Complia	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  Percentage of products sold and their packaging materials that are reclaimed by category.		Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility     Sustainable Mobility Technologies	Notes Notes
Element EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  Percentage of products sold and their packaging materials that are reclaimed by category.		Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility     Sustainable Mobility Technologies     Materials	
Element EN26 EN27 Complia Element EN28	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  Percentage of products sold and their packaging materials that are reclaimed by category.  Ince  Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Status	Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility     Sustainable Mobility Technologies     Materials  Report links	
Element EN26 EN27 Complia	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.  Percentage of products sold and their packaging materials that are reclaimed by category.  Ince  Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Status	Ford of Europe Rates Sustainability of Vehicles     Key topic: Mobility     Sustainable Mobility Technologies     Materials  Report links	

### Overall

Element		Status	Report links	Notes
EN30	Total environmental protection expenditures and investments by type.			0

### SOCIAL: LABOR PRACTICES AND DECENT WORK

### Employment

Element		Status	Report links	Notes
LA1	Total workforce by employment type, employment contract and region.		Corporate Profile	
			• Employees	
LA2	Total number and rate of employee turnover by age group, gender and region.			0
LA3	Benefits provided to full-time employees that are not provided to temporary or part- time employees, by major operations.			

### Labor/Management Relations

Element		Status	Report links	Notes
LA4	Percentage of employees covered by collective bargaining agreements.		Sustainability-Related Standards	
			Quality of Relationships Management	
LA5	Minimum notice period(s) regarding operational changes, including whether it is		Restructuring the Company	
	specified in collective agreements.		2006 Performance: Accelerated Way Forward Plan	
			Key topic: Sustaining Ford	

### Occupational Health and Safety

Element		Status	Report links	Notes
LA6	Percentage of total workforce represented in formal joint management—worker health and safety committees that help monitor and advise on occupational health and safety programs.	_	Workplace Safety Context	0
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region.		Workplace Safety Data	0
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases.		Health as a Strategic Advantage Viva Bem Health Program Key topic: HIV/AIDS Efforts	
LA9	Health and saftey topics covered in formal agreements with trade unions.		Workplace Safety Context     Systematic Leadership	

### Training and Education

Element Sta	s Report links	Notes

### **Diversity and Opportunity**

Element		Status	Report links	Notes
LA13	Composition of governance bodies and breakdown of employees per category		Quality of Relationships Data	0
	according to gender, age group, minority group membership, and other indicators of diversity.		Key topic: Diversity and Inclusion	
LA14	Ratio of basic salary of men to women by employee category.		Quality of Relationships Data	0
			Key topic: Diversity and Inclusion	

### **SOCIAL: HUMAN RIGHTS**

### Strategy and Management

Element		Status	Report links	Notes
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.		Sustainability-Related Standards     Working Conditions in Ford Plants	
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.		Working Conditions in Our Supply Chain     Community Data	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.		<u>Community Data</u> <u>Setting and Communicating Standards for Employees</u>	

### Non-Discrimination

Element		Status	Report links	Notes
HR4	Total number of incidents of discrimination and actions taken.		Working Conditions in Ford Plants	
			Working Conditions in Our Supply Chain	
			• <u>Community Data</u>	

### Freedom of Association and Collective Bargaining

Element		Status	Report links	Notes
HR5	Operations identified in which the right to exercise freedom of association and		Working Conditions in Ford Plants	
	collective bargaining may be at significant risk, and actions taken to support these rights.		Working Conditions in Our Supply Chain     Community Data	

### Child Labor

Element		Status	Report links	Notes
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.		Working Conditions in Ford Plants     Working Conditions in Our Supply Chain	
			Community Data	

### Forced and Compulsory Labor

Element		Status	Report links	Notes
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measurements to contribute to the elimination of forced or compulsory labor.		Working Conditions in Ford Plants     Working Conditions in Our Supply Chain     Community Data	

### **Security Practices**

Element		Status	Report links	Notes
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.			

### **Indigenous Practices**

Element		Status	Report links	Notes
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.			

### SOCIAL: SOCIETY

### Community

Element		Status	Report links	Notes
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting.		Community Impacts and Engagement     Key topic: Sustaining Ford	

### Corruption

top

lement		Status	Report links	Note
02	Percentage and total number of business units analyzed for risks related to		Sustainability-Related Standards	
	corruption.		<ul> <li>Setting and Communicating Standards for Employees</li> </ul>	
O3	Percentage of employees trained in organization's anti-corruption policies and		Sustainability-Related Standards	
	procedures.		Setting and Communicating Standards for Employees	
04	Actions taken in response to incidents of corruption.		Sustainability-Related Standards	
			Setting and Communicating Standards for Employees	
Public F	Policy			
lement		Status	Report links	Note
O5	Public policy positions and participation in public policy development and lobbying.		Climate Change Public Policy	
			Sustainability-Related Standards	
			Political Contributions	
606	Total value of financial and in-kind contributions to political parties, politicians and		Sustainability-Related Standards	
	related institutions by country.		• Polictial Contributions	
Anti–Co	empetitive Behavior			
lement		Status	Report links	Note
SO7	Total number of legal actions for anti-competitive behavior, anti-trust and monopoly practices and their outcomes.			•
Complia	ance			
lement		Status	Report links	Note
808	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.		Environmental Compliance	0
	non-compilance with laws and regulations.			

### S

### С

Element		Status	Report links	Notes
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.		Sustainability-Related Standards     Safety	
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.		Sustainability-Related Standards	0

### **Products and Service Labeling**

Element		Status	Report links	Notes
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.		Sustainability-Related Standards	0
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.		<u>Sustainability-Related Standards</u>	0
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	_	Sustainability-Related Standards     Focusing on Customers     Products and Customers Data	

### **Marketing Communications**

Element		Status	Report links	Notes
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship.		Sustainability-Related Standards     Setting and Communicating Standards for Employees	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes.		<u>Sustainability-Related Standards</u>	0

### **Customer Privacy**

Elemer	nt	Status	Report links	Notes
PR8	Total number of substantiated complaints regarding breaches of customer privacy		Sustainability-Related Standards	
	and losses of customer data.		Ford Motor Credit Company	

### Compliance

Element		Status	Report links	Notes
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.			0

OVERVIEW >

OUR IMPACTS >

VOICES ≫

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

FINANCIAL HEALTH

### **GRI Index Notes**

### 4. Governance, Commitments, and Engagement

Element	Notes
4.3	A majority of the Board is comprised of independent directors as defined by the Corporate Governance Principles and existing rules that govern Ford. Independence and diverse backgrounds are important considerations in selecting new candidates for the Board.
4.5	Information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board can be found in the Company's 2006 Proxy statement and at http://www.ford.com/en/company/corporateGovernance/default.htm.
4.6	Information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board can be found in the Company's 2006 Proxy statement and at <a href="http://www.ford.com/en/company/corporateGovernance/default.htm">http://www.ford.com/en/company/corporateGovernance/default.htm</a> .
4.7	Ford's Nominating and Governance Committee of the Board of Directors identifies individuals qualified to become directors and officers and recommends candidates to the Board, taking into account the qualifications needed at that time. Information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board can be found in the Company's 2006 Proxy statement and at <a href="https://www.ford.com/en/company/corporateGovernance/default.htm">https://www.ford.com/en/company/corporateGovernance/default.htm</a> .
4.8	The Sustainability Report is structured according to Ford's Business Principles which can be found in the downloads section.
4.9	Information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board can be found in the Company's 2006 Proxy statement and at <a href="http://www.ford.com/en/company/corporateGovernance/default.htm">http://www.ford.com/en/company/corporateGovernance/default.htm</a> .
4.10	Information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board can be found in the Company's 2006 Proxy statement and at <a href="http://www.ford.com/en/company/corporateGovernance/default.htm">http://www.ford.com/en/company/corporateGovernance/default.htm</a> .
	< back

### Stakeholder Engagement

Element	Notes	
4.15	Major stakeholders are identified and selected based on whether they are impacted or believe they are impacted by the operations or practices of the Company.	
		< back

### 5. Performance Indicators

### **ECONOMIC**

### **Economic Performance**

Element	Notes
EC1	Information related to operating costs is referenced as "automotive costs of goods sold" in the Company's Annual Report on Form 10-K. Information related to payments to providers of capital is
	referenced as "cash paid interest expenses" and "stockholder dividends" in the Company's Annual Report on Form 10-K.
EC4	Our local or regional operations sometimes enter into agreements with governments to receive incentives such as reduced taxes or fees in return for commitments to job creation or other economic development activities. The nature and magnitude of these agreements are not tracked centrally. Detailed discussion of this indicator was omitted from the report because it failed the materiality test.
	c back

### **Market Presence**

Element	Notes
EC6	Ford doesn't track this information, however we recognize that in several of the localities in which we operate, suppliers set up operations nearby to support Ford operations. In addition, the local economic development model described is aligned with our Supplier Diversity Development initiatives. Attributes of our Supplier Diversity Development initiatives include: economic development rationale, local employment opportunities and workforce development, supplier development and a considerable financial history of purchases from minority and women owned companies. These initiatives operate exclusively in the United States and are driven in part, by compliance with federal requirements. Globally, a mandated Black Economic Empowerment Program also drives
	supplier development and local employment for Ford in South Africa.
EC7	Ford's recruiting initiatives are designed to be inclusive and hire from all segments of the diverse populations and communities we live and work in. Opportunities for employment and advancement are available on a nondiscriminatory basis — without regard to race, color, religion, age, gender, sexual orientation, national origin, handicap or veteran status. We take affirmative action in accordance with the law to have minorities and women represented appropriately throughout the workforce and to provide qualified handicapped persons, disabled veterans and veterans of the Vietnam era opportunity for employment and advancement.

### **Indirect Economic Impacts**

Element	Notes
EC9	Our established accounting methods allow us to track expenditures for items like environmental protection and controls, safety investments, etc. but do not include methods for estimating costs
	associated with indirect economic, environmental or social costs and benefits. For example, during the last five years, we took charges to our consolidated income for engineering, research and
	development we sponsored in the following amounts: \$7.2 billion (2006), \$8.0 billion (2005), \$7.4 billion (2004), \$7.3 billion (2003), \$7.5 billion (2002). Engineering, research and development is
	focused on improving the performance (including fuel efficiency), safety and customer satisfaction of our products, and to develop new products.
	<u>&lt; back</u>

< back

Element	Notes
EN21	Significant discharges to water by type are not currently tracked at the corporate level. The Company is collecting baseline data on discharges to municipal wastewater treatment plants and this data will be reported as soon as practical. Detailed discussion of this indicator was omitted from the report because it failed the materiality test.
	< <u>back</u>

### Overall

Element	Notes
EN30	Our established accounting methods allow us to track expenditures for items like environmental protection and controls, but do not include methods for estimating costs associated with indirect economic, environmental or social costs and benefits. For example, during the last five years, we took charges to our consolidated income for engineering, research and development we sponsored in the following amounts: \$7.2 billion (2006), \$8.0 billion (2005), \$7.4 billion (2004), \$7.3 billion (2003), \$7.5 billion (2002). Engineering, research and development is focused on improving the performance (including fuel efficiency) of our products, and to develop new products.
	≤ back

### SOCIAL: LABOR PRACTICES AND DECENT WORK

### Employment

Element	Notes
LA2	We have chosen not to report on turnover because the information is considered proprietary.
LA3	Substantially all of the hourly employees in our Automotive operations in the United States are represented by unions and covered by collective bargaining agreements. Most hourly employees and many nonmanagement salaried employees of our subsidiaries outside the United States are also represented by unions. Approximately 200,000 Ford Motor Company employees belong to unions worldwide.
	<u>Spack</u>

### **Labor/Management Relations**

Element	Notes
LA4	Substantially all of the hourly employees in our Automotive operations in the United States are represented by unions and covered by collective bargaining agreements. Most hourly employees and many nonmanagement salaried employees of our subsidiaries outside the United States are also represented by unions. Approximately 208,000 Ford Motor Company employees belong to unions worldwide.
	<u>&lt; back</u>
LA6	Approximately 75 percent of the Company's workforce globally are covered by the health and safety committees. This includes the entire manufacturing workforce and some staff organizations.
	<u>&lt; back</u>
LA7	Does not include subcontracted workers.
	<u>&lt; back</u>

### **Training and Education**

Element	Notes
LA10	While Ford offers its employees a wide array of educational and training opportunities, the Company does not currently track the information needed to report on this indicator. Detailed discussion of this indicator was omitted from the report because it failed the materiality test.
	< hard

### **Diversity and Opportunity**

Element	Notes	
LA13	We have chosen not to report on the ratio of basic salary of men to women because the information is considered proprietary.	_
LA14	Information on gender and minority group membership is filed in our EEO-1 report per federal requirement.	
	< ba	ack

### **SOCIAL: SOCIETY**

### Anti-Competitive Behavior

Element	Notes	
S07	Legal actions are described in the Company's Annual Report on the Form <u>10-K</u> .	
S08	Additional information on fines for non-compliance with laws and regulations can be found in the Company's Annual Report on the Form 10-K.	
		< back

### SOCIAL: PRODUCT RESPONSIBILITY

### **Customer Health and Safety**

Element	Notes	
PR2	Information on all legal procedings and incidents of non-compliance can be found in the Company's Annual Report on the Form 10-K.	
		< back

### **Products and Service Labeling**

Element	Notes
PR3	Ford's vehicles are subject to numerous labeling requirements that vary by country, region and state. We maintain compliance through our normal product requirement compliance systems. In
	Europe, we use an Eco-label that goes beyond legal requirements and also inform customers in the driver's manual about the impact of air conditioning on real-world fuel economy.
PR4	Information on all legal procedings and incidents of non-compliance can be found in the Company's Annual Report on the Form 10-K.
	<u>&lt; back</u>

Element	Notes	
PR7	Information on all legal procedings and incidents of non-compliance can be found in the Company's Annual Report on the Form 10-K.	
		< back

### Compliance

Element	Notes
PR9	Information on all legal procedings and incidents of non-compliance can be found in the Company's Annual Report on the Form 10-K. Detailed discussion of this indicator was omitted from the report because it failed the materiality test.
	< back

OVERVIEW >

OUR IMPACTS >

VOICES >>

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### Site Map

### Overview

- Overview of this Report
- Letter from Alan Mulally
- Corporate Profile

Letter from Alan Mulally and Bill Fo	<u>rd</u>		
Corporate Profile			
	Global Product Guide		
	Global Operations >	Geographical Directory >	■ <u>World</u>
			North America
			South America
			■ <u>Europe</u>
			<u>Africa</u>
			Asia Pacific
		Plant Type Directory >	Assembly
			<u>Stamping</u>
			■ Engine
			<u>Transmission</u>
			Casting & Forging
	Automotive Core and Affiliate Brands >	Ford Ford	
		Lincoln Lincoln	
		Mercury	
		■ <u>Mazda</u>	
	Premier Automotive Group >	Jaguar	
		■ <u>Volvo</u>	
		Land Rover	
	Financial Services >	Ford Motor Credit Company	
	Customer Services >	Genuine Parts & Service	
		■ <u>Motorcraft</u>	
		Genuine Accessories	
		Extended Service Plan	
Letter from Sue Cischke			
<u>Assurance</u>			
Ceres Stakeholder Team			
Data Overview >	Products and Customers		

- Environment
- Community
- Safety
- Quality of Relationships
- Financial Health

### Our Impacts

- About Our Impacts
- Materiality Analysis
- Use of Analysis
- Materiality Matrix
- Our Value Chain and its Impacts

### Voices

- Voices Index
- Sheryl Connelly Ford Motor Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor Company
- Sean McAlinden Center for Automotive Research
- <u>lan Olson Ford Motor Company</u>
- Susan Rokosz Ford Motor Company

Ingrid Skogsmo – Volvo Car Corporation

Eric Wingfield – Ford Motor Company

Susan Zielinski – University of Michigan

### Accountability

Progress		
Context	Elements of Accountability	
Management and Performance	Corporate Governance Setting and Communicating	
	Standards for Employees  Sustainability Governance and	Sustainability-Related Standards
	Integration	Structures for Managing Sustainability Key Processes for Integrating Sustainability
	Stakeholder Engagement Reporting and Transparency	
Case Studies	Political Contributions	

### **Products and Customers**

Products and Custo	mers		
Progress Progress			
Context			
Management			
Performance			
- I criormance	Key topic: Mobility		
		Developing Sustainable Mobility St	trategies for Emerging Markets
		Expanding Our Product Offerings in	n Developing Countries and Revitalizing Economies
		Taking a New Approach to Person	<u>al</u>
		Mobility in Developing Countries	Partnerships as Avenues for Learning and Action
			Plans for the Future
		Sustainable Mobility Technologies	
	I and an with Decimal	Sustainable Mobility Technologies	
	Leading with Products	Responding to Consumer Demand	le c
		Responding to Consumer Demand	
			New Products with Better Fuel Efficiency
			Advanced Clean Technologies
			Benefits and Challenges of Fuel Efficiency Technologies
			Our Path to Increasing Fuel Efficiency and Reducing Emissions
		Delivering Customer-Focused	
		Innovations Faster	Making Innovations Customer-Focused
			Increasing the Speed, Quality and Cost-Effectiveness of New Introductions
		Continually Improving Quality and	
		Customer Satisfaction	
			Quality and Customer Satisfaction Awards
	Focusing on Customers		
		Understanding Our Customers	
		Increasing Customer Awareness of	t Our Company and Products_
		Safeguarding Customer Privacy	
	Ford Motor Credit Company		
Data >	Charts		
	■ <u>Tables</u>		
Case Studies	■ Nanotechnology: One Tool For		
	Developing More Sustainable		
	Vehicles	Nanotechnology and Advanced Ma	
	<u>vernoies</u>	Nanotechnology, Fuel Cells and Hy	ydrogen Storage
	Ford Fusion: Exemplifying the Futi	ure of Ford's Products	
	The Piquette Project		

### **Environment**

- Progress
   Context
- Management

  I■ Manufacturing

  I■ Product Development

  I■ Suppliers
- Performance

  | Key topic: Climate Change

		Climate Change Emissions and		
		<u>Stabilization</u>	Beyond CO <sub>2</sub>	
			Lifecycle Emissions	
			Estimate of Ford's Climate Chan	go Emissions
			Distribution of CO <sub>2</sub> Emissions	<u>ge Ettilssiotis</u>
		Climate Change Risks and	DISTIDUTION OF CO2 ETHISSIONS	
		Opportunities		
		<u>оррогиниез</u>	Markets Markets	
			Regulations	
			Investment Community	
			Physical Risks	
			Heightened Risk and Opportunity	<u>y</u>
			U.S. Energy Security	
		Ford Response to the Risks and		
		Opportunities of Climate Change	Climate Change-Related Commi	tments and Progress
			Strategic Response	
			GHG Emissions Equation >	■ Vehicle
			erro Emissions Equation	Fuel
				Driver
			Market, Policy and Technologica	
			Climate Change Public Policy	
			Emissions Trading	
			Climate Change Strategic Princip	niae
			Destroyching and Membershing	Relevant to Climate Change Strategy
			Supply Chain	Relevant to Climate Change Strategy
	Greenhouse Gas Emissions / Fue	LEarne	<u>Supply Chain</u>	
	Tailpipe Emissions	<u>ECONOMY</u>		
	<u>Materials</u>	Choosing More Sustainable Materia	ale	
		Eliminating Undesirable Materials	<u>dis</u>	
		End of Life		
		Analyzing Material Choices		
			T	
		Materials Management Information	100IS	
	Operational Energy Use	Denoughle Francille		
		Renewable Energy Use		
	I	A Look at Logistics		
	Water Use			
	Volatile Organic Compounds			
	■ Waste Generation			
	Land Use			
		Creating Wildlife Habitat		
	■ Green Buildings			
	Environmental Compliance			
	Environmental Remediation			
<u>Data</u>				
	Vehicle Fuel Economy and CO2	• Charts		
	Emissions >	■ <u>Tables</u>		
	Facility Energy Use and CO2	■ <u>Charts</u>		
	Emissions >	■ <u>Tables</u>		
	■ <u>Materials</u>			
	Water Use >	• Charts		
		■ <u>Tables</u>		
	■ <u>Waste</u>			
	Other Emissions >	■ Charts		
		■ <u>Tables</u>		
Case Studies				
	■ Lima's Cool Solution			
	Cradle-to-Cradle Solution for Ship	ping Parts		
	Ford of Europe Rates Sustainabili	ity of Vehicles		
	Ford Takes Action to Protect Unio	<u> </u>		
	■ Clean Diesel Factory Runs on Wi			
	■ Sitting Pretty on Recycled Fabric			
	= Stang Fronty on Recycled Fubile			
	■ Removing Mercury from Automob	ile Wastes		
	<ul> <li>■ Removing Mercury from Automob</li> <li>■ Ford Turns a Landfill into Gold</li> </ul>	<u>ille Wastes</u>		

### C

Progress Context

■ Global Business Pressures Impact Local Communities

Respecting and Meeting the Needs of Communities in Emerging Markets

Assessing Materiality

Management

	Taking a More Integrated Approach	
	Community Impacts and Engagement	
	Investing in Communities	
	Human Rights	
Performance	Toman Nagnaz	
Fellolliance	Key topic: Human Rights	
	Industry Trends Bring Human Rights to the Forefront	
	Complex and Evolving Challenges	
	Complex and Evolving Challenges	
	<u> </u>	
	Code of Basic Working Conditions	
	<u>Revising Our Code</u>	
	Working Conditions in Ford Plants	
	■ Working Conditions in Our Supply Chain	
	Supply Chain Profile	
	Expanding Our Approach	
	Taking Action as an Industry	
	A Tradition of Giving	
Data >	<u>Charts</u>	
	Tables	
Case Studies	· <del>-</del>	
_	Ford Motor China's Corporate Social Responsibility Programs Recognized	
	Ford of Australia Supports Employment and Education in Local Communities	

## Safety

kplace Safety >	Progress	
Workplace Salety >	Context	
	Management	
	<u>management</u>	Systematic Leadership
		Safe Conditions
		Safe Acts
		Relationship Management
		Health as a Strategic Advantage
	Performance	
		■ Key topic: HIV/AIDS Efforts
		Our Safety Record This Year
	Data >	■ Charts
		■ <u>Tables</u>
	Case Studies	
		■ <u>Viva Bem Health Program</u>
ehicle Safety >	Progress	
	Context	
	Management Management	
		■ Global Technical Regulations
	Performance	
		Human Behavior
		■ <u>Vehicle Safety</u>
		■ <u>Driving Environment</u>
		■ <u>Future Technologies</u>
		■ Forward-Looking Radar and Vision Sensor Technologies
		Inflatable Safety Belts
		Advanced Crash-test Dummies
		Partnerships with Other Parties
		■ University Partnerships
	Data >	■ <u>Charts</u>
		■ <u>Tables</u>
	Case Studies	
		■ Dearborn Development Center
		■ <u>Driving Skills for Life</u>
		The Volvo S80
		<ul> <li>Rollover Crashes and Roof Strength</li> <li>Pedestrian Safety – The Jaguar XK150</li> </ul>

### Quality of Relationships

Progress		
Context		
	■ Who Are Our Stakeholders?	
Management		
Performance		
	Key topic: Diversity and Inclusion	

	Diversity in the Workplace
	Diversity of Customers and Business Partners
	Diversity of Customers and Business Partners  Awards
	Employees
	• Dealers
	Suppliers
	Society
Data >	Charts
	Suppliers Society Charts Tables
Financial Health	
<u>Progress</u>	
<u>Context</u>	
Context  Management	
	Restructuring the Company
	Accelerating Product Development and Reducing Manufacturing Complexity
	Obtaining and Maintaining Adequate Liquidity
	Working Together through Teamwork and Accountability
	Financial Impact and Assumptions
Performance	
	Key topic: Sustaining Ford
	Separation Packages Offered to Ford Hourly Employees
	Key topic: Legacy Health Care Costs
	2006 Performance: Accelerated Way Forward Plan
_	Investor Ratings and Feedback
<u>Data</u>	
Case Studies	Economic Impact of the Automotive Industry
	Economic impact of the Automotive industry
Downloads	
Print this report	
- I Tille tills report	Additional content
Download resources	
Previous reports	
<u> </u>	
General	
■ <u>Home</u>	
■ <u>Contact</u>	
GRI Index	
	GRI Index Notes

Site MapGlossary

OVERVIEW >

OUR IMPACTS >

VOICES ≫

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### Glossary

ACEA	European Automobile Manufacturers Association (Association des Constructeurs Européens d'Automobiles)
Annual Report on Form 10-K	An audited annual financial report required by the U.S. Securities and Exchange Commission containing more detailed information about the company's business, finances, and management than the annual report.
Bin	A set of emissions standards under the new U.S. Tier 2 emissions program. The lower the bin number, the lower the vehicle's tailpipe emissions.
CAFE (Corporate Average Fuel Economy)	A U.S. regulation requiring auto companies to meet certain sales-weighted average fuel economy levels for passenger cars and light trucks and report these numbers annually.
Ceres	Ceres is a network of investors, environmentalists and other public interest groups that works with companies and investors to address sustainability challenges (see <a href="https://www.ceres.org">www.ceres.org</a> for more information).
DOE	U.S. Department of Energy
E85	Refers to a fuel blend of 85 percent ethanol and 15 percent gasoline.
EPA	U.S. Environmental Protection Agency
EU	European Union
FFV (Flexible Fuel Vehicle)	A vehicle that can be run on any blend of unleaded gasoline with up to 85 percent ethanol.
Flexible Manufacturing	Using common platforms and shared manufacturing technologies that allow a single plant to make multiple models and switch relatively rapid between them, allowing faster response to changing customer demand.
FPS (Ford Production System)	A structured process Ford uses to organize and manage production at all Ford manufacturing plants globally.
Fuel Cell	A type of power plant that generates electricity by combining oxygen and hydrogen to form electricity.
Fuel Economy	The distance that can be traveled on a single gallon of fuel.
Fuel Efficiency	Fuel efficiency measures the amount of fuel (in ton-miles-per-gallon) needed to move a vehicle of a certain weight a certain distance.
GRI	Global Reporting Initiative, a multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines.
ICE (Internal-Combustion Engine)	An engine powered by fuel ignited (by either spark or compression) inside a cylinder.
IIHS	Insurance Institute for Highway Safety
ISO 14001	Global environmental management system standard
LEV (Low Emission Vehicle)	A level of standards for tailpipe emissions (hydrocarbon, carbon monoxide and oxides of nitrogen) enforced in California and states that have adopted California standards. An LEV II vehicle meets the same tailpipe standards as a federal Tier 2 bin 5 vehicle.
LEV Program	The unique vehicle emissions program adopted by California for the control of tailpipe and evaporative emissions that provides several sets c emissions standards (LEV, ULEV, etc.). The LEV II Program starts with the 2004 model year and offers approximately the same air quality benefit as the new federal Tier 2 program.
Materiality	Materiality as used in this Sustainability Report does not share the meaning assigned to this concept for purposes of financial reporting. For the purposes of this Sustainability Report, we consider material information to be that which is of greatest interest to, and which has the potential affect the perception of, those stakeholders who wish to make informed decisions and judgments about the Company's commitment to environmental, social and economic progress.
MY (model year)	The manufacturer's annual production period which includes Jan. 1 of the calendar year. For example, production of 2004 model year vehicle might begin in June 2003 and end in May 2004, but could start as early as Jan. 2, 2003, and end as late as December 2004. We report fuel economy by model year because that is how it is reported to government agencies, and therefore, this data corresponds to what is available in the public domain.
NCAP	New Car Assessment Program, the U.S. Government "crash testing" program
NGO	Nongovernmental organization
NPRI	National Pollutant Release Inventory (Canada), similar to U.S. TRI
Pulse Survey	An annual, voluntary survey of Ford salaried-employee satisfaction.
PZEV (Partial Zero Emission Vehicle)	A vehicle standard that is part of the LEV II Program. A vehicle that meets SULEV tailpipe emissions and has zero fuel evaporative emissions
QS 9000	Global quality management standard
RFQ	Request for quote
Six-Speed Transmission	A transmission using six gears for improved fuel economy compared to typical four-speed transmissions

STA	Supplier technical assurance
Stakeholder	Anyone who is impacted or believes they are impacted by the operations or practices of the Company is a stakeholder, including customers, employees, business partners, shareholders, governments, communities and non-governmental organizations. Some also consider the environment a stakeholder.
SUV	Sport utility vehicle
SULEV (Super Ultra-Low Emission Vehicle)	A level of standards for tailpipe emissions (hydrocarbon, carbon monoxide and oxides of nitrogen) enforced in California and states that have adopted California standards. A SULEV II vehicle meets the same smog-forming tailpipe emissions standards as a federal Tier 2 bin 2 vehicle.
Tier 1 Suppliers	Suppliers sourcing directly to our assembly plants
Tier 2 Suppliers	Suppliers not sourcing directly to our assembly plants
Tier 2 Emissions Standards	The new U.S. federal program, starting with the 2004 model year, to control vehicle sets of vehicle emissions standards, called bins, ranging from 1 (lowest emissions) to 10 (highest emissions). At the conclusion of the phase-in period, auto manufacturers' U.S. fleets must meet an average bin 5 level of emissions.
TRI (Toxics Release Inventory)	An inventory of releases and transfers of certain chemicals that are required to be reported to the U.S. Government.
Variable Cam Timing	Improves fuel economy by allowing valves to be operated at different points in the combustion cycle, and provides performance that is precisely tailored to the engine's specific speed and load at that moment.
Vehicle Dependability Index	A J.D. Power and Associates index that evaluates vehicle quality after three years of ownership.
VOCs (Volatile Organic Compounds)	Compounds that vaporize (become a gas) at relatively low temperature. They are a concern for indoor and outdoor air quality and contribute to smog formation. VOCs are emitted from manufacturing facilities (including painting operations) and from vehicles (as hydrocarbon tailpipe emissions and from evaporation of fuel and other fluids).
WBCSD	World Business Council for Sustainable Development
Well-to-Wheels CO <sub>2</sub> Emissions	Accounts for emissions from the vehicle itself, as well as CO <sub>2</sub> emissions resulting from the production and distribution of the fuel.
WRI	World Resources Institute
ZEV (Zero Emission Vehicle)	The lowest level of standards for vehicle emissions (zero emissions) enforced in California and states that have adopted California standards. A federal Tier 2 bin 1 vehicle is also a "zero emission vehicle."

### **Key Terms**

These are Ford's working definitions of some key concepts in this report. They have proven useful in the development of our thinking on sustainability, because we are accustomed to managing for wise use of capital. We don't presume that they are universally applicable – rather to state what they mean to us in the context of our business. Indeed, we welcome feedback and comment from our readers on these concepts.

### Sustainability

At Ford, we have defined sustainability as a business model that seeks to create value for stakeholders by preserving or enhancing environmental, social and economic capital.

### **Environmental capital**

By environmental capital we mean both the natural resources and ecosystem goods and services that are used or impacted in the production and use of the goods and services that businesses provide.

Some forms of environmental capital are finite. There is a given quantity of crude oil in the Earth's reservoirs. The same goes for copper, natural gas, bauxite, iron ore and other resources that manufacturing enterprises like ours use directly in the production of goods. Other natural assets, like wind power, can be renewed indefinitely.

Ecosystems also provide "goods," like clean water, fresh air, biodiversity and unspoiled land, and "services," like the ability of wetlands to cleanse water and the atmosphere to protect us from harmful radiation. In the absence of proper stewardship, these otherwise renewable resources can be consumed or degraded in the production or use of the industrial world's products and services.

### Social capital

Social capital refers to the capacity of people in our communities to participate fully in both the production and consumption of our products and services. Social capital includes the capabilities of our workforce – a product of education, training, working conditions, human rights standards and community infrastructure. It includes our connectedness to society and the value we create through engaging with stakeholders.

A major current focus of our social initiatives is the implementation of our Code of Basic Working Conditions in all of the markets and facilities where we operate, as well as throughout our supply chain.

We seek to enhance social capital by, for example, responding to community needs through philanthropic and other financial support and by participating in civic life directly and encouraging our employees to participate.

### **Economic capital**

Economic capital includes the money Ford has available to invest, tangible assets created by our capital investments in property and facilities, and intangible assets like our brand value. It also includes the value we add to the public and private sectors through investments in partnerships, tax payments and other contributions.

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### OVERVIEW

#### Overview of this Report

- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Overview

This is the eighth formal nonfinancial report of Ford Motor Company. Our vision for our sustainability reporting is that it is the basis of organizational learning. It demonstrates our values, and both reflects and drives outstanding economic, environmental and social performance.



All of the print report content, plus comprehensive information on a range of other significant issues, is included in this full Web report, which is organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance. Our most material issues are covered in the Business Principles performance sections and identified as "key issues."

The materiality analysis conducted for this report, and a draft of the report itself, were reviewed by a <a href="Ceres stakeholder committee">Ceres stakeholder committee</a> that included representatives of environmental NGOs and socially responsible investors.

We see reporting as an ongoing, evolving process, not an annual exercise. Our sustainability reports are supplemented by communications tailored to different audiences. These include an internal sustainability Web site that links Ford's Sustainability Learning Community and additional publications such as our stand-alone climate change report.

We expect our reporting to evolve further and invite your feedback on this report, and our approach to reporting, at  $\frac{1}{2} \frac{1}{2} \frac{1}{2}$ 

### In this section

This section of our Web report includes our CEO's perspective on sustainability at Ford, information about our Company, a summary of 2006 performance data, our perspective on assurance and a statement from the Ceres stakeholder committee. You can explore our actions and performance trends in the areas covered by our Business Principles using the navigation above.

### The Fine Print

This report covers the year 2006 and early 2007. It is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines released in October 2006, at an application level of A+. A complete index of GRI indicators is available. More information on the Global Reporting Initiative and the application levels is available at <a href="www.globalreporting.org">www.globalreporting.org</a>.

The data, which are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles), can be found in each of the performance sections. The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted in the data charts.



### RELATED LINKS

- In This Report
- Materiality Analysis
- GRI Index
- Previous reports

OVERVIEW V OUR IMPACTS > VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

· Overview of this Report

### Letter from Alan Mulally and Bill Ford

- · Corporate Profile
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Letter from Alan Mulally and Bill Ford

These are challenging times, not only for our Company but for our planet and its inhabitants. The markets for our products are changing rapidly, and there is fierce competition everywhere we operate. Collectively, we face daunting global sustainability challenges, including climate change, depletion of natural resources, poverty, population growth, urbanization and congestion.

We see a clear relationship between our Company's challenges and these global sustainability challenges. For example, consumers are increasingly concerned about high fuel prices, energy security and climate change. Global competition for resources makes us vulnerable to rising prices for some of the key commodities we use to make our vehicles, including steel and petroleum-based materials.

With these great challenges comes great opportunity. The companies that make the high-quality products and services that consumers really value – and do so in ways that limit harm to the environment and maximize benefits to society – will be preferred in the marketplace. And the companies that provide mobility solutions to the world's burgeoning mega-cities will tap into vital and growing markets.

Despite the difficult year for our Company, we have progressed in the three key areas we outlined in our previous report: integrating sustainability issues into our operations, driving technological innovation and undertaking external dialogue and partnerships.

### Integrated strategy

In April, we created a new position: Senior Vice President, Sustainability, Environment and Safety Engineering, responsible for setting strategy, establishing goals and integrating sustainability across the Company. Our progress in these areas will be reviewed regularly at meetings of our most senior executives. In addition, we will continue to work as a team to build on existing examples of integration, which include the following.

Our North American product development function includes sustainability and vehicle safety as "innovation pillars," used to guide the development of future products. For example, our product planning explicitly considers long-term emissions reductions that represent our contribution toward climate stabilization.

Our procurement organization works with our suppliers to help them align their practices with our Code of Basic Working Conditions. During 2006, the Code was revised to include additional commitments on community engagement, corruption, the environment and sustainability. Our clear stance on human rights also helped us take swift and decisive action when an instance of slave labor was discovered in our supply chain.

Our manufacturing operations have integrated sustainability goals and indicators into their scorecards to drive progress. For example, we have cut global energy use by 27 percent and water use by more than 25 percent since 2000.

### **Technological innovation**

As the pace of change accelerates, innovation is more important to our Company than ever.

Examples of Ford's innovations can be seen on the road today, including nearly 47,000 Ford Escape Hybrid and Mercury Mariner Hybrid vehicles. Globally, we have placed more than 5 million vehicles in service capable of running on renewably produced ethanol fuel. We are promoting the development of infrastructure in North America and Europe that will expand the use of these biofuels and help reduce our dependence on oil. We have built 4 million vehicles globally with electronic stability control systems. More than 1 million of those vehicles feature Ford's industry-exclusive AdvanceTrac® with Roll Stability Control™.

In the near future, you'll see more innovation. The 2008 Escape Hybrid will use seat upholstery made from 100 percent post-industrial material. New safety features will help drivers avoid collisions through technologies like lane departure warnings and assisted braking.

Looking further out, technologies in development include the Escape Hybrid E85 demonstration fleet, which combines hybrid technology with Flexifuel capability. This fleet joins test fleets of vehicles that run on hydrogen fuel cells and hydrogen internal-combustion engines.



Alan Mulally and Bill Ford

#### HAVE YOUR SAY

Please share your thoughts on our report – all responses provide valuable feedback on our efforts to date and help prioritize improvements for the future.

Send your feedback to <a href="mailto:sustaina@ford.com">sustaina@ford.com</a>

### RELATED LINKS

#### In This Report

- Letter from Sue Cischke
- Key topic: Human Rights

### Ford.com

- Ford Vehicles
- Roll Stability Control
- Plug-in hybrid

### External Web Sites

- Greener Miles
- USCAP

And for a glimpse of what the future may hold, in early 2007 we demonstrated a driveable Ford Edge Plug-in Hybrid. This industry-first hybrid uses a plug-in lithium ion battery and a hydrogen fuel cell generator. The system, called HySeries Drive™, powers the vehicle 25 miles each day on about \$1.00 of electricity from the grid before switching to the hydrogen fuel cell to extend the range. For a commuter traveling 50 miles per day this translates to more than 80 miles per gallon, zero emissions and a 70 percent reduction in fuel cost.

#### External dialogue and partnerships

Partnerships extend our own capabilities and our ability to innovate.

We have partnered with our customers to help them offset greenhouse gas emissions from their vehicles. In the United States, we do this in partnership with TerraPass; in the UK, Land Rover is working with Climate Care to offset the emissions from the first three years that customers own their 2007 vehicles.

We have numerous partnerships aimed at addressing climate change and energy security issues. Most recently, Ford joined the United States Climate Action Partnership (USCAP), an alliance of major businesses and leading climate and environmental groups that have come together to develop an economy-wide, market-driven approach to reduce greenhouse gas emissions. In addition, Ford is the only automotive member of the Chicago Climate Exchange, a voluntary initiative aimed at understanding the potential for carbon trading. We're working with the energy company BP to explore ways to reduce greenhouse gas emissions from fuels, increase energy security and seek alternatives to the current reliance on petroleum.

We're partnering with Northwestern University on nanotechnology approaches to structural materials that have the potential to improve vehicle fuel economy. And we are participating in the Prince of Wales International Business Leaders Forum to examine the influence of global poverty on our business and the roles we might play in alleviating it.

#### Looking ahead

The economic dimension of sustainability looms large for the Ford of 2007. We must return to profitability in order to continue to contribute to addressing global sustainability challenges.

In 2006, we lost \$12.6 billion, largely due to restructuring costs, and took the painful but necessary actions of closing plants and significantly reducing our workforce. In this report, you will find a discussion of how we have tried to manage our downsizing in a responsible way. We are continuing to align our capacity with demand, accelerate the development of desirable new products and support our people through the transition so they can focus as a team on the challenges ahead. We also are continuing to implement the product actions needed so that our Company can contribute to climate stabilization.

In the coming year, you will see us moving to become more globally integrated and aligned to meet our goals. This approach will help us tackle both business and sustainability challenges, and provide a new generation of products with significantly less impact on the environment.

We continue to make dramatic improvements in vehicle quality. Our customers agree. In the 2007 J.D. Power Initial Quality Study, Ford Motor Company vehicles earned 14 vehicle honors, more than any other automotor.

We are firmly convinced that we will come through the current crisis leaner but stronger, more nimble and more able to seize on the many opportunities presented by the world's expanding need for sustainable mobility.

Executive Chairman

Wille Cly God L.

President and CEO

Olan Mulally

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

**ACCOUNTABILITY** 

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford

### Corporate Profile Corporate Pro

- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Corporate Profile

Ford Motor Company is one of the world's largest producers of cars and trucks and one of the largest providers of automotive financial services. We manufacture and distribute automobiles in 200 markets globally.



We are a publicly traded company listed on the New York Stock Exchange. We produce our products in facilities operated by Ford Motor Company and/or joint ventures.

During 2006, we sold 6.8 million vehicles and employed more than 280,000 people worldwide. Our business partners include dealers and more than 11,000 suppliers.

We market our vehicles under the seven brands described below. Our Ford Credit subsidiary provides financing and leasing services to retail and fleet customers. Quality Care, Motorcraft and Extended Service Plan provide customer service support to our dealers.

### Global Product Guide

Geographical breakdown of model availability - view models by country.



### Global Operations >







Plant Type Directory

### Automotive Core and Affiliate Brands >









### Premier Automotive Group







### Financial Services











Click a brand logo for market information.

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

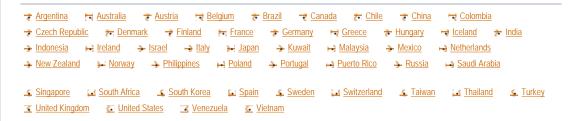
- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### **Worldwide Markets**

Select a country from the menu above to see which models are sold there.

OVERVIEW 
OUR IMPACTS > VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

**ACCOUNTABILITY** 

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

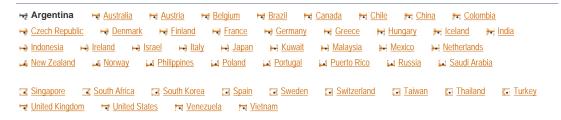
- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- 。 Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Argentina





























OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

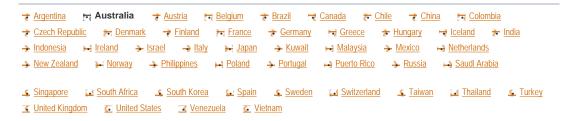
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Australia



























OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### . OVERVIEW

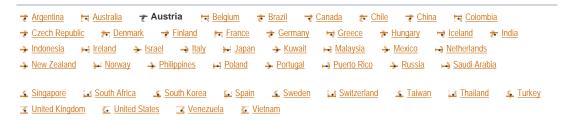
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Austria

Fiesta





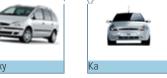




















Mondeo











visit website >>>













visit website 🭑



OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### . OVERVIEW

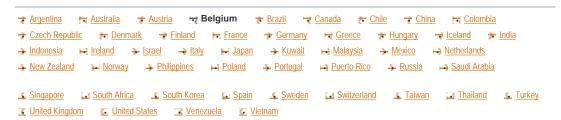
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Belgium





Fiesta









































OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Brazil

































OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Canada



























































LINCOLN visit website >>













MERCURY visit website >>>





visit website >>>



















OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

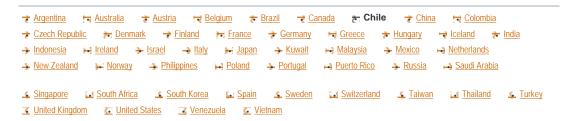
- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Chile



















OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

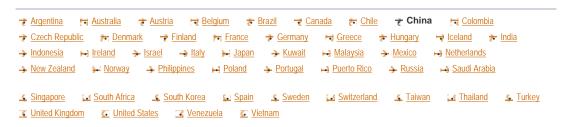
- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- Corporate Profile
- Global Operations
- Automotive Core and AffiliateBrands
- o Premier Automotive Group
- Financial Services
- Customer Services
- Letter from Sue Cischke
- Assurance
- Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### China

































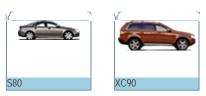












OVERVIEW \ OUR IMPACTS \ VOICES \ \ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY | PRODUCTS AND CUSTOMERS | ENVIRONMENT | COMMUNITY | SAFETY | QUALITY OF RELATIONSHIPS | FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

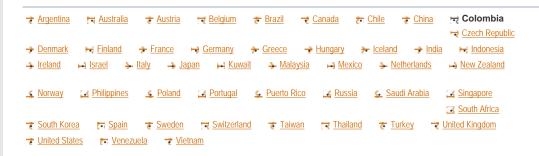
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



### Colombia





















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



### Czech Republic

























Mondeo

Ranger





visit website >>













visit website 🭑



OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

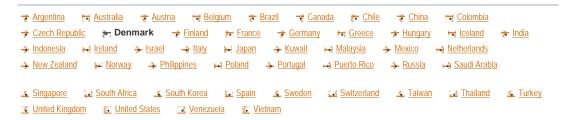
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Denmark





Fiesta

Maverick















Ranger





















visit website >>>



















OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

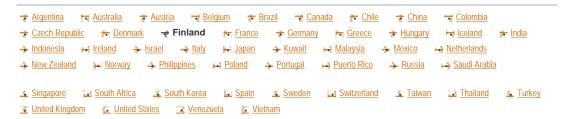
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

### Global Product Guide



#### **Finland**

Fiesta

Mondeo

























Ranger











visit website >>>













visit website 🭑



OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

### Global Product Guide



#### France























Mondeo

Ranger











visit website >>>















OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Germany







































































OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Greece







































visit website >>>



















OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

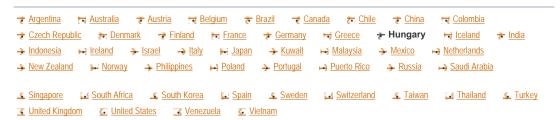
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Hungary



























visit website 🍑



















OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

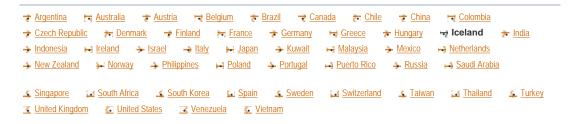
- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### **Iceland**











OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

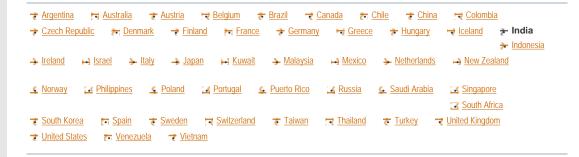
- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### India











OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate

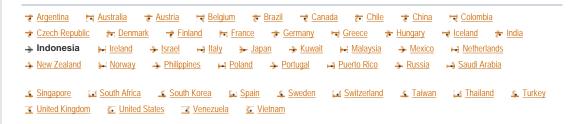
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Indonesia













OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Ireland



































visit website >>>



















OVERVIEW > OUR IMPACTS > VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

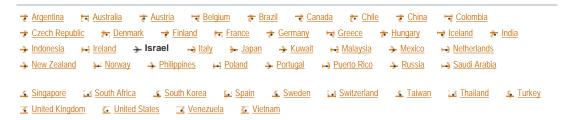
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



### Israel



















visit website 🍑





















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

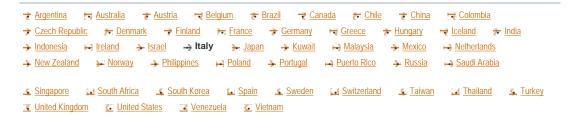
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Italy























Mondeo



Ranger











visit website >>>













visit website 🭑



OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Japan









































OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Kuwait





Crown Vic



Freestar









































OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- Corporate Profile
- Global Operations
- Automotive Core and Affiliate

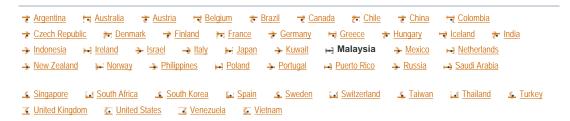
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



### Malaysia



























OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

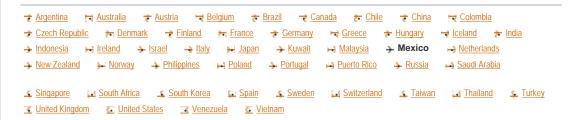
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Mexico





































































MERCURY visit website























OVERVIEW > OUR IMPACTS > VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

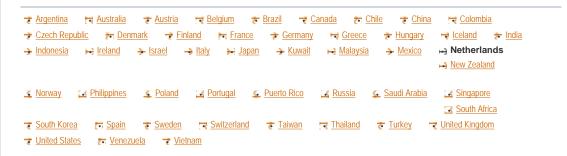
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Netherlands















































OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

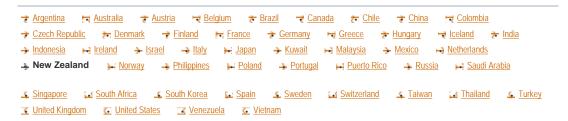
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### **New Zealand**

































































OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OVERVIEW

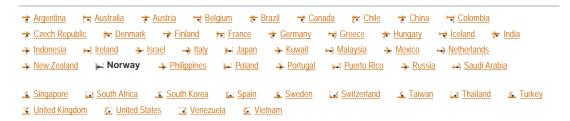
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Global Product Guide



#### Norway

Fiesta



































visit website >>>













visit website 🭑



OVERVIEW > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 OUR IMPACTS > QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT COMMUNITY HEALTH

#### . OVERVIEW

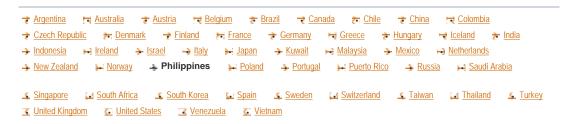
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



### **Philippines**





















OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

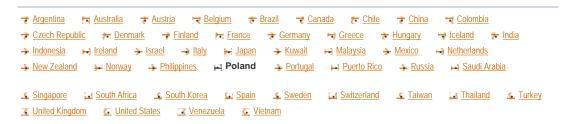
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Poland















visit website >>>





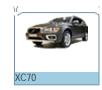














OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Global Product Guide



## Portugal















































OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT COMMUNITY HEALTH

## . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Puerto Rico

























E-Series





Expedition



OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

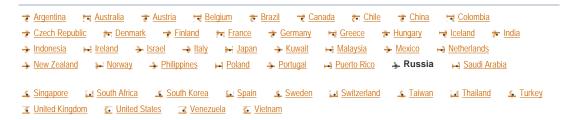
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Russia







Galaxy





































visit website >>>

















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

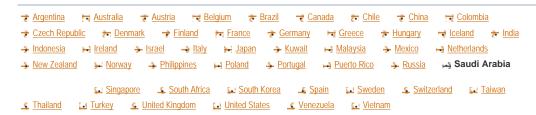
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## Saudi Arabia









Econovan





















Expedition























OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Operations
- Automotive Core and Affiliate

  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## Singapore



















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

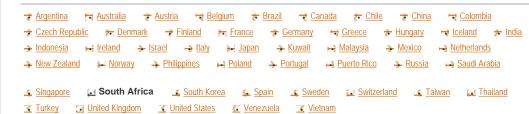
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Global Product Guide



#### South Africa

































































HEALTH

## Ford Motor Company

OVERVIEW > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 OUR IMPACTS > VOICES > QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT COMMUNITY

## . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Global Product Guide



#### South Korea



































OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

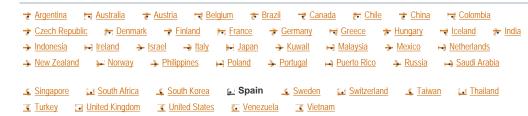
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## Spain



































visit website >>>















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Global Product Guide



#### Sweden





Fiesta





















Mondeo











visit website >>>















OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

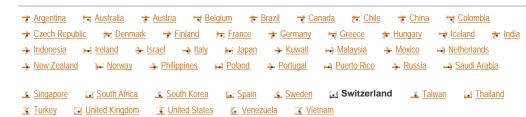
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## Global Product Guide



#### Switzerland









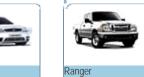


















Maverick











visit website >>>















OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

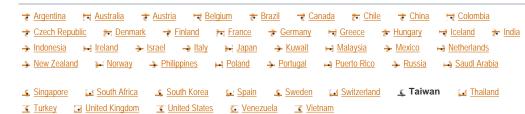
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Taiwan





























visit website >>>













visit website >>>















OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- Corporate Profile
- Global Operations
- Automotive Core and Affiliate

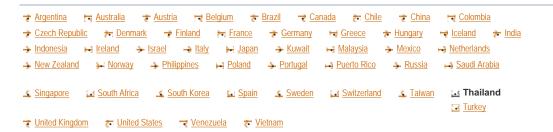
  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Thailand



























OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

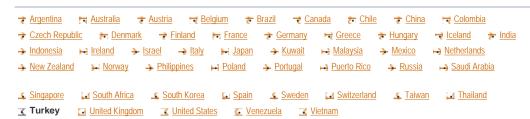
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## Turkey























visit website >>>











visit website >>>



















OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

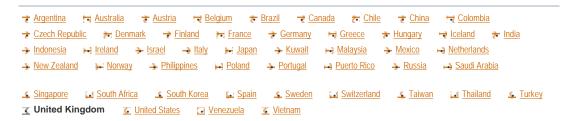
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## **United Kingdom**









































































OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . OVERVIEW

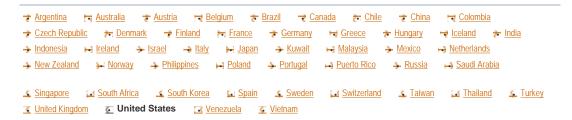
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### **United States**

















Escape Hybrid











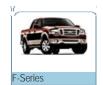




















































MERCURY visit website >>>



















visit website >>>

















OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL HEALTH

## . OVERVIEW

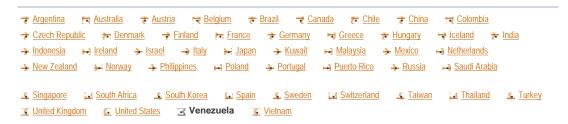
- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



#### Venezuela



























OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate

  Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

## Global Product Guide



## Vietnam















OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- o Global Product Guide
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- . Data Overview

Print this report

Download resources

Send feedback

## **Global Operations**

- Geographical Directory
- Manufacturing Plants by Type

Ford Motor Company has manufacturing facilities in 23 countries on six continents.



Click a button to see manufacturing plants for that region.

Ford's World Headquarters are located at:

Ford Motor Company One American Road Dearborn Michigan 48126 USA

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- o Global Product Guide
- Stobal Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources



## **Global Operations**

#### Geographical Directory

Manufacturing Plants by Type



To see plants, click on a map location or select from the countries below.

- → Canada
- → Mexico
- United States

## Canada

#### **Assembly Plants**

#### Oakville Assembly

Oakville, Ontario Total employment: 3,820

Products: Ford Edge, Ford Fairlane, Lincoln MKX

Year opened: 1953 Plant size (sq ft): 5,464,000 Site size: 487 acres

#### St Thomas Assembly

St Thomas, Ontario Total employment: 2,460

Products: Ford Crown Victoria, Mercury Grand Marquis, Lincoln Town Car (fall 2007)

Year opened: 1967 Plant size (sq ft): 2,600,000 Site size: 635 acres

#### **Engine Plants**

## Essex Engine

Windsor, Ontario Total employment: 650

Products: 3.9 and 4.2-liter V6 engines, 5.4-liter 3-Valve V8 engines, V8 cylinder blocks and crankshafts for Triton 5.4-liter engines, connecting rods, crankshafts, cylinder blocks, V6 components, V8 components

Year opened: 1981 Plant size (sq ft): 1,900,000 Site size: 260 acres

#### Windsor Engine

Windsor, Ontario Total employment: 1,850

Products: 5.4-liter V8 2-valve and 3-valve engines, 6.8-liter V10 2-valve and 3-valve engines

Year opened: 1923 Plant size (sq ft): 2,100,000 Site size: 38,746

## **Casting/Forging Aluminum Plants**

#### Essex Aluminum (joint venture - 25% Ford/75% Nemak)

Windsor, Ontario Total employment: 940 Products: Cylinder heads Year opened: 1981 Plant size (sq ft): 500,000 Site size: 53 acres

#### Windsor Aluminum (Joint venture – 15% Ford/85% Nemak)

Windsor, Ontario Total employment: 570

Products: 2.5-liter and 3.0-liter V6 cylinder blocks and 3.9-liter V8 cylinder blocks

Year opened: 1992 Plant size (sq ft): 314,000 Site size: 64 acres

#### **Windsor Casting**

Windsor, Ontario Total employment: 600 Products: Cylinder blocks and crankshafts Year opened: 1934 Plant size (sq ft): 500,000 Site size: 22 acres



#### Mexico

#### **Assembly Plants**

#### Blue Diamond Truck Company LLC (Joint venture - 50% Ford/ 50%Navistar

International)

Escobedo

Products: Medium commercial trucks, International Truck and Engine Company Class 8 Trucks

Year opened: 2002 Plant size (sq ft): 800,000

## **Cuautitlan Assembly**

Cuautitlan

Total employment: 900

Products: Ford F-150, F-250, F-350, F-450 and F-550 trucks, Ikon

Year opened: 1970 Plant size (sq ft): 4,000,000

#### Hermosillo Stamping and Assembly

Hermosillo, Sonora Total employment: 3,335 Products: Fusion, Milan, MKZ Year opened: 1986 Plant size (sq ft): 1,650,307 Site size: 279 acres

#### **Engine Plants**

## Chihuahua Engine

Chihuahua

Total employment: 705

Products: 2.0-liter Duratec engine

Year opened: 1983 Plant size (sq ft): 727,000 Site size: 247 acres

top

## **United States**

#### **Assembly Plants**

#### AutoAlliance International, Inc. (Joint venture - 50% Ford/50% Mazda)

Flat Rock, Michigan Total employment: 3,722 Products: Ford Mustang, Mazda6 Year opened: 1987 Plant size (sq ft): 2,700,000 Site size: 400 acres

#### **Chicago Assembly Plant**

Chicago, Illinois

Total employment: 2,479

Products: Ford Five Hundred, Freestyle, Mercury Montego, MKS (2008)

Year opened: 1924 Plant size (sq ft): 2,700,000 Site size: 113 acres

#### **Dearborn Tool and Die**

Dearborn, Michigan Total employment: 480 Year opened: 1939 Plant size (sq ft): 375,000 Site size: 9 acres

#### **Dearborn Truck Plant**

Dearborn, Michigan Total employment: 2,620

Products: Ford F-150, Lincoln Mark LT pickups

Year opened: 2004 Plant size (sq ft): 2,300,000 Site size: 600 acres

#### **Detroit Chassis**

Products: Strip chassis

#### **Kansas City Assembly Plant**

Claycomo, Missouri

Total employment: 4,933

Products: Ford Escape, Ford Escape Hybrid, Mercury Mariner, Mazda Tribute, F-150

Year opened: 1951 Plant size (sq ft): 4,734,765 Site size: 1,269 acres

#### **Kentucky Truck Plant**

Louisville, Kentucky Total employment: 5,154

Products: F-250-F-550, Super Duty pickups

Year opened: 1969 Plant size (sq ft): 4,626,490 Site size: 500 acres

#### Louisville Assembly Plant

Louisville, Kentucky Total employment: 3,218

Products: Ford Explorer, Mercury Mountaineer, Concept Explorer Sport Trac

Year opened: 1955 Plant size (sq ft): 3,154,173 Site size: 180 acres

#### Michigan Truck Plant

Wayne, Michigan Total employment: 2,800

Products: Ford Expedition, Lincoln Navigator

Year opened: 1957 Plant size (sq ft): 2,866,000

#### **New Model Programs Development Center**

Allen Park, Michigan Total employment: 3,400 Products: Prototype builds Year opened: 1992 Plant size (sq ft): 420,000

## Norfolk Assembly Plant

Norfolk, Virginia Total employment: 2,130 Products: Ford F-150 Year opened: 1925 Plant size (sq ft): 2,630,000 Site size: 93 acres

## **Ohio Assembly Plant**

Avon Lake, Ohio Total employment: 2,730 Products: Ford Econoline Year opened: 1974 Plant size (sq ft): 3,700,000 Site size: 419 acres

#### **Twin Cities Assembly Plant**

St Paul, Minnesota Total employment: 1,861 Products: Ford Ranger, B-Series Year opened: 1925 Plant size (sq ft): 2,144,932 Site size: 148 acres

#### Wayne Stamping & Assembly

Wayne, Michigan

Total employment: 3,102

Products: Ford Focus (4-door and wagon)

Year opened: 1952 Plant size (sq ft): 3,710,000

#### **Wixom Assembly**

Wixom, Michigan Total employment: 1,259 Products: Lincoln Town Car Year opened: 1957 Plant size (sq ft): 4,700,000

#### **Stamping Plants**

#### **Buffalo Stamping Plant**

Buffalo, New York Total employment: 1,422

Products: Center floor pan, front floor pan, rear floor pan, body sides, front doors, quarter panels, rear

doors, roofs, hoods Year opened: 1950 Plant size (sq ft): 2,446,347 Site size: 118 acres

## **Chicago Stamping Plant**

Chicago, Illinois Total employment: 1,337 Products: Body panels Year opened: 1956 Plant size (sq ft): 2,040,220 Site size: 136 acres

#### **Dearborn Frame**

Dearborn, Michigan

Products: Frames, subframes, cross members, quarter panels and wheel house panels

Year opened: 1946 Plant size (sq ft): 816,200

## **Dearborn Stamping**

Dearborn, Michigan Total employment: 786

Products: Mustang, F-150/Super Duty, Escape, Focus, Navigator, Expedition

Year opened: 1939 Plant size (sq ft): 2,700,000 Site size: 35 acres

#### **Maumee Stamping**

Maumee, Ohio

Total employment: 712

Products: Body panels (steel, plastic and aluminum)

Year opened: 1974 Plant size (sq ft): 803,000 Site size: 70 acres

#### **Walton Hills Stamping**

Walton Hills, Ohio

Total employment: 854

Products: Body side panels, deck lids, doors, fenders, floor pans

Year opened: 1954 Plant size (sq ft): 2,100,000 Site size: 111 acres

## **Woodhaven Stamping Plant**

Woodhaven, Michigan Total employment: 1,613

Products: Door panels, floor pans, hoods, quarter panels, roofs, tailgates, truck body sides

Year opened: 1964 Plant size (sq ft): 2,190,000 Site size: 409 acres

#### **Engine Plants**

#### **Cleveland Engine Plant 1**

Brook Park, Ohio Total employment: 919 Products: 3.0-liter Duratec V6 Year opened: 1951 Plant size (sq ft): 1,980,000

Site size: 365 acres

#### **Cleveland Engine Plant 2**

Brook Park, Ohio Total employment: 1,164

Products: 2.0, 2.5, 3.0 and 3.5-liter Duratec V6, RFF and DAMB V6

Year opened: 1955

Plant size (sq ft): 1,445,000 Site size: 365 acres

#### **Dearborn Engine and Fuel Tank**

Dearborn, Michigan Total employment: 983

Products: 2.0 and 2.3-liter I-4 engines and steel fuel tanks

Year opened: 1941 Plant size (sq ft): 2,327,000 Site size: 49 acres

#### **Lima Engine Plant**

Lima, Ohio

Total employment: 1,020

Products: 3.5-liter Duratec V6, 3.0-liter Vulcan V6

Year opened: 1957 Plant size (sq ft): 2,424,360 Site size: 312 acres

#### Rawsonville Visteon Plant

Ypsilanti, Michigan Total employment: 2,059

Products: Air/fuel, alternator, fuel pump, injectors, throttle bodies, wiper motors

Year opened: 1956 Plant size (sq ft): 1,000,000

#### Romeo Engine Plant

Romeo, Michigan

Total employment: 1,335

Products: 4.6-liter 2-valve and 4-valve V8 engines, 5.4-liter 4-valve supercharged engine

Year opened: 1973 Plant size (sq ft): 2,043,778 Site size: 268 acres

#### Sterling I and II

Sterling Heights, Michigan Total employment: 2,840 Products: Axels Year opened: 1956 Plant size (sq ft): 2,800,000

#### **Transmission Plants**

#### Batavia Transmission LLC (Joint venture – 49% Ford/51% Friedrichshafen AG)

Batavia, Ohio

Total employment: 1,305

Products: CD4E, CFT23 and CFT30 transaxles

Year opened: 1980 Plant size (sq ft): 1,800,000 Site size: 254 acres

#### Livonia Transmission Plant

Livonia, Michigan

Total employment: 2,138

Products: 4R75E and 6R transmissions, AX4N components, service components

Year opened: 1952 Plant size (sq ft): 2,835,581 Site size: 182 acres

#### **Sharonville Transmission**

Cincinnati, Ohio

Products: Gears, converters, 5R110 transmission

Year opened: 1958 Plant size (sq ft): 2,421,000 Site size: 182 acres

#### Van Dyke Transmission Plant

Sterling Heights, Michigan Total employment: 1,193

Products: 4F27E (FN) and 6F50 (6F) automatic transmissions, stampings

Year opened: 1968 Plant size (sq ft): 1,823,718 Site size: 146 acres

#### **Casting/Forging Aluminum Plants**

## **Cleveland Casting**

Brook Park, Ohio Total employment: 1,740

Products: Cylinder blocks and heads, crankshafts and bearing heads

Year opened: 1952 Plant size (sq ft): 1,600,000 Site size: 155 acres

#### Dearborn Diversified Manufacturing Plant/Dearborn Tool and Die

Dearborn, Michigan
Total employment: 600
Products: Suspension parts, truck axels, stampings, tire and wheels, frames
Year opened: 1946
Plant size (sq ft): 850,000
Site size: 27 acres

## Woodhaven Forging

Woodhaven, Michigan Products: 5.4-liter V8 and 6.8-liter V10 steel crankshafts Year opened: 1995 Plant size (sq ft): 60,000

top

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- o Global Product Guide
- Stobal Operations
- Automotive Core and Affiliate
   Brands
- Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

## **Global Operations**

#### Geographical Directory

Manufacturing Plants by Type



To see plants, click on a map location or select from the countries below.

- → Argentina
- → Brazil
- Venezuela

## Argentina

#### **Assembly Plants**

## Pacheco Stamping and Assembly

Buenos Aires

Total employment: 2,123

Products: Ford Focus (4 & 5 door), Ford Ranger (Regular Cab, Crew Cab, Super Cab)

Year opened: 1961 Plant size (sq ft): 1,758,822 Site size: 323 acres

top

## Brazil

## Assembly Plants

#### Ford Nordeste Industrial Complex

Bahia

Products: PVW 175-Courier Year opened: 2002 Plant size (sq ft): 700,000

#### São Bernardo Assembly

São Paulo

Products: Ford Courier, Fiesta, Ka, F-250, F-350 and F-4000

Year opened: 1967 Plant size (sq ft): 4,130,000

#### **Taubate Chassis**

Taubate, São Paulo

Products: Chassis components for cars and trucks, Zetec engine components

Year opened: 1968 Plant size (sq ft): 260,177

## **Engine Plants**

#### **Taubate Engine**

Taubate, São Paulo

Products: Zetec RoCam Engines, 1.0-liter 4-cyl. SOHC: Ford Fiesta and Ka, 1.6-liter 4-cyl.

Year opened: 1974 Plant size (sq ft): 92,880

#### **Transmission Plants**

#### **Taubate Transmission**

Taubate, São Paulo

Products: IB5 transmissions: Ford Fiesta, Ka, Focus and IKON

Year opened: 1974 Plant size (sq ft): 388,587



## Venezuela

## **Assembly Plants**

#### Valencia Assembly

Valencia

Total employment: 1,797

Products: Ford Cargo, Ford Ecosport, Ford Explorer, Ford Explorer Sport Trac, Ford F-150, Ford Fiesta,

Ford Focus, Ford Ka Year opened: 1962 Plant size (sq ft): 812,154 Site size: 103 acres



OVERVIEW > OUR IMPACTS > VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 ENVIRONMENT COMMUNITY FINANCIAL RELATIONSHIPS HEALTH

# . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- o Global Product Guide
- Shobal Operations
- Automotive Core and Affiliate
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- . Data Overview



Download resources

Send feedback

# **Global Operations**

#### Geographical Directory

Manufacturing Plants by Type



To see plants, click on a map location or select from the countries below.

- → Belgium
- → France
- 4 Germany
- A Russia
- 1 Spain
- <u> Sweden</u>
- Turkey
- United Kingdom

# Belgium

# **Assembly Plants**

# Genk Body and Assembly

Total employment: 5,475

Products: Ford Mondeo, Ford Galaxy, Ford Focus S-MAX

Year opened: 1964

Plant size (sq ft): 6,792,027 Site size: 345 acres

#### **Volvo Cars**

Ghent

Total employment: 5,300 Products: Volvo C30, S40, V50, V70

Year opened: 1965

Plant size (sq ft): 3,317,000

Site size: 475 acres

# France

#### **Transmission Plants**

#### **Bordeaux Automatic Transmission Plant**

Blanquefort Total employment: 2,523 Products: 5R44, 5R55



Year opened: 1973 Plant size (sq ft): 1,388,471 Site size: 44 acres

# Bordeaux Transaxle Plant (joint venture - 50% Ford/50% GETRAG)

Blanquefort

Total employment: 947

Products: IB5 - IB5ASM transmissions

Year opened: 1976 Plant size (sq ft): 500,000 Site size: 50 acres



# Germany

# **Assembly Plants**

# Cologne Body & Assembly

Cologne

Total employment: 4,707

Products: Ford Fiesta 3-door, Ford Fiesta 5-door, Ford Fusion

Year opened: 1931 Plant size (sq ft): 2,499,746 Site size: 69 acres

# Saarlouis Body & Assembly

Saarlouis

Total employment: 6,390

Products: Ford Focus, Ford Focus C-MAX

Year opened: 1970 Plant size (sq ft): 3,100,000 Site size: 296 acres

#### **Engine Plants**

#### Cologne Engine

Cologne

Total employment: 1,438

Products: 4.0-liter V6 SOHC, 4.3-liter V8, 6.0-liter V12

Year opened: 1962 Plant size (sq ft): 1,449,651 Site size: 44 acres

#### **Transmission Plants**

# GETRAG Ford Transmissions GmbH (Joint venture – 50% Ford/50% GETRAG)

Cologne

Total employment: 1,440

Products: M56, M58 and M66 (Volvo MT), MMT6, MTX75 and VXT75 transmissions

Year opened: 1930 Plant size (sq ft): 1,091,352

# **Casting/Forging Aluminum Plants**

# Cologne Tool & Die

Cologne

Total employment: 1,144

Products: Stamping dies, fixtures, jigs, soft tooling and die repairs for all Ford vehicles

Year opened: 1963 Plant size (sq ft): 364,025 Site size: 13 acres

# Tekfor Cologne GmbH (joint venture – 50% Ford/50% Neumayer)

Cologne

Total employment: 352 Products: Steel forgings Year opened: 2003 Plant size (sq ft): 250,000 Site size: 10 acres



# Russia

# **Assembly Plants**

# Ford Motor Company ZAO

St Petersburg Total employment: 1,571 Products: Ford Focus Year opened: 2002 Plant size (sq ft): 387,360

# Spain

# **Assembly Plants**

#### Valencia Body and Assembly

Valencia

Total employment: 6,657

Products: Ford Ka, Ford Focus NT 4 & 5 door, Ford Fiesta 5 door, Mazda 2

Year opened: 1976 Plant size (sq ft): 6,379,367 Site size: 270 acres

#### **Engine Plants**

#### Valencia Engine Plant

Valencia

Total employment: 458

Products: 1.8-liter and 2.0-liter Duratec-HE

Year opened: 1976 Site size: 270 acres



# Sweden

#### **Assembly Plants**

# Volvo Car Plant - Volvo (Joint venture - 40% Volvo/60% Pininfarina SpA of Italy)

Uddevall.

Products: Volvo C70 Convertible

Year opened: 1995

Plant size (sq ft): 1,622,572

# Volvo Cars Torslanda

Göthenburg

Total employment: 5,306

Products: Volvo S60, S80, V70, XC70, XC90

Year opened: 1964

Plant size (sq ft): 3,552,090

Site size: 674 acres

# **Stamping Plants**

#### Volvo Cars Body Components - Volvo

Olofström

Total employment: 2,684

Products: VCC products S40N, S60, S80, V50, V70, C70, C70N, XC70, XC90, Jaguar new cab/coupe,

cabs for VTC Year opened: 1969 Plant size (sq ft): 3,444,419 Site size: 79 acres

# **Engine Plants**

# Volvo Car Corporation, Engine

Skövde

Total employment: 1,423

Products: 5-cylinder inline diesel engines, 5-cylinder petrol engine, 6-cylinder petrol engine

Year opened: 1990 Plant size (sq ft): 1,184,030 Site size: 75 acres

### **Transmission Plants**

# **GETRAG All Wheel Drive** (Joint venture – 40% Volvo Cars/60% GETRAG Dana Holdings)

Products: All-wheel-drive components



# Turkey

# **Assembly Plants**

# Ford Otosan Kocaeli Plant (Joint venture – 41% Ford/41% Koc Holding/18% public)

Kocae

Total employment: 6,030 Products: Transit, Transit Connect

Year opened: 2001

Plant size (sq ft): 3,444,451 Site size: 395 acres

#### **Engine Plants**

#### Ford Otosan Engine

Eskisehir

Total employment: 1,510

Products: 2.4-liter, 4-cyl. Duratec, 7.3-liter I-6 diesel, transmissions

Year opened: 1982 Plant size (sq ft): 679,826 Site size: 271 acres

#### **Transmission Plants**

#### Inönü Transmission

Inönü

Products: MT75 transmissions



# **United Kingdom**

#### **Assembly Plants**

#### Castle Bromwich Assembly - Jaguar

Birmingham

Total employment: 2,300

Products: Jaguar XK & XJ painted bodyshells, S-Type Saloon complete

Year opened: 1980 Plant size (sq ft): 2,500,000 Site Size: 106 acres

#### Halewood Assembly Plant UK - Jaguar

Halewood, Liverpool Total employment: 3,000

Products: Jaguar X-Type, Freelander 2/Land Rover 2

Year opened: 2000 Plant size (sq ft): 400,000

# Land Rover Solihull Assembly

Solihull, West Midlands Total employment: 7,913

Products: Defender, Discovery 3, Freelander, Land Rover 3, Range Rover/Sport

Year opened: 1948 Plant size (sq ft): 595,000 Site size: 308 acres

# Southampton Body and Assembly

Southampton

Total employment: 1,327

Products: Short and medium wheelbase Ford Transit commercial vehicles

Year opened: 1953 Plant size (sq ft): 1,300,000 Site size: 52 acres

#### **Stamping Plants**

#### **Dagenham Stamping Operations**

Dagenham, Essex

Total employment: 1,058

Products: Panels, sub-assemblies, wheels

Year opened: 1959 Plant size (sq ft): 1,337, 330 Site size: 473 acres

#### **Engine Plants**

#### **Bridgend Engine Plant**

Bridgend, Mid-Glamorgan Total employment: 1,685

 $Products: 1.25, 1.4 \ and \ 1.6 - liter \ Zetec-SE \ petrol \ engines, \ 3.2 - liter \ I-6, \ 3.5, \ 4.2 \ and \ 4.4 - liter \ V8 \ Jaguar \ XK$ 

Year opened: 1980

Plant size (sq ft): 1,525,320 Site size: 60 acres

# Dagenham Engine Plant

Dagenham, Essex

Total employment: 1,842

Products: 1.8I, 2.0 and 2.4-liter TDCi engines, 2.7-liter V6 diesel engine, 3.6-liter V8 diesel engine

Year opened: 1931 Plant size (sq ft): 2,500,000 Site size: 473 acres

# **Transmission Plants**

# Halewood Transmission Plant (Joint venture – 50% Ford/50% GETRAG)

Total employment: 740 Products: IB5 transaxle, MT75 and MT82 transmissions

Year opened: 1964 Plant size (sq ft): 1,247,548 Site size: 55 acres

# **Casting/Forging Aluminum Plants**

# **Leamington Foundry**

Leamington, Warwickshire Total employment: 398
Products: Castings including brake drums and discs
Year opened: 1940 Plant size (sq ft): 270,000

Site size: 16 acres

top

OVERVIEW OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- o Global Product Guide
- Stobal Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

# **Global Operations**

#### Geographical Directory

Manufacturing Plants by Type



To see plants, click on a map location or select from the countries below.

→ South Africa

# South Africa

# **Assembly Plants**

Ford Motor Company of Southern Africa (Joint venture – 90% Ford/10% Anglo-

American)

Pretoria

Total employment: 3,762

Products: Ford Bantam, Ford Focus, Ford Ranger, Mazda Drifter, Mazda3

Year opened: 1968 Plant size (sq ft): 1,689,320 Site size: 289 acres

# **Engine Plants**

# Ford Motor Company of Southern Africa Engine Plant

Port Elizabeth

Total employment: 815

Products: J97 4.0-liter V6 (engine dress), RoCam 1.3 and 1.6-liter

Year opened: 1963 Plant size (sq ft): 430,000 Site size: 31 acres

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- o Global Product Guide
- Shobal Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview
- Print this report
- Download resources
- Send feedback

# **Global Operations**

#### Geographical Directory

Manufacturing Plants by Type



To see plants, click on a map location or select from the countries below.

- → Australia
- → China
- ↓ India
- Japan
- 1 Malaysia
- 1 Philippines
- Taiwan
- → Thailand
- → Vietnam

# Australia

#### **Assembly Plants**

# Broadmeadows Assembly Plant

Campbellfield, Victoria Total employment: 2,088

Products: BA Falcon MK II range, LTD range, Territory, Ford Fairlane

Year opened: 1959 Plant size (sq ft): 1,937,503

# Site size: 44 acres

# Stamping Plants Geelong Stamping

Geelong, Victoria

Total employment: 1,152

Products: Body stampings for Falcon, Futura, Fairmont, Ghia, Fairlane, LTD, Utility and Territory

Year opened: 1926 Plant size (sq ft): 1,453,010 Site size: 101 acres

Note: Includes Geelong Aluminum

# **Engine Plants**

#### **Geelong Engine**

Geelong, Victoria Total employment: 644

Products: Ford Falcon and Territory 4.0-liter I-6 engine, chassis components

Year opened: 1926 Plant size (sq ft): 247,644

### **Casting/Forging Aluminum Plants**

#### **Geelong Aluminum Casting**

Geelong, Victoria Total employment: 110

Products: Rocker covers, intake manifolds, cross members, transmission and structural oil pans

Year opened: 1986 Plant size (sq ft): 2,000,000 Site size: 1 acre

Note: Includes Geelong Stamping

#### **Geelong Iron Casting**

Geelong, Victoria Total employment: 184

Products: Castings for Ford Falcon and Territory products

Year opened: 1972 Plant size (sq ft): 190,000 Site size: 20 acres

top

# China

### **Assembly Plants**

#### Changan Ford Mazda Automobile Co., Ltd. (Joint venture)

Chongging

Total employment: 5,624

Products: Ford Mondeo, Ford Fiesta, Ford Focus, Mazda3, Volvo S40

Year opened: 2001 Site size: 47 acres

# Jiangling Motors Co Ltd (Joint partnership)

Jiangxi

Total employment: 4,690

Products: Light Truck, Transit, Pickup, SUV

Year opened: 1968 Plant size (sq ft): 7,336,194 Site size: 119 acres

Note: Ford has 30% equity

### **Assembly Plants**

# Changan Ford Mazda Automobile Co., Ltd. (Joint venture)

Chongqing

Products: I-4 and Mazda BZ

top

# India

# Assembly Plants

# Ford India Private Limited

Tamil Nadu

Total employment: 1,976

Products: Fusion, Ikon, Fiesta, Endeavour, Everest

Year opened: 1996 Plant size (sq ft): 830,716 Site size: 350 acres

<u>top</u>

# Japan

# **Assembly Plants**

#### Hiroshima Plant - Plant 1 (U1)

Ujina District

Products: Mazda2, Verisa, MX-5, MPV, RX-8, CX-9, E-Series (Bongo Van, Bongo Brawny Van) Year opened: 1966

#### Hiroshima Plant - Plant 2 (U2)

Ujina District

Products: Mazda5, CX-7 Year opened: 1972

Plant size (sq ft): 1,685,000 (Ujina District total)

# Hofu Plant - Plant 1 (H1)

Nishinoura District

Products: Mazda3 Year opened: 1982

#### Hofu Plant - Plant 2 (H2)

Nishinoura District Products: Mazda3, Mazda6

Year opened: 1992

Plant size (sq ft): 792,000 (Nishinoura District total)

### **Engine Plants**

#### Hiroshima Plant - Engine Plant

Headquarter District

Products: Reciprocating engines (1.3L-1.6L)

Year opened: 1931

Plant size (sq ft): 551,000 (Headquarter District total)

#### Hiroshima Plant - Engine Plant

Ujina District

Products: Reciprocating engines (1.8L-2.3L), diesel engines, rotary engines

Year opened: 1964

#### Miyoshi Plant

Miyoshi

Products: Reciprocating engines (1.8L-2.2L), diesel engines

Year opened: 1974

Plant size (sq ft): 1,667,000 (including Miyoshi Proving Ground)

#### **Transmission Plants**

#### Hiroshima Plant - Transmission Plant

Headquarter District Products: Manual transmission Year opened: 1931

#### **Hofu Plant - Transmission Plant**

Nakanoseki District

Products: Automatic transmissions, manual transmissions

Year opened: 1981

Plant size (sq ft): 537,000 (Nakanoseki District total)

### top

# Malaysia

#### **Assembly Plants**

#### Ford Malaysia Sdn Bhd (Joint venture – 49% Ford/51% Tractors Malaysia)

Selangor

Total employment: 705

Products: BMW 3, BMW 5, Ford Econovan, Ford Everest, Ford Lynx RS, Ford Ranger, Land Rover

Defender, Mazda Fighter 4x4, Scania

Year opened: 1967 Plant size (sq ft): 387,552 Site size: 16 acres

# Swedish Motor Assemblies Sdn. Bhd

Kuala Lumpur

Total employment: 371

Products: Volvo S40, S60, S80, V50, XC90; Volvo Trucks and Buses, Land Rover Discovery, Daihatsu,

Perodua, painting of MB S-class

Year opened: 1967

Plant size (sq ft): 2,554,193



# **Philippines**

# **Assembly Plants**

# Ford Motor Company Philippines

Santa Rosa, Laguna Total employment: 727

Products: Ford Lynx, Ford Escape, Mazda Tribute, Mazda3

Year opened: 1999 Plant size (sq ft): 330,000 Site size: 53 acres



#### **Assembly Plants**

# Ford Lio Ho Motor Co Ltd (Joint venture - 70% Ford/30% Lio Ho Group)

Chung Li

Total employment: 1,732

Products: Ford Escape, Ford Focus, Mazda 323, Mazda Premacy, Mazda Tribute

Year opened: 1972 Plant size (sq ft): 3,759,715 Site size: 86 acres

#### **Engine Plants**

# Ford Lio Ho Engine (Joint venture – 70% Ford/30% Lio Ho Group)

Taoyuar

Total employment: 1,732

Products: Ford Escape, Ford Focus, Mazda3

Year opened: 1972 Plant size (sq ft): 3,759,715 Site size: 86 acres



# **Thailand**

# **Assembly Plants**

# AutoAlliance (Thailand) Co., Ltd. (Joint venture – 50% Ford, 45% Mazda, 5% Thai affiliate of Mazda)

Pleukdang

Total employment: 3,490

Products: Ford Courier, Ford Everest, Ford Ranger, Mazda B-Series

Year opened: 1998 Plant size (sq ft): 1,130,000 Site size: 231 acres

#### Thai-Swedish Assembly Co., Ltd. (Joint venture – 56% Volvo/44% Swedish Motor)

Samutprakarn

Total employment: 264

Products: Land Rover, Volvo S60, S80, V70, XC70, XC90, truck and bus

Year opened: 1976 Plant size (sq ft): 290,000 Site size: 112,000 acres



# Vietnam

# **Assembly Plants**

# Haiduong Assembly Factory - Ford Vietnam (Joint venture - 75% Ford/25% Song

Cong Diesel)

Haiduong

Total employment: 550

Products: Ford Escape, Ford Everest, Ford Mondeo, Ford Ranger, Ford Focus, Ford Transit

Year opened: 1997 Plant size (sq ft): 111,945 Site size: 74 acres



OVERVIEW © OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview





Send feedback

# **Global Operations**

- ₹ Geographical Directory
- → Manufacturing Plants by Type

Ford produces passenger cars, trucks, engines, transmissions, castings and forgings, and metal stampings of all kinds at its 110 wholly owned, equity-owned and joint venture plants.



#### **Assembly Plants**

(Listed in alphabetical order)

# AutoAlliance (Thailand) Co Ltd (Joint venture – 50% Ford, 45% Mazda, 5% Thai Affiliate of Mazda)

Pleukdang (Thailand)
Total employment: 3,490

Products: Ford Courier, Ford Everest, Ford Ranger, Mazda B-Series

Year opened: 1998 Plant size (sq ft): 1,130,000 Site size: 231 acres

# AutoAlliance International, Inc (Joint venture – 50% Ford/50% Mazda)

Flat Rock, Michigan (United States) Total employment: 3,722 Products: Ford Mustang, Mazda6

Year opened: 1987 Plant size (sq ft): 2,700,000 Site size: 400 acres

#### Blue Diamond Truck Company LLC (Joint venture - 50% Ford/ 50%Navistar

International)

Escobedo (Mexico)

Products: Medium commercial trucks, International Truck and Engine Company Class 8 trucks

Year opened: 2002 Plant size (sq ft): 800,000

#### **Broadmeadows Assembly Plant**

Campbellfield, Victoria (Australia)

Total employment: 2,088

Products: BA Falcon MK II range, LTD range, Territory, Ford Fairlane

Year opened: 1959 Plant size (sq ft): 1,937,503 Site size: 44 acres

#### Castle Bromwich Assembly - Jaguar

Birmingham (United Kingdom) Total employment: 2,330

Products: Jaguar XK & XJ painted bodyshells, S-Type Saloon complete

Year opened: 1980 Plant size (sq ft): 2,500,000 Site size: 106 acres

#### Changan Ford Mazda Automobile Co., Ltd. (Joint venture)

Chongqing (China)
Total employment: 5,624
Products: Ford Mondeo, Ford Fiesta, Ford Focus, Mazda3, Volvo S40
Year opened: 2001
Site size: 47 acres

#### **Chicago Assembly Plant**

Chicago, Illinois (United States)

Total employment: 2,479

Products: Ford Five Hundred, Freestyle, Mercury Montego, MKS

Year opened: 1924 Plant size (sq ft): 2,700,000 Site size: 113 acres

### Cologne Body & Assembly

Cologne (Germany)

Total employment: 4,707

Products: Ford Fiesta 3-door, Ford Fiesta 5-door, Ford Fusion

Year opened: 1931 Plant size (sq ft): 2,499,746 Site size: 69 acres

#### **Cuautitlan Assembly**

Cuautitlan (Mexico)

Total employment: 900

Products: Ford F-150, F-250, F-350, F-450 and F-550 trucks, Ikon

Year opened: 1970 Plant size (sq ft): 4,000,000

#### **Dearborn Truck Plant**

Dearborn, Michigan (United States)

Total employment: 2,620

Products: Ford F-150, Lincoln Mark LT pickups

Year opened: 2004 Plant size (sq ft): 2,300,000 Site size: 600 acres

### Site Size: 000 acres

**Detroit Chassis** Products: Strip chassis

# Ford India Private Limited

Tamil Nadu (India)

Total employment: 1,976

Products: Fusion, Ikon, Fiesta, Endeavour, Everest

Year opened: 1996 Plant size (sq ft): 830,716 Site size: 350 acres

#### Ford Lio Ho Motor Co Ltd (Joint venture – 70% Ford/30% Lio Ho Group)

Chung Li (Taiwan)

Total employment: 1,732

Products: Ford Escape, Ford Focus, Mazda 323, Mazda Premacy, Mazda Tribute

Year opened: 1972 Plant size (sq ft): 3,759,715 Site size: 86 acres

#### Ford Malaysia Sdn Bhd (Joint venture – 49% Ford/51% Tractors Malaysia)

Selangor (Malaysia)

Total employment: 705

Products: BMW 3, BMW 5, Ford Econovan, Ford Everest, Ford Lynx RS, Ford Ranger, Land Rover

Defender, Mazda Fighter 4x4, Scania

Year opened: 1967 Plant size (sq ft): 387,552 Site size: 16 acres

# Ford Motor Company of Southern Africa (Joint venture - 90% Ford/10% Anglo-

American)

Pretoria (South Africa)

Total employment: 3,762

Products: Ford Bantam, Ford Focus, Ford Ranger, Mazda Drifter, Mazda3

Year opened: 1968 Plant size (sq ft): 1,689,320 Site size: 289 acres

# Ford Motor Company Philippines

Santa Rosa, Laguna (Philippines)

Total employment: 727

Products: Ford Lynx, Ford Escape, Mazda Tribute, Mazda3

Year opened: 1999 Plant size (sq ft): 330,000 Site size: 53 acres

# Ford Motor Company ZAO

St Petersburg (Russian Federation)

Total employment: 1,571 Products: Ford Focus Year opened: 2002 Plant size (sq ft): 387,360 Site size: 64,246 acres

#### **Ford Nordeste Industrial Complex**

Bahia (Brazil)

Products: PVW 175-Courier Year opened: 2002 Plant size (sq ft): 700,000

#### Ford Otosan Kocaeli Plant (Joint venture – 41% Ford/41% Koc Holding/18% public)

Kocaeli (Turkey) Total employment: 6,030

Products: Transit, Transit Connect

Year opened: 2001 Plant size (sq ft): 3,444,451 Site size: 395 acres

#### **Geelong Chassis Components**

Geelong, Victoria (Australia)

#### Genk Body and Assembly

Genk (Belgium)

Total employment: 5,475

Products: Ford Mondeo, Ford Galaxy, Ford Focus S-MAX

Year opened: 1964 Plant size (sq ft): 6,792,027 Site size: 345 acres

# Haiduong Assembly Factory - Ford Vietnam (Joint venture - 75% Ford/25% Song

Cong Diesel)
Haiduong (Vietnam)
Total employment: 550

Products: Ford Escape, Ford Everest, Ford Mondeo, Ford Ranger, Ford Focus, Ford Transit

Year opened: 1997 Plant size (sq ft): 111,945 Site size: 74 acres

#### Halewood Assembly Plant UK - Jaguar

Halewood, Liverpool (United Kingdom)

Total employment: 3,000

Products: Jaguar X-Type, Freelander 2/Land Rover 2

Year opened: 2000 Plant size (sq ft): 400,000

# Hermosillo Stamping and Assembly

Hermosillo, Sonora (Mexico) Total employment: 3,335 Products: Fusion, Milan, MKZ Year opened: 1986 Plant size (sq ft): 1,650,307 Site size: 279 acres

# Hiroshima Plant - Plant 1 (U1)

Ujina District (Japan)

Products: Mazda2, Verisa, MX-5, MPV, RX-8, CX-9, E-Series (Bongo Van, Bongo Brawny Van)

Year opened: 1966

# Hiroshima Plant - Plant 2 (U2)

Ujina District (Japan) Products: Mazda5, CX-7 Year opened: 1972

Plant size (sq ft): 1,685,000 (Ujina District total)

#### Hofu Plant - Plant 1 (H1)

Nishinoura District (Japan) Products: Mazda3 Year opened: 1982

# Hofu Plant - Plant 2 (H2)

Nishinoura District (Japan) Products: Mazda3, Mazda6 Year opened: 1992

Plant size (sq ft): 792,000 (Nishinoura District total)

#### Jiangling Motors Co Ltd (Joint partnership)

Jiangxi (China)

Total employment: 4,690

Products: Light Truck, Transit, Pickup, SUV

Vehicle (BUV), JMC Kaiyun Light Truck, JMC YunBa Light Bus

Year opened: 1968 Plant size (sq ft): 7,336,194 Site size: 119 acres Note: Ford has 30% equity

#### **Kansas City Assembly Plant**

Claycomo, Missouri (United States)

Total employment: 4,933

Products: Ford Escape, Ford Escape Hybrid, Mercury Mariner, Mazda Tribute, Ford F-150

Year opened: 1951 Plant size (sq ft): 4,734,765 Site size: 1,269 acres

#### **Kentucky Truck Plant**

Louisville, Kentucky (United States) Total employment: 5,154

Products: F-250–F-550, Super Duty pickups

Year opened: 1969 Plant size (sq ft): 4,626,490 Site size: 500 acres

#### Land Rover Solihull Assembly

Solihull, West Midlands (United Kingdom)

Total employment: 7,913

Products: Defender, Discovery 3, Freelander, Land Rover 3

Year opened: 1948 Plant size (sq ft): 595,000 Site size: 308 acres

#### **Louisville Assembly Plant**

Louisville, Kentucky (United States)

Total employment: 3,218

Products: Ford Explorer, Mercury Mountaineer, Concept Explorer Sport Trac

Year opened: 1955 Plant size (sq ft): 3,154,173 Site size: 180 acres

# Michigan Truck Plant

Wayne, Michigan (United States)
Total employment: 2,800
Products: Ford Expedition, Lincoln Navigator
Year opened: 1957

Plant size (sq ft): 2,866,000

#### **New Model Programs Development Center**

Allen Park, Michigan (United States) Total employment: 3,400 Products: Prototype builds Year opened: 1992 Plant size (sq ft): 420,000

#### **Norfolk Assembly Plant**

Norfolk, Virginia (United States) Total employment: 2,130 Products: Ford F-150 Year opened: 1925 Plant size (sq ft): 2,630,000 Site size: 93 acres

# Oakville Assembly

Oakville, Ontario (Canada) Total employment: 3,820

Products: Ford Edge, Ford Fairlane, Lincoln MKX

Year opened: 1953 Plant size (sq ft): 5,464,000 Site size: 487 acres

# **Ohio Assembly Plant**

Avon Lake, Ohio (United States) Total employment: 2,730 Products: Ford Econoline Year opened: 1974 Plant size (sq ft): 3,700,000 Site size: 419 acres

# **Ontario Truck Assembly**

Oakville, Ontario (Canada)

Products: Ford F-150 (including bi-fuel and CNG) and SVT Lightning

Year opened: 1965 Plant size (sq ft): 3,009,281

# **Pacheco Stamping and Assembly**

Buenos Aires (Argentina) Total employment: 2,123

Products: Ford Focus (4 & 5 door), Ford Ranger (Regular Cab, Crew Cab, Super Cab) Year opened: 1961

Plant size (sq ft): 1,758,822 Site size: 323 acres

#### Saarlouis Body & Assembly Plant

Saarlouis (Germany) Total employment: 6,390

Products: Ford Focus, Ford Focus C-MAX

Year opened: 1970 Plant size (sq ft): 3,100,000 Site size: 296 acres

#### São Bernardo Assembly

São Paulo (Brazil)

Products: Ford Courier, Fiesta, Ka, F-250, F-350 and F-4000

Year opened: 1967 Plant size (sq ft): 4,130,000

#### **Southampton Assembly**

Southampton (United Kingdom) Total employment: 1,327

Products: Short and medium wheelbase Ford Transit commercial vehicles

Year opened: 1953 Plant size (sq ft): 1,300,000 Site size: 52 acres

#### St Thomas Assembly

St Thomas, Ontario (Canada) Total employment: 2,460

Products: Ford Crown Victoria, Mercury Grand Marquis, Lincoln Town Car (Fall 2007)

Year opened: 1967 Plant size (sq ft): 2,600,000 Site size: 635 acres

### Swedish Motor Assemblies Sdn. Bhd

Kuala Lumpur (Malaysia) Total employment: 371

Products: Volvo S40, V50, S60, S80, XC90; Volvo Trucks and Buses, Land Rover Discovery, Daihatsu,

Perodua, painting of MB S-class

Year opened: 1967 Plant size (sq ft): 2,554,193

#### **Taubate Chassis**

Taubate, São Paulo (Brazil)

Products: Chassis components for cars and trucks, Zetec engine components

Year opened: 1968

Plant size (sq ft): 260,177

### Thai-Swedish Assembly Co., Ltd. (Joint venture – 56% Volvo/44% Swedish Motor)

Samutprakarn (Thailand) Total employment: 264

Products: Land Rover, Volvo S60, S80, V70, XC70, XC90, truck and bus

Year opened: 1976 Plant size (sq ft): 290,000 Site size: 112,000 acres

# Twin Cities Assembly Plant

St Paul, Minnesota (United States) Total employment: 1,861 ProductsFord Ranger, B-Series Year opened: 1925 Plant size (sq ft): 2,144,932

V-I-----

Site size: 148 acres

# Valencia Assembly

Valencia (Venuzeula) Total employment: 1,797

Products: Ford Cargo, Ford Ecosport, Ford Explorer, Ford Explorer Sport Trac, Ford F-150, Ford Fiesta,

Ford Focus, Ford Ka Year opened: 1962 Plant size (sq ft): 812,154 Site size: 103 acres

### Valencia Body and Assembly

Valencia (Spain)

Total employment: 6,657

Products: Ford Ka, Ford Focus NT 4 & 5 door, Ford Fiesta 5 door, Mazda 2

Year opened: 1976 Plant size (sq ft): 6,379,367 Site size: 270 acres

### Volvo Car Plant - Volvo (Joint venture - 40% Volvo/60% Pininfarina SpA of Italy)

Uddevalla (Sweden)

Products: Volvo C70 Convertible

Year opened: 1995 Plant size (sq ft): 1,622,572

#### **Volvo Cars**

Ghent (Belgium) Total employment: 5,300

Products: Volvo C30, S40, V50, V70Year opened: 1965

Plant size (sq ft): 3,317,000 Site size: 475 acres

#### **Volvo Cars Body Components**

Total employment: 2,789

Products: body components, body sides, doors, hoods

Plant size (sq ft): 2,974,600

Site size: 72 acres

#### Volvo Cars Torslanda

Göthenburg (Sweden) Total employment: 5,306

Products: Volvo S60, S80, V70, XC70, XC90

Year opened: 1964 Plant size (sq ft): 3,552,090 Site size: 674 acres

Wayne Stamping & Assembly Wayne, Michigan (United States) Total employment: 3,102 Products: Ford Focus (4-door and wagon) Year opened: 1952

Plant size (sq ft): 3,710,000

# **Wixom Assembly**

Wixom, Michigan (United States) Total employment: 1,259 Products: Lincoln Town Car Year opened: 1957 Plant size (sq ft): 4,700,000

top

OVERVIEW \ OUR IMPACTS \ VOICES \ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview





Send feedback

# **Global Operations**

#### ₹ Geographical Directory

→ Manufacturing Plants by Type

Ford produces passenger cars, trucks, engines, transmissions, castings and forgings, and metal stampings of all kinds at its 110 wholly owned, equity-owned and joint venture plants.



#### **Stamping Plants**

(Listed in alphabetical order)

#### **Buffalo Stamping Plant**

Buffalo, New York (United States)

Total employment: 1,422

Products: Center floor pan, front floor pan, rear floor pan, body sides, front doors, quarter panels, rear

doors, roofs, hoods Year opened: 1950 Plant size (sq ft): 2,446,347 Site size: 118 acres

# **Chicago Stamping Plant**

Chicago, Illinois (United States) Total employment: 1,337 Products: Body panels Year opened: 1956 Plant size (sq ft): 2,040,220 Site size: 136 acres

# **Dagenham Stamping Operations**

Dagenham, Essex (United Kingdom)

Total employment: 1,058

Products: Panels, sub-assemblies, wheels

Year opened: 1959 Plant size (sq ft): 1,337, 330 Site size: 473 acres

# **Dearborn Stamping**

Dearborn, Michigan (United States)

Total employment: 786

Products: Ford Mustang, F-150/Super Duty, Escape, Focus, Navigator, Expedition

Year opened: 1939

Plant size (sq ft): 2,700,000 Site size: 35 acres

# **Geelong Stamping**

Geelong, Victoria (Australia)

Total employment: 1,152

Products: Body stampings for Falcon, Futura, Fairmont, Ghia, Fairlane, LTD, Utility and Territory

Year opened: 1926 Plant size (sq ft): 1,453,010 Site size: 101 acres

Note: Includes Geelong Aluminum

#### **Maumee Stamping**

Maumee, Ohio (United States)

Total employment: 712

Products: Body panels (steel, plastic and aluminum)

Year opened: 1974 Plant size (sq ft): 803,000 Site size: 70 acres

# Volvo Car Body Components - Volvo

Olofström (Sweden) Total employment: 2,684

Products: VCC products S40N, S60, S80, V50, V70, C70, C70N, XC70, XC90, Jaguar new cab/coupe,

cabs for VTC Year opened: 1969 Plant size (sq ft): 3,444,419 Site size: 79 acres

# Walton Hills Stamping

Walton Hills, Ohio (United States) Total employment: 854

Products: Body side panels, deck lids, doors, fenders, floor pans Year opened: 1954

Year opened: 1954 Plant size (sq ft): 2,100,000 Site size: 111 acres

# **Woodhaven Stamping Plant**

Woodhaven, Michigan (United States)

Total employment: 1,613

Products: Door panels, floor pans, hoods, quarter panels, roofs, tailgates, truck body sides

Year opened: 1964 Plant size (sq ft): 2,190,000 Site size: 409 acres



OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview







# **Global Operations**

#### **Geographical Directory**

→ Manufacturing Plants by Type

Ford produces passenger cars, trucks, engines, transmissions, castings and forgings, and metal stampings of all kinds at its 110 wholly owned, equity-owned and joint venture plants.



#### **Engine Plants**

(Listed in alphabetical order)

#### **Bridgend Engine Plant**

Bridgend, Mid-Glamorgan (United Kingdom)

Total employment: 1,685

Products: 1.25, 1.4 and 1.6-liter Zetec-SE petrol engines, 3.2-liter I-6, 3.5, 4.2 and 4.4-liter V8 Jaguar XK

engines

Year opened: 1980 Plant size (sq ft): 1,525,320 Site size: 60 acres

# Changan Ford Mazda Automobile Co., Ltd. (Joint venture)

Chongqing

Products: I-4 and Mazda BZ

### Chihuahua Engine

Chihuahua (Mexico) Total employment: 705 Products: 2.0-liter Duratec engine Year opened: 1983 Plant size (sq ft): 727,000 Site size: 247 acres

#### **Cleveland Engine Plant 1**

Brook Park, Ohio (United States) Total employment: 919 Products: 3.0L Duratec V6 Year opened: 1951 Plant size (sq ft): 1,980,000 Site size: 365 acres

# **Cleveland Engine Plant 2**

Brook Park, Ohio (United States) Total employment: 1,164

Products: 2.0, 2.5, 3.0 and 3.5-liter Duratec V6, RFF and DAMB V6

Year opened: 1955 Plant size (sq ft): 1,445,000 Site size: 365 acres

### **Cologne Engine**

Cologne (Germany) Total employment: 1,438

Products: 4.0-liter V6 SOHC, 4.3-liter V8, 6.0-liter V12

Year opened: 1962 Plant size (sq ft): 1,449,651 Site size: 44 acres

#### **Dagenham Engine Plant**

Dagenham, Essex (United Kingdom)

Total employment: 1,842

Products: 1.8L, 2.0 and 2.4-liter TDCi engines, 2.7-liter V6 diesel engine, 3.6-liter V8 diesel engine

Year opened: 1931 Plant size (sq ft): 2,500,000 Site size: 473 acres

#### **Dearborn Engine and Fuel Tank**

Dearborn, Michigan (United States)

Total employment: 983

Products: 2.0 and 2.3-liter I-4 engines and steel fuel tanks Year opened: 1941

Plant size (sq ft): 2,327,000 Site size: 49 acres

#### **Essex Engine**

Windsor, Ontario (Canada) Total employment: 650

Products: 3.9 and 4.2-liter V6 engines, 5.4-liter 3-Valve V8 engines, V8 cylinder blocks and crankshafts for Triton 5.4-liter engines, connecting rods, crankshafts, cylinder blocks, V6 components, V8 components

Year opened: 1981 Plant size (sq ft): 1,900,000 Site size: 260 acres

# Ford Lio Ho Engine (Joint venture 70% Ford/30% Lio Ho Group)

Taoyuan (Taiwan) Total employment: 1,732

Products: Ford Escape, Ford Focus, Mazda3

Year opened: 1972 Plant size (sq ft): 3,759,715 Site size: 86 acres

### Ford Motor Company of Southern Africa Engine Plant

Port Elizabeth (South Africa) Total employment: 815

Products: J97 4.0-liter V6 (engine dress), RoCam 1.3 and 1.6-liter

Year opened: 1963 Plant size (sq ft): 430,000 Site size: 31 acres

#### Ford Otosan Engine

Eskisehir (Turkey)

Total employment: 1,510

Products: 2.4-liter 4-cyl. Duratec, 7.3-liter I-6 diesel, transmissions

Year opened: 1982 Plant size (sq ft): 679,826 Site size: 271 acres

#### **Geelong Engine**

Geelong, Victoria (Australia) Total employment: 644

Products: Ford Falcon and Territory 4.0-liter I-6 engine, chassis components

Year opened: 1926 Plant size (sq ft): 247,644

#### Hiroshima Plant - Engine Plant

Headquarter District (Japan)

Products: Reciprocating engines (1.3L-1.6L)

Year opened: 1931

Plant size (sq ft): 551,000 (Headquarter District total)

# Hiroshima Plant - Engine Plant

Ujina District (Japan)

Products: Reciprocating engines (1.8L-2.3L), diesel engines, rotary engines

Year opened: 1964

### **Lima Engine Plant**

Lima, Ohio (United States) Total employment: 1,020

Products: 3.5-liter Duratec V6, 3.0-liter Vulcan V6

Year opened: 1957 Plant size (sq ft): 2,424,360 Site size: 312 acres

### Miyoshi Plant

Miyoshi (Japan)

Products: Reciprocating engines (1.8L-2.2L), diesel engines

Year opened: 1974

Plant size (sq ft): 1,667,000 (including Miyoshi Proving Ground)

### Rawsonville Visteon Plant

Ypsilanti, Michigan (United States)

Total employment: 2,059

Products: Air/fuel, alternator, fuel pump, injectors, throttle bodies, wiper motors

Year opened: 1956 Plant size (sq ft): 1,000,000

# Romeo Engine Plant

Romeo, Michigan (United States)

Total employment: 1,335

Products: 4.6-liter 2-valve and 4-valve V8 engines, 5.4-liter 4-valve supercharged engine

Year opened: 1973 Plant size (sq ft): 2,043,778 Site size: 268 acres

# Sterling I and II

Sterling Heights, Michigan (United States) Total employment: 2,840 Products: Axels Year opened: 1956 Plant size (sq ft): 2,800,000

# **Taubate Engine**

Taubate, São Paulo (Brazil)

Products: Zetec RoCam Engines, 1.0-liter 4-cyl. SOHC: Ford Fiesta and Ka, 1.6-liter 4-cyl. SOHC: Ford

Fiesta and Ka Year opened: 1974 Plant size (sq ft): 92,880

#### Valencia Engine Plant

Valencia (Spain) Total employment: 458 Products: 1.8-liter and 2.0-liter Duratec-HE Year opened: 1976 Site size: 270 acres

# Volvo Car Corporation, Engine

Skövde (Sweden)

Total employment: 1,423

Products: 5-cylinder inline diesel engines, 5-cylinder petrol engine, 6-cylinder petrol engine

Year opened: 1990 Plant size (sq ft): 1,184,030 Site size: 75 acres

# Windsor Engine

Windsor, Ontario (Canada) Total employment: 1,850

Products: 5.4-liter V8 2-valve and 3-valve engines, 6.8-liter V10 2-valve and 3-valve engines

Year opened: 1923 Plant size (sq ft): 2,100,000 Site size: 38,746

top

OVERVIEW © OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview





Send feedback

# **Global Operations**

- ₹ Geographical Directory
- → Manufacturing Plants by Type

Ford produces passenger cars, trucks, engines, transmissions, castings and forgings, and metal stampings of all kinds at its 110 wholly owned, equity-owned and joint venture plants.



#### **Transmission Plants**

(Listed in alphabetical order)

#### Batavia Transmission LLC (Joint venture – 49% Ford/51% Friedrichshafen AG)

Batavia, Ohio (United States)

Total employment: 1,305

Products: CD4E, CFT23 and CFT30 transaxles

Year opened: 1981 Plant size (sq ft): 1,800,000 Site size: 254 acres

# **Bordeaux Automatic Transmission Plant**

Blanquefort (France) Total employment: 2,523 Products: 5R44, 5R55 Year opened: 1973 Plant size (sq ft): 1,388,471

Site size: 44 acres

#### Bordeaux Transaxle Plant (Joint venture – 50% Ford/50% GETRAG)

Blanquefort (France) Total employment: 947

Products: IB5 – IB5ASM transmissions

Year opened: 1976 Plant size (sq ft): 500,000 Site size: 50 acres

#### Cologne Transmissions (joint venture – 50% Ford/50% Getrag)

Cologne (Germany) Total employment: 1,500

Products: M56/M58 and M66 (Volvo MT), MMT6 transmissions, MTX75 and VXT75

Year opened: 1930 Plant size (sq ft): 1,091,352

# GETRAG All Wheel Drive (Joint venture – 40% Volvo/60% GETRAG Dana Holdings)

Sweden

Products: All wheel drive components

#### **GETRAG Ford Transmissions GmbH** (*Joint venture* – 50% Ford/50% GETRAG)

Cologne (Germany)
Total employment: 1,440

Products: M56, M58 and M66 (Volvo MT), MMT6, MTX75 and VXT75 transmissions

Year opened: 1930 Plant size (sq ft): 1,091,352

#### Halewood Transmission Plant (Joint venture - 50% Ford/50% GETRAG)

Halewood, Liverpool (United Kingdom)

Total employment: 740

Products: IB5 transaxle, MT75 and MT82 transmissions

Year opened: 1964 Plant size (sq ft): 1,247,548 Site size: 55 acres

# **Hiroshima Plant - Transmission Plant**

Headquarter District (Japan) Products: Manual transmission Year opened: 1931

#### **Hofu Plant - Transmission Plant**

Nakanoseki District (Japan) Products: Automatic transmissions, manual transmissions Year opened: 1981 Plant size (sq ft): 537,000 (Nakanoseki District total)

#### Inönü Transmission

Inönü (Turkey)

Products: MT75 transmissions

#### **Livonia Transmission Plant**

Livonia, Michigan (United States) Total employment: 2,138

Products: 4R75E and 6R transmissions, AX4N components, service components

Year opened: 1952 Plant size (sq ft): 2,835,581 Site size: 182 acres

#### **Sharonville Transmission**

Cincinnati, Ohio (United States) Total employment: 1,609

Products: Gears, converters, 5R110 transmission

Year opened: 1958 Plant size (sq ft): 2,421,000 Site size: 182 acres

#### **Taubate Transmission**

Taubate, São Paulo (Brazil)

Products: IB5 transmissions: Ford Fiesta, Ka, Focus and IKON

Year opened: 1974 Plant size (sq ft): 388,587

# Van Dyke Transmission Plant

Sterling Heights, Michigan (United States)

Total employment: 1,193

Products: 4F27E (FN) and 6F50 (6F) automatic transmissions, stampings

Year opened: 1968 Plant size (sq ft): 1,823,718 Site size: 146 acres

OVERVIEW © OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- o Premier Automotive Group
- Financial Services
- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview





Send feedback

# **Global Operations**

#### **Geographical Directory**

#### → Manufacturing Plants by Type

Ford produces passenger cars, trucks, engines, transmissions, castings and forgings, and metal stampings of all kinds at its 110 wholly owned, equity-owned and joint venture plants.



#### **Casting/Forging Aluminum Plants**

(Listed in alphabetical order)

#### **Cleveland Casting**

Brook Park, Ohio (United States)

Total employment: 1,740

Products: Cylinder blocks and heads, crankshafts and bearing heads

Year opened: 1952 Plant size (sq ft): 1,600,000 Site size: 155 acres

# Cologne Tool & Die

Cologne (Germany)
Total employment: 1,144

Products: Stamping dies, fixtures, jigs, soft tooling and die repairs for all Ford vehicles

Year opened: 1963 Plant size (sq ft): 364,025 Site size: 13 acres

#### Dearborn Diversified Manufacturing Plant/Dearborn Tool and Die

Dearborn, Michigan (United States)

Total employment: 600

Products: Suspension parts, truck axels, stampings, tire and wheels, frames

Year opened: 1946 Plant size (sq ft): 850,000 Site size: 27 acres

# Essex Aluminum (Joint venture – 15% Ford/85% Nemak)

Windsor, Ontario (Canada) Total employment: 940 Products: Cylinder heads Year opened: 1981 Plant size (sq ft): 500,000 Site size: 53 acres

# **Geelong Aluminum Casting**

Geelong, Victoria (Australia) Total employment: 110

Products: Rocker covers, intake manifolds, cross members, transmission and structural oil pans

Year opened: 1986 Plant size (sq ft): 2,000,000 Site size: 1 acre

Note: Includes Geelong Stamping

# **Geelong Iron Casting**

Geelong, Victoria (Australia) Total employment: 184

Products: Castings for Ford Falcon and Territory products

Year opened: 1972 Plant size (sq ft): 190,000 Site size: 20 acres

#### **Leamington Foundry**

Leamington, Warwickshire (United Kingdom)

Total employment: 398

Products: Castings including brake drums and discs

Year opened: 1940 Plant size (sq ft): 270,000 Site size: 16 acres

#### **Metcon Casting**

Santa Fe Province (Argentina) Products: Iron castings Year opened: 1957 Plant size (sq ft): 21,034

#### Tekfor Cologne GmbH (joint venture – 50% Ford/50% Neumayer)Cologne (Germany)

Total employment: 352 Products: Steel forgings Year opened: 2003 Plant size (sq ft): 250,000 Site size: 10 acres

#### Volvo Car Corporation - Floby

Floby (Sweden)

Products: Connecting rods to all engines produced at Volvo Cars Skövde plant, brake discs to all Volvo cars built at Volvo Cars Torslanda and Gent plants, hub modules to Volvo trucks

Year opened: 1957

Plant size (sq ft): 236,806

# Windsor Aluminum (Joint venture – 15% Ford/85% Nemak)

Windsor, Ontario (Canada) Total employment: 570 Products: 2.5-liter and 3.0-liter V6 cylinder blocks and 3.9-liter V8 cylinder blocks Year opened: 1992 Plant size (sq ft): 314,000 Site size: 64 acres

# **Windsor Casting**

Windsor, Ontario (Canada) Total employment: 600 Products: Cylinder blocks and crankshafts Year opened: 1934 Plant size (sq ft): 500,000 Site size: 22 acres

# **Woodhaven Forging**

Woodhaven, Michigan (United States) Products: 5.4-liter V8 and 6.8-liter V10 steel crankshafts Year opened: 1995 Plant size (sq ft): 60,000

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Mutomotive Core and

#### **Affiliate Brands**

- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

# **Automotive Core and Affiliate Brands**

 $\mathbf{Ford}$ 

Mercury

₹ <u>Mazda</u>



Dealers	9,480	
Markets	116	
Retail vehicle sales	5,539,455	
Sales mix		
North Am	nerica	51%
Eu	urope	27%
Asia P	acific	8%
South Am	nerica	7%
Rest of	world	7%
Customer assistance	+1 (800) 392-3673	
	www.fordvehicles.com	







OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 FINANCIAL HEALTH QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY

# . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and

#### **Affiliate Brands**

- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview

Print this report

Download resources

Send feedback

# **Automotive Core and Affiliate Brands**

▼ Ford

**₹** Lincoln

Mercury

₹ <u>Mazda</u>



Dealers	1,515	
Markets	33	
Retail vehicle sales	130,685	
Sales mix		
North Ar	nerica	99%
North Ar Rest of		99% 1%







OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- . Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and

#### **Affiliate Brands**

- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview

Print this report

Download resources

Send feedback

# **Automotive Core and Affiliate Brands**

**▼** Ford

**Z** Lincoln

**₹** Mercury

₹ <u>Mazda</u>



# MERCURY

Dealers	1,971	
Markets	25	
Retail vehicle sales	188,579	
Sales mix		
North An	nerica	97%
Rest of world		3%
Customer assistance	+1 (800) 392-3673 www.mercuryvehicles.com	





OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 FINANCIAL HEALTH QUALITY OF RELATIONSHIPS COMMUNITY ENVIRONMENT

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and

#### **Affiliate Brands**

- o Premier Automotive Group
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview



Download resources

Send feedback

# **Automotive Core and Affiliate Brands**

- ▼ Ford
- ▼ Lincoln
- ₹ Mercury
- ₹ Mazda



Dealers	6,011	
Markets	136	
Retail vehicle sales	1,297,966*	
Sales mix		
North America		28%
Europe		21%
Asia Pacific		40%
South America		2%
Rest of world		9%
Customer assistance	+1 (800) 222-5500	
	www.mazdausa.com	
	customerassistance@mazdausa.com	







OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- . Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- Financial Services
- o Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview

Print this report

Download resources

Send feedback

# Premier Automotive Group

Jaguar

▼ Volvo

Land Rover



Dealers

Markets	64	
Retail vehicle sales	74,953	
Sales mix		
North Am	nerica	29%
Eu	urope	55%
Asia P	acific	10%
Rest of	world	6%
Customer assistance	+1 (800) 452-4827	
	www.jaguar.com	

871







OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- . Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- Financial Services
- Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview

Print this report

Download resources

Send feedback

# Premier Automotive Group

Jaguar

**₹** Volvo

Land Rover

# VOLVO

Dealers	2352	
Markets	102	
Retail vehicle sales	428,780	
Sales mix		
North Am	erica erica	30%
Eu	rope	56%
Asia Pa	acific	8%
Rest of v	vorld	6%
Customer assistance	+1 (800) 458-1552	
	www.volvocars.com	
	customercare@volvoforlife.com	







OVERVIEW \ OUR IMPACTS \ VOICES \ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- o Global Product Guide
- Global Operations
- Automotive Core and Affiliate
   Brands
- Financial Services
- o Customer Services
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- . Data Overview

Print this report

Download resources

Send feedback

# Premier Automotive Group

Jaguar

▼ Volvo



Dealers

Markets	138	
Retail vehicle sales	193,640	
Sales mix		
North Am	erica erica	26%
Eu	ırope	51%
Asia P	acific	8%
South Am	erica	3%
Rest of	world	12%
Customer assistance	+1 (800) 637-6837 www.landrover.com	

1,376







OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate Brands
- o Premier Automotive Group

#### nancial Services

- Customer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview

Print this report

Download resources

Send feedback

# **Financial Services**



Compa	пу	

Operations Operations in 36 countries

Provides automotive financing for Ford, Lincoln, Mercury, Jaguar, Land Rover, Mazda and Volvo dealers and

One of the world's largest automotive financial companies with managed

receivables of \$148 billion at year-end 2006

Has been profitable every year since its 1959 founding

+1 (800) 727-7000 **Customer assistance** 

www.fordcredit.com

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT

# . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate Brands
- o Premier Automotive Group
- Financial Services
- o Qustomer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview

Print this report

Download resources

Send feedback

# **Customer Services**

- → Genuine Parts & Service
- \* Motorcraft
- ★ Genuine Accessories
- \* Extended Service Plan



Operations A total service experience for Ford, Lincoln and Mercury owners available only at Ford, Lincoln and Mercury

dealerships – designed to deliver customer satisfaction and repeat purchase intent

Parts engineered to Ford Motor Company specifications

Technicians trained and certified specifically on Ford, Lincoln and Mercury vehicles

**Customer assistance** +1 (800) 392-3673

Lincoln

+1 (800) 521-4140

www.genuineservice.com

www.ford.com

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 FINANCIAL HEALTH COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT

# . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate Brands
- o Premier Automotive Group
- Financial Services
- o Qustomer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- · Data Overview

Print this report

Download resources

Send feedback

# **Customer Services**

- ★ Genuine Parts & Service
- → Motorcraft
- ★ Genuine Accessories
- \* Extended Service Plan



#### Operations **Motorcraft Parts** New and remanufactured parts designed, engineered and recommended by Ford Motor Company and available in Ford, Lincoln and Mercury franchised dealerships, Ford authorized distributors and thousands of major retail and repair locations Customer assistance www.motorcraft.com

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT

### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate Brands
- o Premier Automotive Group
- Financial Services
- o Qustomer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview

Print this report

Download resources

Send feedback

# **Customer Services**

- ★ Genuine Parts & Service
- \* Motorcraft
- → Genuine Accessories
- \* Extended Service Plan



Operations	Genuine Ford Accessories
	Wide variety of customer accessories designed to personalize Ford, Lincoln and Mercury vehicles
Customer assistance	www.fordaccessoriesstore.com
	www.lincolnaccessories.com
	www.mercuryaccessories.com

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- Corporate Profile
- Global Product Guide
- Global Operations
- Automotive Core and Affiliate Brands
- o Premier Automotive Group
- Financial Services
- o Qustomer Services
- · Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team
- Data Overview

Print this report

Download resources

Send feedback

### **Customer Services**

- ★ Genuine Parts & Service
- \* Motorcraft
- ★ Genuine Accessories
- \* Extended Service Plan



Operations	Extended Service Business
	Providing comprehensive vehicle service contract and maintenance programs
	Ford Extended Service Plan (ESP)
	Major customers include Ford, Lincoln and Mercury vehicle dealers, commercial customers and fleets of Ford Motor Company vehicles
Customer assistance	ESP +1 (800) 521-4144
	www.genuineservice.com

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 ENVIRONMENT COMMUNITY FINANCIAL RELATIONSHIPS HEALTH

#### . OVERVIEW

- · Overview of this Report
- · Letter from Alan Mulally and Bill Ford
- · Corporate Profile

#### Letter from Sue Cischke

- Assurance
- · Ceres Stakeholder Team
- Data Overview



Download resources

Send feedback

### Letter from Sue Cischke

Earlier this year, I was named as Ford's first Senior Vice President of Sustainability, Environment and Safety Engineering. The creation of my position signals an even higher priority for these issues within Ford.

♠ As part of the senior leadership team, I will be keeping sustainability at the top of the Company's agenda. My position may be a first in our industry, but it mirrors the elevation of sustainability issues - with climate change on the leading edge - in public awareness and policy making. We view sustainability as both an opportunity and a requirement.

We define sustainability as a business model that creates value consistent with the long-term preservation and enhancement of environmental, social and financial capital. This definition is farreaching, including our actions in the communities in which we work and our influence throughout our value chain.

#### **Current challenges**

In developing a sustainable business model for Ford, we have a number of challenges:

- To continue to integrate all elements of sustainability throughout all parts of the Company, working as a team, and developing a roadmap that lists our priorities and guides us through the key decisions we will need to make for the future. I will work closely with all functions at Ford, particularly our Product Development and Procurement teams, to ensure we take a systems approach to meeting our sustainability challenges.
- To understand the technology that will deliver our sustainability goals. For years, automakers improved on many aspects of automotive design – safety features, electronics, cargo and towing capabilities, for example. We also made steady progress on the fuel efficiency of powertrains, but most of those gains were offset by customer demands for more features in their cars and trucks. Now we're fundamentally rethinking our powertrains, with an expanding portfolio of options that includes hybrids, clean diesel, direct-injection turbocharged gasoline engines, biofuel and hydrogenfueled vehicles, and various combinations of those technologies. We need to choose the right investments in the right technologies to meet the needs of our customers around the world, while addressing sustainability concerns and contributing to climate stabilization.
- To leverage our alliances with universities, NGOs and governments to help deliver our strategy. The scale of our challenge requires a change in our mindsets and the way we all do business. Not just Ford and not just the automotive industry. Even if every driver were to purchase a hybrid or even a hydrogen fuel cell vehicle, we would not stabilize greenhouse gas emissions. We are pleased to see growing recognition that responding to a range of daunting sustainability challenges will require all sectors of the economy and society to join forces and work toward common goals.

### **Going forward**

Regular readers of this report may feel they've heard similar statements from Ford before – and that Ford hasn't always delivered on the goals it sets for itself. So what's different this time?

First, I would say that the real progress we've made already in integrating sustainability into our business systems is not always externally visible. This includes the establishment of our Sustainable Mobility Governance team, a senior-level team working to define our climate change strategy and delivering our sustainability strategy in the marketplace.

Second, we have delivered on some important commitments, including bringing the first hybrid SUV to market – one that remains the fuel economy leader even as others have been introduced.

Third, you may find us being more cautious in our public statements, but those statements will be anchored by our business plans. Our plans include introducing additional hybrids and other environmentally advanced vehicles that offer a flexible array of options so we can respond to changes in our markets.

You can be sure that at Ford, we will continue to push the frontiers of vehicle technology to effectively respond to sustainability challenges. It is the right thing to do and it is essential to the future of our



#### HAVE YOUR SAY

Please share your thoughts on our report - all responses provide valuable feedback on our efforts to date and help prioritize improvements for the future

Send your feedback to <a href="mailto:sustaina@ford.com">sustaina@ford.com</a>

#### RELATED LINKS

- In This Report
- Key topic: Climate Change
- Sustainable Mobility Technologies

Company. 🤧

Sue Cirche

Senior Vice President, Sustainability, Environment and Safety Engineering

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- · Letter from Sue Cischke

#### M Assurance

- · Ceres Stakeholder Team
- . Data Overview

Print this report

Download resources

Send feedback

### **Assurance**

Assurance of sustainability reports is an evolving concept that encompasses several distinct approaches. Since our first corporate citizenship report, covering the year 1999, we have included external stakeholder perspectives as a way to introduce independent voices and viewpoints to the report.

For our 2004/5 report, we formalized this approach by working with Ceres and SustainAbility, an independent think tank and strategy consultancy, to create a Report Review Committee to assist in the development of the report and to increase its usability and relevance. Findings of the 13-member committee were published in the report.

For our 2005/6 report and the current report, <u>Ceres</u> convened stakeholder committees. The committee reviewing this report met twice; once to review and comment on the materiality analysis, and once to review and comment on a nearly final draft of the report.

We have found these external reviews to be valuable and have tried to respond to the committees' recommendations. We believe we have made progress in several areas highlighted by the 2004/5 Report Review Committee. We have strengthened our reporting on sustainable mobility and human rights, and we continue to work to enhance our reporting against goals and coverage of public policy issues.

We view this kind of stakeholder assurance as distinct from third-party verification of data or other information in the report, which we have not sought. However, much of the data in this report have been reported to government agencies and verified internally or externally.

#### RELATED LINKS

- In This Report
- Materiality Analysis
- Ceres Stakeholder Team
- **External Web Sites**
- o <u>Ceres</u>

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- Letter from Sue Cischke
- Assurance

#### Ceres Stakeholder Team

. Data Overview

Print this report

Download resources

Send feedback

### Ceres Stakeholder Team

Ford Motor Company engaged with Ceres and a team of external stakeholders to review this 2006/7 Sustainability Report. Ford Motor Company agreed to work with a stakeholder team that was selected for it by Ceres.

The Ceres stakeholder team is an independent group of individuals drawn primarily from the Ceres coalition and represents a range of constituencies that have expertise in environmental, social and governance issues.

In reviewing this report, the team considered whether the Company adequately reported on its sustainability performance and key impacts, including goals, targets, systems, data and initiatives. Through this review process, the Ceres stakeholder team provided extensive feedback to the Company, which was considered in the preparation of the final version of this report.

Ceres is a network of investors, environmentalists and other public interest groups that works with companies and investors to address sustainability challenges (see <a href="https://www.ceres.org">www.ceres.org</a> for more information).

#### RELATED LINKS

- In This Report
- Assurance



OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### ▶ Data Overview

Print this report

→ Download resources

Send feedback

#### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below.

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available <a href="here">here</a>. More information on the Global Reporting Initiative and the application levels is available at <a href="here">www.globalreporting.org</a>.

RODUCTS AND USTOMERS	ENVIRONMENT	COMMUNITY	SAFETY	QUALIT RELATI	ONSHIPS	FINANCIAL		
Ne will offer ex	cellent products ar	nd services.						
ndicators we rep	oort on			2002	2003	2004	2005	2006
nitial quality study – J	I.D. Power and Associates	(3 months in service), pr	oblems per hundred ve	hicles 143	136	127	129	131
GQRS things gone wr	ong (TGW) (3 months in s	ervice), total things gone	wrong per 1,000 vehicl	es1 1,997	1,936	1,956	1,846	1,586
GQRS customer satis	faction (3 months in service	e), percent satisfied1		72	73	74	73	74
Vehicle dependability S., problems/hundred	<ul> <li>J.D. Power and Associa</li> </ul>	tes (4-5 years of owners)	nip), Ford Motor Compa	ny, U.354	287	275	231	225
Sales satisfaction with	dealer/retailer, Ford bran	d, U.S., percent complete	ely satisfied	75	77	78	80	81
Sales satisfaction with	dealer/retailer, Ford bran	d, Europe, percent comp	letely satisfied	65	69	72	74	76
Service satisfaction w	ith dealer/retailer, Ford bra	and, U.S., percent comple	etely satisfied	61	65	67	66	70
Service satisfaction w	ith dealer/retailer, Ford bra	and, Europe, percent con	pletely satisfied	51	54	57	58	59

<sup>1</sup> GQRS (Global Quality Research System) is a Ford-sponsored competitive research survey. GQRS is an early indicator of J.D. Power quality results. Year to date 2007 GQRS customer satisfaction and TGW are 75 and 1,458 respectively. See Products and Customers section for a discussion of our efforts to improve quality.

<sup>2</sup> Data for 2002 are from the survey's predecessor the 'Vehicle Dependability Index' which measured 4 to 5 years of ownership.

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### 

Print this report

Download resources

Send feedback

#### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available <a href="https://example.com/html//heart-self-declared-application">here.</a> More information on the Global Reporting Initiative and the application levels is available at <a href="https://www.globalreporting.org">www.globalreporting.org</a>.

We will respect the natural environment and help preserve it for future gene	ialions.				
3% improvement in global facility energy efficiency 3% improvement in North American facility energy efficiency					
indicators we report on	2002	2003	2004	2005	2006
Ford U.S. fleet fuel economy (higher mpg reflects improvement), combined car and truck, miles per gallon1	23.2	23.6	22.8	24.1	23.8
Ford U.S. fleet CO2 emissions (lower grams per mile reflects improvement), combined car and truck, grams per mile2	381	375	387	368	371
European CO <sub>2</sub> performance (lower percentage reflects improvement), percent of 1995 base (1995 base = 100 percent)3					
Ford	83	82	80	78	78
Jaguar	79	77	63	62	66
Land Rover	86	87	86	88	89
Volvo	88	91	89	87	86
Worldwide facility energy consumption, trillion BTUs4	83.7	83.2	80.3	76.3	71.8
Worldwide facility energy consumption per vehicle, million BTUs5	12.8	13.4	12.7	12.1	11.8
Worldwide facility CO <sub>2</sub> emissions, million metric tonnes4	8.7	8.5	8.4	8.0	6.8
Worldwide facility CO <sub>2</sub> emissions per vehicle, metric tonness	1.32	1.37	1.33	1.26	1.13
North American Energy Efficiency Index (lower percentage reflects improvement), percent (2000 base = 100 percent)6	89.7	91.7	87.8	83.4	78.4

- See the Environment section for a discussion of our Corporate Average Fuel Economy (CAFE) performance. For 2006 model year, the CAFE of our cars and trucks declined 1.0 percent, as expected. Preliminary data for 2007 model year shows a 5.4 percent improvement in CAFE compared to 2006, with a 1.7 percent improvement for cars and a 5.2 percent improvement for trucks. Improvement is reflected by increasing miles per gallon. Due to a weight increase for the 2007 model year the Ecoline Vans were not part of the CAFE calculation.
- 2 See the Environment section for a discussion of our CO2 emissions performance. Improvement is reflected by decreasing grams per mile.
- 3 Official EU data. Jaguar performance did not improve compared to 2005 due to model mix. Land Rover performance did not improve compared to 2005 and 2004 due to model mix.
- 4 Data have been adjusted to account for facilities that were closed, sold or new. This data does not include ACH.
- 5 Energy consumption and CO2 emissions per vehicle divides energy used or CO2 emitted by the number of vehicles produced. Averaging energy and CO2 emissions by the number of vehicles produced yields a somewhat imperfect indicator of production efficiency. When the number of vehicles produced declines, as it has since 2000, per-vehicle energy use tends to rise because a portion of the resources used by a facility is required for base facility operations, regardless of the number of vehicles produced. We believe that stable-to-declining per-vehicle energy use and CO2 emissions indicate that more efficient production since 2000 is offsetting the tendency of these indicators to rise during periods of declining production. This interpretation is reinforced by our Energy Efficiency Index, which focuses on production energy efficiency, and which has been steadily improving. Our Energy Efficiency Index target also has the effect of driving reductions in CO2 emissions. These data do not include ACH.
- 6 The Index is "normalized" based on an engineering calculation that adjusts for typical variances in weather and vehicle production. The Index was set at 100 for the year 2000 to simplify tracking against our target of 1 percent improvement in energy efficiency.

OVERVIEW UDIT IMPACTS VOICES FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### **∠** Data Overview

Print this report

Download resources

Send feedback

### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below.

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available here. More information on the Global Reporting Initiative and the application levels is available at <a href="https://www.globalreporting.org">www.globalreporting.org</a>.

RODUCTS AND USTOMERS	ENVIRONMENT	COMMUNITY	SAFETY	QUALIT RELAT	IONSHIPS	FINANCIAL	III ALIII	
We will respec	t and contribute to	the communities a	round the world	in which we	work			
тоороо								
Indicators we re	port on			2002	2003	2004	2005	2006
Ford Motor Company	y Fund contributions, \$ mill	ion1		84	78	78	80	58
	ns ¢ million1			47	43	33	29	29
Corporate contribution	7113, \$ 11111110111							

<sup>1</sup> See the Community section for a description of our charitable contributions.

<sup>2</sup> The Volunteer corps was founded in 2005, and 2006 is the first year data are available. However, volunteerism and community service have long been a part of Ford's culture, and these efforts were formalized in 1997 with the creation of the 16-hour Community Service Program.

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### **∠** Data Overview

Print this report

Download resources

Send feedback

### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below.

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available here. More information on the Global Reporting Initiative and the application levels is available at <a href="https://www.globalreporting.org">www.globalreporting.org</a>.

PRODUCTS AND CUSTOMERS	ENVIRONMENT	COMMUNITY	SAFETY	QUALIT RELAT	TY OF IONSHIPS	FINANCIAL	HEALTH	
We will protect	the safety and healt	th of those who i	nake, distribute d	or use our pro	oducts.			
Indicators we re	port on			2002	2003	2004	2005	2006
Vehicle								
U.S. safety recalls, n	umber per calendar year1			16	16	21	16	11
U.S. units recalled, n	umber of million units			2.3	3.4	5.0	6.0	1.7
IIHS Top Safety Pick	s, number of vehicles2						2	3
Workplace								
Lost-time case rate (	per 100 employees), Ford M	lotor Company		2.1	1.8	1.2	1.4	1.1
Severity rate (per 100	0 employees), days lost per	200,000 hours worked		31.9	31.5	23.5	23.2	14.5
Full report for t	this Principle							

- 1 Recalls are by calendar year rather than model year. A single recall may affect several vehicle lines and/or several model years. The same vehicle may have multiple recalls. (Source: U.S. National Highway Traffic Safety Administration.)
- To earn a Top Safety Pick from the Insurance Institute for Highway Safety (IIHS), a vehicle must receive a rating of "good" in offset frontal impact, side impact and rear impact evaluations, and offer electronic stability control. Top Safety Picks are the best vehicle choices for safety within size categories. 2005 (2006 model year) was the first year IIHS issued Top Safety Picks.

As we attempt to balance frequently changing government and nongovernment test requirements with real-world safety, we have continued to assess the appropriate metrics for measuring our performance. We have chosen to present public domain safety ratings for all of our models, rather than a percentage of models tested receiving a particular star rating.

OVERVIEW V OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
  Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### **∠** Data Overview

Print this report

Download resources

Send feedback

### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below.

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available here. More information on the Global Reporting Initiative and the application levels is available at <a href="https://www.globalreporting.org">www.globalreporting.org</a>.

We will strive to	earn the trust and	d respect of our in	vestors, customers,	dealers, e	employees,	unions, bus	siness partn	ers and soc
Indicators we rep	ort on			2002	2003	2004	2005	2006
Employee satisfaction,	Pulse survey, overall, pe	ercent satisfied1		59	58	61	62	62
Overall dealer attitude,	Ford, relative ranking or	n a scale of 1-100 percer	it (summer/winter score)2	58/61	64/67	67/69	70/72	70/64
Overall dealer attitude, score)2	Lincoln Mercury, relative	e ranking on a scale of 1-	100 percent (summer/winter	46/46	50/56	56/61	64/64	64/64

- In 2006, the Pulse survey was changed to incorporate new dimensions. While there was no change to the number or content of the existing 55 core questions asked on Pulse, they were realigned into eight revised dimensions. These changes were made because the revised dimensions are: better focused on current business priorities; can be benchmarked externally two revised dimensions (including the revised Employee Satisfaction Index) can be benchmarked externally, none of the prior 13 dimensions could be benchmarked outside the Company; provide a framework for more focused feedback and action planning.
- 2 Overall dealer attitude is measured by the National Automobile Dealer Association (NADA) Dealer Attitude Survey. Scores are for the summer and winter respectively of the year noted.

OVERVIEW 
OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OVERVIEW

- · Overview of this Report
- Letter from Alan Mulally and
   Bill Ford
- · Corporate Profile
- . Letter from Sue Cischke
- Assurance
- · Ceres Stakeholder Team

#### **∠** Data Overview

Print this report

Download resources

Send feedback

### **Data Overview**

#### **Measuring Performance Against Our Business Principles**

This table provides five-year performance data according to a set of key indicators. This table, the additional data and the performance sections of this report are all organized by Ford's Business Principles. The Business Principles guide our conduct and day-to-day decision-making in major areas of sustainability performance.

We have made some modifications to the table of indicators for this report. For our next report, we will conduct a full review of our sustainability indicators to ensure that they are aligned with our strategy and help to drive progress. We are also reviewing our indicators in light of the revised Global Reporting Initiative Guidelines.

This report covers the year 2006 and early 2007. The data are primarily for 2006 (for operations) and for the 2006 and 2007 model years (for vehicles). The data cover all of Ford Motor Company's wholly and majority-owned operations globally, unless otherwise noted. Changes in the basis for reporting or reclassifications of data previously reported are noted below.

This report is aligned with the Global Reporting Initiative G3 Sustainability Reporting Guidelines released in October 2006, at a self-declared application level of A+. A complete index of GRI indicators is available here. More information on the Global Reporting Initiative and the application levels is available at <a href="https://www.globalreporting.org">www.globalreporting.org</a>.

USTOMERS				RELAT	IONSHIPS			
We will make o	ur decisions with p	roper regard to th	e long-term finan	cial security	of the Con	npany.		
Indicators we re	port on			2002	2003	2004	2005	2006
Charachalden askum	Bloomberg Total Return A	nalysis, percent1		-39	79	-6	-45	1
Snarenoider return -	Net income/loss, \$ billion				0.2	3.0	1.4	-12.6
	Ilion			0.9			1.77	-12.0

<sup>1</sup> Total shareholder return is from Bloomberg Total Return Analysis assuming dividends reinvested in Ford stock.

OVERVIEW >

OUR IMPACTS ₩

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . OUR IMPACTS

#### About Our Impacts

- · Materiality Analysis
- Our Value Chain and its
   Impacts

Print this report

Download resources

Send feedback

# Our impacts

As a major multinational enterprise, we recognize that our activities have farreaching impacts on environmental, social and economic systems. We are working hard to foster the positive ones and address the negative. Environmentally, we are striving to improve efficiency, cut emissions and increase recyclability. Socially, we are seeking to develop our relationships with local communities. Economically, we are trying to meet our customers' needs as well as our stakeholders' expectations.

### Materiality Analysis >>

We have developed a screening tool to determine which sustainability issues in our value chain are the most material to Ford. We define these as issues that have significant current or potential impact on the Company, are of significant concern to stakeholders and over which Ford has a reasonable degree of control.

### Our Value Chain and its Impacts

We have analyzed the most significant sustainability issues we face and the impacts they have at the various stages of our value chain. Some issues do not pertain to a particular lifecycle stage; a number of others apply across the whole value chain.







OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . OUR IMPACTS

· About Our Impacts

#### Materiality Analysis

- Use of Analysis
- Materiality Matrix
- Our Value Chain and its
   Impacts







### Materiality Analysis

This report is intended to cover the sustainability issues we believe are most material to Ford. We define these issues as those that receive high scores on three criteria:

- · Having significant current or potential impact on the Company
- Of significant concern to stakeholders
- · Over which Ford has a reasonable degree of control

Our intention is to cover the most material issues in the print report. Our full report on the Web covers additional issues, including elements and indicators identified by the Global Reporting Initiative (GRI).

To identify and prioritize material issues, we followed a three-step process.

#### · Identification of material business issues

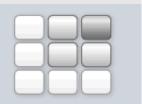
We developed a list of more than 500 issues, grouped into 15 topics, by reviewing Ford business documents as well as comments from employees, dealers and our major external stakeholders: customers, communities, suppliers, investors and NGOs. The documents included Ford policies and business strategy inputs, the Global Reporting Initiative G3 Guidelines, summaries of stakeholder engagement sessions, and reports from socially responsible and mainstream investors.

#### · Prioritization of the issues

We noted the frequency with which issues were raised in the source documents and rated each issue as low, moderate or high for (1) current or potential impact on the Company in a three- to five-year timeframe, (2) degree of concern to stakeholders (by stakeholder group) and (3) Ford's degree of control over the issue. The ratings were averaged for Ford and stakeholders (with extra weight assigned to investors and multi-stakeholder inputs as they are key audiences of our reporting) to arrive at ratings for each issue. The issues and their ratings were then plotted on a "materiality\_matrix". We consider the issues in the upper right sector to be the most material. None of the issues is unimportant; the position of each in the matrix simply represents our understanding of its relative importance to the Company and its stakeholders.

#### · Review of the analysis

The draft matrix was reviewed and revised based on input gathered at an internal workshop of Ford employees representing a variety of functions and geographic regions. It was then reviewed and revised again based on a meeting of a Ceres stakeholder committee that included representatives of environmental NGOs and socially responsible investment organizations. Go <a href="here">here</a> for further discussion of the stakeholder group's role.



### What is materiality in a sustainability reporting context?

As sustainability reports have proliferated in number, size and scope, companies have been called upon by sustainability experts and others to focus their sustainability reporting on their most significant, or material, sustainability issues. For the purposes of this report, we consider material information to be that which is of greatest interest to, and which has the potential to affect the perception of, those stakeholders who wish to make informed decisions and judgments about the Company's commitment to environmental, social and economic progress. Thus, materiality as used in this sustainability report does not share the meaning of the concept for the purposes of financial reporting.

#### RELATED LINKS

- . External Web Sites
- AccountAbility's "The Materiality Report"
- GRI reporting principles

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . OUR IMPACTS

- · About Our Impacts
- · Materiality Analysis
- Materiality Matrix
- Our Value Chain and its
   Impacts

Print this report

Download resources

Send feedback

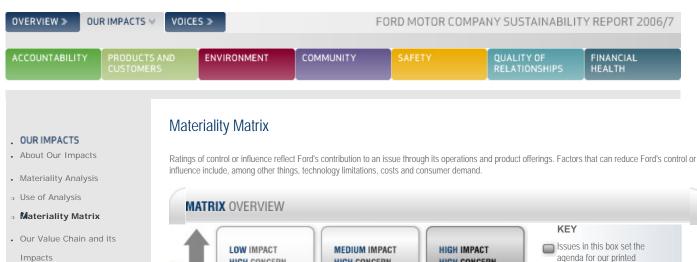
### Use of Analysis

We have used this analysis to identify issues to cover in our print and full Web reports, and we plan to use it as an input to our sustainability strategy development.

This analysis and the methods for conducting materiality analyses generally are works in progress. We improved the current analysis compared to the analysis for our 2004/5 report in several ways. First, we expanded the number of issues rated from 34 to 505, primarily by analyzing them at a more granular level. We added source documents – and in some cases, consultations – to better represent the views of our full range of stakeholders, including suppliers, dealers and communities, who were not well represented in our prior analysis. We also significantly strengthened the internal and external review of the draft matrix to subject it to more rigorous "reality testing."

But shortcomings remain. Sustainability issues are not discrete. Rather, they overlap and interconnect in a complex system that is difficult to capture in a list of issues. Analyzing issues by stakeholder group adds depth to our understanding of who is concerned about which issues and why, but in the process of placing them on a two-dimensional matrix, some of that nuance is lost. Finally, an element of subjectivity is inevitable.

We have participated with other companies and organizations in documenting current methods for materiality analysis with the expectation that this will help advance the practice.



Print this report

Download resources

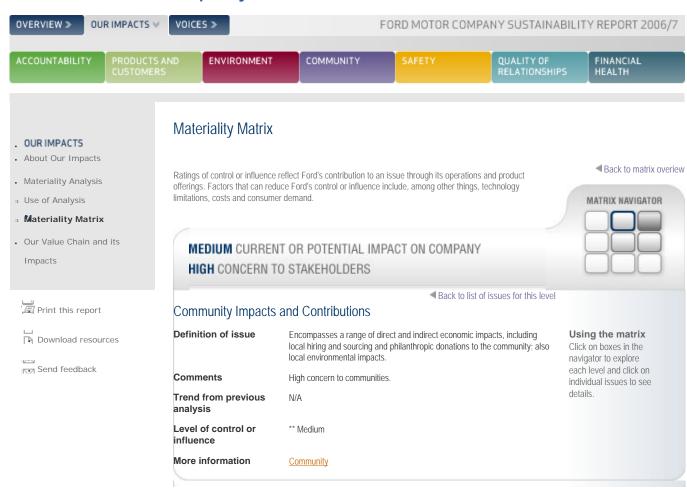
Send feedback

#### Issues in this box set the MEDIUM IMPACT LOW IMPACT HIGH IMPACT agenda for our printed HIGH CONCERN HIGH CONCERN HIGH CONCERN CONCERN TO STAKEHOLDERS report Issues in these boxes set the agenda for this web report and future reporting MEDIUM IMPACT HIGH IMPACT LOW IMPACT ssues in these boxes are MEDIUM CONCERN **MEDIUM CONCERN** MEDIUM CONCERN not currently covered by reporting Click a box to explore the issues... LOW IMPACT MEDIUM IMPACT HIGH IMPACT LOW CONCERN LOW CONCERN LOW CONCERN **CURRENT OR POTENTIAL IMPACT ON COMPANY**

OVERVIEW > OUR IMPACTS V VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT Materiality Matrix . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its LOW CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS Issues at this level Print this report No material issues have been identified at this level. Using the matrix Click on boxes in the Download resources navigator to explore each level and click on Send feedback individual issues to see details. Key Level of control or influence: • High \*\*\* Medium \*\* Low \*

OVERVIEW > OUR IMPACTS V VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT Materiality Matrix . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS Issues at this level Print this report Three material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Community navigator to explore Community engagement \*\*\* each level and click on Send feedback Community impacts and contributions \*\*\* individual issues to see details. Climate Change Physical risks \* Key Level of control or influence: • High \*\*\* Medium \*\* Low \*

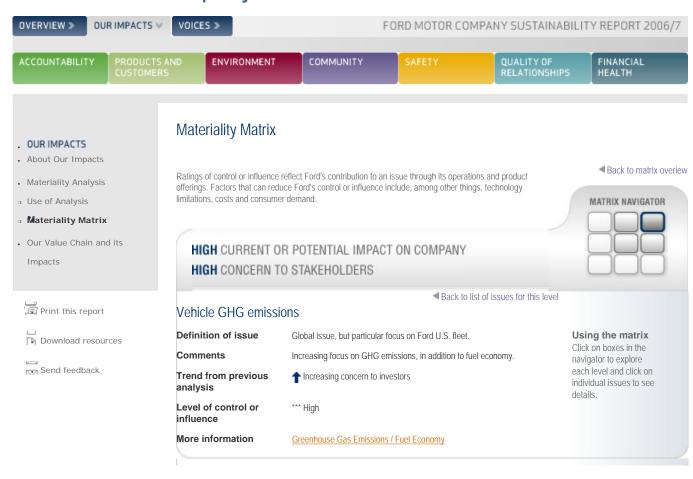
OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Community Engagement Definition of issue License to operate, NGO relationships and specific community concerns like Using the matrix Download resources breast cancer, obesity, compliance. Click on boxes in the navigator to explore Send feedback High concern to communities and NGOs Comments each level and click on individual issues to see Trend from previous details. analysis Level of control or \*\* Medium influence More information Community Impacts and Engagement



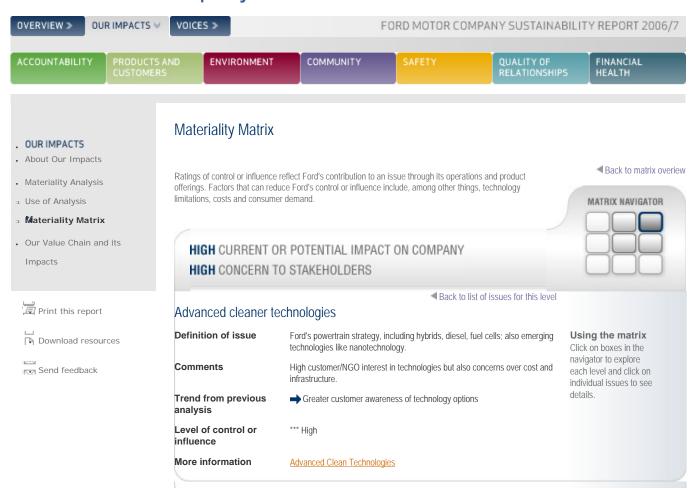
OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Physical Risks Definition of issue Using the matrix Physical risks arising from climate change, e.g. vulnerability to storm Download resources Click on boxes in the navigator to explore Send feedback Comments Investors increasingly asking companies to describe and discuss; Ford views each level and click on as emerging but longer-term issue. individual issues to see details. Trend from previous analysis Level of control or \*\* Medium influence More information Physical Risks

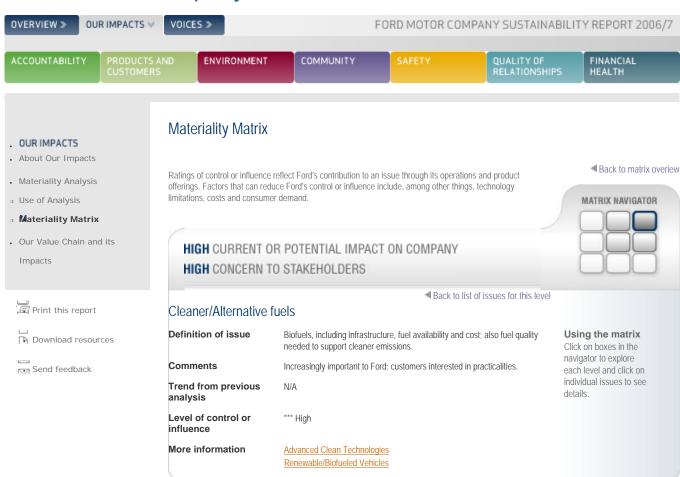
OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** Issues at this level Print this report 20 material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Climate change Ford financial viability navigator to explore Low carbon strategy \*\*\* Managing downsizing \*\* each level and click on Send feedback Vehicle GHG emissions \*\* • Profitability level and timing \*\* individual issues to see Legacy and healthcare costs \*\* details. Fuel economy \*\*\* Advanced cleaner technologies \*\* Other costs \*\* Key • Competitive factors \*\* Clean/alternative fuels \*\* Public policy: GHG /fuel economy regulation \*\* Product competitiveness \*\*\* Level of control or Energy security \* Risks \* influence: • Quality \*\*\* Mobility and emerging markets • High \*\*\* Products and services strategy \*\*\* **Human rights**  Medium \*\* Role in emerging markets \*\* • Supply chain \*\*\* · Low \* • Other issues \*\* Safety Vehicle safety \*\*

OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Low Carbon Strategy Definition of issue Using the matrix Ford response to carbon constraints: product strategy; participation in carbon Download resources markets; use of renewable energy; internal structures and alignment. Click on boxes in the navigator to explore Send feedback Comments Strongly related to other material issues. each level and click on individual issues to see Trend from previous ↑ Carbon constraints focusing attention on issue details. analysis Level of control or \*\*\* High influence More information Ford Response to the Risks and Opportunities of Climate Change



OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Fuel economy Definition of issue Using the matrix Global issue, but particular focus on Ford U.S. fleet. Download resources Click on boxes in the Comments Increasing concern to many stakeholders because of high/volatile fuel prices; navigator to explore Send feedback energy security concerns. each level and click on individual issues to see Trend from previous Remains high importance details. analysis Level of control or \*\*\* High influence More information Greenhouse Gas Emissions / Fuel Economy



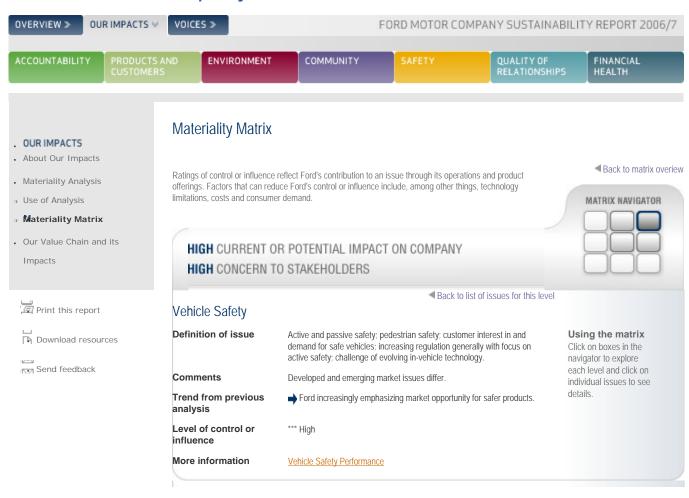


OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Public policy: GHG/fuel economy regulation Definition of issue Using the matrix Increased regulation of vehicle emissions globally, state-by-state regulation Download resources in U.S. and ACEA goal in Europe create risks for Ford; company and Click on boxes in the stakeholders concerned about CA legislation/litigation. navigator to explore Send feedback each level and click on Comments Priority reflects changing global regulatory landscape, regional issues and individual issues to see potential impacts on products and markets. Some stakeholders concerned details. about perceived disconnect between Ford leadership on climate change and policy positions on fuel economy/product CO<sub>2</sub> emissions. ↑ Expectation of greater regulation of GHG emissions becoming more Trend from previous analysis prominent in Ford strategy/planning. Level of control or \*\*\* High influence More information Regulations

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report **Energy Security** Definition of issue Using the matrix Concerns about the stability of energy supplies, particularly oil from politically Download resources unstable regions; development of supplies within national boundaries. Click on boxes in the navigator to explore Send feedback Comments Growing concern to a range of stakeholders, particularly in the U.S., a driver each level and click on of interest in alternative fuels including ethanol/E85. individual issues to see details. Trend from previous analysis Level of control or \*\*\* High influence More information Markets

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Products and services strategy Definition of issue Using the matrix Ford's approach to emerging markets (developing countries and high-growth Download resources niches within slow-growing markets): vehicles v. mobility services; base of the pyramid strategy: infrastructure development; Ford's target customer and Click on boxes in the navigator to explore Send feedback position relative to emerging market OEMs; Ford's impacts/contributions in each level and click on emerging markets (other than products and services), including local individual issues to see sourcing, pollution, potential for partnerships. details. Comments Key drivers of the issue include congestion, shifting demographics, urbanization and social equity. High level of stakeholder concern over access to mobility, Ford's vision for mobility in emerging markets. Trend from previous ↑ A more focused definition of the mobility issue analysis Level of control or \*\*\* High influence More information **Leading With Products** 

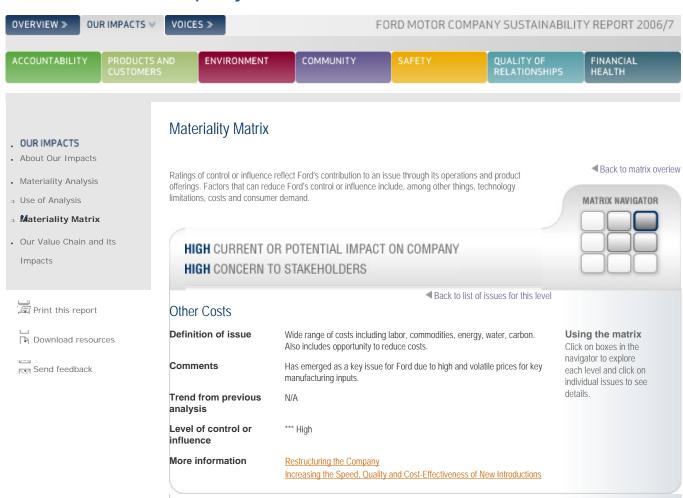
OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Role in emerging markets Definition of issue Using the matrix Ford's approach to emerging markets (developing countries and high-growth Download resources niches within slow-growing markets): vehicles v. mobility services; base of the pyramid strategy: infrastructure development; Ford's target customer and Click on boxes in the navigator to explore Send feedback position relative to emerging market OEMs; Ford's impacts/contributions in each level and click on emerging markets (other than products and services), including local individual issues to see sourcing, pollution, potential for partnerships. details. Comments Key drivers of the issue include congestion, shifting demographics, urbanization and social equity. High level of stakeholder concern over access to mobility, Ford's vision for mobility in emerging markets. Trend from previous ↑ A more focused definition of the mobility issue analysis Level of control or \*\*\* High influence More information Key topic: Mobility

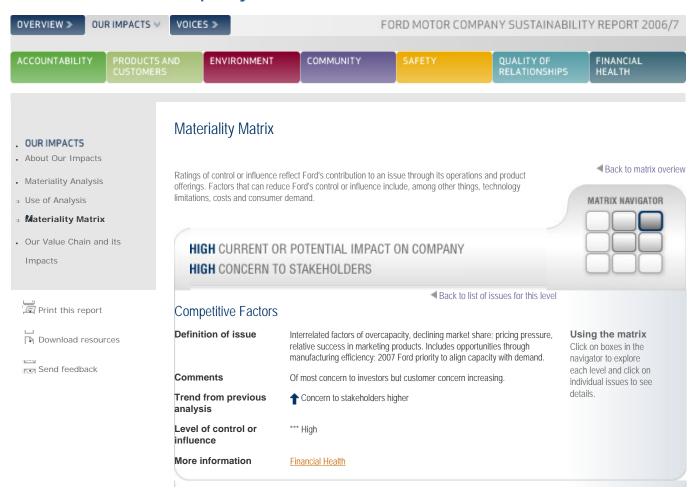


OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Managing Downsizing Definition of issue Using the matrix Financial impacts on company and business partners; availability of funding Download resources for restructuring; employee morale; community impacts of plant closures; Click on boxes in the managing EH&S impacts of downsizing. navigator to explore Send feedback each level and click on Comments New issue; high concern to Ford, employees, dealers, communities, individual issues to see investors. details. Trend from previous N/A analysis Level of control or \*\*\* High influence More information Key topic: Sustaining Ford

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Profitability: level and timing Definition of issue Broad concerns about Ford's financial performance and future. Using the matrix Download resources Click on boxes in the Comments Has emerged as a key concern for Ford and stakeholders, especially navigator to explore Send feedback suppliers and investors. Other stakeholders increasingly concerned. each level and click on individual issues to see Trend from previous N/A details. analysis Level of control or \*\*\* High influence More information Financial Health

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Legacy and Healthcare Costs Definition of issue Ford's U.S. cost to provide health care coverage for current employees; Using the matrix Download resources health care and pension for retirees; Ford's participation in health care public Click on boxes in the policy formulation. Significant competitive issue as foreign manufacturers in navigator to explore Send feedback U.S. have few retirees; may not provide health care to employees in home each level and click on individual issues to see details. High concern to investors; increasing awareness/concern to customers. Not Comments a significant concern to NGOs/multi-stakeholder. Trend from previous → Same position analysis Level of control or \*\*\* High influence More information Legacy Health Care Costs





OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report **Product Competitiveness** Definition of issue Using the matrix Broad set of issues that include market changes like fragmentation; specific Download resources product competitiveness issues and opportunities to respond to increasing Click on boxes in the customer interest in "green" products. navigator to explore Send feedback each level and click on Comments High concern to investors and customers. individual issues to see details. Trend from previous analysis Level of control or \*\*\* High influence More information **Leading with Products** 

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **HIGH CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Risks Definition of issue Using the matrix Traditional 10k-type business risks plus broader kinds - like reputational risks Download resources and risks and opportunities due to climate change. Click on boxes in the navigator to explore Send feedback Comments High concern to investors. NGOs/multi-stakeholder most concerned about each level and click on climate risks. individual issues to see details. Trend from previous ↑ Concern to stakeholders higher analysis Level of control or \*\*\* High influence More information Financial Health Context Climate Change Risks and Opportunities

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Quality Definition of issue Using the matrix Product quality and customer service/customer relationship management. Download resources Click on boxes in the Comments High concern to customers and SRIs. navigator to explore Send feedback each level and click on Trend from previous → Same position individual issues to see analysis details. Level of control or \*\*\* High influence More information Continually Improving Quality and Customer Satisfaction

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Supply Chain Definition of issue Issues covered by Ford's working conditions Code; need for industry Using the matrix Download resources cooperation; specific interest in human right in China and how that shapes Click on boxes in the Ford priorities. navigator to explore Send feedback each level and click on High interest to communities, suppliers, NGOs but overall level of concern Comments individual issues to see not as high as previous analysis, perhaps due to mainstreaming of issue in details. Trend from previous Lower level of concern to stakeholders analysis \*\*\* High Level of control or influence More information Working Conditions in Our Supply Chain

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts HIGH CONCERN TO STAKEHOLDERS ■ Back to list of issues for this level Print this report Other issues Definition of issue Code for Ford facilities, HR practices in broader community; indigenous Using the matrix Download resources people; environmental justice. Click on boxes in the navigator to explore Send feedback Comments High interest to communities, NGOs. each level and click on individual issues to see Trend from previous Lower level of concern to stakeholders details. analysis Level of control or \*\*\* High influence More information **Human Rights at Ford** 

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its LOW CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** Issues at this level Print this report Six material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Governance navigator to explore Shareholder concerns (resolutions) \*\*\* each level and click on Send feedback individual issues to see Operations details. Hazardous pollutants \*\*\* Land and nature \*\*\* Key Other environmental issues: spills, nuisances, logistics \*\*\* Level of control or influence: Mobility and emerging markets • High \*\*\* Emerging markets vehicle and road safety \*\* Medium \*\* Product · Low \* Noise \*

Impacts

Print this report

Send feedback

Download resources

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its

# MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY MEDIUM CONCERN TO STAKEHOLDERS

#### Issues at this level

11 material issues have been identified at this level (click on an issue for more details).

#### Sustainability strategy

Sustainability reporting \*\*

#### Public policy

Political payments/contributions \*\*\*

#### Operations

Environmental management \*\*\*
 Environmental compliance \*\*\*

#### Product

Life cycle assessment \*\*\*
In-vehicle air quality \*\*\*

#### Ford as employer

- Employees/labor practices/decent work \*\*\*
- Diversity: equal opportunity \*\*\*

#### **Product**

- Marketing communications/demand creation/ advertising  $^{\star\star\star}$ 

#### Mobility and emerging markets

Congestion \*

#### Ford financial viability

• Future availability of fossil fuels \*

#### Using the matrix

Click on boxes in the navigator to explore each level and click on individual issues to see details.

#### Key

Level of control or influence:

- High \*\*\*
- Medium \*\*
- Low \*

OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Sustainability Reporting Definition of issue Concerns about Ford's sustainability reporting including need for more Using the matrix Download resources economic information and regional data; calls for reporting on fuel economy Click on boxes in the performance and lobbying. navigator to explore Send feedback each level and click on Comments Highest concern to NGO/multi-stakeholder. individual issues to see details. Trend from previous analysis Level of control or \*\*\* High influence More information Reporting and Transparency

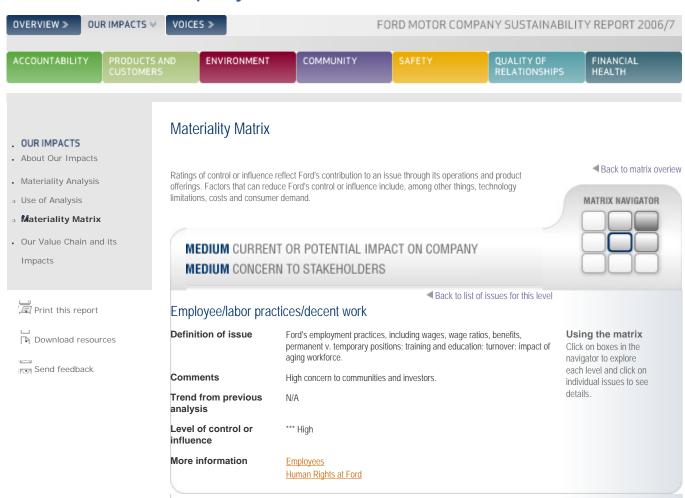
OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Political payments and contributions Definition of issue Using the matrix Company donations to candidates and campaigns; lobbying costs; employee Download resources Political Action Committee; indirect giving through trade associations, etc. Click on boxes in the navigator to explore Send feedback Comments Stakeholders, including shareholders, are showing increasing interest and each level and click on advocacy for "political accountability" or transparency around the various forms of corporate political donations. individual issues to see details. Trend from previous N/A analysis Level of control or \*\*\* High influence More information **Political Contributions** 

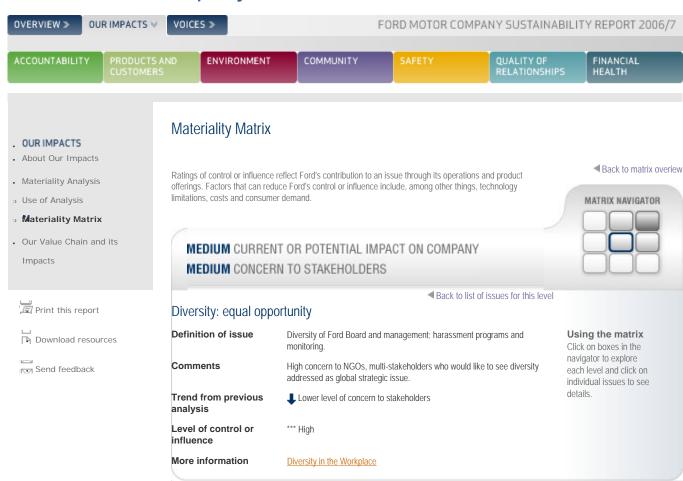
OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report **Environmental Management** Definition of issue High-level environmental operation concerns, including environmental Using the matrix Download resources management; environmental compliance; sustainable production and Click on boxes in the consumption; tradeoffs between energy use and air quality (e.g. incineration navigator to explore Send feedback each level and click on individual issues to see Comments Environmental compliance a concern to communities. details. Trend from previous N/A analysis Level of control or \*\*\* High influence More information **Environmental Management** 

OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL HEALTH **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report **Environmental Compliance** Definition of issue High-level environmental operation concerns, including environmental Using the matrix Download resources management; environmental compliance; sustainable production and Click on boxes in the consumption; tradeoffs between energy use and air quality (e.g. incineration navigator to explore Send feedback each level and click on individual issues to see Comments Environmental compliance a concern to communities. details. Trend from previous N/A analysis Level of control or \*\*\* High influence More information **Environmental Compliance** 

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Life cycle assessment Definition of issue Using the matrix Tool for assessing product impacts including energy, water, pollution at Download resources various life cycle stages. Click on boxes in the navigator to explore Send feedback Comments Receiving more emphasis in Ford's PD process. each level and click on individual issues to see Trend from previous N/A details. analysis Level of control or \* Low influence More information **Analyzing Material Choices** 

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL HEALTH **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report In-vehicle Air Quality Definition of issue Using the matrix Air pollutants or allergens inside the vehicle; can be influenced by interior Download resources material selection. Click on boxes in the navigator to explore Send feedback Comments Of growing concern to customers, NGOs and Ford, particularly in Europe but each level and click on increasingly in the United States. individual issues to see details. Trend from previous analysis Level of control or \*\*\* High influence More information Ford of Europe Rates Sustainability of Vehicles Making Innovations Customer-Focused





OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Marketing communications/demand creation/advertising Definition of issue Advertising and other communications with customers. Using the matrix Download resources Click on boxes in the Comments Within Ford, primarily a compliance issue; for NGOs/multi-stakeholder navigator to explore Send feedback groups, concern over whether Ford can only react to consumer desires or each level and click on can lead them, e.g. toward more sustainable products. individual issues to see details. Trend from previous Lower level of concern to stakeholders analysis Level of control or influence More information **Increasing Customer Awareness of our Company and Products** 

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Congestion Definition of issue Using the matrix Key megatrend with distinct manifestations in emerging and developed Download resources markets including infrastructure, public transportation; policy responses such Click on boxes in the as congestion pricing. navigator to explore Send feedback each level and click on Important issue shaping markets and mobility needs. Driver of other issues Comments individual issues to see like emerging markets strategy. Awareness/concern about issue increasing details. at Ford, but low level of control. Trend from previous → Expectation of increasing importance in 5+ year timeframe analysis Level of control or \* Low influence More information Taking a New Approach to Personal Mobility in Developing Countries

OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Future availability of fossil fuels Definition of issue Using the matrix Rising global demand for energy and limited fossil fuel resource raising Download resources concerns. Click on boxes in the navigator to explore Send feedback Comments Concern for Ford for both products and operations; increasing concern to each level and click on customers, but seen as a more long-term issue. individual issues to see details. Trend from previous analysis Level of control or \* Low influence More information Climate Change Risks and Opportunities

Level of control or

influence:

• High \*\*\*

Medium \*\*Low \*

### Ford Motor Company

Operations

Water use \*\*\*

GHG emissions \*\*\*

Energy use/oil consumption \*\*\*

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** Issues at this level Print this report 11 material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Sustainability strategy **Product** navigator to explore Sustainability vision and management \*\*\* Tailpipe emissions \*\* each level and click on Send feedback • Materials use \*\*\* individual issues to see Governance • End of Life management \*\* details. Ethical business practices \*\*\* Product compliance \*\*\* Key

Workplace health and safety \*\*\*

Supply chain

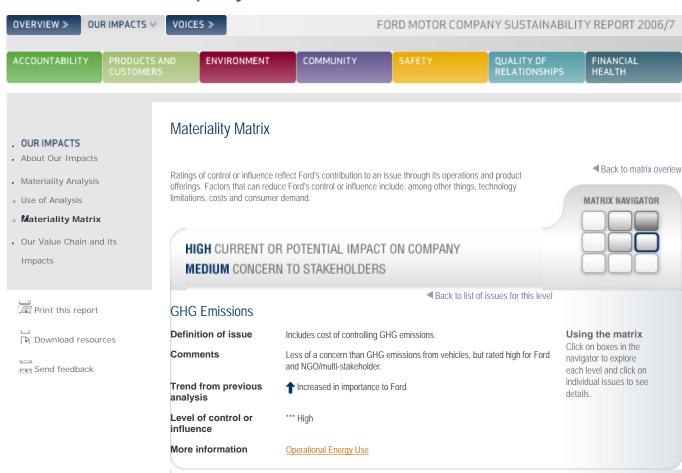
Supplier relationships \*\*

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Sustainability vision and management Definition of issue Using the matrix Sustainability vision and governance, goals and indicators, business case, Download resources stakeholder engagement. Click on boxes in the navigator to explore Send feedback Also includes areas where Ford and stakeholders perceive needs, e.g. for Comments each level and click on systems approach. Among stakeholders, of most concern to NGO/multiindividual issues to see stakeholder groups. details. Trend from previous N/A analysis Level of control or \*\*\* High influence More information Sustainability Governance and Integration

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Ethical business practices Definition of issue Using the matrix Concerns covered by codes of conduct, e.g. corruption and anti-competitive Download resources behavior; also concerns about Board independence. Click on boxes in the navigator to explore Send feedback Comments Among stakeholders, of most concern to investors. each level and click on individual issues to see Trend from previous N/A details. analysis Level of control or \*\*\* High influence More information Corporate Governance

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Energy use/oil consumption Definition of issue Using the matrix Operations/facilities: concerns about cost and availability; energy security Download resources Click on boxes in the Comments High concern to communities. navigator to explore Send feedback each level and click on Trend from previous ↑ Increased in importance to Ford individual issues to see analysis details. Level of control or \*\*\* High influence More information Operational Energy Use

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Water Use Definition of issue Using the matrix Includes impacts on water sources; water management, cost of water and Download resources discharges to water Click on boxes in the navigator to explore Send feedback Comments Particular concern in areas of water scarcity; suppliers feeling increasing each level and click on pressure to manage water use individual issues to see details. Trend from previous ↑ Increased in importance to Ford analysis Level of control or \*\*\* High influence More information Water Use

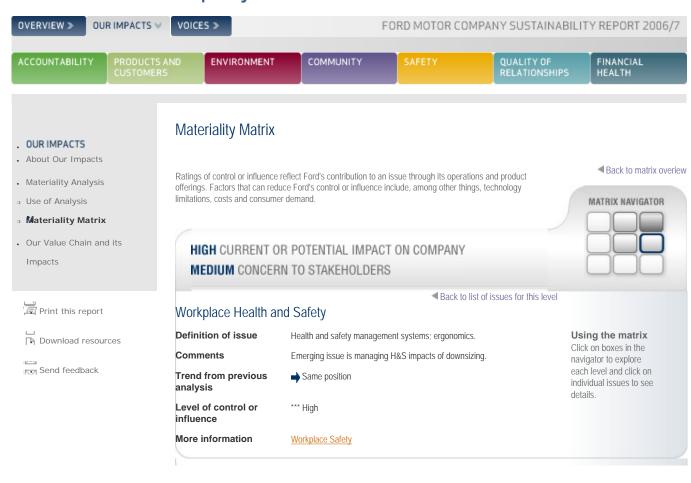


OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Tailpipe emissions Definition of issue Using the matrix Air quality impacts of vehicle emissions other than GHGs; concerns about Download resources diesel emissions; trend toward greater regulation. Click on boxes in the navigator to explore Send feedback High concern to customers/NGOs/multi-stakeholder; more impact on Ford Comments each level and click on due to increased and inconsistent regulation. individual issues to see details. Trend from previous ↑ Increased in importance to Ford analysis Level of control or \*\* Medium influence More information Tailpipe Emissions

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Materials use Definition of issue Using the matrix Cradle-to-cradle approach; use of renewable, recycled, recyclable materials. Download resources Click on boxes in the Comments Increased interest within Ford, perhaps due to business opportunities in navigator to explore Send feedback closing loops. each level and click on individual issues to see Trend from previous ↑ Increased in importance to Ford details. analysis Level of control or \*\*\* High influence More information Materials

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report End of life management Definition of issue Trend toward "extended producer responsibility"; waste; design for Using the matrix Download resources recyclability; health and safety issues at dismantling facilities. Click on boxes in the navigator to explore Send feedback Comments Growing concern to investors. each level and click on individual issues to see Trend from previous details. analysis Level of control or \*\* Medium influence More information End of Life

OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report **Product Compliance** Definition of issue Using the matrix Monetary value of significant fines for non-compliance with laws and Download resources regulations concerning the provision and use of products and services. Click on boxes in the navigator to explore Send feedback Comments GRI item; of concern to Ford due to potential cost and impact on reputation. each level and click on individual issues to see Trend from previous N/A details. analysis Level of control or \*\* Medium influence More information **Environmental Compliance** 



OVERVIEW > OUR IMPACTS ₩ VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY FINANCIAL HEALTH **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts **MEDIUM CONCERN TO STAKEHOLDERS** ■ Back to list of issues for this level Print this report Supplier Relationships Definition of issue Using the matrix Impact of Ford financial condition on supply chain; management of and Download resources cooperation with supply chain; living wage; managing outsourcing; disclosure Click on boxes in the of Tier 1 suppliers. navigator to explore Send feedback each level and click on Comments High concern to suppliers; NGOs most interested in living wage issues. individual issues to see details. Trend from previous N/A (no change for living wage) analysis Level of control or \*\* Medium influence More information **Suppliers** 

OVERVIEW > OUR IMPACTS V VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT Materiality Matrix . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its LOW CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts LOW CONCERN TO STAKEHOLDERS Issues at this level Print this report 2 material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Product navigator to explore Labeling \*\*\* each level and click on Send feedback Foreign v. domestic vehicles \* individual issues to see details. Key Level of control or influence: • High \*\*\* Medium \*\* Low \*

Medium \*\*Low \*

### Ford Motor Company

OVERVIEW > OUR IMPACTS V VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT Materiality Matrix . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its MEDIUM CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts LOW CONCERN TO STAKEHOLDERS Issues at this level Print this report Three material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Product navigator to explore Customer privacy \*\*\* each level and click on Send feedback individual issues to see Supply chain details. Energy, materials, waste in supply chain \*\* Key Ford as employer Diversity: advertising practices \*\* Level of control or influence: . High \*\*\*

· Low \*

### Ford Motor Company

OVERVIEW > OUR IMPACTS V VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL ENVIRONMENT **Materiality Matrix** . OUR IMPACTS · About Our Impacts ■ Back to matrix overiew Ratings of control or influence reflect Ford's contribution to an issue through its operations and product · Materiality Analysis offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand. Use of Analysis MATRIX NAVIGATOR Materiality Matrix · Our Value Chain and its HIGH CURRENT OR POTENTIAL IMPACT ON COMPANY Impacts LOW CONCERN TO STAKEHOLDERS Issues at this level Print this report Five material issues have been identified at this level (click on an issue for more details). Using the matrix Click on boxes in the Download resources Public policy Ford financial viability navigator to explore Increasing and inconsistent global environment and • Dealer relationships \*\* each level and click on Send feedback safety regulations \*\* individual issues to see details. Operations Air emissions (other than GHGs) \*\*\* Key Waste generation and management \*\*\* Level of control or Ford as employer influence: Employee morale and teamwork \*\*\* . High \*\*\* Medium \*\*



- . OUR IMPACTS
- · About Our Impacts
- · Materiality Analysis
- Our Value Chain and its Impacts
- Print this report
- Download resources
- Send feedback

As a major multinational enterprise, our activities have far-reaching impacts on environmental, social and economic systems. The diagram below organizes the issues by the major stages of our value chain. In this report you will also find a teriality analysis" which prioritizes the most significant issues in our value chain.



Some issues are not shown in this diagram because they do not pertain to a particular lifecycle stage.



#### VALUE CHAIN ISSUES: OVERVIEW

A number of broad sustainability challenges set the context for all of the lifecycle stages. These issues apply across the value chain:

- · Population growth
- Urbanization
- Poverty
- Education Gender equality
- · Child mortality
- · Maternal health
- Infectious diseases
- Biodiversity
- · Loss of ecosystem services
- Downsizing

Click the buttons at the left to see issues for each stage



#### **Expanding connections**

We recognize that these issues are interconnected at each stage and that positive and negative effects in one part of the chain can reverberate in the other parts.

Increasingly, we are bringing our understanding of a wide range of sustainability issues into the stages of our value chain. Environmentally, we are improving our manufacturing efficiency, cutting the emissions of our vehicles, designing vehicles with end of life in mind and increasing the recyclability of our vehicles and our use of recycled materials. Socially, we seek to strengthen the communities we're part of, expand the connections within them and improve our relationships throughout the value chain. Economically, we are trying to build our capacity to adapt and respond to the variety of challenges and opportunities present at every stage, meeting our customers' needs as well as our stakeholders' expectations.

OVERVIEW >

OUR IMPACTS >

VOICES ₩

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . VOICES

#### Voices Index

- · Sheryl Connelly Ford Motor Company
- David Duesterberg Johnson Controls, Inc.
- · Derrick Kuzak Ford Motor Company
- · Sean McAlinden Center for Automotive Research
- · Ian Olson Ford Motor Company
- · Susan Rokosz Ford Motor Company
- · Ingrid Skogsmo Volvo Car Corporation
- Eric Wingfield Ford Motor Company
- · Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

## Voices

#### Sheryl Connelly - Ford Motor Company

In my job, we track hundreds of trends. One key trend is what we call "ethical consumption." Environmental and social issues are becoming much more mainstream. People are finally taking action in the marketplace, doing things like purchasing organic produce.



#### David Duesterberg - Johnson Controls, Inc.

Johnson Controls has been working with Ford on sustainability opportunities for a number of years. It became clear that both companies were advancing the same goals of improved supplier ethics and enhanced working conditions.



#### Derrick Kuzak - Ford Motor Company

Climate change is no longer something we speculate about. It's very real. Ford, and the entire industry, must be active in addressing the concerns. In fact, we are obligated to participate - from a customer perspective, from a business perspective and from a societal perspective.



#### Sean McAlinden - Center for Automotive Research

There are essentially two world auto industries: a North American industry, which prefers trucks like the Ford F-150, and the rest of the planet, which prefers to drive sub-compact, high fuel-economy cars.



#### Ian Olson - Ford Motor Company

One thing that I find frustrating is the idea that sustainability is a fourth pillar of supply chain management - something distinct and separate from price and quality and delivery. This view shortchanges sustainability, since sustainability is very much encompassed within all three realms. We need to take a more holistic view.



#### Susan Rokosz – Ford Motor Company

The change at Ford over sustainability has been truly remarkable. When I first started at Ford 25 years ago, environmental efforts were mostly focused on compliance. "Sustainability" was a word that had yet to be coined.



#### Ingrid Skogsmo - Volvo Car Corporation

The so-called safety divide is one of the major challenges automakers face as vehicle access and use continue to soar across the developing world.



#### Eric Wingfield - Ford Motor Company

For an issue as large as sustainability, everybody has a different vantage point and a different opinion. Ford's Systems Thinking Program Management Office (STPMO), where I work, uses a systems-thinking approach to bridge disparate views around the Company on issues like quality, the recent downsizing efforts and sustainability. In systems thinking, we look at long-term issues in a holistic way to find where and what we could do to impact long-term change while minimizing the unintended consequences in the short term.



#### Susan Zielinski - University of Michigan

The more urbanized the world becomes – and we're heading toward two-thirds of the planet's population living in and around cities – the more we need to rethink how we get around. So transportation systems are becoming more sophisticated, more innovative, more multi-faceted and better connected in response to this urbanizing trend. There are other factors driving these changes as well, namely a growing aging population, increasing economic disparities and, of course, climate change.



OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

- . VOICES
- · Voices Index

# Sheryl Connelly - Ford Motor Company

- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
   Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor
  Company
- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
   Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

### Sheryl Connelly Ford Motor Company

66 In my job, we track hundreds of trends. One key trend is what we call "ethical consumption." Environmental and social issues are becoming much more mainstream. People are finally taking action in the marketplace, doing things like purchasing organic produce.

It has been a hard lesson for Ford to learn that "ethical consumption" is coming – this notion that, all things being equal, consumers would choose the more sustainable product.

The debate now centers on Ford's ability to respond. People don't understand that we can't flip a switch and say: "OK, we'll just make our cars greener." Yet if we don't get more involved in sustainable product development now, we'll be so far behind that we will never be able to catch up.

The more I learn about global warming and sustainability, the more worried I become. But I certainly didn't come to this position from a "greenie" point of view. In fact, it wasn't that long ago that, as a sales representative in the field, I was working with our dealers to push back fuel economy standards, saying that global warming was not a proven, scientific fact.

There was a time at Ford when no one wanted to discuss environmental issues, in the same way that you didn't want to discuss politics or religion. Today, however, people understand that sustainability and environmentalism are no longer fringe issues and that they make strategic business sense.

The auto industry is at a crossroads, and Ford cannot continue to view itself purely as a manufacturer of 2.3 cars for every household in the United States. We must instead think of ourselves as a transportation provider. Perhaps this means embarking on fractional ownership ventures.

For example, future customers might want the flexibility to drive a minivan one day, a two-seater another and a pickup truck on the weekend. The industry must adapt to this concept and think beyond only enhanced miles per gallon. We are already seeing this in other industries.

In tough financial times, there's a very strong temptation to focus solely on today's challenges. But if we don't have a vision of where we are headed, then we are setting ourselves up for a vision of constraint, rather than a vision of choices.

#### Sheryl Connelly

Ford Motor Company, Chief Marketing Office Manager, Global Consumer Trends and Futuring



"The auto industry is at a crossroads, and Ford cannot continue to view itself purely as a manufacturer of 2.3 cars for every household. We must instead think of ourselves as a transportation provider."

#### **Sheryl Connelly**

Ford Motor Company, Chief Marketing Office Manager, Global Consumer Trends and

Manager, Global Consumer Trends and Futuring

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
  Company

# David Duesterberg – Johnson Controls, Inc.

- Derrick Kuzak Ford Motor
  Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor
   Company
- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
   Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

# David Duesterberg Johnson Controls, Inc.

66 Johnson Controls has been working with Ford on sustainability opportunities for a number of years. It became clear that both companies were advancing the same goals of improved supplier ethics and enhanced working conditions.

Ford was our first major automotive customer to take a proactive approach toward working conditions all the way down the supply chain. When Ford conducted a working conditions audit at our manufacturing plants in Mexico, it helped make the case at Johnson Controls that our efforts on working conditions in our own supply chain are not only the right thing to do but important to the business – because it's important to our customers, employees and shareholders.

It is abundantly clear that the entire industry must work together to enhance working conditions and cascade these concepts through the supply chain. One of our roles as a tier-one supplier of automotive parts is helping the second- and third-tier suppliers understand the need for, as well as the value of, better working conditions.

There are about a dozen major auto manufacturers in the world today, and another dozen manufacturers that are emerging in low-cost countries. From a supplier's perspective, if all of the manufacturers subscribe to the same human rights policies, we can respond with one common program. It makes the whole cascading process that much more efficient and valuable, and it makes it that much easier to get sub-suppliers to participate. Ford has clearly been a leader in asking the tough questions and encouraging the industry to work together.

We have found that in many emerging supply bases – and in lower-cost countries, especially – there's a lack of awareness of local human rights laws and working regulations. It's not because people don't want to know about them. Rather, it's that enforcement is not as strong as in the United States, Japan and Western Europe. That's why we worked with Ford to host a training session for automotive suppliers in St. Petersburg, Russia.

The benefits of a healthy supply chain are enormous. The happier your employees are, the longer they will work for you. That's not just in developed countries, but everywhere. And reduced turnover saves money. Safer working conditions also saves money – in medical costs and even in tangential litigation expenses. It takes money to implement these programs the right way, but we believe there are significant gains in the long run.

#### **David Duesterberg**

Director Health, Safety and Environment for Automotive Experience North America Johnson Controls. Inc.



"It is abundantly clear that the entire industry must work together to enhance working conditions and cascade these concepts through the supply chain. One of our roles as a tierone supplier of automotive parts is helping the second- and third-tier suppliers understand the need for, as well as the value of, better working conditions."

#### **David Duesterberg**

Director Health, Safety and Environment for Automotive Experience North America Johnson Controls, Inc.

#### RELATED LINKS

In This Report

Key topic: Human Rights

**External Web Sites** 

Johnson Controls, Inc.

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 QUALITY OF RELATIONSHIP ENVIRONMENT COMMUNITY FINANCIAL

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor Company
- · David Duesterberg Johnson

#### Marrick Kuzak - Ford Motor Company

- . Sean McAlinden Center for Automotive Research
- · Ian Olson Ford Motor Company
- · Susan Rokosz Ford Motor Company
- Ingrid Skogsmo Volvo Car Corporation
- Eric Wingfield Ford Motor
- · Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

### **Derrick Kuzak** Ford Motor Company

← Climate change is no longer something we speculate about. It's very real. Ford, and the entire industry, must be active in addressing the concerns. In fact, we are obligated to participate - from a customer perspective, from a business perspective and from a societal perspective.

Those of us that operate globally are becoming increasingly sensitive to fuel economy and emissions. Our customers are demanding better fuel economy, and we need to treat this as one of the most important – if not *the* most important – unmet buyer needs.

At Ford, we are working to achieve this in the near term by providing a wide range of new technologies, including hybrid and ethanol-capable vehicles and systems, advanced engines and expanded six-speed transmissions. We're also working hard to develop longer-term solutions, such as plug-in hybrids, fuel cells and synthetic fuels.

As part of our technology development, we are asking our product development teams to change their mindset. Energy is a precious commodity, and we must treat it as such in every engineering tradeoff and every business decision that we make.

Yet in our quest for fuel enhancements, we can't trade other features that our customers want, such as performance and convenience. Customers are rational: whatever incremental cost they spend up front for better fuel economy must pay off over the life of the vehicle.

The challenge for our Company, and for the auto industry, is that we are not the total solution to the climate change problem.

We want to do our part in the effort to stabilize greenhouse gas concentrations in the atmosphere. Market forces already indicate that we must continue to improve our fuel economy to stay competitive. We must all work together to ensure alignment among climate goals, market needs, and emerging policy and legislation.

#### Derrick Kuzak

Group Vice President, Global Product Development Ford Motor Company



"We want to do our part in the effort to stabilize greenhouse gas concentrations in the atmosphere. Market forces already indicate that we must continue to improve our fuel economy to stay competitive. We must all work together to ensure alignment among climate goals, market needs, and emerging policy and legislation."

#### Derrick Kuzak

Group Vice President, Global Product Development Ford Motor Company

- In This Report
- Key topic: Climate Change
- Sustainable Mobility Technologies

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
   Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
  Company

# Sean McAlinden - Center for Automotive Research

- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor
   Company
- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
   Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

# Sean McAlinden Center for Automotive Research

66 There are essentially two world auto industries: a North American industry, which prefers trucks like the Ford F-150, and the rest of the planet, which prefers to drive sub-compact, high fuel-economy cars.

About 1 billion of the world's 6.5 billion people currently have access to a car or truck, and international sales have the potential to double, if not triple, as more people seek similar access. But the F-150 is an unlikely source for any sizable world increase in market share. In most developing nations, such growth will evolve from a car that sells for \$8,000, not \$20,000. And it almost certainly won't come from a car developed in Michigan.

While there will always be a global market for luxury cars and specialty light trucks, U.S.-engineered vehicles aren't the right products to meet emerging market demands. This has major implications for our Southeast Michigan economy, where we have an incredible corps of 50,000 or 60,000 engineers expert in American-style large vehicles. American automakers must find a way to make a profit on compact cars if they want to remain competitive at home and expand in global markets.

U.S. consumers have always valued vehicles with power and space. Ford needs to develop something that will give drivers muscle and room, alongside fuel economy. Unless the price of gas spikes above \$3 a gallon, it's unlikely we'll see a major shift away from the larger vehicles.

The problem, ultimately, comes down to vehicle choice. If you want to significantly improve fuel economy, you have to get people to climb out of their trucks and back into medium-sized and compact cars.

The irony of all of this is that we don't actually need new auto technology to save gas. There are plenty of more efficient vehicles sitting on dealer lots; it's just that many Americans won't drive them.

Ford should be commended for its commitment to sustainable technologies, particularly in light of its financial challenges. The Company has the only true hybrid in North America today, and it was one of the first automakers to offer alternative fuels some 15 years ago.

The critics don't fully understand the enormous business challenges inherent in socially responsible leadership. There can be painful and terrible tradeoffs on the bottom line, and Ford has done the best job possible in an industry where nothing ever changes overnight.

#### Sean McAlinden

Center for Automotive Research
Chief Economist and Vice President for Research



"About 1 billion of the world's 6.5 billion people currently have access to a car or truck, and international sales have the potential to double, if not triple, as more people seek similar access. But the F-150 is an unlikely source for any sizable world increase in market share. In most developing nations, such growth will evolve from a car that sells for \$8,000, not \$20,000."

#### Sean McAlinden

Center for Automotive Research Chief Economist and Vice President for Research

- In This Report
- Key topic: Sustaining Ford
- External Web Sites
- Center for Automotive Research

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
   Company
- Sean McAlinden Center for Automotive Research

# I an Olson - Ford Motor Company

- Susan Rokosz Ford Motor
   Company
- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
  Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

#### Ian Olson Ford Motor Company

6.6 One thing that I find frustrating is the idea that sustainability is a fourth pillar of supply chain management – something distinct and separate from price and quality and delivery. This view shortchanges sustainability, since sustainability is very much encompassed within all three realms. We need to take a more holistic view.

Think of it another way: enhanced health and safety leads to better quality; greater productivity and lower turnover lead to better prices.

Where supply chain issues are concerned, it's easy to simply equate sustainability to working conditions. That's why we've been emphasizing more of the environment and community impact issues and we have added them to our human rights code. What we're trying to do at Ford is reflect the true definition of sustainability – one that touches on environmental and economic, as well as societal, concerns. We should not allow others to define sustainability for us.

Even though we have gone through one of the most trying financial periods in Ford's 103-year history, my leadership's commitment to sustainability and the work we are doing has been unwavering. We must, of course, work within the realistic realm of financial constraints, but I have never felt there was going to be any withdrawal of support on the issues.

Ford can play a big part in the solution, but no one automaker or government or NGO can be effective alone. We need a cross-stakeholder approach to figure out viable solutions to human rights, climate change, fuel economy and energy security. Industry-wide, we need common messages and common approaches to be more effective. And we need to develop a common platform upon which it will all be based.

The challenge truly is an economic one. If we do not get our act together here, we're not going to be around to have any significant impact on the environmental and social problems. And, frankly, if we don't pull off the economic part, there will be negative environmental and social impacts.

If you asked me seven years ago if I would be doing what I'm doing today, I would have said no. I really had no idea what sustainability or corporate responsibility even were. Now I can't imagine myself doing anything else.

#### lan Olson

Ford Motor Company, Purchasing Global Manager for Supply Chain Sustainability



"Ford can play a big part of the solution, but no one automaker or government or NGO can be effective alone. We need a cross-stakeholder approach to figure out viable solutions to human rights, climate change, fuel economy and energy security."

#### Ian Olson

Ford Motor Company, Purchasing Global Manager for Supply Chain Sustainability

#### RELATED LINKS

In This Report

Key topic: Human Rights

OVERVIEW > OUR IMPACTS > VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
  Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
  Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
  Company

# Susan Rokosz − Ford Motor Company

- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
   Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

### Susan Rokosz Ford Motor Company

66 The change at Ford over sustainability has been truly remarkable. When I first started at Ford 25 years ago, environmental efforts were mostly focused on compliance. "Sustainability" was a word that had yet to be coined.

Today, sustainability is part of the product development and manufacturing processes at Ford. And environmental issues are an integral part of the business – not something you do just to remain in compliance. I am proud of the achievements we have made within our manufacturing operations and it is gratifying to see similar efforts under way in other parts of the Company. I think our progress will continue, but the recent downsizing here will force us to rethink our priorities. Maybe we can't do everything we would like to in terms of sustainability, but that's certainly no reason to give up. We're just going to have to be wise about where we place our efforts and not "put all our eggs in one basket" by selecting one or two technologies and ignoring the rest.

One problem we have at Ford is that we don't seem to tell our story very well. We're doing tremendous things on the environmental front, but the general public isn't aware of them. We need to make sure that we get the word out – not in an inflated way, but in a way that makes people pay attention.

Ford has helped to advance the discussion internally with our Company's Sustainability Learning Community. The periodic meetings offer an opportunity for employees who are all working on various aspects of sustainability to share best practices and network. When you see all these like-minded people in the Company, it lifts your spirits – and provides very useful information, too.

Sustainability truly is an engaging concept for me. I came of age in a Catholic school where we were encouraged to make the world a better place and to become women who make a difference. Working on sustainability issues has allowed me to do just that.

#### Susan Rokosz

Ford Motor Company, Environmental Quality Office Principal Environmental Engineer



"The change at Ford over sustainability has been truly remarkable. When I first started at Ford 25 years ago, environmental efforts were mostly focused on compliance."

#### Susan Rokosz

Ford Motor Company, Environmental Quality Office Principal Environmental Engineer

- In This Report
- Environment
- Structures for Managing Sustainability

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
   Company
- David Duesterberg Johnson
   Controls, Inc.
- Derrick Kuzak Ford Motor
   Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor Company

#### Ingrid Skogsmo – Volvo Car Corporation

- Eric Wingfield Ford Motor
   Company
- Susan Zielinski University of Michigan

Print this report

Download resources

Send feedback

#### Ingrid Skogsmo Volvo Car Corporation

6 The so-called safety divide is one of the major challenges automakers face as vehicle access and use continue to soar across the developing world.

In developing countries, the quality of roadways and the accompanying infrastructure are often well below the standards to which motorists in developed nations are accustomed. Add to that a range of other factors that converge to create hazardous – and often deadly – conditions: heavy pedestrian traffic; multiple riders on motorcycles; and trucks overloaded with passengers riding on the back.

In developed countries, our vehicle safety challenges include taking advantage of technology improvements. For example, systems to help cars and infrastructure "talk" to each other are being researched. We're also putting a lot of emphasis on active safety systems to prevent cars from getting into accidents.

Some challenges, such as compatibility, bridge developed and developing countries. The challenge regarding compatibility can be said to be how to get different categories of road users to interact in a way to minimize damaging outcome. One example is when big and small vehicles crash, another is pedestrian collisions – unfortunately a very common accident situation in developing countries especially.

Automakers can and should become more involved in improvement of road safety in the developing nations. We must work with local governments and NGOs to craft real solutions to their countries' mobility problems. We need to communicate responsible vehicle use. And we must take responsibility for the cars that we put on the road.

Developed nations have an opportunity to share the knowledge we have acquired over many years of motorization, enabling others to bypass the mistakes we made. It's easy to forget that our own automobile and driving regulations were extremely lax for a very long period of time. The majority of safety technologies were not around when motorization began.

We're sharing our experience through our involvement in the Global Road Safety Partnership (GRSP) and the Global Road Safety Initiative. Together with other organizations, such as the World Health Organization and the World Bank, the GRSP has developed good practice guides about seat belt and helmet use that we're implementing in Vietnam, Thailand, Laos and Cambodia, for example. We're also working to identify other ways to improve auto safety worldwide, including looking at drunk-driving laws and enforcement. It is critical that we contribute by on-site action – policies and talk alone will not do the job!

Lack of reliable accident data is a key issue in many of the countries. Another example of actual automaker action is the establishment of the Thailand Accident Research Center, established in 2003 by GRSP, Volvo Cars, the World Bank, the Thai government and academia. Sending VCC accident investigation experts, we worked on site with the Thais to set up this center – the first of its kind in Thailand – using Volvo's 30-plus years of experience on accident data handling and collection. Of course, Volvo gets useful information on the Thai market as well – something that can be fed back to product development.

We've found that the partnership approach is very important – no single sector can make the necessary changes on its own. We've also found that safety experts in developed and developing countries can learn a lot from each other.

I am proud to represent a company that is a part of this important activity to reach sustainability.

#### Ingrid Skogsmo

Director, Volvo Cars Safety Center, Volvo Car Corporation, Goteborg, Sweden Chair of Global Road Safety Partnership



"Automakers can and should become more involved in improvement of road safety in the developing nations. We must work with local governments and NGOs to craft real solutions to their countries' mobility problems. We need to communicate responsible vehicle use. And we must take responsibility for the cars that we put on the road."

#### Ingrid Skogsmo

Director, Volvo Cars Safety Center, Volvo Car Corporation, Goteborg, Sweden Chair of Global Road Safety Partnership

#### RELATED LINKS

In This Report

Vehicle Safety

#### External Web Sites

Global Road Safety PartnershipGlobal Road Safety Initiative

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
   Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
   Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor
  Company
- Ingrid Skogsmo Volvo Car
   Corporation

# Eric Wingfield − Ford Motor Company

 Susan Zielinski – University of Michigan

Print this report

Download resources

Send feedback

# Eric Wingfield Ford Motor Company

♠ For an issue as large as sustainability, everybody has a different vantage point and a different opinion. Ford's Systems Thinking Program Management Office (STPMO), where I work, uses a systems-thinking approach to bridge disparate views around the Company on issues like quality, the recent downsizing efforts and sustainability. In systems thinking, we look at long-term issues in a holistic way to find where and what we could do to impact long-term change while minimizing the unintended consequences in the short term.

Though it's a difficult time for our business, I think that sustainability is a strategic and cumulative approach to be focused on now that offers great opportunity for our business. Further, the sooner you commit, and the longer you commit for, the bigger the gains for our business, society and the environment

In the realm of sustainability, the STPMO has been involved in facilitating the formation of a community of practice called the Sustainability Learning Community. This community is a group of employees from different organizations committed to meeting at least twice a year, as the larger group, to discuss issues of sustainability affecting Ford and to share best practices. Additionally, to enhance learning and promote the sharing of ideas, the STPMO also assists in arranging open sessions (e.g., audio conferences on sustainability held roughly bi-monthly) on a more frequent basis. We are helping to foster idea sharing through dialogue that leads to the development of new ideas and improvements in our products and our Company.

What I like about the sustainability dialogue is that there is an opportunity to make real changes and improvements to both society and the environment, while offering genuine advantages to business. We can see the triple-bottom-line of economics, society and environment in action.

In terms of sustainability, there are some amazing things happening at Ford. I never thought I'd work for a big company. I thought corporations were the bane of society. But when I worked as in intern here, I found a lot of exciting things going on, from the green roof at the Rouge assembly plant to a simple and effective program for shipping parts in plastic containers that are then reused to make vehicle parts. I could see areas where I could make a difference and I want to be a part of that.

Looking forward, I intend to focus on clarifying issues, identifying problems and using sustainability as an opportunity for our Company. I am committed to where we are going, and anchoring my work in the theory of sustainability. Ultimately, I think Ford can gain a competitive advantage by leveraging sustainability the way it has been – and by doing so even more in the future.

#### Eric Wingfield

Systems Analyst, Systems Thinking Program Management Office Ford Motor Company, Information Technology (IT)



"Ford can gain a competitive advantage by leveraging sustainability the way it has been – and by doing so even more in the future."

#### Eric Wingfield

Systems Analyst, Systems Thinking Program Management Office Ford Motor Company, Information Technology (IT)

#### RELATED LINKS

In This Report

Structures for Managing Sustainability

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . VOICES

- · Voices Index
- Sheryl Connelly Ford Motor
   Company
- David Duesterberg Johnson Controls, Inc.
- Derrick Kuzak Ford Motor
   Company
- Sean McAlinden Center for Automotive Research
- Ian Olson Ford Motor
   Company
- Susan Rokosz Ford Motor Company
- Ingrid Skogsmo Volvo Car
   Corporation
- Eric Wingfield Ford Motor
  Company

# Susan Zielinski – University of Michigan

Print this report

Download resources

Send feedback

#### Susan Zielinski University of Michigan

√ The more urbanized the world becomes – and we're heading toward two-thirds of the planet's population living in and around cities – the more we need to rethink how we get around. So transportation systems are becoming more sophisticated, more innovative, more multi-faceted and better connected in response to this urbanizing trend. There are other factors driving these changes as well, namely a growing aging population, increasing economic disparities and, of course, climate change.

Fortunately, transportation systems of the future will make life better. They will do an increasingly better job at meeting the needs of more people doing more things more affordably and sustainably within smarter spatial arrangements.

What's so exciting about the future of urban transportation is that it will involve a whole host of new technologies, services, modes and products, all converging to provide options that seamlessly connect from door to door. Transportation is evolving a bit like telecommunications did. Back in the 50s, we started off with the big mainframe computer that took up a whole room and that only a few could program and operate. Now more and more of us have our own customized and connected portfolio of desktop, laptop, nanopod, cell phone, google search, satellite TV, GIS mapping, digital camera, printer and more.

Echoing our personal telecommunications menu, we need to increase our transportation options and get them to link with each other, so that parking connects with car shares, which connect with public transit, which connects with bike lanes, which connect with taxis, all of which connect to cell phones and computers for accessing real-time travel information like maps and timetables. We're already beginning to see exciting new transportation arrangements and services, like car shares and rental vehicles, allowing people to access an auto at any time without having to own one. A good bus system is very important. But if it drops a single mother in a barren area in the middle of nowhere after her night nursing shift, then on its own it's not going to work. Emerging multi-mode transportation systems take care of the whole trip door to door, and the bonus is that they'll be more sustainable ecologically as well as socially.

The overarching message of the future of mobility is connectivity – among technologies, modes, and services, across government departments, and among various industry sectors that can innovate (and benefit from) the development of a vital "New Mobility" industry. This isn't necessarily going to be easy but in the case of New Mobility, even incremental changes that come from connecting the dots can have dramatic effects.

Up to now, car companies have concentrated on cars alone, rather than thinking about meeting people's mobility and accessibility needs. There's a tendency to think of new fuel technologies as the silver bullet, but even if every person in the world had a car running on alternative fuels, we would still be faced with increasing problems of safety, and sprawl, and overcrowding.

Beyond thinking about how to make vehicles better, there's a great opportunity here for automakers to participate – and in some cases lead the way – by collaborating with other companies and industries to create sustainable and connected New Mobility options geared at growing urban populations – and markets.

#### Susan Zielinski

Managing Director of Sustainable Mobility and Accessibility Research and Transformation (SMART) at the University of Michigan in Ann Arbor



"The overarching message of the future of mobility is connectivity – among technologies, modes, and services, across government departments, and among various industry sectors that can innovate (and benefit from) the development of a vital 'New Mobility' industry. This isn't necessarily going to be easy but in the case of New Mobility, even incremental changes that come from connecting the dots can have dramatic effects."

#### Susan Zielinski

Managing Director of Sustainable Mobility and Accessibility Research and Transformation (SMART) at the University of Michigan in Ann Arbor

- In This Report
- Key topic: Mobility
- . External Web Sites
- SMART Project

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

#### **N** Progress

- . Context
- · Management and Performance
- Case Studies



Download resources



# Accountability

#### **About This Principle**

We will be honest and open and model the highest standards of corporate integrity.

#### We will achieve this by:

- Being responsive to stakeholders' concerns on the impact of our operations, products and services through public disclosure and regular reporting
- Making accurate and forthright statements, competing ethically, avoiding conflicts of interest and having zero tolerance for the offer, payment, solicitation or acceptance of bribes

#### **Progress Since Our Last Report**

In 2006, Ford took a number of steps to further embed accountability within the Company and strengthen how we manage sustainability issues and integrate them into our business. Highlights include the following:

- We updated our Code of Basic Working Conditions and, in 2007, the revised Code was approved and formally designated a corporate policy.
- We continued our efforts to improve the utility, thoroughness and credibility of our sustainability
  reporting, including working with a stakeholder advisory committee to help shape and provide
  feedback on this 2006/7 sustainability report. This report is also aligned with the G3 guidelines at a
  self-declared application level of A+. (See <a href="www.globalreporting.org">www.globalreporting.org</a> for more information on GRI and
  application levels.)
- In April 2007, we created a new position of Senior Vice President, Sustainability, Environment and Safety Engineering, who reports directly to Ford's CEO and is responsible for setting strategy, establishing goals and integrating sustainability throughout the Company.
- Ford's CEO and leadership team instituted weekly Business Plan Review meetings as a key
  process to manage operations. Ford's Senior Vice President of Sustainability, Environment and
  Safety Engineering takes part in those meetings, with the purpose of keeping sustainability at the
  top of the Company's agenda.
- The Sustainable Business Strategies office provided formal input into Ford's strategic review process.
- We established a Sustainable Mobility Group, a senior-level team working to define our climate change strategy and delivering our sustainability strategy in the marketplace.
- We strengthened our Corporate Directives process so that all Directives, like Policy Letters, are now signed by the Company's CEO. In the past, Directives could be signed by a Company Officer. All new Policy Letters and Directives must be agreed to by the Company's top vice presidents before getting CEO approval.

#### FAST FACTS

A new position of Senior Vice President, Sustainability, Environment and Safety Engineering reports directly to Ford's CEO

- In This Report
- Key topic: Human Rights
- Letter from Sue Cischke
- Ceres Stakeholder Team
- External Web Sites
- Global Reporting Initiative

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

· Progress

#### **™** Context

- Elements of Accountability
- · Management and Performance
- · Case Studies

Print this report

Download resources

Send feedback

#### Context

Ford's products, performance and actions affect society economically, environmentally and socially. We thus have an obligation to be accountable for our actions and impacts. In our view, holding ourselves to the highest standards of corporate integrity will strengthen our Company and establish relationships of mutual trust with our stakeholders.

Accountability is a cross-cutting concept that underpins all aspects of how we run our business. Within the context of sustainability, we believe that accountability encompasses principled decision-making, systematic engagement of stakeholders and increased transparency. A core part of embedding accountability within an organization is developing structures and processes that ensure that people clearly understand expectations and are then held accountable for making decisions and taking actions aligned with those expectations.

Traditional corporate governance – that is, the overarching system and processes by which our Company is directed and controlled – is a key element of accountability. The Company's Policy Letters and Directives, which set expectations for employee behavior on a broad set of legal and internal requirements, are also central to accountability. More recently, Ford has established a variety of structures and processes to embed accountability specifically for sustainability issues within the organization.

#### **Assessing Materiality**

A number of topics related to accountability were identified as issues of importance to Ford and our stakeholders through the <u>materiality analysis</u>.

Shareholder concerns (i.e., resolutions) and ethical business practices were two governance-related issues identified. Concerns expressed exclusively through shareholder resolutions were judged to be of low potential impact on the Company and medium concern to stakeholders. Ethical business practices were judged to be of high potential impact for Ford and medium concern to stakeholders.

Issues related to Ford's sustainability strategy, vision and management – as well as our sustainability reporting – were also identified as part of the analysis. Ford's sustainability strategy was judged to be of high potential impact on the Company and medium concern to stakeholders. Our sustainability reporting was judged to be of medium impact on the Company and medium concern to stakeholders.

Finally, several public policy issues were identified as part of the process, including political contributions, increasing and inconsistent global environment and safety regulations, and regulations related to greenhouse gas (GHG) emissions and fuel economy. Political contributions were judged to be of medium potential impact on the Company and medium concern to stakeholders. Changing environment and safety regulations were judged to be of high potential impact on Ford and low concern to stakeholders. Regulations related to GHG emissions and fuel economy, however, were judged to be of high potential impact on the Company and high concern to stakeholders.

Based on this assessment, we have included discussion of these accountability issues in this Web report. In addition, we have included discussion of Ford's response to new and emerging regulations related to GHG emissions and fuel economy in the climate change section of the printed version of our report, which is focused on those issues we considered to be the most material for our Company at this time.

- In This Report
- Climate Change Public Policy
- Key topic: Climate Change

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- . Context
- Elements of Accountability
- · Management and Performance
- · Case Studies

Print this report

Download resources

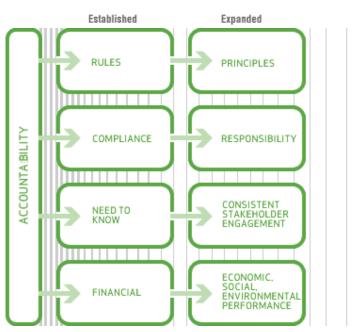
Send feedback

### Elements of Accountability

Some elements of accountability are well established through legal requirements and traditional governance practices. Other aspects are expanding in response to regulatory and legislative changes, greater societal expectations for all corporations and our expanded internal expectations for the Company (see the figure below).

Underlying all of these elements of accountability are several concepts:

- . Relevance: We must focus our efforts on issues that are most relevant to our business success and our stakeholders' concerns
- Delivery: We need to follow through with what we say we will do and strive for consistency in our communications and actions
- Transparency: We must actively communicate our performance in a balanced and straightforward manner



Society's concept of corporate accountability is expanding in response to a number of factors.

Although established accountability mechanisms remain an important foundation, we see expanding expectations for accountability emerging in four major areas shown in this graphic.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- . Context

#### Management and

#### Performance

- o Corporate Governance
- Setting and Communicating
   Standards for Employees
- Sustainability Governance and Integration
- Stakeholder Engagement
- Reporting and Transparency
- · Case Studies



Download resources

Send feedback

### Management and Performance

This section of our Web report provides an overview of Ford's corporate governance structure, as well as the policy framework and approach we use to communicate performance expectations to employees. It also details the structures and processes we use to manage sustainability issues, specifically.

In addition, it provides a high-level summary of key actions Ford took in 2006 related to its structures, policies and processes for corporate governance, employee standards and sustainability integration. Where applicable, it also includes information on significant activities and performance data in these areas.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- . Context
- · Management and Performance
- Corporate Governance
- Setting and CommunicatingStandards for Employees
- Sustainability Governance and Integration
- Stakeholder Engagement
- Reporting and Transparency
- · Case Studies



Download resources

Send feedback

### Corporate Governance

Upholding high standards of corporate governance is key to maintaining the trust of investors and other stakeholders. Ford's corporate governance principles, code of ethics and charters for each committee set the governance framework for Ford's Board of Directors.

Ford's Board addresses significant business issues, including those related to sustainability, as a full group and through five committees: Audit, Compensation, Environmental and Public Policy, Finance, and Nominating and Governance. Five Directors serve on the Environmental and Public Policy Committee, which is chaired by Dr. Homer Neal. The Committee reviews environmental, public policy and sustainability issues facing the Company around the world. During 2006, Ford's Board of Directors met 13 times and the Environmental and Public Policy Committee met three times.

We have established a procedure for shareholders to submit accounting and other concerns to independent directors and to send other communications to the Board.

In September 2006, Ford split the role of Chairman of the Board of Directors and Chief Executive Officer when Alan Mulally joined Ford as the Company's President and Chief Executive Officer. At that time, he was also elected to the Company's Board of Directors. William Clay Ford, Jr., who had previously served as CEO and Chairman, remains on the Board in the role of Chairman.

Under New York Stock Exchange (NYSE) Listed Company rules, a majority of our directors must be independent directors. The NYSE rules also provide that no director can qualify as independent unless the Board affirmatively determines that the director has no material relationship with the listed company. Ford's standards in determining whether or not a director has a material relationship with the Company are contained in the Company's Corporate Governance Principles and can be found on our website (see link below). Based on Ford's standards, eight of the Company's current 12 directors are independent. In addition, two other directors, both of whom left the Board during 2006, were determined by the Board to be independent.

For more information on Ford's corporate governance practices, including the principles and policies that govern the conduct of the Board and the members of the Board, go to <a href="http://www.ford.com/en/company/corporateGovernance/default.htm">http://www.ford.com/en/company/corporateGovernance/default.htm</a>.

- Ford.com
- Corporate Governance Policies
- Board of Directors
- Contact information

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- . Context
- · Management and Performance
- Corporate Governance
- Setting and Communicating
   Standards for Employees
- Sustainability-Related
   Standards
- Sustainability Governance and Integration
- Stakeholder Engagement
- Reporting and Transparency
- · Case Studies



Download resources

Send feedback

### Setting and Communicating Standards for Employees

For many years, Ford has had in place a comprehensive set of policies, directives and standards that communicate to employees worldwide our expectations relative to legal and internal Company requirements. In addition, we conduct a range of training programs to provide employees with in-depth information about what these standards mean in practice.

#### **Policy Letters and Directives**

Policy Letters establish a framework of broad, basic principles within which the Company conducts its business globally. Corporate Directives typically deal with narrower topics than Policy Letters and may only apply to a particular segment of the business or an organization and, therefore, are often more limited than Policy Letters in their applicability.

In 2006, Ford strengthened its Corporate Directives process so that all Directives, like Policy Letters, are now signed by the Company's CEO. In the past, Directives could be signed by a Company Officer. All new Policy Letters and Directives must be agreed to by the Company's top vice presidents before getting CEO approval.

In addition to Policy Letters and Directives, numerous descriptions of business practices, handbooks and statements of business standards govern the conduct of employees globally.

#### **Communicating Expectations to Employees**

Our Standards of Corporate Conduct employee handbook is currently being updated to include a more global focus. The handbook is a compilation of the most important and relevant policies, directives and standards for Ford employees, covering a broad range of topics from ethics to diversity to environment, health and safety. The updated handbook, which will be translated into as many as a dozen languages, will be issued to all employees in 2007.

To support the release of the updated handbook, we will roll out a new mandatory training course in 2008 for our global employees and other targeted personnel. The program will focus on ethics, conflicts of interest, gifts and favors – topics on which we have long provided employee training – as well as additional issues that have global applicability.

To help our employees worldwide understand and access resources that enable responsible behavior and enhance regulatory compliance, we have also implemented additional legal-awareness trainings covering selected substantive topics.

In addition, our nonmanufacturing workforce and contract personnel are regularly reminded of their responsibility to report any known or suspected violation of the law or Company policy. There are many different ways for individuals to report known or suspected violations, including direct communications to a member of one of the control groups – such as the General Auditors Office or the Office of the General Counsel – as well as telephone tip lines in many regions, email and Company intranet sites.

#### DOWNLOADS



OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- · Progress
- · Context
- · Management and Performance
- Corporate Governance
- Setting and Communicating Standards for Employees
- . Sustainability-Related Standards
- Sustainability Governance and Integration
- Stakeholder Engagement
- Reporting and Transparency
- · Case Studies

Print this report

Download resources

Send feedback

### Sustainability-Related Standards

The following are Ford standards with particular relevance to sustainability.

#### **Human Rights**

Our Code of Basic Working Conditions covers issues such as child labor, forced labor, working conditions and others. Ford originally adopted the Code in 2003, and in 2006 we updated it to include additional  $commitments \ on \ "community \ engagement \ and \ indigenous \ populations," \ "bribery \ and \ corruption," \ and$ "environment and sustainability". In 2007, the updated Code was approved, and also designated a formal Policy Letter.

#### **Diversity**

We are committed to the goal of equal opportunity in all aspects of our business and to the affirmative actions required to make that goal a reality. The pursuit of equal opportunity is not only right and appropriate, it is also sound business practice. Our Policy Letter and related Directive address equal opportunity and affirmative action. Disparate treatment on the basis of race, religion, color, age, sex, national origin, disability, gender identity, sexual orientation or veteran status is contrary to the spirit and intent of our nondiscrimination policies.

#### **Bribery and Corruption**

Our Policy Letters and related Directives govern integrity within Ford and state that it is our policy to comply fully with the laws of each country in which we do business. Further, no employee may agree to, make or solicit for their own or the Company's receipt any improper payments or other benefits, directly or indirectly, to or from any government or government agency official, legislator or other government employee or person purporting to represent government agencies. In most countries, employees and contract personnel must immediately report through the Company reporting system any requests or solicitations for an improper payment.

#### **Political Contributions**

Our Policy Letter on governmental relationships encourages employees to participate in political and governmental affairs and recognizes that Company efforts and programs to encourage employee participation must respect fully the right of employees to use personal time as they choose and decide the extent and direction of their political activities. We do not make contributions to political candidates or political organizations nor otherwise employ Company resources for the purpose of helping to elect candidates to public office, even when permitted by law, nor do we take a position for partisan political purposes, that is, specifically for the purpose of advancing the interest of a political party or candidate for public office. With proper executive approval, contributions may be made to support or oppose a state or local ballot proposal if such contributions are permitted by law and if the issue is of significant interest or importance to Ford.

The Ford Motor Company Civic Action Fund, supported by voluntary donations from Ford employees, gives campaign contributions to national, state and local political candidates from both major political parties in the United States. See the Political Contributions case study for more information. A list of contributions made during 2006 can be found at www.fec.gov.

#### **Customer Satisfaction and Safety**

Ford has several policy commitments aimed at the preservation of consumer health and safety. Our Policy Letter on quality sets the foundation for a process that emphasizes the importance of quality in everything we do and notes that the customer defines quality. It establishes Quality as Job 1 and emphasizes the importance of our Quality Operating System and the use of metrics and data to make decisions. Our Policy Letter on vehicle safety sets forth Ford's commitment to design and build vehicles that meet or exceed applicable laws and regulations, and to advance the state of the art in safety wherever practicable. We strive for continuous improvement in vehicle safety, which applies to accident avoidance attributes as well as occupant protection systems. This policy requires that we will be demonstrably active and responsible in all areas of automotive safety, including vehicle design and manufacture, operator behavior and the highway environment.

#### **Environment and Employee Health**

Our Policy Letters on the environment make clear that sustainable economic development is important to the future welfare of Ford and society in general. Protection of employee health and the environment are important considerations in business decision-making and early, integral parts of the planning process. Our products, services, processes and facilities are planned and operated to incorporate objectives and

#### RELATED LINKS

#### In This Report

- Human Rights at Ford
- Key topic: Diversity and Inclusion
- Environment
- Increasing Customer Awareness of our **Company and Products**

#### DOWNLOADS



Code of Basic Working Conditions PDF format, 14 Kb



Standards of Corporate Conduct PDF format, 2 Mb

targets, which are periodically reviewed so as to minimize to the extent practical the creation of waste, pollution and any adverse impact on employee health or the environment. Protection of health and the environment is a Companywide responsibility of employees at all levels.

#### **Privacy**

The trust and confidence of our customers are important to Ford Motor Company and essential to building long-term relationships and delivering excellent products and personalized services. The Company recognizes that customers, employees and others have concerns about privacy and expect us to protect and handle personal information responsibly.

Ford is committed to implementing responsible consumer privacy and data-handling practices. The Company's Policy Letter and related Directives are designed to ensure the continuing trust and confidence of individuals that entrust us with personal information. The Company continues to develop global policy that articulates our commitment to implementing responsible privacy and data-handling practices.

#### Advertising

In the United States, Ford Marketing Standards A-201 and A-203 govern Ford advertising creation and review. These standards contain the legal requirements for Ford advertising. The FTC Act and Amendments, which essentially state that all advertising must be truthful, not misleading and based on prior substantiation, also govern advertising creation and review. The FTC has a series of "Guides" on advertising topics such as fuel economy, environmental matters, price, warranties and other subjects. All 50 states have adopted a state form of the FTC Act that governs advertising in each of the states. Regulation M (Truth-in-Leasing) and Regulation Z (Truth-in-Lending) govern creation and review of advertising with credit messages. The major television networks, ABC, CBS and NBC, also have standards that govern advertising creation.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- Context
- · Management and Performance
- o Corporate Governance
- Setting and CommunicatingStandards for Employees
- Sustainability Governance and Integration
- Structures for ManagingSustainability
- Key Processes for Integrating
   Sustainability
- Stakeholder Engagement
- Reporting and Transparency
- · Case Studies



Download resources

Send feedback

### Sustainability Governance and Integration

Our long-term goal is to fully integrate sustainability issues into our core business structures and processes, rather than managing them as separate issues. As we build capacity in this area and move toward that goal, however, we recognize that it is also important to establish some sustainability-specific structures and processes.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- · Progress
- Context
- · Management and Performance
- Corporate Governance
- Setting and Communicating
   Standards for Employees
- Sustainability Governance and Integration
- Structures for Managing
   Sustainability
- Key Processes for Integrating
   Sustainability
- Stakeholder Engagement
- Reporting and Transparency
- . Case Studies

🔚 Print this report

Download resources

Send feedback

### Structures for Managing Sustainability

The following are the primary structures we use to manage and embed accountability for sustainability within Ford

- Board and Executive-Level Responsibility: Ford's governance of sustainability issues builds on a strong foundation of Board of Director and senior management accountability for the Company's environmental, social and economic performance. At the Board level, the Environmental and Public Policy Committee has primary responsibility for reviewing strategic issues related to sustainability, though sustainability issues are also addressed in other committees and by the Board as a whole. Within management, the Senior Vice President of Sustainability, Environment and Safety Engineering a new position created in 2007 has primary responsibility for sustainability issues.
- Dedicated Sustainability Function: Ford's Sustainable Business Strategies office coordinates corporate-wide sustainability strategy and activities, including leading the Company's corporate-level sustainability reporting and stakeholder engagement. Over the past year, the group has been restructured to more closely link it with other functions with responsibility for key aspects of sustainability. The Senior Vice President of Sustainability, Environment and Safety Engineering now has direct responsibility for the Sustainable Business Strategies, Environmental Policy, and Safety groups, as well as dotted-line oversight over the Sustainable Mobility Technology group (which is formally part of the Product Development function).
- Integration into Core Functions: Numerous functions within the Company have responsibility for some or multiple aspects of sustainability. For example, the Workplace Health and Safety Office, Environment Quality Office and Human Resources Department each manage specific issues that fall under the umbrella of sustainability. In addition, as Ford works to embed sustainability more deeply across all functions, groups such as Product Development, Purchasing and Manufacturing are taking on an increasing role in the Company's sustainability efforts. For example, Product Development is taking the lead on the Company's sustainable mobility efforts, and Global Purchasing is managing Ford's Code of Basic Working Conditions supply chain assessment and training programs.
- Issue-Specific Structures: Ford has also developed structures to address specific, global sustainability issues facing the Company. For example, we have established a Sustainable Mobility Group, a senior-level team led by the Senior Vice President of Sustainability, Environment and Safety Engineering, that is working to define our climate change strategy and delivering our sustainability strategy in the marketplace. The strategic direction is provided by a senior executive forum, including Vice President and executive stakeholders, which guides the development of the vision, policy and business goals.
- Sustainability Learning Community: In 2005, we launched our Sustainability Learning Community, a voluntary, cross-functional network for Ford employees designed to build internal capacity on sustainability issues. In addition, the Learning Community aims to provide a mechanism for connecting people across the Company as well as soliciting new and different perspectives to help Ford address its key sustainability opportunities and challenges. The Learning Community holds two in-person meetings per year to allow members to share ideas on integrating sustainability in their own jobs and in Ford's overall strategic intent. In 2006, nearly 200 people attended some or part of the meetings, at which, among other things, they helped develop proposals for new, sustainability-driven approaches to the business. Also in 2006, Ford developed an intranet site to provide members of the Learning Community and others with sustainability information and resources, as well as the opportunity to network virtually. More than 600 Ford employees have signed up on the site to receive sustainability news and information. We view the Learning Community as a critical, grassroots structure for integrating sustainability across Ford's culture. See the Voices section for some employee views.

- In This Report
- Letter from Sue Cischke
- Voices: Ian Olson Ford Motor Company
- Voices: Sheryl Connelly Ford Motor Company
- Voices: Susan Rokosz Ford Motor <u>Company</u>
- Voices: Eric Wingfield Ford Motor
   Company
- Ford.com
- Corporate Governance Policies

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ACCOUNTABILITY

- · Progress
- Context
- · Management and Performance
- Corporate Governance
- Setting and Communicating
   Standards for Employees
- Sustainability Governance and Integration
- Structures for Managing
   Sustainability
- Key Processes for Integrating Sustainability
- Stakeholder Engagement
- Reporting and Transparency
- . Case Studies

🔚 Print this report

Download resources

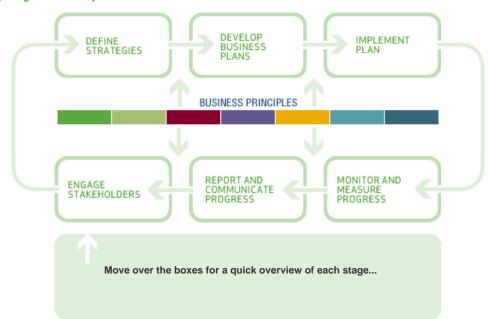
Send feedback

### Key Processes for Integrating Sustainability

We believe that integrating sustainability considerations into our existing systems and processes – rather than creating new systems and processes – is the most effective way to embed sustainability into our business. The following are some examples of how we are doing this.

- Business Plan Review Meetings: Sustainability issues are a formal part of Ford's Business Plan Review (BPR) meetings, one of the key management processes used within the Company. At these weekly meetings, convened by Ford's CEO, members of the Company's top leadership team review sales, financial, manufacturing and other information to help them manage global operations and identify issues that are critical to the future of the Company. Each unit also provides an update on performance relative to their individual scorecards. To help us manage corporate-wide sustainability issues, Ford has developed a sustainability scorecard, which is reviewed alongside other units' scorecards at the BPR meetings. Also, functions including Manufacturing, Product Development and Purchasing have integrated sustainability-specific indicators into their overall scorecards. Ford's CEO also convenes weekly Special Attention Review meetings to look in-depth at any issues identified as potential concerns on any unit's scorecard. Sustainability issues have been covered at these meetings.
- Strategic Review Process: Like many companies, Ford conducts a regular strategic planning process to analyze the long-term, global issues most likely to affect our business. Beginning in 2006, the Company's Sustainable Business Strategies office provided formal input into that process. Their input focuses on the key sustainability opportunities and challenges Ford is likely to face in the future, and affects both the analysis of the Company's positioning and the options available moving forward. Ultimately, we expect this work to result in an operational roadmap, metrics, milestones and aligned purpose.
- Corporate Policy Letters and Directives: Ford maintains a comprehensive set of Policy Letters, Directives and other corporate standards that govern all Company activities. Several of these relate to aspects of sustainability. For example, in 2003 Ford adopted a Code of Basic Working Conditions, implementation of which is supported by a robust assessment and training process. The <a href="Code">Code</a> was updated in 2006, and in 2007 was approved and formally adopted as a corporate Policy Letter.
- Management Systems: Ford uses a variety of systems and processes to manage the different aspects of our business, several of which govern or incorporate sustainability issues. For example, all Ford manufacturing facilities and our product-development function are certified to ISO 14001, the leading global standard for managing environmental issues. In addition, we have asked our preferred "Q1" suppliers of production parts to certify their facilities. In another example, Ford's Procurement function has integrated assessments of working conditions into its broader process for certifying suppliers on issues such as quality, cost and delivery.

#### **Integrating Sustainability**



OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- Context
- · Management and Performance
- Corporate Governance
- Setting and CommunicatingStandards for Employees
- Sustainability Governance and Integration
- 5takeholder Engagement
- Reporting and Transparency
- · Case Studies



Download resources

Send feedback

### Stakeholder Engagement

We believe that listening and responding to stakeholders is a central part of being an accountable company. In addition, stakeholder engagement is vital to our ability to serve our customers and the local and global communities in which we operate. It is also a critical tool in tuning in to signals about changes in the world and the marketplace that may present risks and opportunities.

Stakeholder engagement takes place in countless formal and informal ways every day across our Company, from facility personnel's meetings with local community groups to market research with customers to convenings of Ford dealers or suppliers. Some of these are described in the <a href="Community">Community</a> and <a href="Quality of Relationships">Quality of Relationships</a> sections.

At the corporate level, we use a variety of mechanisms to engage with stakeholders on sustainability issues, specifically. Some of these are informal and ad hoc – indeed, simply picking up the telephone to discuss an issue with any of the numerous sustainability-related organizations or individuals with whom Ford has a relationship is a part of our standard protocol. Others, including the following, are more formal:

- The creation of forums specifically to gather stakeholder input on our activities, challenges and
  performance. For example, we worked with stakeholder committees to help shape and provide
  feedback on our 2006/7 and 2004/5 sustainability reports. We have also organized meetings with
  individuals and groups of stakeholders to solicit input on the key sustainability challenges and
  opportunities facing Ford. These and other engagements have been critical in shaping our
  sustainability strategy.
- Outreach on specific issues of particular importance to Ford or our stakeholders. For example, stakeholder input has been critical to the development and testing of our approach to human rights over the past several years. Several organizations, notably the Interfaith Center on Corporate Responsibility, have been key partners to Ford, providing information, input, and feedback at every step of the process. In 2006, for example, we sought specific input to help us update our Code of Basic Working Conditions. We also devoted particular effort to engaging stakeholders on issues related to sustainable mobility.
- Engagement with local stakeholders in the communities in which we operate as part of our Code of Basic Working Conditions assessment process. In 2006, Ford updated our Code to include an enhanced commitment to engage stakeholders. Specifically, it states that Ford will consider indigenous peoples among our primary stakeholders, and will openly and honestly engage with those individuals and community groups that have an interest in the Company's projects and activities. Ford's performance against that commitment will be assessed as part of our overall process to assess compliance with our Code.
- Dialogue and, in many cases, ongoing cooperation with organizations that have filed shareholder resolutions on environmental and social issues. During the 2006 proxy season, Ford received socially or environmentally related resolutions calling on the Company to:
  - o Report on lobbying related to federal fuel economy standards,
  - Link executive compensation and greenhouse gas reductions,
  - Produce a "scientific report on global warming/cooling," and
  - $_{\odot}$  Remove reference to sexual orientation in the Company's equal employment opportunity policy.

Also in 2006, Ford received a resolution related to the adoption of global labor standards, which was subsequently withdrawn following dialogue with the proponents.

- Consultation with organizations that have implemented campaigns targeting Ford.
- Engagement with rating and ranking organizations in the investment community, which provides insight into external perspectives on some important issues and our relative performance in addressing them.

- In This Report
- Community
- Quality of Relationships
- Key topic: Human Rights
- Ceres Stakeholder Team
- **External Web Sites**
- Interfaith Center on Corporate Responsibility

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ACCOUNTABILITY

- · Progress
- Context
- · Management and Performance
- Corporate Governance
- Setting and CommunicatingStandards for Employees
- Sustainability Governance and Integration
- Stakeholder Engagement
- Reporting and Transparency
- Case Studies



Download resources

Send feedback

### Reporting and Transparency

External reporting is a fundamental part of accountability. Sustainability reporting not only demonstrates transparency but, in our view, it is the basis of organizational learning, demonstrates our values and both reflects and drives outstanding economic, environmental and social performance. The following are central elements of our reporting strategy.

#### Materiality

Over the last several years, Ford has sought to continually refine its sustainability reporting to increase its materiality and responsiveness to stakeholders. A key part of our reporting strategy has been the development of a <u>materiality analysis</u> process, which has been a critical tool in helping shape the content of our report.

For our 2006/7 report, we are publishing a print report that focuses on those issues determined to be most material to Ford over the three-to-five-year time horizon. At the same time, this comprehensive, Web-based report provides information on a broad range of other sustainability issues of importance to Ford and our stakeholders. The Web report also includes detailed performance data, case studies, stakeholder interviews and other supporting information.

#### **Assurance**

In recent years, Ford has explored different external assurance models as a way to increase the report's thoroughness, transparency and utility to stakeholders. For our 2004/5 report, we worked with Ceres and SustainAbility, an independent think tank and strategy consultancy, to create a Report Review Committee made up of 13 external stakeholders to participate and advise on the development of the report. Their feedback on our process and the content of the report itself was included in the report.

For our 2005/6 report and the current report, Ceres again convened stakeholder committees to advise us (see <a href="www.ceres.org">www.ceres.org</a> for more information on Ceres). The committee reviewing this report met twice: once to review and comment on the materiality analysis, and once to review and comment on a nearly final draft of the report. The process is similar to the one we undertook for our 2004/5 report, though streamlined to include fewer meetings of the committee, as well as to have those meetings take place primarily by teleconference, rather than in person. A statement from the committee is again included in the report.

#### **External Guidelines**

Since its 2002 report, Ford has reported "in accordance" with the 2002 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI). In 2006, the GRI issued updated guidelines, called G3. Ford supported and participated in the development of the process that produced the updated guidelines. Ford's 2006/7 report is aligned with the G3 guidelines at a self-declared application level of A +. (See <a href="www.globalreporting.org">www.globalreporting.org</a> for more information on GRI and application levels.)

#### **Targeted Reporting**

Linked with our efforts to increase the materiality of our reporting, Ford has also taken steps to produce more targeted audience-, location- and subject-specific sustainability communications. For example, we have issued subject-specific reports on <a href="climate change">climate change</a> and <a href="HIV/AIDS">HIV/AIDS</a>.

Also, several Ford facilities, brands and country operations produce their own reports detailing the sustainability issues they face within their particular regions or operations. For example, Volvo publishes an annual sustainability report. Several of our country operations, such as Ford China, and local facilities also produce public reports. We have also provided input to the Ceres Facility Reporting Project. (See <a href="https://www.facilityreporting.org">www.facilityreporting.org</a> for more information.)

Because we have identified employees as a key audience for our report, we have developed a sustainability intranet site to provide them with more tailored information. We have also identified mainstream and socially responsible investors as an important target audience and, in the future, we intend to develop sustainability communications tailored to their particular information needs. As a first step in this direction, we are working to align the publication of our Annual Report and Sustainability Report so that we are providing investors – as well as other stakeholders – with complete information on the economic, social and environmental performance of our Company at one time.

#### Benchmarking and External Feedback

Ford seeks formal and informal feedback on our report from a number of organizations with expertise in

- In This Report
- Materiality Analysis
- Ceres Stakeholder Team
- **External Web Sites**
- Ceres
- Global Reporting Initiative
- Ceres Facility Reporting Project

reporting. One of those was SustainAbility, which we asked to review our 2004/5 report according to their and the United Nations Environment Program benchmarking methodology. A summary of the benchmarking findings, which were consistent with other feedback we received, can be found at: <a href="http://www.ford.com/en/company/about/sustainability/2005-06/accTransparencyReview.htm">http://www.ford.com/en/company/about/sustainability/2005-06/accTransparencyReview.htm</a>.

Ford also commissioned SustainAbility to gather and analyze report feedback from Ford stakeholders directly. SustainAbility conducted in-depth interviews with more than 20 internal and external Ford stakeholders to get their feedback on our 2004/5 Sustainability and Climate Change reports. Overall, stakeholders interviewed had a favorable impression of our reporting, believing that it was strong and sophisticated. However, many also noted a lack of information on strategy, goals and performance improvements as areas for future attention by Ford.

Ford's 2004/5 report was placed in the top five of the 2005 Ceres/Association of Chartered Certified Accountants North American Awards for Sustainability Reporting. In particular, the judges commended Ford for its approach to materiality and assurance.

OVERVIEW > OUR IMPACTS > VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 PRODUCTS AND CUSTOMERS COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT Case Studies . ACCOUNTABILITY • Progress Political Contributions Context Ford Motor Company is an active participant in the United States political process in a manner that is · Management and Performance transparent and directly related to our business issues. We operate in a highly competitive and regulated environment, and believe that our participation in the democratic process is required if we are to fulfill our Case Studies responsibilities to our employees, suppliers, and shareholders. Political Contributions Print this report Download resources Send feedback

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ACCOUNTABILITY

- Progress
- . Context
- · Management and Performance
- · Case Studies
- **Political Contributions**







#### **Political Contributions**

Ford Motor Company is an active participant in the United States political process in a manner that is transparent and directly related to our business issues. We operate in a highly competitive and regulated environment, and believe that our participation in the democratic process is required if we are to fulfill our responsibilities to our employees, suppliers, and shareholders.

Ford Motor Company's political contributions in the United State are made solely through our corporate Political Action Committee, the Ford Motor Company Civic Action Fund (the Ford PAC). Ford Motor Company does not make any corporate financial contributions directly to political candidates. The Ford PAC is funded by voluntary contributions of eligible, salaried employees and retirees. All contributions made to the Ford PAC and all distributions from the Ford PAC are in compliance with Federal Election Commission regulations.

Ford Motor Company complies fully with all laws and rules governing our employees' interactions with officials at all levels of government (federal, state and local). Furthermore, all of our contact and dealings with government officials must not only comply with all applicable laws, but also with our global corporate policies and standards of corporate conduct.

Political contributions by the Ford PAC are made in accordance with our business objectives that support our competitiveness in the global automotive industry. Ford PAC contributions are not made on the basis of social issues, party affiliation, or political ideology. All Ford PAC contributions in excess of \$1000 must be approved by the Ford PAC Political Contributions Committee (PCC), a cross-functional group of Ford employees representing a broad range of organizational levels.

(Note: Under federal law, foreign nationals are prohibited from making contributions in connection with any U.S. election and are not eligible to join the Ford PAC.)

OVERVIEW >

OUR IMPACTS >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND CUSTOMERS

#### Progress

- . Context
- · Management
- Performance
- Data
- Case Studies



Nownload resources

Send feedback



#### **About This Principle**

We will provide excellent mobility products and services.

We will achieve this by:

- Focusing on customer satisfaction and loyalty, and keeping our promises
- Anticipating and meeting changing customer needs
- Delivering innovative products and services that offer high value in terms of function, price, quality. safety and environmental performance

#### **Progress Since Our Last Report**

Over the past year, our markets have continued to change. Consumers have shown an increasing interest in more fuel-efficient vehicles, though they do not want to compromise on performance, style or affordability. Demand for vehicles in developing countries has continued to grow and is outpacing demand growth in our developed markets in the United States and Europe. Also, we have experienced significant financial difficulties and have engaged in a major restructuring of our product- and customerrelated activities.

Throughout all of these changes, we have continued to deliver new and improved products. In North America, we introduced the popular Ford Fusion, Mercury Milan and Lincoln MKZ sedans and the Ford Edge and Lincoln MKX crossover vehicles, which offer much of the functionality of traditional SUVs with significantly improved fuel economy.

In Europe, Ford's overall sales increased by 5 percent compared to 2005. The Ford S-MAX won Europe's Car of the Year, and the Ford Transit won International Van of the Year for 2007. Ford also maintained the best-selling car nameplate in Britain for the 30th consecutive year, and the Ford Transit remained the best-selling medium commercial vehicle in Europe. Please see the Global Product Guide for an overview of our products in all of our global markets.

We continued to grow in developing markets. In Russia, sales of Ford-brand vehicles increased approximately 92 percent in 2006. Ford remained the best-selling brand in Turkey. Our sales in the Asia Pacific region were up by 9 percent, with the majority of growth occurring in China and India. In China, we introduced more than 50 new dealers to meet growing consumer demand. Sales in South America were up 14 percent in 2006. As we continue to increase our presence in developing countries, we are also investigating strategies to deliver a new approach to sustainable mobility to a wider range of developing market consumers.

We are also developing and offering more sustainable products. In North America, Ford continued to offer the Ford Escape Hybrid and the Mercury Mariner Hybrid and expanded access to Flexifuel vehicles and renewable fuels. Ford produced almost 250,000 Flexifuel vehicles in 2006 alone and joined with VeraSun to expand renewable fuel availability in the Midwest. We also continued our efforts to develop nextgeneration hybrids and hydrogen vehicles.

Ford of Europe last year announced an investment of £1 billion to develop and implement fuel efficiency and emissions-reduction technologies. Ford of Europe also implemented new sustainable product metrics focused on improving the lifecycle environmental impacts of our vehicles. As a result, Ford of Europe received third-party certification of its lifecycle impact improvements. The Ford S-MAX and Galaxy vehicles also received an allergy-free air quality certification.

The quality of our vehicles has improved steadily, with some strong gains in 2006, including the following:

- . In the United States:
  - o In the first quarter of 2007, initial quality, which measures our customers' impressions of

#### Sheryl Connelly >

Ford Motor Company



#### KEY TOPICS

Key material issues covered in this

Mobility

- Ford.com
- Ford U.S. Vehicles
- Ford UK

their vehicles at three months in service, were equal to or better than our primary

- Six of our vehicles ranked as segment leaders for top quality: the Ford Fusion and Mercury Milan in midsize cars; the Ford Mustang and Shelby GT500 in sports cars; the Ford Expedition EL in large traditional SUVs; and the Lincoln Navigator in large premium utilities.
- o "Things gone wrong" improved by 33 percent between 2001 and 2006, and by 15 percent in
- Warranty spending per vehicle decreased by 27 percent compared to vehicles produced in 2005.
- Ford of Europe:
  - $_{\odot}\,$  "Things gone wrong" improved by 20 percent from 2001 to 2006, and improved by 14 percent in 2006 alone.
  - Warranty spending decreased by 27 percent, and there were no safety recalls in 2006.
- · Ford Asia Pacific:
  - o "Things gone wrong" improved by 14 percent.
  - Warranty cost per unit decreased by 41 percent.
- Ford South America:

  - "Things gone wrong" improved by 15 percent. Warranty cost per unit decreased by 19 percent.

Finally, we continue to work hard to understand and anticipate the products and services that customers want, including customers' demand for more sustainable vehicles. We have focused on developing a clear identity for each of our brands based on extensive market research and target customer definitions.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- CUSTOMERS
- Progress

#### **№** Context

- Management
- · Performance
- Data
- · Case Studies







#### Context

### Responding to Changing Markets

Ford has been monitoring and responding to several key market trends, including the following:

- As developing countries gain economic momentum, their citizens are seeking levels of personal mobility long enjoyed by people in the developed world. This increase in personal mobility poses both opportunities and challenges. Studies show that most of the future growth in the automotive sector will be in developing countries. Therefore, these markets represent a significant business opportunity for Ford. At the same time, however, there are significant economic and cultural differences between our North American and European customer base and our customers in developing markets. We are developing new products, services and business models to effectively and profitably meet the mobility needs of developing market consumers. Also, if developing countries adopt the same approaches to personal mobility as developed countries have, it will further strain environmental and social systems. We are working to deepen our understanding of all of these challenges and opportunities and to develop sustainable mobility solutions for all of our
- An increasing demand for more fuel-efficient vehicles and cleaner technologies and fuels: Fuel prices have risen sharply and become more volatile. The public is increasingly concerned about the linked issues of global climate change, energy security and fuel economy. As a result, consumers are demanding more fuel-efficient vehicles, cleaner vehicle technologies and cleaner-burning, domestically available fuels. In addition, consumers are including ethical considerations in their purchase decisions. Ford is responding to these trends by developing and introducing products that are more fuel efficient and environmentally and socially beneficial, without sacrificing performance, style or affordability. We are also developing and implementing new vehicle technologies and fuel options, including hybrid vehicles and ethanol-ready Flexifuel vehicles. And we are developing new ways to communicate with consumers about their environmental and social concerns and our responses to those concerns.
- Increasing competition and speed of innovation: The automotive market is
  becoming increasingly competitive, with new and existing competitors introducing new products and
  innovations faster than ever. Ford is responding by realigning all of our capabilities to deliver
  customer-focused innovations in design, safety and sustainability. We are also continuously
  improving our product development and quality systems to deliver ever-better products, faster.

#### **Assessing Materiality**

global customers.

Our <u>materiality analysis</u> revealed that these trends are important to the Company and stakeholders alike. Specifically, the analysis identified our response to climate change and the demand for better fuel economy, cleaner technologies and cleaner fuels, as well as our mobility and emerging markets strategies, as issues of importance.

Our "key topic" focus in this section of the report is mobility strategies for emerging markets, in response to the growing importance of this issue in the materiality analysis. The discussion of this issue includes our product and service strategies for emerging markets, and our role in emerging markets. These issues are of growing interest to both the Company and our stakeholders, and they were rated as areas of high and mid level for Company influence respectively. This increase in materiality was largely driven by increasing concerns over congestion, shifting demographics, urbanization and social equity; a high level of stakeholder concern over access to mobility; and Ford's own vision for mobility in emerging markets.

- In This Report
- Materiality Analysis
- Key Topic: Mobility
- Sustainable Mobility Technologies

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context

#### Management

- · Performance
- Data
- · Case Studies







### Management

Development of our new products starts with identification of advanced technologies and breakthrough ideas by our Research Labs and our Advanced Product Strategy, Advanced Marketing and Advanced Design groups. These groups continuously scan the latest developments in technologies and consumer trends to identify the best new technologies and anticipate the needs and desires of the marketplace. Once a new product is conceived, product development engineers, designers and product marketing teams work together to finalize a vehicle concept. Once approved, our vehicle programs are brought to market using our Global Product Development System, or GPDS.

The GPDS, launched in 2005, merges the best product-creation methods from all of Ford Motor Company's global operations, including Mazda's efficient manufacturing disciplines, Volvo's work with computer-aided design and manufacturing, and a return to in-house engineering of all major vehicle components. The GPDS provides a common set of milestones and metrics for the development of all vehicle programs across our regional business groups, which increases efficiency and quality. As a part of this system, we require all vehicles to meet specific competitive and performance targets at every milestone along the product's development path. These targets address a wide range of environmental performance criteria, such as fuel economy, recycled materials and substances of concern.

In early 2007, we reorganized our product development management systems. Our product development organizations now report to one global leader – the Group Vice President of Global Product Development. Similarly, we are planning to have all of our manufacturing groups report to a single global leader in the near future. These and associated management changes allow us to be more globally integrated across our regional business organizations so we can develop better products, more efficiently, at a lower cost. We also strengthened our sustainable mobility governance to provide more integrated development and implementation of sustainability initiatives. Please see our Climate Change section for more information on these changes.

In addition to these structural changes, we updated the GPDS this year by improving our tracking and reporting system for metrics related to recycled content and substances of environmental concern. A discussion of our part materials labeling and materials management can be found in the <a href="Environment">Environment</a> section of this report.

- . In This Report
- Key topic: Climate Change
- Environment
- Voices: Derrick Kuzak Ford Motor Company

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- . Context
- · Management

#### Performance

- Key topic: Mobility
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies



Download resources

Send feedback

#### Performance

#### Key topic: Mobility

Several trends within our industry – and the global economy broadly – have led Ford to reexamine the concept of mobility and, with that, the products and services we offer. For example, as developing countries gain economic momentum, their citizens are seeking levels of personal mobility long enjoyed by people in the developed world. This poses opportunities and challenges for Ford, and for society more generally.

#### Leading with Products

High-quality, desirable and affordable products are the foundation of our business. We know that delivering great products is critical to both the financial sustainability of the Company and our ability to contribute to the long-term sustainability of our planet. Therefore, in both our short-term business turnaround and our long-term quest for sustainable mobility, we are leading with products using several key strategies.

#### Focusing on Customers

Ford Motor Company serves more than 6 million customers worldwide. Our major regional markets include North America, South America, Western Europe, Eastern Europe, Russia, Asia and Australia.

#### Ford Motor Credit Company

Our corporate citizenship and sustainability reporting has traditionally focused on our automotive sector - the part of the business that designs and builds vehicles. The other major part of our business is Ford Motor Credit Company, a wholly owned subsidiary that began operations in 1959.

OVERVIEW >

OUR IMPACTS >

VOICES:

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- Management
- Performance
- Developing Sustainable
   Mobility Strategies for
   Emerging Markets
- Expanding Our Product
   Offerings in Developing
   Countries and Revitalizing
   Economies
- Taking a New Approach to
   Personal Mobility in Developing
   Countries
- Sustainable Mobility
   Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- Data
- . Case Studies

Print this report

Download resources

Send feedback

### Key topic: Mobility

Several trends within our industry – and the global economy broadly – have led Ford to reexamine the concept of mobility and, with that, the products and services we offer. For example, as developing countries gain economic momentum, their citizens are seeking levels of personal mobility long enjoyed by people in the developed world. This poses opportunities and challenges for Ford, and for society more generally.

If developing countries adopt the same unsustainable approaches to mobility that have been used in developed countries, it will further strain environmental and social systems. At the same time, meeting mobility needs in these markets will help improve economic opportunity and quality of life. For Ford, developing markets represent a significant business opportunity. However, economic and cultural differences between those markets and the developed markets we have traditionally served mean we need to fundamentally rethink how we meet their needs.

This section describes what Ford is doing to deepen our understanding of the future of mobility and develop new products, services and business models to effectively and profitably offer sustainable mobility solutions for all of our global customers.



Brigade Road, Bangalore, India

VOICES Susan Zielinski

University of Michigan



OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### PRODUCTS AND

- CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- . Developing Sustainable **Mobility Strategies for Emerging Markets**
- . Expanding Our Product Offerings in Developing Countries and Revitalizing Economies
- Taking a New Approach to Personal Mobility in Developing Countries
- Sustainable Mobility Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

### Developing Sustainable Mobility Strategies for Emerging Markets

Emerging markets are an important source of growth in the automotive industry. We have been focusing on three primary types of emerging markets:

- 1. Developing countries such as China, India and Brazil, where economies are growing rapidly. Developing countries are projected to account for the highest growth in demand for vehicles and
- 2. **Revitalizing economies** including countries such as Russia that are experiencing periods of high growth after prolonged periods of economic stagnation. Revitalizing economies also include areas within developed economies that have experienced decline but are undergoing economic renaissance.
- 3. **High-growth niches** within developed markets such as the United States and Europe, which overall show little growth in sales volume. Some of these niches include hybrid vehicles and other advanced clean technologies; smaller, more fuel-efficient vehicles; luxury vehicles; crossover vehicles; and vehicles that run on flexible or alternative fuels such as ethanol and biodiesel. Many of the high-growth segments in developed automotive markets reflect increased demand for more sustainable mobility solutions.

All of these types of emerging markets represent a significant business opportunity for Ford, and also offer us the chance to provide personal mobility options that improve environmental and social well-being. In developing countries and revitalizing economies, customers are actively seeking increased access to personal mobility. Meeting the needs of these customers will help them to improve their economic opportunity and quality of life. In developed markets, increased demand for hybrids and other advanced clean technologies enable us to bring to market technological innovations that not only reduce environmental impacts today, but also have the potential to improve the environmental performance of all our products over the long term.

Emerging markets also pose challenges. For example, the majority of potential consumers in developing countries survive on less than five dollars a day. As a result, Ford will need to develop new products, services and business models that are accessible to these consumers, and effectively and profitably meet their mobility needs.

More importantly, unless developing countries adopt more sustainable approaches to personal mobility than those used in developed countries, greenhouse gas emissions and traffic-related fatalities will continue to increase, and congestion will bring mobility in growing cities to a grinding halt.

Ultimately, sustainable mobility solutions will be required across all markets. But the development of more sustainable options – whether for developing country markets or high-growth niches in the United States or Europe – requires a significant investment in new technologies and coordination between automotive companies, fuel and energy companies, governments and consumers.

To date, Ford is focusing efforts on:

- . Expanding our product offerings in developing countries and revitalizing economies
- . Taking a new approach to personal mobility in developing countries
- · Developing advanced clean technologies that meet market needs and improve environmental performance

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND . CUSTOMERS

- · Progress
- Context
- Management
- · Performance
- Key topic: Mobility
- Developing Sustainable Mobility Strategies for **Emerging Markets**
- . Expanding Our Product Offerings in Developing **Countries and Revitalizing Economies**
- Taking a New Approach to Personal Mobility in Developing Countries
- Sustainable Mobility Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

### Expanding Our Product Offerings in Developing Countries and Revitalizing Economies

We know that the highest growth in demand for vehicles will be in developing countries such as China and India. In response, we are increasing our production capacity in China, India and the rest of Asia, as well as launching new products in these and other developing markets to meet consumer needs and

Last year, we increased our production capacity in China to 200,000 units annually at the Changan Ford plant in Chongqing. This plant produces the Mazda 3 and Volvo S40, among other vehicles. We also completed a new assembly and engine plant in conjunction with Mazda in Nanjing, China. This plant will produce 160,000 vehicles annually at the outset and could increase to 200,000 annually.

In India, we recently launched the Fusion, a small SUV, and the Fiesta sedan, with great customer feedback. In fact, Ford ranked second for Customer Satisfaction in India by J.D. Power Asia Pacific. In 2007, we will begin producing and selling the S-MAX multi-purpose vehicle and Volvo S40 in China. We have experienced rapid growth in some of these developing and revitalizing markets. Ford's share of the Turkish market increased to 17.1 percent – the fifth year in a row that the Ford brand has led the market in sales in Turkey. In Russia, sales of Ford-brand vehicles increased approximately 92 percent to 116,000 units in 2006. Our sales in the Asia Pacific region were up 9 percent in 2006, with the majority of the growth occurring in China and India. Sales in South America were up 14 percent in 2006, from 335,000 to 381,000 units sold.

This recent sales growth represents a significant achievement for the Company. At the same time, we know that our long-term success in these developing and revitalizing economies will depend on our offering new types of mobility solutions that are increasingly sustainable and tailored to the unique needs of these markets. Our sustainable mobility strategy is aimed at ensuring we do just that.



- In This Report
- Global Product Guide
- Ford Motor China's Corporate Social Responsibility Programs Recognized

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- Performance
- o Key topic: Mobility
- Developing Sustainable
   Mobility Strategies for
   Emerging Markets
- Expanding Our Product
   Offerings in Developing
   Countries and Revitalizing
   Economies
- Taking a New Approach to
   Personal Mobility in
   Developing Countries
- Sustainable Mobility
   Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- Data
- . Case Studies

Print this report

Download resources

Send feedback

### Taking a New Approach to Personal Mobility in Developing Countries

#### IN THIS SECTION:

- ₹ Taking a New Approach to Personal Mobility in Developing Countries
- → Partnerships as Avenues for Learning and Action
- → Plans for the Future

We believe that providing sustainable mobility solutions for customers in developing countries is one of the key business, social and environmental challenges of the 21st century. Given our knowledge and experience, we also believe this is an area in which Ford may be able to have particular positive impact.

#### **Identifying Mega-Trends**

Over the past year, Ford has undertaken an intensive research effort to identify and understand global "mega-trends" that we must respond to if we are to deliver sustainable mobility solutions.

The top five mega-trends, which are changing transportation and business realities across the globe, are as follows:

- . Climate change and greenhouse gas emissions
- · Rapid urbanization
- · Congestion associated with a rapid increase in vehicles and traffic in urban areas
- · Social inequality, including increasing income inequality and associated social issues
- Shifting demographics, especially an increase in older populations in developed countries and an increase in younger populations in developing countries

These mega-trends are especially important in developing countries, where the negative impacts of a rapid increase in vehicles are outpacing the positive impacts of mobility in many areas. In fact, in many developing countries, these trends are combining in massive and rapidly growing urban conglomerations called "mega-cities," which are a primary focus of our efforts to develop sustainable mobility solutions in emerging markets.

#### Mega-Cities: The Icon of Personal Mobility Challenges

Mega-cities are urban areas with more than 10 million residents. There are already at least 25 megacities worldwide. Twenty are located in the developing world, as are seven of the nine most populous. By 2015, there are projected to be at least 35 mega-cities, with virtually all the growth in developing countries. Mega-cities often experience a wide range of social and environmental problems, many of them related to mobility.

All of the mega-trends we have identified, as well as other challenges to sustainable mobility, are at their worst in mega-cities, including paralyzing traffic congestion, air pollution, vehicle-related injuries and fatalities, and health problems. Furthermore, social inequality and the dislocation of families and communities are increasing as people move from rural areas to mega-cities seeking economic opportunities. Developing mega-city mobility strategies will require addressing the mobility needs of rural as well as urban residents, as many mega-city problems could be improved by developing new approaches to the transportation of people and goods between rural and urban areas, and by reducing the need for rural—urban migration.

#### **New Approaches to Developing Markets**

We are exploring new strategies for developing country markets that take into consideration these economic, cultural and infrastructure characteristics. Central to our approach is the recognition that, because these markets are different than the ones Ford has historically served, we need to conduct extensive stakeholder engagement to help us understand the wants and needs of consumers in developing countries.

Additionally, we appreciate that it will require us to explore new types of business and partnership models to develop and bring to market successful mobility solutions in developing countries.



FAST FACT

35 mega-cities by 2015 with more than 10 million residents each

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Developing Sustainable Mobility Strategies for **Emerging Markets**
- . Expanding Our Product Offerings in Developing Countries and Revitalizing Economies
- Taking a New Approach to Personal Mobility in **Developing Countries**
- Sustainable Mobility Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- · Data
- · Case Studies



Download resources

Send feedback

### Taking a New Approach to Personal Mobility in Developing Countries

#### IN THIS SECTION:

- ₹ Taking a New Approach to Personal Mobility in Developing Countries
- Partnerships as Avenues for Learning and Action
- Plans for the Future

#### Partnerships as Avenues for Learning and Action

In our view, developing practical, broad-based sustainable mobility solutions will require the combined efforts of transportation companies, energy companies, governments and consumers. That is why partnerships have been a key element of Ford's sustainable mobility strategy.

For the past six years, Ford has been a sponsor and participant in the Sustainable Mobility project of the World Business Council for Sustainable Development (WBCSD). This project brings together the insights and viewpoints of a wide range of corporations and global thought leaders to develop a vision for sustainable mobility and to define the challenges and possible pathways for reaching this vision.

The WBCSD defines sustainable mobility broadly as the need for individuals and societies to move freely, gain access, communicate, trade and establish relationships, without sacrificing other essential human and ecological values. This broad definition and systems-thinking approach has guided our approach to meeting the challenges of providing sustainable mobility in developing countries.

In addition to our engagement with the WBCSD, Ford participates in a number of other initiatives aimed at developing more sustainable approaches to mobility in emerging markets.

- ▼ World Resources Institute/EMBARQ Istanbul
- <u>▼ Global Road Safety Initiative</u>
- \* Sustainable Mobility and Acessibility Research Transformation (SMART)
- Prince of Wales Business and Poverty Program

### World Business Council for Sustainable Development – Sustainable Mobility Group

In 2000, Ford joined with auto companies DaimlerChrysler, GM, Honda, Nissan, Renault, Toyota and Volkswagen; tire maker Michelin; and energy companies BP, Norsk Hydro and Shell to form the Sustainable Mobility Project of the World Business Council for Sustainable Development (WBCSD). In July 2004, the WBCSD released a report entitled Mobility 2030: Meeting the Challenges of Sustainability. This report is based on four years of work by the sponsoring companies, the WBCSD, academics and stakeholder forums examining future trends in mobility globally and identifying strategies that might make transport more sustainable. The study's authors reached the sobering conclusion that, "The present system of mobility is not sustainable, nor is it likely to become so if present trends continue." The report identifies seven societal goals regarding mobility:

- · Reduce conventional emissions from transport so that they do not constitute a significant public health concern anywhere in the world
- . Limit greenhouse gas emissions from transport to sustainable levels
- · Reduce significantly the number of transport-related deaths and injuries worldwide
- · Reduce transport-related noise
- · Mitigate traffic congestion
- · Narrow mobility divides that exist within all countries and between the richest and poorest countries
- Improve mobility opportunities for the general populations in developed and developing societies

Since the release of this report, Ford has continued to work with the WBCSD and other Sustainable Mobility group team members to raise awareness of the importance of mobility as a drive for economic development, the need to close the "mobility divide" and the need for mobility solutions for rapidly growing cities in the developing world.

top

#### World Resources Institute/EMBARQ Istanbul

project is a collaborative effort between EMBARQ and the Istanbul Metropolitan Municipality. The Istanbul projects are supported by EMBARQ's global strategic partners, the Shell Foundation and Caterpillar Foundation, with additional project support from Ford Motor Company, BP and Shell.

EMBARQ is the World Resources Institute's Center for Sustainable Transport. EMBARQ fosters government—business—civil society partnerships whose members are committed to solving transportation-related problems. It identifies, tests, evaluates and implements financially, socially and environmentally sound solutions to local transport concerns within a three- to five-year time horizon.

Istanbul provides fertile ground for exploring the mobility opportunities and challenges of growing cities in developing countries. As with many developing mega-cities, large numbers of people from surrounding rural areas are moving to Istanbul in search of work. As a result, the number of vehicles in Istanbul is increasing by 600 a day, polluting the air and snarling traffic. People often spend hours in their cars getting to and from work, even when their total driving distance is significantly shorter than the average commute in developed countries.

Last year, as the first step of the Clean Fuels Clean Vehicles Project, EMBARQ conducted the field work for the Istanbul emissions inventory to quantify Istanbul's transport-based emissions and identify key pollutants and their sources. This work included the direct, real-time measurement of emissions as vehicles drove in city traffic; development of the Istanbul Drive Cycle to describe traffic flow in the city; and the development of an emissions model for Istanbul. The next step in the project will be to develop a series of emissions-reduction scenarios based on input from transportation providers, industry representatives, government officials and NGOs. These scenarios will include powertrain technologies, fuels, transport and air quality policies, and transport-related behavioral changes among the public. Each scenario will be tested in the emissions model and the most effective emissions-reduction scenarios will be implemented as a series of pilot projects.

EMBARQ is also developing a conceptual model for a Bus Rapid Transit (BRT) system corridor for Istanbul. BRT buses run in dedicated corridors, attracting tens of thousands of riders per hour. EMBARQ will also attempt to build community support for sustainable transport through public outreach

The EMBARQ Istanbul project is expected to provide Ford Motor Company with valuable insight into the mobility challenges unique to the urban environment and the roles we might play to address them.

top

#### Global Road Safety Initiative

Several companies that participated in the WBCSD project – including Ford, General Motors, Honda, Michelin, Renault, Shell and Toyota – launched the Global Road Safety Initiative in 2004. The purpose of the initiative is to transfer best practices, with the objective of reducing accidents and building capacity in developing countries to manage road safety. Projects include educational outreach to increase rates of seat belt and helmet usage, and training aimed at improving roadway design.

The first focus of the initiative is China, where both the number and rate of traffic accidents are high and growing. The participating companies have pledged \$1 million each over five years to fund projects in China, Brazil and countries in the Association of Southeast Asian Nations. The projects are being implemented through the Global Road Safety Partnership, an existing organization founded by partners including the World Bank and national governmental aid organizations. Ford is taking an active role in the Partnership through chairing the Executive Committee as well as involvement in project execution. The projects will rely on delivery through local organizations to build local capacity, so that those organizations can continue their work in a sustainable fashion long after the projects are completed. See <a href="Ingrid Skogsmo">Ingrid Skogsmo</a> for more information.

<u>top</u>

### Sustainable Mobility and Acessibility Research Transformation (SMART)

Ford and the University of Michigan are leading a project to address the challenges of meeting future mobility and accessibility needs in an ecologically sound and socially sustainable manner.

SMART takes a unique systems approach to understanding and transforming the future of urban mobility and accessibility, including energy, carbon dioxide, livable communities, congestion, urban sprawl and others. Moving beyond the technical fix alone, it "connects the dots," bringing together the various disciplines and sectors, the players, the theoretical approaches and the practical applications required to tackle urban transportation's growing complexity, sophistication, impacts and opportunities. See <a href="Susan Zielinski">Susan Zielinski</a> for more information.

SMART concentrates in four main research and action areas:

- Systems-based analysis and solution building
- · Accessibility-based planning and policy making
- Sustainability: environmental, social and economic
- New mobility markets: identifying and developing new markets and business models

Co-sponsored by Ford, the National Science Foundation and the University of Michigan's Center for Advancing Research and Solutions for Society, the initiative includes on-the-ground projects, graduate seminars, senior executive programs, workshops, a speaker series and faculty research projects focusing on complexity, mobility and sustainability. Three dozen University of Michigan professors, deans and external scholars are participating.

The project is devoted to an open-minded exploration of potential sustainable mobility concepts that might emerge in practice in the future. This includes consideration of new powertrain technologies, greater integration of public and private transportation, changes in urban planning and development, and concomitant changes in transportation systems.

top

### Prince of Wales Business and Poverty Program

Ford has participated in the Prince of Wales International Business Leaders Forum for seven years. This Forum was set up in 1990 by The Prince of Wales and a group of chief executives of international companies, in response to the emerging challenges of economic growth and change in the global economy. Its mission is to promote responsible business leadership and partnerships for social, economic and environmentally sustainable international development, particularly in new and emerging market economies. Ford has participated in several Prince of Wales events, including their Business and Environment and Business and Poverty programs. Through these forums, Ford leaders have gained a better understanding of global sustainable development issues and the variety of perspectives on the role of corporations in contributing to sustainability.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- CUSTOMERS
- · Progress
- Context
- Management
- · Performance
- Key topic: Mobility
- Developing Sustainable Mobility Strategies for **Emerging Markets**
- Expanding Our Product Offerings in Developing Countries and Revitalizing Economies
- . Taking a New Approach to Personal Mobility in **Developing Countries**
- Sustainable Mobility Technologies
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

## Taking a New Approach to Personal Mobility in Developing Countries

#### IN THIS SECTION:

- ₹ Taking a New Approach to Personal Mobility in Developing Countries
- → Partnerships as Avenues for Learning and Action
- → Plans for the Future

#### Plans for the Future

Over the long term, we believe that successful and sustainable mobility may require radical redefinitions of traditional mobility products and vehicle transactions, and whole new categories of mobility services may evolve. Toward this end, Ford is developing a portfolio of new approaches to personal mobility, incorporating input from our global operations and sustainable mobility partners, which includes ideas for everything from advanced powertrains and fuels to closed-loop materials to new business models for approaching personal transportation.



In the coming year, we plan to identify in which developing markets we will initially pilot some of these new approaches to sustainable mobility. We recognize that having the trust and interest of local communities, governments and consumers in these markets will be critical to our ability to test and launch these new approaches. As a result, we intend to focus on locations where Ford already has a presence and has developed a strong reputation for ethical behavior, respecting human rights and contributing to the local community. We are working with the University of Michigan's joint Business and Environment program – the Erb Institute for Global Sustainable Enterprise – to develop a set of criteria for evaluating the best markets in which to pilot new approaches.

Once we have identified specific markets, we plan to undertake extensive research and stakeholder engagement with new and existing partners, community members and others to help us understand the mobility needs, opportunities and challenges in those locations. This input will help us develop new products, services and business models to better meet the needs of consumers in those and other developing countries.

- **External Web Sites**
- The Erb Institute

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Developing Sustainable Mobility Strategies for **Emerging Markets**
- . Expanding Our Product Offerings in Developing Countries and Revitalizing **Economies**
- Taking a New Approach to Personal Mobility in Developing Countries
- . Sustainable Mobility **Technologies**
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

## Sustainable Mobility Technologies

Technological innovation is central to Ford's strategy to develop sustainable mobility solutions that meet current and emerging market needs, and improve the environmental performance of our products, including their impact on climate change.

We believe that demand for clean, fuel-efficient vehicles will continue to increase, driven by concerns about energy security and climate change, along with consumers' growing interest in fuel economy. In response, we are developing and implementing new products and advanced technologies to both meet market demands and help contribute to climate stabilization. (See Ford Response to the Risks and Opportunities of Climate Change for further discussion of how Ford is using technology to help address climate change.)

#### Improvements in Our Current Fleet

In the short term, we are working to better the fuel economy of our existing products through incremental improvements in internal-combustion technology, such as direct injection turbocharged gasoline engines and new transmission technologies. For example, the "Twin Force" Duratec, a 3.5-liter turbocharged gas engine with direct fuel injection, will deliver V-8 power and performance with better fuel economy. Powershift, a dual clutch system, will provide fuel economy comparable to a manual transmission with the driving ease and convenience of an automatic.

Several fuel-saving measures can be applied regardless of engine type, including reducing the vehicle's weight, decreasing tire rolling resistance and improving aerodynamics. We are using these approaches in current vehicles and those under development to the extent possible.

In addition, Ford's division in Europe recently announced plans to spend at least £1 billion (approximately \$2 billion) developing a range of global environmental technologies in the UK for its Ford, Jaguar, Land Rover and Volvo brands. This is the largest commitment ever to the environment by an automaker in the UK. This work will be focused on implementing as many new technologies on as many production vehicles as possible in order to make a significant and near-term impact on carbon dioxide emissions. Specific technologies under development include next-generation aluminum lightweight vehicles; hybrid technologies; downsized direct-injection gasoline engines; advanced diesel engines; Powershift transmission and other new transmission technologies that will significantly reduce greenhouse gas emissions; and a range of technologies to encourage more fuel-efficient driving behavior, including information systems and fuel-efficient driving modes.

#### **Meeting the Demands of High-Growth Niche Markets**

For the longer term, our Sustainable Mobility Group is coordinating the development of next-generation, advanced technologies to achieve breakthrough advances in fuel efficiency, emissions reduction and energy independence in areas such as hybrids, advanced clean diesels, biofueled vehicles, hydrogen internal-combustion engines and hydrogen fuel cell vehicles. We are also researching the viability of plugin hybrids, though major hurdles remain in battery technology. We believe it is important to develop a variety of different engine and fuel technologies, as different technologies will be appropriate for different regions and driver operating conditions.

More detailed information on Ford's work related to clean technologies can be found in the New Products with Better Fuel Efficiency and Advanced Clean Technologies sections.

- In This Report
- New Products with Better Fuel Efficiency
- Advanced Clean Technologies
- Ford.com
- Fuel Efficiency
- Putting Hybrids on the Road
- Diesel Emissions System
- Leading the Way with Ethanol-Capable Vehicles
- Building a Hydrogen Transportation System

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- · Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies



Download resources

-

Send feedback

## Leading with Products

High-quality, desirable and affordable products are the foundation of our business. Please see our <a href="Global Products">Global Products</a> chart for an overview of our product offerings around the world. We know that delivering great products is critical to both the financial sustainability of the Company and our ability to contribute to the long-term sustainability of our planet. Therefore, in both our short-term business turnaround and our long-term quest for sustainable mobility, we are leading with products using several key strategies. We are:

- Responding to consumer demands by introducing more fuel-efficient vehicle options, and developing and introducing advanced technologies that are cleaner and more fuel efficient
- Re-aligning our capabilities to deliver customer-focused, real-world innovations faster and more
  effectively than ever before
- · Continually improving quality and customer satisfaction

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- . Context
- · Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies





Send feedback

## Responding to Consumer Demands

#### IN THIS SECTION:

- ₹ Responding to Consumer Demands
- → New Products with Better Fuel Efficiency
- Advanced Clean Technologies
- Benefits and Challenges of Fuel Efficiency Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions

Consumer demand for more fuel-efficient and cleaner vehicles continues to grow. In a 2005 New Vehicle Customer Survey, fuel economy was chosen as the feature most influencing drivers' next vehicle purchase decision and ranked higher than pricing incentives and advanced safety features. Sixty-six percent of respondents ranked fuel economy as extremely or very influential in their next vehicle purchase decision. This demand for fuel efficiency, largely driven by consumers' growing concern over climate change, energy security, and rising and volatile fuel prices, is reflected in shifts in vehicles purchased. This shift in demand is visible in the chart of sales by vehicle segment below.

Ford is taking a multi-pronged approach to meeting this demand. First, we have committed to improving the overall <u>fuel economy</u> of our entire fleet. We are also introducing new products that offer improved fuel efficiency without compromising style or performance. And, we are continuing to develop and introduce advanced technologies that improve fuel efficiency, reduce emissions and reduce dependence on foreign oil.

#### RELATED LINKS

In This Report

Key topic: Climate Change

#### Sales by Segment – Industry vs. Ford Motor Company

percent

Coamont	2006	6	2005	5	2004	ļ.	2003	}	2002	2
Segment	Industry	Ford								
Cars										
Small	19.8	11.8	17.9	10.9	16.8	10.2	17.3	11.4	18.3	12.5
Medium	12.4	12.1	12.3	7.7	13.1	8.7	14.4	10.4	15.2	11.9
Large	7.4	7.7	7.4	8.3	6.8	5	6.6	4.8	7.2	4.4
Premium	7.5	6.4	7.8	6.3	7.7	7.1	7.7	7.5	7.4	8.3
Total U.S. car sales	47.1	38	45.4	33.2	44.5	31	46	34.1	48.1	37.1
Trucks										
Compact pickup	3.5	3.2	3.9	3.8	4	4.7	4.4	6	4.6	6.3
Bus/Van	7.8	8	8.1	8.4	8.5	8.8	8.2	8.4	8.5	9.1
Full-size pickup	13.3	27.7	14.6	28.8	14.7	28.2	14	24.3	13.1	22.5
Sport utility vehicle	25.2	22.5	25.6	25.3	26.1	26.9	25.7	27	24.3	24.8
Medium/Heavy	3.1	0.6	2.4	0.5	2.2	0.4	1.7	0.2	1.4	0.2
Total U.S. truck sales	52.9	62	54.6	66.8	55.5	69	54	65.9	51.9	62.9
Total U.S. vehicle sales	100	100	100	100	100	100	100	100	100	100

Table shows proportion of U.S. car and truck sales by segment as a percentage of total sales for the industry (including both domestic and foreign-based manufacturers) and Ford (including all our brands sold in the United States) for the years indicated.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies



Download resources

-

Send feedback

## Responding to Consumer Demands

#### IN THIS SECTION:

- ₹ Responding to Consumer Demands
- → New Products with Better Fuel Efficiency
- Advanced Clean Technologies
- Benefits and Challenges of Fuel Efficiency Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions

#### New Products with Better Fuel Efficiency

We know that people are looking to us to develop advanced technologies and whole new ways to power vehicles, such as hydrogen-fueled engines and plug-in hybrids. We are working hard to deliver these longer-term innovations. However, we also know that customers want more fuel-efficient vehicle options right now.

In the short term, we are working to better the fuel economy of our existing products through incremental improvements in internal-combustion technology. For example, we are preparing to introduce a new engine that will improve fuel economy, reduce emissions and improve power output. This "Twin Force" Duratec 3.5-liter turbocharged gas engine with direct fuel injection will deliver V-8 power and performance with better-than-conventional V-8 fuel economy. The Twin Force was named one of the 10 best engines by Ward's Auto World in December 2006. It was showcased on the new Lincoln MKR concept vehicle at the 2007 North American International Auto Show.

In addition, we are planning to launch a dual-clutch transmission system we developed in partnership with GETRAG, our supplier-partner. Called the GETRAG-Ford Powershift, this new transmission will provide comparable fuel economy to a manual transmission with the driving ease and convenience of an automatic transmission. This technology will debut in 2007 in European Volvo S40 and V50 diesel models.

We are also introducing new product designs that provide high style, functionality and performance with lower fuel consumption. For example, the recently launched Ford Edge and Lincoln MKX crossovers provide SUV-level performance and functionality with greater style and better fuel economy. Similarly, the popular Ford Fusion, Mercury Milan and Lincoln MKZ sedans offer a stylish, high-performance and more fuel-efficient option to our consumers. With optional all-wheel drive and fold-down rear seats, these sedans offer much of the functionality consumers looked for from SUVs with great style and significantly better fuel economy. We have also announced a redesign of one of our most fuel-efficient vehicles, the Ford Focus, to launch in 2008. The newly designed North American Focus will provide the same levels of fuel efficiency and affordability in a significantly more stylish and sporty package. We currently offer 13 vehicles that get 30 miles per gallon or better on the highway, including the Ford Focus, Ford Fusion, Mercury Milan, Mazda 3, Mazda MX-5, Mazda 6, Volvo S40, Volvo S60, Volvo V50, Land Rover LR2 SUV and the 2008 Ford Escape Hybrid, Mercury Mariner Hybrid and Mazda Tribute Hybrid SUVs.

Our future plans include introducing a whole new approach to the traditional minivan. The Ford Flex, which debuted at the New York Auto Show in April 2007, will offer the functionality of a minivan with significantly better style and fuel economy. The Flex will be available in 2009. Similarly, we are planning to introduce a "b-car" in North America that will round out our product line with a smaller, even more fuel-efficient vehicle that still has plenty of style and desirability.

- In This Report
- Sustainable Mobility Technologies
- Ford.com
- Fuel Efficiency
- U.S. Ford Vehicles
- . External Web Sites
- Fuel Economy Guide

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies



Download resources

-

Send feedback

## Responding to Consumer Demands

#### IN THIS SECTION:

- Responding to Consumer Demands
- → New Products with Better Fuel Efficiency
- → Advanced Clean Technologies
- Benefits and Challenges of Fuel Efficiency Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions

## Advanced Clean Technologies

Our Sustainable Mobility Group is coordinating the development of next-generation, advanced technologies to achieve breakthrough advances in fuel efficiency, emissions reduction and energy independence in areas such as hybrids, advanced clean diesels, biofueled vehicles, hydrogen internal-combustion engines and hydrogen fuel cell vehicles. We are also researching the viability of plug-in hybrids, though major hurdles remain in battery technology. We believe it is important to develop a variety of different engine and fuel technologies, as different technologies will be appropriate for different regions and driver operating conditions.

In addition, Ford's division in Europe recently announced plans to spend at least £1 billion developing a range of global environmental technologies in the UK for its Ford, Jaguar, Land Rover and Volvo brands. This is the largest commitment ever to the environment by an automaker in the UK. In addition to the financial investment, Ford of Europe will begin an unprecedented level of collaboration between Ford, Jaguar, Volvo and Land Rover engineers to develop and implement technologies faster and more cost effectively than ever before. This work will be focused on implementing as many new technologies on as many production vehicles as possible in order to make a significant and near-term impact on carbon dioxide emissions. Specific technologies under development include next-generation aluminum lightweight vehicles; hybrid technologies; direct-injection gasoline engines; advanced diesel engines and other new transmission technologies that will significantly reduce greenhouse gas emissions; and a range of technologies to encourage more fuel-efficient driving behavior, including information systems and fuel-efficient driving modes.

- Hybrids
- Advanced Clean Diesel
- Renewable/Biofueled Vehicles
- **1** Hydrogen Fuel Cells

#### RELATED LINKS

- In This Report
- Sustainable Mobility Technologies
- Ford.com
- Putting Hybrids on the Road
- Diesel Emissions System
- <u>Leading the Way with Ethanol-Capable</u>
   Vehicles
- Building a Hydrogen Transportation
   System

#### Hybrids

Ford introduced the world's first hybrid SUV in 2004, the Ford Escape Hybrid. We followed up with the Mercury Mariner, a sibling to the Escape, in 2005. Both of these vehicles are full hybrids, meaning they can run exclusively on battery power, exclusively on gas power, or on a combination of both. Since their launch we have sold nearly 47,000 Escape and Mercury Mariner Hybrids in North America. This represents approximately 10 percent of Escape and Mariner sales. In 2007, Mazda will launch a hybrid version of the Tribute compact SUV, a sibling to the Escape and Mariner. The 2008 MY 2.3L Escape Hybrid has 89 percent better fuel economy in City driving when compared to the 3.0L V6 gasoline model which has similar engine performance. When compared to the 2.3L Escape I4 gasoline, the hybrid powertrain still offers a fuel economy improvement in City driving of 70 percent while offering superior power. Even with the launch of competitors' hybrid SUVs, the Escape, Mariner and Tribute hybrids remain the most fuel-efficient SUVs currently available.

In 2006, Volvo announced the establishment of a new hybrid development center in Gothenburg, Sweden, complementing the expertise developed through the launch of Ford's North American hybrid vehicles.

We plan to launch hybrid versions of the popular Ford Fusion and Mercury Milan sedans in 2008 in North America. In addition, we are developing next-generation battery and hybrid powertrain technologies for future vehicles. For example, we showcased a drivable, plug-in, hydrogen fuel cell hybrid concept called the Ford Edge HySeries™ at the Washington, D.C. auto show in February 2007.

We treated lawmakers to a test drive of this concept vehicle, which has improved battery storage and can be charged by plugging into a standard electrical socket. HySeries drive allows a vehicle to run significantly longer on battery power alone, dramatically increasing fuel economy and decreasing tailpipe emissions. The Ford Edge HySeries concept can be driven approximately 25 miles on pure battery power before switching over to hydrogen-assisted power. The HySeries Drive powertrain delivers a combined city/highway gasoline equivalent fuel economy rating of 41 mpg.

#### Advanced Clean Diesel

can be recycled and/or reused at the end of a vehicle's life.

Diesel-powered vehicles account for almost 50 percent of new vehicle sales in Europe, and diesels make up approximately 50 percent of the total vehicle fleet on the road. In North American markets, however, diesel use all but disappeared in the passenger vehicle market years ago because, compared to gasoline engines, the diesels available at that time were dirty, smelly and noisy. Diesel use has been challenging in the United States because of stringent emissions regulations. With the phasing-in of cleaner diesel fuels in 2007 and advances in clean diesel technology, however, there is new opportunity for the expanded use of diesel technologies in North America.

Plug-in hybrid technology is an exciting opportunity; however, significant challenges remain. Perhaps the most difficult is overcoming limitations in battery technology. The current Hyseries system uses lithium ion batteries. This technology is preferable to the nickel metal hydride (NMH) batteries used in the majority of today's production hybrids. NMH batteries have limited power and energy density and, as volumes increase, they become cost-prohibitive due to their high nickel content. Lithium ion batteries are the preferred replacement technology; however, they will require significant advancement before plug-in hybrids can become a reality for most consumers. Lithium ion batteries are currently cost-prohibitive for widespread use, and they have technical issues with over-charging and internal shorting that currently require expensive external monitoring and control systems. Ford is working to develop more cost-effective, lighter and more durable lithium ion batteries. We are also working to develop batteries that

Modern diesels offer some significant advantages over traditional gasoline engines. They are up to 30 percent more fuel efficient, and they emit up to 20 percent less CO<sub>2</sub>. In addition, direct-injection diesel engines provide more power and torque, resulting in better driving performance and towing capabilities. Ford engineers are developing next-generation diesel technologies that will maintain these advantages and minimize emissions to meet strict U.S. air pollution standards. These technologies include catalytic particulate filters and NOx reduction catalysts that will significantly reduce the higher particulate matter and NOx emissions associated with diesel systems. These advances will provide another route to more fuel-efficient and cleaner mobility.

With the 2008 Ford F-Series Super Duty lineup of pickup trucks, Ford will introduce a new generation of cleaner, quieter diesel engines. The new 6.4-liter Power Stroke® diesel is Ford's cleanest, quietest pickup diesel ever, with particulate (soot) emissions equivalent to a gasoline engine. It is the first pickup engine in North America to use a high-precision, common-rail fuel injection system featuring piezo-electric injectors. Ford will also be launching a diesel version of the Ford F-150. And Ford is launching the PowerShift dual clutch system on diesel engine models of the Volvo V50 and S40 in Europe in 2007.

top

#### Renewable/Biofueled Vehicles

Ford has a long history of developing vehicles that run on renewable biofuels. We have been selling Flexifuel vehicles (FFVs) capable of running on E85 ethanol fuel since 1997, and we have more than 5 million FFVs on the road today, including 2 million in North America and 3 million in Brazil. In 2006 alone, we produced approximately 250,000 FFVs. We currently offer 14 models in the United States, Europe and South America that can run on E85, including the Ford Crown Victoria, Mercury Grand Marquis, Lincoln Town Car and Ford F-150 in North America; the Volvo XC-60, Ford Mondeo, S-MAX, C-MAX, Focus and Galaxy in Europe; and the Fiesta, EcoSport and Focus in Brazil.

We are continuing to support the development of the next generation of biofuel vehicles and develop vehicles capable of running on advanced biofuels. Our current research focuses on two primary fuel types: bio-ethanol and biodiesel. Bio-ethanol is a gasoline alternative made from plant material. Most bio-ethanol in the United States is made from corn. In other parts of the world, it is made from other locally available crops, including sugar cane in Brazil and sugar beet in Europe. All modern gasoline vehicles can run on a gasoline/bio-ethanol mixture of up to 10 percent bio-ethanol, called E10. Ford's FFVs run on a mixture of 85 percent ethanol mixed with gasoline (E85).

Biodiesel is a diesel alternative made from oil seeds, such as soy, canola or palm. In the United States, most biodiesel is currently made from soybeans. Any recent-model Ford truck with a diesel engine can run on a mixture including up to 5 percent biodiesel (B5), but higher amounts are not recommended using the biodiesel that is available today. Ford is working with Michigan State University researchers and other partners to develop a biodiesel fuel that will allow utilization of at least 20 percent biodiesel (B20) in future diesel vehicles.

Bio-ethanol, biodiesel and other renewable fuels have significant advantages. They can be made with locally available raw materials, reducing the need for foreign-supplied oil and increasing energy independence, and they produce fewer lifetime CO<sub>2</sub> emissions. However, important issues remain about biofuels' energy density, the best way to use them to reduce greenhouse gas emissions, and their ability to meet our fuel needs without diminishing our food supplies.

Ford is working to support and promote the next generation of biofuels, including cellulosic biofuels. These are fuels that can be made from plant cellulose – stalks, leaves and woody matter – instead of from plant starch or oil seeds. Cellulosic biofuels have many advantages. They minimize possible competition between food and fuel. They allow more efficient use of seed crops, such as corn and soybeans, by using more of the plant. In addition, cellulosic biofuels can be made from crops that require less energy-intensive farming, such as switchgrass and bamboo. This would further reduce the total CO2 footprint of vehicles running on biofuels.

Ford is also very interested in the recently announced partnership between BP – a long-time partner of Ford – and DuPont, to develop bio-butanol as a vehicle fuel. Bio-butanol is a bio-based fuel, similar to ethanol, made from corn starch, sugar or eventually cellulose just like bio-ethanol. If bio-butanol can be produced as efficiently as bio-ethanol, it will have several advantages. First, it has similar properties to gasoline and can be distributed through the existing fueling infrastructure. In addition, it has higher energy content than ethanol and so achieves higher mileage per gallon. Ford is closely watching the developments of this partnership and is ready to work on the vehicle development required to make bio-butanol fuel a reality, if it proves to be a cost-effective solution.

To make an impact on greenhouse gas emissions and energy security, biofuels must become more widely available. In North America, Ford is working with VeraSun to develop the Midwest E85 ethanol corridor, which will increase the number of ethanol fueling stations in Missouri and Illinois by more than one-third and make it possible for the driver of a Flexifuel vehicle to travel from St. Louis to Chicago fueled entirely by E85. Also, we recently joined DaimlerChrysler, General Motors and 70 other companies in support of the 25x'25 campaign, an effort to increase the use of renewable fuels in the United States to 25 percent of our fuel needs by 2025. In addition, Ford has committed to doubling the number of FFVs in its lineup by 2010, and, if the market dictates, we will commit to expanding our FFV output to 50 percent of our total vehicle production by 2012.

Ford is also working in Europe and other parts of the world to promote the use of biofuels. In Europe, we have two biofuel projects. The first is BioEthanol for Sustainable Transport, or BEST, which focuses on ethanol. Pilot projects are planned or underway in the UK, Spain, Italy and the Netherlands. The second, PROCURA, looks at ethanol, biodiesel and natural gas, and is establishing test programs in Italy, Portugal, Poland, Spain and the Netherlands.

In Thailand, Ford introduced a version of its popular Focus model that runs on a specific bio-ethanol/gas blend offered in that market. In Brazil, where ethanol technology is well established and FFVs are the dominant vehicle technology, Ford has produced nearly 3 million vehicles with the ability to run on bio-ethanol.

#### Are bio-fuels better for the environment and energy independence?

Much of the interest in biofuels results from their potential to improve the environmental impacts of vehicles and contribute to energy independence. Biofuels are made from domestic and renewable resources, and they help to reduce climate-change-causing greenhouse gas emissions because the plants from which they are made absorb CO<sub>2</sub> while they are growing. Are biofuels the solution to our growing fuel-related environmental, economic and political problems? The issues are complex. We believe that biofuels are an important part of the equation for addressing climate change and energy security. We recognize, however, that major advances need to be made in production processes, source materials and fuel types in order to achieve the full promise of biofuels.

Some of the issues with today's biofuels include:

- Energy density: Ethanol has a lower energy density than gasoline. This means that there is less energy in a gallon of ethanol than in a gallon of gasoline. As a result, drivers using blends with a high amount of ethanol will have to refuel more frequently.
- Life cycle greenhouse gas (GHG) emissions: The plants used to produce biofuels capture as much carbon dioxide during their growth as they release when burned. However, current farming and production processes utilize fossil fuels in the production of bio-ethanol, so the use of bio-ethanol in vehicles still results in a net release of GHG emissions than fossil fuel. We agree with studies that suggest current E85 ethanol from corn produces approximately 20 to 30 percent less life cycle GHG emissions. We also believe that developing ligno-cellulose or biomass-based biofuels with next-generation processes will significantly decrease GHG emissions, perhaps up to 90 percent1.
- Competition with food supply: Another issue with current corn- and soybean-based biofuels is the concern that they will compete with food supplies and drive up food prices. If next-generation biofuels can efficiently utilize biomass such as plant stalks, woodchips or grasses and be grown on marginal land with little irrigation, then competition with food crops should not be a significant issue.

At Ford, we are following the debates over biofuels closely. We agree with the general consensus among scholars and industry experts that the current generation of biofuels, which are primarily corn-based ethanol and soybean-based biodiesel, have some environmental benefits. And, they are a first step toward cleaner vehicles and energy independence. However, we are actively investigating next-generation biofuels that have even greater environmental and economic benefits. We believe that advances in the efficiency of farming technologies and biomass processes, and the development of alternative biofuels, such as bio-butanol, will significantly increase the benefits and long-term sustainability of biofuels. Even with these improvements, however, solving our climate change and energy security problems will require a multifaceted set of solutions, including new fuels, dramatic improvements in vehicle fuel economy and changes in consumer driving patterns and practices.

top

#### Hydrogen Internal-Combustion Engines

Ford was the first automaker to develop commercially available hydrogen-powered internal-combustion engines (HzICEs), which use the same basic technology as gasoline-powered engines but run on hydrogen fuel. We view this as an important bridge technology to hydrogen-powered fuel cells. We currently have a fleet of eight E-450 HzICE shuttle buses on the road in Florida as part of that state's Hydrogen Highway initiative. The 12-passenger shuttle buses use a 6.8-liter supercharged Triton V10 engine with a hydrogen storage system equivalent to 29 gallons of gasoline. In addition to the Florida fleet, we will place up to 10 HzICE shuttles with the Canadian government in support of their vision for a hydrogen-based economy. In 2006, we had a total of 30 HzICE shuttle buses on the road. Ford is continuing discussions with other potential partners that could culminate in more demonstration projects in 2007.

top

#### Hydrogen Fuel Cells

We are continuing to prove out, develop and demonstrate hydrogen fuel cell technology with our Focus FCV. The Focus FCV uses our third-generation technology and is one of the industry's first hybridized fuel cell vehicles, meaning it has a battery as well as a fuel cell. A test fleet of 30 of our FCVs is currently in operation in cities throughout North America and Europe. In 2005, we placed Focus FCVs in Orlando, Sacramento, Southeast Michigan and Vancouver, British Columbia. In 2006, 10 more FCVs were placed in Berlin and Aachen, Germany. Before being placed with commercial test fleets, these vehicles underwent an extensive and accelerated testing protocol to ensure they could last 4.5 years and 65,000 miles without incident. While on the road, the vehicles are providing important information about the performance of hydrogen fuel cell vehicles in a wide range of driving and climate conditions. The knowledge gained from this test fleet will feed directly into Ford's next-generation hydrogen fuel cell program. We are also using the tools of nanotechnology to develop more efficient fuel cells and hydrogen storage methods.

Even with the advances we have made in hydrogen technology over the past few years, we still have many challenges to overcome before hydrogen-fueled vehicles can replace current vehicle technology. For example, storing hydrogen fuel in vehicles without losing an unacceptable amount of passenger and cargo space remains a significant challenge. The driving range of current hydrogen vehicles between refueling is another challenge. Consumers expect to be able to drive 300 or more miles before stopping to refuel, which current hydrogen vehicles cannot achieve. Hydrogen vehicles are also not yet cost-competitive with traditional vehicles. Producing and distributing hydrogen fuel is another significant hurdle. As there is no widespread hydrogen fueling system, new infrastructure must be put in place.

Working alone, Ford will not be able to overcome all of these challenges. That is why Ford is collaborating with a wide range of partners on the development of hydrogen vehicles, fuels and fueling systems. These partners include:

- The Freedom CAR and Fuel Partnership, a partnership between Ford, GM, DaimlerChrysler, five energy providers and the U.S. Department of Energy to develop vehicles and fuels that will provide freedom from imported oil and freedom from carbon-based fuel emissions
- The Clean Energy Partnership, a consortium of 10 corporate partners and the German government working to demonstrate the reliability of hydrogen as a mobile fuel
- The Hydrogen and Fuel Cells Canada Partnership, which is working to raise awareness of the economic, environmental and social benefits of hydrogen and fuel cell technologies

1	Ethanol: the Complete Energy L	ifecycle Picture", Office	of Energy Efficiency and	Renewable Energy,	US Department of Energy, March 2007.
---	--------------------------------	---------------------------	--------------------------	-------------------	--------------------------------------

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies





\_

Send feedback

## Responding to Consumer Demands

#### IN THIS SECTION:

- ₹ Responding to Consumer Demands
- → New Products with Better Fuel Efficiency
- → Advanced Clean Technologies
- ▲ Benefits and Challenges of Fuel Efficiency Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions

### Benefits and Challenges of Fuel Efficiency Technologies

### Advanced gasoline vehicles

Incremental improvements in efficiency are being achieved via advances such as: six-speed transmissions, variable displacement engines, direct injection, variable cam timing, variable compression ratio

#### **Benefits**

- · Reliable and familiar to consumers
- Compatible with ethanol fuel blends up to 10%
- · Approaching near-zero emissions

#### **Challenges**

- Fuel economy tradeoffs required to comply with increasingly stringent emissions and safety standards
- Cost-effectiveness of incremental technologies

#### E85 Flex Fuel

Over 5 million E85 FFVs on the road today in the United States but fewer than 800 E85 stations

- Promotes energy security and fuel diversity
- · Agricultural-based renewable fuel
- Offers fuel flexibility for customers
- . Little or no incremental cost to customers
- Limited fueling infrastructure
- Customer acceptance of fuel
- Fuel system components more expensive than gasoline

#### Advanced technology diesel

All Ford diesel applications can use 5% biodiesel blends.

Low NOx levels may be achieved with urea cofueling

- Significant increase in fuel economy (20– 30%)
- · Higher performance, less noise and odor
- Improved emissions
- Ample refueling infrastructure
- Lingering public perception
- Meeting stringent U.S. emissions standards
- Fuel-quality improvements (low sulfur, cetane)
- · Higher incremental cost

#### Hybrid electric

Wide variety of hybrid technologies exists across the industry (mild to full). Hybrids currently represent slightly more than 1% of total U.S. vehicle sales

- Significant increases in fuel economy
- Uses existing fueling infrastructure
- Can achieve near-zero emission levels
- Full-hybrid technology is most effective in city and stop-and-go driving
- Incremental cost for hybrid option
- · Component supply base
- Application to broader vehicle segments (i. e., trucks, larger SUVs)
- · Customer acceptance/value

# Hydrogen internal-combustion (H<sub>2</sub>ICE)

Ford is a leader in the design and development of hydrogen-fueled internal-combustion engines. Ford's first E-450 shuttle bus will be delivered in 2006 for fleet use and field testing/experience.

- Bridge technology toward fuel cells
- · Near-zero emissions levels
- Accelerates resolution of key barriers to fuel cell success
- Drives development of hydrogen fuel infrastructure
- · On-board hydrogen fuel storage
- · Limited driving range
- Hydrogen infrastructure is in its infancy
- Lack of uniform codes and standards

#### Fuel cell

U.S. Department of Energy demonstration projects are underway.

Commercial readiness not expected before 2015 (concurrent with the timeline for fuel cell commercialization reported by the U.S. Department of Energy)

- Zero Emission Vehicle (ZEV)
- Breakthrough performance in energy efficiency
- Hydrogen can be derived from multiple sources
- Promotes long-term renewable fuel vision
- Extremely high cost of technology
- On-board hydrogen fuel storage
- Hydrogen infrastructure is in its infancyLack of uniform codes and standards
- Sourcing hydrogen from renewable energy

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- · Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers

Innovations Faster

- Ford Motor Credit Company
- Data
- · Case Studies

Print this report

Download resources

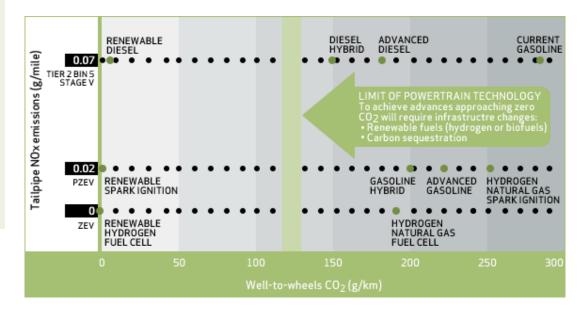
Send feedback

## Responding to Consumer Demands

#### IN THIS SECTION:

- Responding to Consumer Demands
- → New Products with Better Fuel Efficiency
- → Advanced Clean Technologies
- Benefits and Challenges of Fuel Efficiency Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions

### Our Path to Increasing Fuel Efficiency and Reducing Emissions



OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- . Delivering Customer-

#### **Focused Innovations Faster**

- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies



Download resources

-

Send feedback

## Delivering Customer-Focused Innovations Faster

#### IN THIS SECTION:

- ₹ Delivering Customer-Focused Innovations Faster
- → Making Innovations Customer-Focused
- → Increasing the Speed, Quality and Cost-Effectiveness of New Introductions

The automotive market is increasingly competitive, with more new competitors introducing new innovations faster than ever. Also, consumers are expecting more from each new vehicle they purchase. With the proliferation of vehicle choices, we must deliver more innovative products, faster than ever. Innovation has been central to Ford Motor Company since Henry Ford invented personal transportation for the masses with the Model T and the moving assembly line. Ford has reinvigorated its commitment to innovation in our research, product development and strategic planning, and we are realigning our product development systems to deliver these innovations in new products faster and more effectively.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- . Responding to Consumer Demands
- . Delivering Customer-**Focused Innovations Faster**
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- o Ford Motor Credit Company
- · Data
- · Case Studies



P Download resources

Send feedback

## Delivering Customer-Focused Innovations Faster

#### IN THIS SECTION:

- → Delivering Customer-Focused Innovations Faster
- Making Innovations Customer-Focused
- → Increasing the Speed, Quality and Cost-Effectiveness of New Introductions

## Making Innovations Customer-Focused

In early 2006, Bill Ford challenged the Company to deliver innovations in three key areas: design, safety and sustainability. These three pillars of innovation are intended to guide the work of Ford's researchers and engineers in areas that make our customers' lives better, make our products more successful and improve our business and our world. Since then, Ford has announced major technology innovations that will be available on new vehicles in the near term. These announcements are only a small portion of the development work that is underway to deliver innovations that improve our customers' lives.

In the area of design, Ford has reinvigorated its execution of "bold American design," as illustrated by the Ford Edge and Lincoln MKX crossovers, and the Ford Fusion, Mercury Milan and Lincoln MKZ sedans. In addition, we are actively pursuing design and information technology breakthroughs that will bring new levels of customer enjoyment and functionality. For example, at the 2007 North American International Auto Show in January, Ford announced a partnership with Microsoft to deliver a whole new level of in-car connectivity, efficiency and functionality. Called "Sync," this factory-installed communications and entertainment system will allow drivers to integrate digital music players and cell phones into their vehicles and operate them through voice activation and the radio and steering wheel controls. Perhaps most important, in this time of rapid innovation, Sync technology can be upgraded as cell phone and music-player technology advances. Sync will be launched in the fall of 2007 on 12 Ford, Lincoln and Mercury models: the 2008 Edge, Explorer, Five Hundred, Focus, Freestyle, Fusion, Milan, MKX, MKZ, Montego, Mountaineer and SportTrac.

In the area of sustainability, the innovation pillars guide researchers and engineers to improve fuel efficiency, reduce emissions, increase the use of recycled, renewable and recyclable materials, improve in-vehicle air quality, and generally reduce the environmental footprint of our vehicles. We are working to advance our sustainable product metrics to require vehicle program teams to meet even more specific and strict environmental performance requirements at every milestone in vehicle development. In addition, sustainability issues are an important consideration in our new product development process. Every year, we perform an "external factors review" as part of our process for deciding what products we will make and what new technologies we will introduce. For the past four years, we have included an indepth review of environmental technologies, competitor actions and trends in consumer demand for environmentally and socially responsible products as a key part of this process. This is one more way in which we are driving sustainability into our innovation process and the development of all our new products. For other innovations in product sustainability, please see the Sustainable Mobility Technologies section.

- In This Report
- Vehicle Safety
- Ford.com
- Keeping you in Sync

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused Innovations Faster
- Continually Improving Quality and Customer Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies

Print this report

Download resources

\_

Send feedback

## **Delivering Customer-Focused Innovations Faster**

#### IN THIS SECTION:

- ₹ Delivering Customer-Focused Innovations Faster
- → Making Innovations Customer-Focused
- → Increasing the Speed, Quality and Cost-Effectiveness of New Introductions

# Increasing the Speed, Quality and Cost-Effectiveness of New Introductions

We are realigning our capabilities to deliver better products faster than ever before.

For example, we recently announced plans to increase the global integration of our regional research and product development organizations. This will allow us to deliver new products faster and more cost effectively. We already successfully share vehicle platforms globally. For example, the new Ford Edge and Lincoln MKX crossover vehicles share a common global platform with the Fusion, Milan and MKZ sedans, as well as the Mazda 6 and Volvo S60. This approach reduces engineering and materials costs, helps us develop new products faster and improves quality. It also allows our designers and developers to concentrate on creating vehicles with distinct personalities, realizing the potential for scale and flexibility while maintaining differentiation. We will build on this kind of global integration by integrating more of our research and new product development activities, as well as cross-car line sharing. In addition, we are working to standardize materials and parts across vehicle lines. This standardization will not only reduce costs, it will increase quality by reducing the number of different parts we test and manufacture. We have developed cross-functional Commodity Business Plan teams, including representatives from product engineering, purchasing and cost optimization, to choose the most effective standardization opportunities.

We are also increasing our use of rapid design and prototyping technologies. For example, we have changed our prototype building and testing process to increase the quality and speed of prototype testing. Now, prototypes are built using the same sequence as the production vehicle to identify and correct possible manufacturing defects before the vehicles reach the production line. In addition, regardless of what component is being tested, all test vehicles are now made to the same stringent specifications of production vehicles so that they are representative of what the customer will experience. The use of more common platforms and vehicle components is also reducing testing time and costs while increasing product quality and safety.

Finally, we are improving our ability to bring new products to market faster by increasing our investment in flexible manufacturing. Flexible manufacturing reduces costs and lets us shift production at an individual plant from model to model to address customer demand quickly. Shared vehicle architecture facilitates flexible manufacturing, and vice versa. The Dearborn Truck Plant at the Ford Rouge Center, for example, will be capable of producing nine vehicle models. In our powertrain facilities, changeover from one product to another typically required a 12–18 month extended shutdown and usually resulted in significant equipment obsolescence. A flexible system changeover, by contrast, often takes place during regularly scheduled plant shutdowns during the summer and at Christmas, with an extended two- to sixweek shutdown to implement an entirely new architecture. The investment required to retool these flexible systems for a new architecture is typically about one-fifth the cost of converting traditional

We are also using flexible manufacturing to improve the environmental performance of our manufacturing operations. For example, our new 6-speed automatic rear-wheel-drive transmission (6R) is being produced with cutting-edge technology that yields significant environmental benefits. Minimum Quantity Lubrication (MQL) machining, an industry first in North America for high-volume powertrain production, was implemented at Ford's Livonia Transmission Plant and expanded to the 6F transmission at Van Dyke Transmission Plant as well.

Similarly, we have improved the environmental performance of the heat-treating processes we use for making transmissions and other components. These processes are essential to ensuring that components provide long-lasting, durable performance; however, traditional processes use a lot of energy and produce significant emissions. A new heat-treating process that uses nitrogen gas, called vacuum carburizing, has been implemented at the Sharonville Transmission Plant. It has been shown to significantly reduce energy usage and process emissions, improve the plant floor environment and reduce processing time and operating costs.

By 2008, 82 percent of our North American assembly plants will be capable of flexible manufacturing. By

#### RELATED LINKS

On Ford.com

Ford Rouge Center

the end of the decade, more than 90 percent of our North American and all of our European plants will be flexible.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- · Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving
   Quality and Customer

   Satisfaction
- Focusing on Customers
- o Ford Motor Credit Company
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Continually Improving Quality and Customer Satisfaction

#### IN THIS SECTION:

- → Continually Improving Quality and Customer Satisfaction
- → Quality and Customer Satisfaction Awards

Quality and customer satisfaction together are the central mission of all of our employees. We track our progress in achieving this mission through a combination of internal and external measurements that assess how we are doing and where we can improve. In 2006, we saw an improvement in both of these types of measurements. In fact, we were so encouraged by our 2006 improvements that we pulled ahead our 2008 quality goals to 2007. Our primary internal measure of quality and customer satisfaction is the Global Quality Research Survey. In 2006, we improved quality in all of our global operations except Jaguar and Land Rover. We improved customer satisfaction by 6 percent globally. In the first quarter of 2007, initial quality ratings – which measures our customers' impressions of their new vehicles after having driven them for three months – were equal to or better than our primary competitors, including Toyota. Six of our vehicles also ranked as segment leaders for top quality: the Ford Fusion and Mercury Milan in midsize cars; the Ford Mustang and Shelby GT500 in sports cars; the Ford Expedition EL in large traditional SUVs; and the Lincoln Navigator in large premium utilities. Specific measures of quality and customer satisfaction by operating region are shown in the lists below.

- . In the United States:
  - $_{\text{\tiny o}}$  "Things gone wrong" improved by 33 percent between 2001 and 2006, and by 15 percent in 2006 alone
  - o High time in service quality improved 22 percent during the same period
  - The number of Ford, Lincoln and Mercury safety recalls compared to 2005 decreased by 27 percent, while the number of affected units decreased by 70 percent
  - Warranty spending per vehicle decreased by 27 percent compared to vehicles produced in 2005
  - Overall customer satisfaction improved by 1 percent in 2006
  - Customer satisfaction with Ford Division sales and service in 2006 showed improvements of 13 and 18 percentage points, respectively, compared to 2001
- In Ford of Europe:
  - "Things gone wrong" improved by 20 percent from 2001 to 2006, and improved by 14 percent in 2006 alone
  - Warranty spending decreased by 27 percent, and there were no safety recalls in 2006
  - Overall customer satisfaction remained flat, though the Volvo unit showed an increase of 4 percent in 2006
  - In 2006, sales and service satisfaction improved by 20 and 10 percentage points, respectively, compared to 2001
- Ford Asia Pacific:
  - o "Things gone wrong" improved by 14 percent in 2006
  - Warranty cost per unit decreased by 41 percent
  - Customer satisfaction decreased by 1 percent
- Ford South America:
  - o "Things gone wrong" improved by 15 percent
  - Warranty cost per unit decreased by 19 percent
  - Customer satisfaction improved by 7 percent

Owner loyalty, a measure of customers disposing of a Ford product and buying a new one, improved in Ford of Europe and decreased slightly in North America. However, we did receive high rankings in external assessments of owner loyalty.

- In the United States, owner loyalty decreased slightly to 43.3 percent in 2006 compared to 2005
- Owner loyalty remained the same in Ford of Europe at 50 percent
- Ford products led five out of 14 categories in an R.L. Polk & Co. study of owner loyalty on 2006 model year vehicles

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- · Management
- Performance
- Key topic: Mobility
- Leading with Products
- Responding to Consumer
   Demands
- Delivering Customer-Focused
   Innovations Faster
- Continually Improving
   Quality and Customer

   Satisfaction
- Focusing on Customers
- Ford Motor Credit Company
- Data
- · Case Studies

Print this report

P Download resources

نسا

Send feedback

## Continually Improving Quality and Customer Satisfaction

#### IN THIS SECTION:

- ₹ Continually Improving Quality and Customer Satisfaction
- → Quality and Customer Satisfaction Awards

#### **Quality and Customer Satisfaction Awards**

The high quality of Ford vehicles was also recognized through several prestigious awards.

- Ford vehicles won four awards in the 2006 Autobytel Editor's Choice Awards, including:
  - SUV of the Year (Explorer)
  - Best New Convertible (Mazda MX-5 Miata)
  - o Best New Luxury SUV (Land Rover Range Rover Sport)
  - Best New Midsize SUV (Explorer)
- . J.D. Power recognized Ford vehicles with four awards:
  - We received Initial Quality awards for the Compact Sporty Car (Mazda MX-5) and Midsize Pickup (Ranger)
  - We received an APEAL award, a measure of customer satisfaction, for Midsize Car (Ford Fusion) and Midsize Sporty Car (Mustang).

We have secured these improvements in quality and customer satisfaction by adhering to a rigorous quality system, using customer-driven 6-Sigma, and by listening closely to our customers. In the past, quality was governed by multiple initiatives across vehicle models and global operations. Now, they are aligned into a single system. This Global Quality Operating System leverages proven practices (policies, standards, procedures) and is backed by specific Functional-Based Requirements.

We use consumer-driven 6-Sigma to help us solve problems, drive out waste and improve product quality through a disciplined process. Since we adopted the consumer-driven 6-Sigma approach in 2000, skilled "Black Belts" across the Company have carried out more than 20,000 projects aimed at improving product quality and eliminating waste on current and future model vehicles and services. These projects helped to deliver the Company's business plan priorities. During 2005 and 2006, we focused on integrating 6-Sigma and Design for 6-Sigma into the Company's core processes, improving training and replicating 6-Sigma Kaizen to focus on failure mode avoidance upstream in product development.

Each of our brands operates customer support programs, which help our retail and fleet customers access the information and assistance they need during the time they own a Ford Motor Company vehicle.

Unfortunately, the perception of Ford quality continues to lag the real improvements we have made. While we have made progress, the auto industry as a whole is also getting better. To improve customer perception and continue our progress, we will maintain an intense focus on quality and communicate these gains to customers.

- . External Web Sites
- Autobytel.com
- o J.D. Power

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- · Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Focusing on Customers
- Understanding Our Customers
- Increasing Customer
   Awareness of Our Company
   and Products
- Safeguarding Customer Privacy
- Ford Motor Credit Company
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Focusing on Customers

Ford Motor Company serves more than 6 million customers worldwide. Our major regional markets include North America, South America, Western Europe, Eastern Europe, Russia, Asia and Australia.

In these regions, we serve three primary types of customers: individual retail consumers, small business customers and large commercial fleets. We will continue to expand our products and services for these existing customers. We are particularly focused on gaining new customers in emerging markets. In North America, we are focusing on providing new products in three of the fastest-growing market segments: crossovers, small cars and luxury cars.

In all of our markets, our customers' mobility needs and desires are changing faster than ever. We have to listen closely and often to our customers, and carefully study market trends to anticipate and deliver what our customers want.

- In This Report
- Corporate Profile
- Developing Sustainable Mobility
   Strategies for Emerging Markets

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- CUSTOMERS
- · Progress
- Context
- Management
- Performance
- Key topic: Mobility
- Leading with Products
- Focusing on Customers

## . Understanding Our

#### Customers

- . Increasing Customer Awareness of Our Company and Products
- Safeguarding Customer Privacy
- Ford Motor Credit Company
- · Data
- · Case Studies



P Download resources

Send feedback

## **Understanding Our Customers**

Understanding our customers is the key to delivering successful products. We use several strategies for listening to our customers, anticipating their needs and delivering products they will love.

#### **Developing Target Customers and Brand Meanings**

Strengthening the Company's focus on consumers is an integral part of Ford's Way Forward plan (see <u>Financial Health</u> section) to deliver better products and strengthen the business. Ford's marketing experts have been working diligently to ensure that all employees know what each of our brands stands for and who their target customers are, so they can use that information to develop the right product, for the right person, at the right time.

Our marketing experts use an intensive research and analysis process to understand who our potential customers are, what they value and what they want in a vehicle. Using the information they have gathered, they have defined a "brand DNA" and "target customer" for each of our main brands. These overall brand DNAs and target customers are used to develop all our new products. Ultimately, each individual product is also assigned its own specific DNA and target customer. The brand DNA and target customer profiles go beyond simple demographic information such as age, gender and income; we build complete profiles of each target customer, including what they like to do, what music they listen to and where they shop. This approach gives us a focus on exactly what we're trying to accomplish with each vehicle. We know who the customer is, we know what emotional and functional elements we want in the vehicle, and the entire vehicle team works together to develop a vehicle that our target customers will

#### **Tracking Future Consumer Trends**

We also track emerging trends that we believe will influence what consumers will want in the future. We have an internal global trends and futuring network made up of people across the Company who have their finger on the pulse of consumer interests and social and political trends. This group manages a database of future trends they believe will affect the Company and our consumers.

In addition to this internal network, we engage in extensive scenario-planning exercises with internal and external thought leaders to understand where the world is heading and what it will mean for consumers' choices about vehicles and mobility. We include thought leaders from outside the auto industry as well as industry experts to make sure we get a broad and comprehensive vision of possible future trends. We have used these exercises to develop several scenarios for how the world may look in the future and how this will impact our consumers and our industry. We are using these scenarios and trends throughout our marketing, product development, research and design organizations to guide future product and technology developments.

One of the primary consumer trends we are following is an increasing interest in environmental and social issues, and an increasing desire to purchase products that have positive environmental and social impacts. We call this trend "ethical consumerism," and our preliminary research shows that it is on the rise globally. As the world becomes increasingly interconnected, people are becoming more aware of how their actions affect one another. While people are generally not willing to compromise on performance or affordability, they want products that come from ethical companies and have positive environmental and social impacts. One example of this trend is the rise in popularity of fair-trade-certified, organic-certified and other products that can claim to have positive social, environmental and health impacts. The evidence of this trend provides strong motivation and justification for us to continue our work on developing and implementing more sustainable products and services.

#### RELATED LINKS

In This Report

Financial Health

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- Progress
- Context
- Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Focusing on Customers
- Understanding Our Customers
- Increasing Customer
   Awareness of Our Company
   and Products
- Safeguarding Customer Privacy
- Ford Motor Credit Company
- Data
- Case Studies



Download resources

Send feedback

# Increasing Customer Awareness of our Company and Products

One important goal of our marketing and communications activities is to increase consumers' knowledge of our products and our corporate performance. We are particularly focused on improving consumers' awareness of the Company's excellent quality, safety, environmental and social performance. We are working to get this information to consumers in several ways. This sustainability report is one key element of our strategy. We also engage in two-way communications with consumers and other stakeholders through a variety of stakeholder engagement forums. Finally, we use advertising to inform consumers about our products and our corporate performance.

We use three primary advertising strategies: corporate-level communications about Ford Motor Company, advertising about our brands and specific products, and dealer-level product advertising. The goal of these advertising strategies is to sell vehicles. But just as important, we are aiming to increase general awareness about the excellence of our products and our corporate performance with people who are not yet in the market for a vehicle. To develop new products, we respond to market demands through our market research and product development efforts. Through our advertising, we hope we can increase interest in and preference for our vehicles and our Company based on the excellence of our products and the positive actions of our Company. In 2006, we spent \$ 5.1 billion on advertising globally, up from \$5.0 billion in 2005 and \$4.6 billion in 2004. The following chart provides an overview of how we spend our product marketing dollars.

#### 2006 Ford Motor Co. US Advertising Spending

Category	Spend	% of Total	
Corporate	\$31,200,000	1.80%	
Product*	\$1,192,485,728	68.71%	
Dealer Assoc.**	\$511,743,803	29.49%	
Total	\$1,735,429,531	100.00%	
Hybrid	\$32,898,467	1.90%	

Source: Ad-Insights, April 19, 2007

- \* Tier 1 Spend
- \*\* Tier 2 Spend

Brands include Ford, Land Rover, Lincoln, Mazda, Mercury, Volvo

Media includes network TV, national cable TV, local TV (top 100 markets), national magazine, national newspaper, local newspaper (top 100 markets), radio (top 27 markets), outdoor, Internet (excluding sites that require zip codes)

Corporate and Hybrid spend does not include radio, outdoor or Internet

At the product level, we are working hard to increase consumer awareness of our great quality, safety innovations and environmentally friendly vehicle offerings. For example, we are continuing to increase consumer awareness of our hybrid vehicle offerings, including the Ford Escape Hybrid and Mercury Mariner Hybrid compact SUVs, and their sister product, the Mazda Tribute Hybrid, which will launch in 2007. The Escape and Mariner Hybrids are the most fuel-efficient SUVs on the planet. These hybrids provide a no-compromise vehicle option that allows people to maintain their environmental values and get great fuel economy without giving up functionality, roominess or performance.

The Ford Escape Hybrid is an important product for the Company. It is our first hybrid vehicle, and therefore represents a key element in our strategy for developing cleaner and more fuel-efficient vehicles. This vehicle has also played an important role in bringing new customers to Ford Motor Company products. Approximately 60 percent of all Escape and Mariner hybrid buyers are "conquest" buyers, people who previously owned other brands. We are constantly working to increase awareness about this superior product. Toward this end, we launched an advertising campaign featuring Kermit the Frog explaining that, with the Escape Hybrid, it actually is pretty easy to be green. We chose Kermit as a spokesperson for the Escape Hybrid because, like Ford, he is an American icon, he is family friendly and, most important, he is as green as our vehicle. Future advertising campaigns for the Escape Hybrid will feature some of the vehicle's other green attributes, including seat fabric made from 100 percent post-industrial material and the program we are using at Escape Hybrid plants to offset all carbon emissions created during the manufacturing process.

#### RELATED LINKS

#### In This Report

- Sitting Pretty on Recycled Fabric
- Stakeholder Engagement
- <u>Delivering Customer-Focused Innovations</u>
   <u>Faster</u>
- GHG Emissions Equation Driver

#### Ford.com

- Ford Escape Hybrid
- Mercury Mariner Hybrid

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- Management
- Performance
- o Key topic: Mobility
- Leading with Products
- Focusing on Customers
- Understanding Our Customers
- Increasing Customer
   Awareness of Our Company
   and Products
- Safeguarding Customer
   Privacy
- Ford Motor Credit Company
- Data
- · Case Studies



Nownload resources

-

Send feedback

## Safeguarding Customer Privacy

Customer privacy is a top priority for Ford. Most of our sensitive customer information is controlled by Ford Motor Credit Company, our automotive financial services subsidiary. Please see our <u>Ford Motor Credit profile</u> for more information on our customer privacy policies and performance.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- · Performance
- Key topic: Mobility
- Leading with Products
- Focusing on Customers
- Ford Motor Credit Company
- . Data
- · Case Studies



Download resources

Send feedback

## Ford Motor Credit Company

Our corporate citizenship and sustainability reporting has traditionally focused on our automotive sector – the part of the business that designs and builds vehicles. The other major part of our business is Ford Motor Credit Company, a wholly owned subsidiary that began operations in 1959. Ford Motor Credit offers a wide variety of automotive financial services to automotive dealers and customers in countries throughout the world. Ford Motor Credit North America does business in every state in the United States and all provinces in Canada.

Outside the United States, FCE Bank plc is Ford Motor Credit's largest operation. The biggest share of FCE's business is in the United Kingdom and Germany, with smaller operations in most other European countries. Ford Motor Credit also operates in the Asia Pacific, Africa and Latin America regions. Across the globe, Ford Motor Credit offers financing options appropriate for local markets.

Ford Motor Credit's primary financial products fall into three categories:

- Retail financing purchasing retail installment sales contracts and retail leases from dealers, and offering financing to commercial customers, primarily vehicle leasing companies and fleet purchasers, to purchase or lease vehicle fleets
- Wholesale financing making loans to dealers to finance the purchase of vehicle inventory, also known as floorplan financing
- Other financing making loans to dealers for working capital, improvements to dealership facilities, and the acquisition and refinancing of dealership real estate

Ford Motor Credit works on a number of issues of interest to its stakeholders, including the following:

- Consumer Education: Ford Motor Credit joined with other lenders to form AWARE (Americans Well-informed on Automobile Retailing Economics), a collaborative effort to increase consumer understanding of the auto financing system. (See <a href="www.autofinancing101.org">www.autofinancing101.org</a>.) Ford Motor Credit's participation in AWARE extends its longstanding support of financial education for consumers through such organizations as Jump\$tart and Junior Achievement. By educating consumers about auto financing and how to make informed decisions, AWARE works to ensure that financing remains available and affordable to a broad spectrum of consumers.
- Identity Theft: In partnership with other financial institutions, Ford Motor Credit is taking aim against identity theft as a founding member of the Identity Theft Assistance Center (ITAC). ITAC is a nonprofit industry consortium that helps consumers. Member institutions collaborate to protect their customers from fraud and help them recover if they are ID theft victims. After resolving issues at the member institution, customers are referred to ITAC, which helps them identify suspicious activity in their credit reports, notifies affected creditors, places fraud alerts with credit bureaus and shares information with law enforcement authorities.
- Customer Privacy: Safeguarding customer information is important to Ford Motor Credit, which uses systems, policies and procedures to maintain the accuracy of customer information and to protect it from loss, misuse or alteration. Customer information is accessible to appropriate personnel who have a business need for the information. Ford Motor Credit provides training and communications programs to educate personnel about our privacy requirements.

- In This Report
- Corporate Profile
- Sustainability-Related Standards
- Ford.com
- Ford Credit
- **External Web Sites**
- o AWARE
- Identity Theft Assistance Center

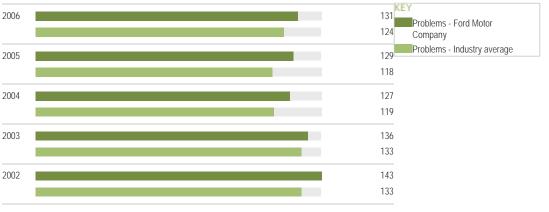
OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL VIEWING THIS DATA Would you prefer to view the PRODUCTS AND data as text tables? . CUSTOMERS See data tables **Charts on This Page** · Progress <u>Initial Quality Study – J.D. Power and Associates (3 months in service)</u> · Context GORS Things Gone Wrong (TGW) (3 months in service) · Management **<u>GORS Customer Satisfaction (3 months in service)</u>** С D Yehicle Dependability Index – J.D. Power and Associates (3 years of ownership) . Performance Ε Sales Satisfaction with Dealer/Retailer Data 1 F Service Satisfaction with Dealer/Retailer G Summary of Vehicle Unit Sales · Case Studies Ford Motor Company Market Share - United States Fjord Motor Company Market Share – Europe U.S. Utility Patents Issued to Ford and Subsidiaries Print this report First-time Ford Buyers (Owners who Acquired a New Vehicle for the First Time) Download resources **Qwner Loyalty (Customers Disposing of a Ford Motor Company Product and Acquiring Another)** Ford Fleet Sales Ν Ford Credit Market Share Send feedback

#### Α

#### Initial Quality Study - J.D. Power and Associates (3 months in service)

Ford Motor Company U.S.

#### Problems per hundred vehicles



B GQRS Things Gone Wrong (TGW) (3 months in service)

Total things gone wrong per 1,000 vehicles



See notes to the data

top

C GQRS Customer Satisfaction (3 months in service)

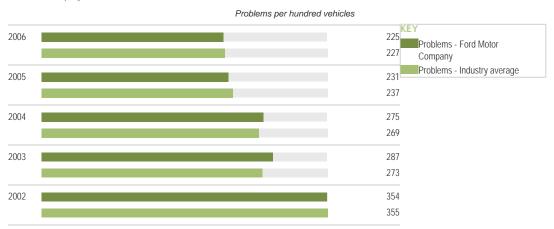


See notes to the data

tep

D Vehicle Dependability Index – J.D. Power and Associates (4-5 years of ownership)

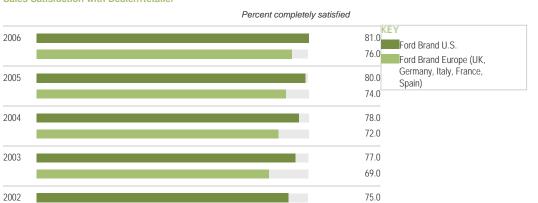
Ford Motor Company U.S.



See notes to the data

top

Sales Satisfaction with Dealer/Retailer



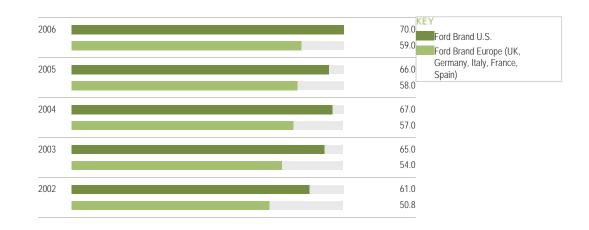
top

F

Service Satisfaction with Dealer/Retailer

Percent completely satisfied

64.7



top

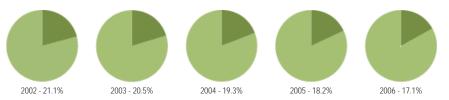
G Summary of Vehicle Unit Sales

	Thousands
2006	6,597
2005	6,767
2004	6,842
2003	6,720
2002	6,973

See notes to the data

top

H Ford Motor Company Market Share – United States



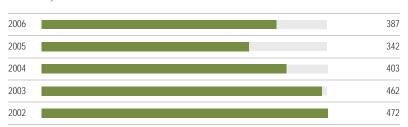
top

Ford Motor Company Market Share – Europe



top

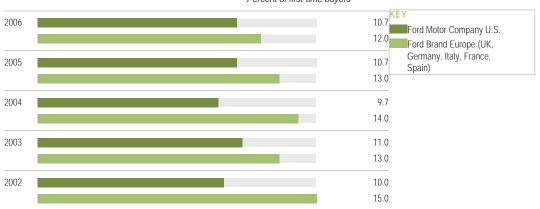
J U.S. Utility Patents Issued to Ford and Subsidiaries



See notes to the data



Percent of first-time buyers

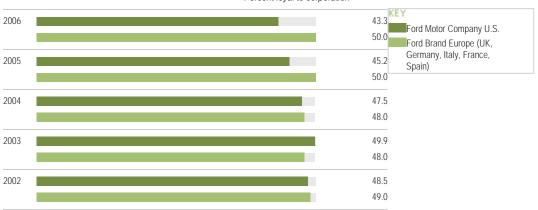


top

L

# Owner Loyalty (Customers Disposing of a Ford Motor Company Product and Acquiring Another)

Percent loyal to corporation



top

M

#### Ford Fleet Sales

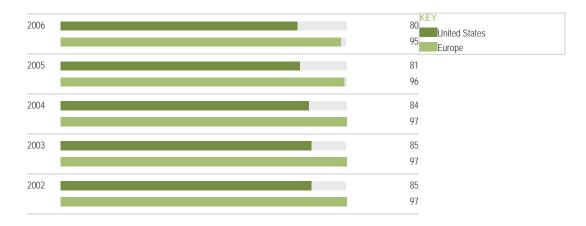


top

N

**Ford Credit Market Share** 

Percent



top

#### NOTES TO THE DATA

#### Chart B and Chart C

GORS (Global Quality Research System) is a Ford-sponsored competitive research survey. GORS is an early indicator of J.D. Power quality results. Year to date 2007 GORS customer satisfaction and TGW are 75 and 1,458 respectively.

#### Chart D

Data for 2002 are from the survey's predecessor the "Vehicle Dependability Index" which measured 4 to 5 years of ownership.

#### Chart G

Data from 2004 through 2006 are wholesale unit volumes.

#### Chart.

Utility patents are patents that cover the useful features of an invention and these are measures of technological innovation. We have generated a large number of patents related to the operation of our business and expect this portfolio to continue to grow as we actively pursue additional technological innovation. The average age for patents in our active patent portfolio is five years.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA
Would you prefer to view the

See data charts

data as charts?

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- Performance

#### Data

Case Studies







#### Data

#### **Tables on This Page**

- A Initial Quality Study J.D. Power and Associates (3 months in service)
- B GORS Things Gone Wrong (TGW) (3 months in service)
- C GORS Customer Satisfaction (3 months in service)
- D <u>Vehicle Dependability Index J.D. Power and Associates (3 years of ownership)</u>
- E Sales Satisfaction with Dealer/Retailer
- F Service Satisfaction with Dealer/Retailer
- G Summary of Vehicle Unit Sales
- H Ford Motor Company Market Share United States
- I Fjord Motor Company Market Share Europe
- J U.S. Utility Patents Issued to Ford and Subsidiaries
- K First-time Ford Buyers (Owners who Acquired a New Vehicle for the First Time)
- M Ford Fleet Sales
- N Ford Credit Market Share

#### Α

#### Initial Quality Study - J.D. Power and Associates (3 months in service)

Ford Motor Company U.S.

#### Problems per hundred vehicles

	2002	2003	2004	2005	2006
Problems - Ford Motor Company	143	136	127	129	131
Problems - Industry average	133	133	119	118	124

top

#### В

#### GQRS things gone wrong (TGW) (3 months in service)

#### Total things gone wrong per 1,000 vehicles

2002	2003	2004	2005	2006
1,997	1,936	1,956	1,846	1,586

See notes to the data

top

#### C

#### GQRS customer satisfaction (3 months in service)

			F	Percent satisfied
2002	2003	2004	2005	2006
72	73	74	73	74

See notes to the data

top

D

Vehicle Dependability Index – J.D. Power and Associates (4-5 years of ownership)

Ford Motor Company U.S.

	2002	2003	2004	2005	2006
Problems - Ford Motor Company	354	287	275	231	225
Problems - Industry average	355	273	269	237	227

See notes to the data

#### Sales Satisfaction with Dealer/Retailer

#### Percent completely satisfied

	2002	2003	2004	2005	2006
Ford Brand U.S.	75.0	77.0	78.0	80.0	81.0
Ford Brand Europe (UK, Germany, Italy, France, Spain)	64.7	69.0	72.0	74.0	76.0

top

top

#### Service Satisfaction with Dealer/Retailer

#### Percent completely satisfied

	2002	2003	2004	2005	2006
Ford Brand U.S.	61.0	65.0	67.0	66.0	70.0
Ford Brand Europe (UK, Germany, Italy, France, Spain)	50.8	54.0	57.0	58.0	59.0

top

G

#### **Summary of Vehicle Unit Sales**

#### Thousands

2002	2003	2004	2005	2006
6,973	6,720	6,842	6,767	6,597

See notes to the data

top

н

#### Ford Motor Company Market Share - United States

Pe	rce	nt

2002	2003	2004	2005	2006
21.1	20.5	19.3	18.2	17.1

top

#### Ford Motor Company Market Share - Europe

reiteiit				
2006	2005	2004	2003	2002
10.6	10.8	10.9	10.7	10.9

top

#### U.S. Utility Patents Issued to Ford and Subsidiaries

2002	2003	2004	2005	2006
472	462	403	342	387

See notes to the data

top

K

# First-time Ford Buyers (Owners who Acquired a New Vehicle for the First

#### Percent of first-time buyers

	2002	2003	2004	2005	2006
Ford Motor Company U.S.	10.0	11.0	9.7	10.7	10.7
Ford Brand Europe (UK, Germany, Italy, France, Spain)	15.0	13.0	14.0	13.0	12.0

L

## Owner Loyalty (Customers Disposing of a Ford Motor Company Product and Acquiring Another)

#### Percent loyal to corporation

	2002	2003	2004	2005	2006
Ford Motor Company U.S.	48.5	49.9	47.5	45.2	43.3
Ford Brand Europe (UK, Germany, Italy, France, Spain)	49.0	48.0	48.0	50.0	50.0

top

M

#### **Ford Fleet Sales**

2002	2003	2004	2005	2006
834,000	795,000	810,000	854,000	902,000

top

Ν

#### **Ford Credit Market Share**

#### Percent

	2002	2003	2004	2005	2006
United States	85	85	84	81	80
Europe	97	97	97	96	95

<u>top</u>

#### NOTES TO THE DATA

#### $\underline{\text{Table B}} \text{ and } \underline{\text{Table C}}$

GORS (Global Quality Research System) is a Ford-sponsored competitive research survey. GORS is an early indicator of J.D. Power quality results. Year to date 2007 GORS customer satisfaction and TGW are 75 and 1,458 respectively.

#### Table D

Data for 2002 are from the survey's predecessor the "Vehicle Dependability Index" which measured 4 to 5 years of ownership.

#### Table G

Data from 2004 through 2006 are wholesale unit volumes.

#### Table J

Utility patents are patents that cover the useful features of an invention and these are measures of technological innovation. We have generated a large number of patents related to the operation of our business and expect this portfolio to continue to grow as we actively pursue additional technological innovation. The average age for patents in our active patent portfolio is five years.

Download resources

Send feedback

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 VOICES > QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT COMMUNITY Case Studies PRODUCTS AND CUSTOMERS • Progress Nanotechnology: One Tool For Developing More Sustainable Vehicles > . Context Nanotechnology is a set of tools and processes that allows us to manipulate matter at an extremely small Management scale (one nanometer is one billionth of a meter, or 1,000 times smaller than the width of a human hair). · Performance Ford Fusion: Exemplifying the Future of Ford's Products · Data The Ford Fusion, and its sister vehicles the Mercury Milan and Lincoln MKZ, have been among our greatest product successes this year. These vehicles are a key element in Ford's Way Forward strategy Case Studies to deliver highly competitive and desirable products, and they reflect our renewed commitment to o Nanotechnology: One Tool For providing superior car-based products. Developing More Sustainable The "Piquette Project" Vehicles In early 2005, Bill Ford introduced the Piquette Project, an internal "think tank" focused on developing o Ford Fusion: Exemplifying the mobility product and service ideas that maximize the use of cradle-to-cradle materials, eliminate emissions and even change the whole model for how transportation is designed, manufactured, bought Future of Ford's Products and sold. The Piquette Project Print this report

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- Progress
- . Context
- · Management
- Performance
- · Data
- · Case Studies
- Nanotechnology: One Tool
   For Developing More
   Sustainable Vehicles
- Nanotechnology and Advanced
   Materials
- Nanotechnology, Fuel Cells and Hydrogen Storage
- Ford Fusion: Exemplifying the Future of Ford's Products
- o The Piquette Project



Download resources

-

Send feedback

# Nanotechnology: One Tool For Developing More Sustainable Vehicles

Nanotechnology is a set of tools and processes that allows us to manipulate matter at an extremely small scale. (One nanometer is one billionth of a meter, or 1,000 times smaller than the width of a human hair.) Ford has a long history of using nanotechnology. We were one of the first automakers to apply nanotechnology to our products through the use of nanoparticle-based exhaust catalysis and emission controls, which we implemented in the 1970s.

Today Ford is using nanotechnology in a wide range of applications that will improve the safety, sustainability and performance of our vehicles and decrease the costs of our research and product development processes.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- · Progress
- · Context
- Management
- · Performance
- Data
- · Case Studies
- Nanotechnology: One Tool For Developing More Sustainable
   Vehicles
- Nanotechnology and
   Advanced Materials
- Nanotechnology, Fuel Cells and
   Hydrogen Storage
- Ford Fusion: Exemplifying the
   Future of Ford's Products
- o The Piquette Project

Print this report

Download resources

-

Send feedback

## Nanotechnology and Advanced Materials

Reducing the weight of our vehicles is one way to improve our products' fuel efficiency and environmental performance. We are currently using nanotechnology to develop advanced lightweight materials that will allow us to decrease vehicle weight without sacrificing strength, safety or performance. Much of this work focuses on developing the ability to model material properties and performance at the nanoscale, which will allow us to develop better materials more quickly and with lower research and development costs. For example, Ford researchers recently implemented Virtual Aluminum Casting technology, which uses nanoscale modeling of one commonly used aluminum alloy to reduce the cost and increase the performance of aluminum cast engine blocks.

In February 2007, Ford announced the next step in this research: a partnership with Boeing and Northwestern University to expand nanoscale modeling to other alloy types. The goal of this research is to identify the key nanoscale processes and structures that impact aluminum alloy performance by using Northwestern's leading-edge nanoscale experimental probe technology, called the local electrode atom probe, and state-of-the-art nanoscale modeling. This will allow Ford to develop and implement better lightweight materials and significantly reduce the research, testing and prototyping costs and time required to bring these new materials to production vehicles. This technology will also advance Ford's goal of utilizing more recycled and recyclable materials by improving our ability to incorporate recycled aluminum without compromising the materials' performance characteristics.

In addition to this modeling work, Ford is using nano-filler materials in metal and plastic composites to reduce their weight while increasing their strength. We are also working on nanotechnology-derived paints and glass that reflect UV radiation. These technologies will help keep vehicles cooler without as much air conditioning power, which is a significant drain on fuel economy. Ford researchers are also investigating nano-derived self-cleaning paints.

Finally, Ford researchers are developing nanofluids, which are vehicle liquids such as coolants, engine oil, lubricants and transmission fluids that contain dispersed nanoscale particles. Ford scientists have found that sprinkling nanoparticles into these liquids reduces friction and increases thermal conductivity, both of which allow the liquid to operate at lower temperatures, resulting in higher operating efficiencies and longer engine life.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## PRODUCTS AND

- . CUSTOMERS
- · Progress
- . Context
- Management
- · Performance
- Data
- · Case Studies
- Nanotechnology: One Tool For Developing More Sustainable
   Vehicles
- Nanotechnology and Advanced
   Materials
- Nanotechnology, Fuel Cells and Hydrogen Storage
- Ford Fusion: Exemplifying the
   Future of Ford's Products
- o The Piquette Project

Print this report

Download resources

-

Send feedback

## Nanotechnology, Fuel Cells and Hydrogen Storage

We are also using nanotechnology to develop new approaches to making hydrogen fuel cells more effective. Fuel cells are considered by many to be the next revolution in vehicle powertrains. However, it is very challenging to create a durable, reliable and cost-effective fuel cell. Nanotechnology is providing tools for meeting these challenges. For example, nanotechnology is being used in the exchange membranes within fuel cells that separate protons from electrons and produce electric power. Researchers are developing strategies to design these membranes at the nanoscale, to maximize their performance while improving their durability, reliability and cost-competitiveness.

Nanotechnology is also providing important advances in storing the hydrogen needed to run fuel cells on board vehicles. Virtually all current hydrogen-powered vehicles, including Ford's fuel cell and hydrogen internal-combustion engine vehicles, use physical hydrogen storage. That is, hydrogen is stored on the vehicles in gaseous form in pressurized tanks. Due to the physical properties of hydrogen, however, these storage systems can only hold enough hydrogen for a 200-mile driving range. Most gasoline-powered vehicles have a range of 300 or more miles per tank. In addition, physical hydrogen storage takes up significantly more room than regular gas tanks. In the Ford Focus fuel cell vehicle, most of the trunk space is required to house the hydrogen storage tanks.

To address these limitations, Ford is using nanotechnology to develop solid-state, "materials-based" hydrogen storage technologies. In these systems, hydrogen is stored in a host "hydride" material through a chemical reaction and released (via the reverse reaction) by changing the pressure or temperature. Compared to pressurized tanks, the host materials can hold a greater density of hydrogen and can be "refueled" on-board the vehicle at (future) hydrogen filling stations. If we can develop more efficient, safe and convenient hydrogen storage methods, we will be one large step closer to making hydrogen vehicles — with no tailpipe emissions other than water — a reality.

- In This Report
- Advanced Clean Technologies
- External Web Sites
- <u>Building a Hydrogen Transportation</u>
   System

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies
- Nanotechnology: One Tool For Developing More Sustainable
   Vehicles
- Ford Fusion: Exemplifying the Future of Ford's
   Products
- The Piquette Project



Download resources

Send feedback

### Ford Fusion: Exemplifying the Future of Ford's Products

The Ford Fusion, and its sister vehicles the Mercury Milan and Lincoln MKZ, have been among our greatest product successes this year. These vehicles are a key element in Ford's Way Forward strategy to deliver highly competitive and desirable products, and they reflect our renewed commitment to providing superior car-based products. They also meet the growing demand for more fuel-efficient vehicles that do not compromise on style, performance or functionality. We designed the Fusion to be a leader in design, quality, safety and value – four key factors in consumers' purchase decisions. Based on the new sedan's sales, reviews and awards, we believe we have succeeded.

The Fusion represents the best of Ford's renewed commitment to bold American design. It features bold exterior styling, including a new brand signature three-bar grill and cat-eye headlights. The Fusion's interior has been rated superior to other vehicles in its category, including the Toyota Camry. It has been cited for excellent fit and finish, and superior ergonomics.

Perhaps even more important, the Fusion is one of the highest-quality vehicles available. In our own Global Quality Research Survey, the Fusion had the lowest record of "things gone wrong" of any new vehicle we have ever launched. In addition, it beat the Toyota Camry and Honda Accord, long-time leaders in quality ratings.

The Fusion is also leading Ford vehicles in its low number of warranty claims. With an average of 116 repairs per 1,000 vehicles after three months in service, the Fusion has the lowest retail warranty repair rate of any Ford vehicle ever sold. Warranty numbers for the powertrain are just as impressive: averaging 16.5 repairs per 1,000 vehicles, it has the lowest levels ever achieved at Ford.

The Fusion also has excellent safety performance. As of early 2007, it comes with standard side air bags. It also has optional all-wheel drive. It is the only vehicle in its class to offer this performance and safety feature, which is an important purchase consideration to a growing number of consumers. The Fusion received high crash-test rankings from the Insurance Institute of Highway Safety; it received the highest ranking of "good" on front and side collisions, and the next-best rating on rear collisions.

The Fusion has been rated a "best buy" by *Consumer's Digest* and *Smart Money* magazines. In addition, it was listed as a "best family car of the year" by AAA and Parents magazine for its combination of safety, quality, value and functionality.

While these rankings and awards are important, consumers and drivers are still the most important judge of a vehicle. The Fusion is excelling with these reviewers as well. In a recent *Car and Driver* test-drive comparison involving more than 300 drivers, the Fusion beat the Camry and Accord in four key areas: styling, quality, performance and handling. Sales for the vehicle have also been excellent. In the United States, Fusion sales have increased 15 percent each month since its launch in 2005. In Canada, it contributed to a 21.5 percent increase in car sales through October 2006 and an overall sales increase of 7 percent. In Brazil, the Fusion has been outselling the competition by 40 percent and has up to three-month waiting lists.

Perhaps most important, more than 40 percent of Fusion buyers are "conquest" buyers – people who were previously driving competing vehicles but who chose the Fusion over the competition.

The Fusion is also an important step in improving our near-term environmental performance. It offers our customers a more fuel-efficient option that compromises nothing in style, performance, safety, quality or functionality. And the Fusion will continue to build our environmental performance in future model years. Hybrid versions of the Fusion and Mercury Milan are planned for 2008. This new hybrid will showcase some of Ford's latest developments in environmentally friendly materials, including recycled, recyclable and renewable materials. In short, the Fusion is leading the way toward the kinds of products Ford will be building for the future.



Ford Fusion

- In This Report
- Financial Health
- Ford.com
- Ford Fusion

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### PRODUCTS AND

- . CUSTOMERS
- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies
- Nanotechnology: One Tool For Developing More Sustainable
   Vehicles
- Ford Fusion: Exemplifying the
   Future of Ford's Products
- The Piquette Project
- Print this report
- Download resources
- Send feedback

### The Piquette Project

In early 2005, Bill Ford introduced the Piquette Project, an internal "think tank" focused on developing mobility product and service ideas that maximize the use of cradle-to-cradle materials, eliminate emissions and even change the whole model for how transportation is designed, manufactured, bought and sold. After two years of intensive, cross-functional efforts protected from the distractions of day-to-day operations, ideas from the Piquette Project are now being integrated into Company-wide strategic planning and product development activities. We determined that it made more sense to incorporate the philosophy and work of Piquette into our Company-wide activities rather than have Piquette continue as a stand-alone operation.

The project was named for the Piquette Plant, where Henry Ford and a team of his best thinkers developed the idea for the Model T and the moving assembly line. The Piquette team, which included representatives from Sustainable Mobility Technologies, Sustainable Business Strategies, Marketing, Design, Engineering and Research, was given two years of freedom to study trends and technologies and develop "white space" ideas. They were asked, "if you could develop a completely sustainable mobility product, what would it be, how would you make it, how would you sell it and who would you sell it to?" The primary limitation on their thinking was the requirement that they not create a "science project" or concept car that would never see real consumers or impact Company-wide activities. From the beginning, Piquette was intended to have real-world results that could be integrated into the Company's daily business.

The Piquette team explored opportunities for making a completely closed-loop vehicle, made entirely from renewable, recyclable, recycled and reusable materials and components. They explored new ways to power vehicles that would be completely renewable and result in no polluting emissions. And they explored entirely new business models for providing personal mobility, including new approaches to product development, manufacturing and product ownership.

The project has been a great success in building key relationships across the Company that will foster the implementation of sustainable product opportunities more quickly and effectively. And after two years of intensive work, the Piquette ideas and philosophy are being integrated into Company-wide activities. For example, the team succeeded in accelerating work on closed-loop materials, allowing us to implement many new applications of recycled, recyclable and renewable materials in production vehicles in the near future. In addition, a global team of engineers, designers and advanced product planners are working on developing rigorous sustainable product metrics that can be implemented across Ford's global operations. Realizing that what gets measured gets done, the Piquette team identified this as a key enabler to developing more sustainable products. Also, the Piquette ideas are feeding into our emerging markets strategy, including our new approach to creating mobility products and services for developing-market consumers.

- In This Report
- Key topic: Mobility
- Sitting Pretty on Recycled Fabric

OVERVIEW >

OUR IMPACTS >

VOICES :

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

THE NUMBER OF STREET

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

#### Progress

- Context
- Management
- · Performance
- Data
- · Case Studies

Print this report

Download resources

Send feedback



**About This Principle** 

We will respect the natural environment and help to preserve it for future generations.

We will achieve this by:

- Working to provide effective environmental solutions
- Working to continuously reduce the environmental impacts of our business in line with our commitment to sustainable development
- Measuring, understanding and responsibly managing our resource use, especially materials of concern and nonrenewable resources
- . Working to eliminate waste

#### **Progress Since Our Last Report**

The average fleet fuel consumption of our vehicles sold in Europe has continued to improve. In the United States, the Corporate Average Fuel Economy (CAFE) of our cars and trucks declined 1.0 percent for 2006 model year, as expected. Preliminary data for 2007 model year shows a 5.4 percent improvement in CAFE compared to 2006, with a 1.7 percent improvement for cars and a 5.2 percent improvement for trucks.

For the 2007 model year, Ford has 13 U.S. models that achieve 30 miles per gallon or better (based on the highway fuel economy estimates of the U.S. Environmental Protection Agency (EPA)) and several of our vehicles were recognized in the EPA and Department of Energy Fuel Economy Guide for best-inclass fuel economy (<a href="www.fueleconomy.gov">www.fueleconomy.gov</a>). According to the Guide:

- The Ford Focus Station Wagon is the best midsize station wagon
- $\bullet\,$  The Ford Ranger and Mazda B2300 are the best standard pickup trucks
- The Ford Escape Hybrid is the best sport utility vehicle
- The Mazda MX-5 is the best two-seater

The American Council for an Energy-Efficient Economy rates as "superior" or "better than average" for environmental performance the vehicles listed above, as well as the Ford Freestyle, Ford Escape (manual), Ford Focus (manual), Mazda 3 (manual) and Mercury Mariner Hybrid. (See <a href="www.greenercars.com">www.greenercars.com</a>.)

We have eliminated nearly 3 million pounds of smog-forming emissions from our U.S. cars and light trucks over the 2004 to 2006 model years. In the United States in 2006, Ford's brands certified more models to PZEV – the cleanest tailpipe pollution standard in the country – than any of our competitors.

Ford of Europe has developed a unique management tool – the Product Sustainability Index – to improve the sustainability performance of newly introduced vehicles.

We have strengthened the management of environmental impacts across our supply chain using the ISO 14001 framework. All of our manufacturing facilities and major suppliers' facilities have attained third-party certification to the standard.

We continue to improve the environmental performance of our facilities. Ford has reduced global energy use by 27 percent and global water use by 25 percent compared to 2000 levels.

The EPA recognized Ford's performance by awarding it Energy Star Partner of the Year in 2006 and 2007, the first time an automaker has received this recognition in consecutive years. In September 2006, for the first time, the EPA awarded 17 U.S. manufacturing plants with Energy Star recognition for their superior energy efficiency. Four Ford plants received the award – Chicago, St. Paul, Norfolk and

#### **FAST FACTS**

Ford has reduced its global energy use by 27 percent and global water use by 25 percent compared to 2000 levels.

#### VOICES

Susan Rokosz 🦒

Ford Motor Company



#### KEY TOPICS

Key material issues covered in this section:

• Climate Change

- Ford.com
- Ford Ranger
- Mazda B2300
- Ford Escape Hybrid
- Mazda MX-5 Miata
- Ford FreestyleFord Escape
- Ford Focus
- Mazda3
- Mercury Mariner Hybrid
- **External Web Sites**
- Fuel Economy Guide
- Greener Cars
- U.S. EPA Energy Star Program

Claycomo, Missouri – more than any other automaker.

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

· Progress

#### Context ■

- · Management
- Performance
- · Data
- · Case Studies







#### Context

#### **Our Environmental Aspects**

A range of environmental impacts is associated with the manufacture and use of automobiles. A high-level view of impacts throughout our <u>value chain</u> is set out here.

#### **Analyzing our Environmental Issues**

As part of our commitment to comprehensive environmental management using the ISO 14001 framework, we have analyzed both our environmental aspects and potential environmental impacts. Environmental aspects is a term used in the ISO 14001 framework to denote elements of an organization's activities, products and services that can interact with the environment. Potential environmental impacts include any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services. Local facilities use corporate lists of environmental aspects and potential impacts to identify and amplify those aspects that apply to their operations. We are incorporating ISO 14001 aspects into our overall Environmental Operating System (EOS) currently being rolled out globally.

#### **Quantifying Environmental Burdens**

To quantify the environmental aspects and the potential environmental burdens associated with them, we have analyzed resource use and emissions throughout the life cycle of many of our products. These analyses have been done in our research labs, by Ford of Europe's recycling experts and in cooperation with others in the industry. The stages of a vehicle's life cycle include materials production, parts fabrication, vehicle assembly, vehicle operation (including fuel production), maintenance and repair, and end-of-life disposal and recycling. While estimates vary depending upon the specifics of the vehicle analyzed, one cooperative, multi-industry analysis of a typical family sedan (a spark-ignited, gasoline-powered, Taurus-class family sedan weighing 1,532 kg) found that during its life cycle:

- 961 GJ of energy are consumed
- 21,000 kg of hydrocarbon are consumed
- 60,000 kg of CO2 are emitted

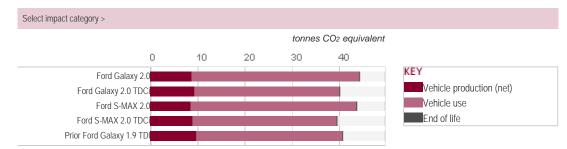
In that study, it was assumed that the vehicle was driven a total of 120,000 miles at an average metrohighway fuel efficiency of 22.8 mpg. The study also found that:

- · Vehicle operation consumes 86% of the life cycle energy
- Vehicle operation generates 87% of the life cycle CO<sub>2</sub>
- Vehicle production generates 65% of the particulates and 34% of the life cycle sulfur dioxide

This is consistent with a recent review of life cycle studies, in which it was found that the operational stage generally accounts for 80 to 90 percent of the total energy consumption and carbon dioxide emissions of conventional gasoline-powered vehicles, depending on the vehicle's material composition, average fuel efficiency and lifetime drive distance.

For example, a recent ISO 14040-reviewed Life Cycle Assessment study of the Ford Galaxy and S-MAX confirmed the high-use-phase share for these impact categories. Other impact categories are mainly dominated by the mining and material production phase.

#### Life Cycle Impact Assessment Results – Ford Galaxy and S-MAX Variants



#### RELATED LINKS

In This Report

- Our Value Chain and its Impacts
- Environmental Management
- Materiality Analysis
- Life Cycle Emissions

#### **Precautionary Principle**

The precautionary principle is the idea that if the consequences of an action are unknown, but are judged to have some potential for major or irreversible negative consequences, then it is better to avoid that action. We do not formally apply the precautionary principle to decision making across all of our activities. However, it has influenced our thinking. For example, in addressing <a href="climate change">climate change</a> as a business issue, we have employed the precautionary principle.

#### **Assessing Materiality**

The <u>materiality analysis</u> conducted for this report showed that climate change and other environmental issues are among the most significant issues for Ford and stakeholders alike.

While these issues were deemed in our 2004/5 materiality analysis to be material issues for Ford, their importance to the Company and stakeholders alike was even higher in this most recent analysis. We attribute this increase to several key factors:

- Fuel prices were volatile and rising during 2005 and 2006
- Vehicle markets in North America began to show a clear shift toward more fuel-efficient products
- The regulation of greenhouse gas (GHG) emissions increased in Kyoto signatory countries
- U.S. states continued to adopt GHG regulations for automobiles, and the 2006 U.S. elections raised the potential for additional fuel economy/GHG regulation at the federal level
- The development of carbon markets offers opportunities as well as risks
- The Iraq war spotlighted energy security concerns

These factors have also raised the profile of the energy security issue, particularly in the United States, where dependence on imported oil has been growing. This issue is linked to climate change concerns because of common solutions; it is also a driver of interest in alternative fuels.

Our more granular 2006/7 materiality analysis identified six environment-related issues as among the most material:

- Low carbon strategy
- · Vehicle greenhouse gas emissions
- Fuel economy
- Cleaner technologies
- · Clean/alternative fuels
- Public policy: GHG/fuel economy regulation

We also found an overall global theme of increasing expectations and regulation of a range of environmental issues associated with our products and manufacturing facilities. Thus, several issues rose in importance to Ford, including energy and water use (due to rising costs and concerns about long-term availability); tailpipe emissions and end-of-life management (due to increasing regulation) and product materials use (due to opportunities to improve the environmental performance of vehicles and cut costs through "cradle to cradle" solutions).

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context

#### Management

- Manufacturing
- Product Development
- Suppliers
- · Performance
- Data
- · Case Studies



Download resources

Send feedback

### Management

Ford's Board and senior executive level governance of environmental issues is described in the Accountability section.

We have an environmental policy and directives that apply to our operations globally.

All Ford manufacturing facilities and our product development function are certified to ISO 14001, the leading global standard for managing environmental issues. In addition, we have asked our preferred "Q1" suppliers of production parts to certify their facilities. These commitments place our most significant potential environmental impacts under one comprehensive environmental management system.

Ford of Europe has developed a Product Sustainability Index (PSI) to track whether their new products are moving toward the goal of sustainability. The PSI provides a basis for evaluating and improving sustainability performance for new generations of vehicles across environmental, social and economic areas. This holistic approach to product development is an industry first, with the new S-MAX and Galaxy being the pioneer vehicles created with the PSI. The improved sustainability profile of these vehicles was certified by an independent, external review panel according to ISO 14040, a global standard for life cycle assessment. The new Mondeo, which goes on sale in mid-2007, was also developed using the PSI.

- In This Report
- Corporate Governance
- Setting and Communicating Standards for Employees
- Global Operations
- Ford of Europe Rates Sustainability of Vehicles

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Manufacturing
- o Product Development
- Suppliers
- · Performance
- Data
- . Case Studies



Download resources

Send feedback

## Manufacturing

Ford's manufacturing management sets environmental goals, which for 2007 included the following.

- Global water use: a 3 percent decrease from 2006 levels
- Global facility energy use: a 3 percent energy efficiency improvement
- North American facility energy use: a 3 percent energy efficiency improvement
- North American volatile organic compound (VOC) emissions: 24 gm/m2
- North American landfill waste reduction: a 5 percent decrease from 2006 levels

Progress against these goals is discussed in the performance section.

During 2005, we began implementing an Environmental Operating System (EOS) at our North American assembly plants. As a counterpart to our Quality Operating System (QOS), the EOS provides a standardized, streamlined approach to maintaining compliance with all legal and Ford internal requirements. The EOS drives compliance responsibility to the operations level by assigning compliance-related tasks to the appropriate personnel and tracking their completion.

The EOS is integrated with other key management systems at the plant level, including ISO 14001 and the Ford Production System (FPS). EOS provides information, standardized tools and processes to support ISO 14001's requirement to identify and manage compliance issues. The FPS, which sets expectations across the full range of manufacturing performance areas, requires plants to complete implementation of the EOS to attain a high rating.

EOS is in place at all North American assembly and stamping plants, and will be rolled out to all North American powertrain plants by year-end 2007. Implementation of EOS has also begun in Ford of Europe.

Ford has moved to group ISO 14001 certification for its plants in North America. All powertrain plants share a single group certification. Likewise, assembly plants, stamping plants and Ford Customer Service Division facilities all have a single group. Instead of being audited yearly by a third party, each plant is now audited every three years. Group certification provides cost and time savings, with no degradation in plant environmental performance.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### ENVIRONMENT

- Progress
- . Context
- Management
- Manufacturing
- Suppliers
- · Performance
- Data
- · Case Studies

Print this report

Download resources

Send feedback

### **Product Development**

In the Global Product Development System, environmental objectives – including targets for fuel economy, vehicle emissions, use of recycled materials and recyclability – are defined at the outset of the design process for every new Ford vehicle. We track our progress toward those targets throughout the product development process. The targets, broken down from a vehicle level to a supplier or component level, enter into each contractual agreement signed between Ford and its suppliers.

To support this effort, Ford's Design for Environment (DfE) is one tool that bridges the gap between product development and environmental management. DfE uses simplified life cycle assessments and costings, substance restrictions, checklists and other tools to identify and reduce significant impacts.

<u>Ford of Europe's Product Sustainability Index</u> is broadening the DfE process to include further dimensions of sustainability to improve a vehicle's environmental, social and economic performance.

In North America, the product development function has sustainability "pillars" addressing key environmental issues as part of its strategy to drive innovation.

- In This Report
- Ford of Europe Rates Sustainability of Vehicles

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- Context
- Management
- Manufacturing
- Product Development
- 。 **S**uppliers
- Performance
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## **Suppliers**

ISO 14001 certification is expected of Q1, or preferred, nonproduction supplier facilities if the supplier has a manufacturing site or a nonmanufacturing site with significant environmental impacts that ships products to Ford

In 2006, we attained our goal of having 100 percent of our Q1 production suppliers gain ISO 14001 environmental management system certification for facilities supplying Ford. We also encourage our suppliers to extend the benefits of improved environmental performance by implementing similar requirements for environmental management systems in their own supply base.

- In This Report
- Suppliers
- Working Conditions in Our Supply Chain

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management

#### ▶ Performance

- o Key topic: Climate Change
- o Greenhouse Gas Emissions /

Fuel Economy

- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

....

Send feedback

#### Performance

#### Key topic: Climate Change

The growing weight of evidence holds that man-made greenhouse gas emissions are starting to influence the world's climate in ways that affect all parts of the globe.

#### **Performance Review**

This section reports on our progress in several key areas:

- · Greenhouse Gas Emissions/Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- VOCs
- Waste Generation
- Land Use

In addition, a section on "green buildings" discusses how we are designing and operating buildings for improved performance across several environmental aspects. We also cover issues relating to environmental compliance and environmental remediation.

OVERVIEW >

OUR IMPACTS >

VOICES 3

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### **ENVIRONMENT**

- Progress
- · Context
- · Management
- Performance
- Climate Change Emissions and Stabilization
- Climate Change Risks and
   Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- o Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies





Send feedback

## Key topic: Climate Change

The growing weight of evidence holds that man-made greenhouse gas emissions are starting to influence the world's climate in ways that affect all parts of the globe. With the publication of the Intergovernmental Panel on Climate Change report in February 2007, the scientific consensus around the likelihood of climate change and the need for timely action has strengthened. Concerns about climate change – along with growing concerns over the use and availability of fossil carbon-based fuels – affect our operations, our customers, our investors and our communities.

In this section we look at:

Climate Change Emissions and Stabilization

This section summarizes sources of greenhouse gas emissions, including the estimated contribution of Ford's products and operations, and what it would take to stabilize greenhouse gas concentrations in the atmosphere.

. Climate Change Risks and Opportunities >

This section summarizes current market, regulatory, investment, and physical risks and opportunities.

Ford Response to the Risks and Opportunities of Climate Change

This section summarizes our strategic response to these risks and opportunities.



OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- 。 Key topic: Climate Change
- . Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Climate Change Emissions and Stabilization

#### IN THIS SECTION:

- ₹ Climate Change Emissions and Stabilization
- → Beyond CO<sub>2</sub>
- → Life Cycle Emissions
- Estimate of Ford's Climate Change Emissions
- <u>Distribution of CO2 Emissions</u>

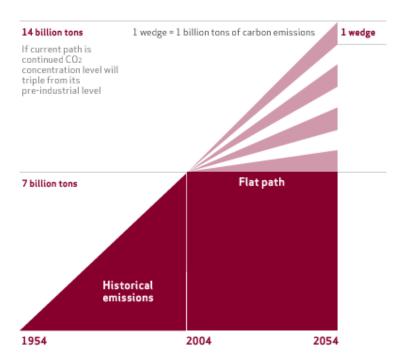
Climate change is the result of an increase in heat-trapping (greenhouse) gases in the atmosphere. Carbon dioxide (CO<sub>2</sub>) is the major long-lived greenhouse gas, resulting from the combustion of fossil fuels in human activities including manufacturing; power generation; residential burning; and transportation of people and goods.

Globally, emissions from light-duty vehicles comprise about 11 percent of man-made CO<sub>2</sub> emissions. Cars and light-duty trucks account for 20 percent of man-made CO<sub>2</sub> emissions in the United States, or 4.4 percent of global emissions. In Europe, passenger cars and light-duty trucks account for 17 percent of man-made CO<sub>2</sub> emissions, or 2.9 percent of global emissions (see <u>Distribution of CO<sub>2</sub> Emissions</u>).

The updated assessment of the science of global warming issued in February 2007 by the Intergovernmental Panel on Climate Change concluded that, "Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic [man-made] greenhouse gas emissions." It also concluded that effects of this warming such as melting of snow and ice and rising sea level are being felt, and that, "Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would very likely be larger than those observed during the 20th century."1

Ford researchers have played a leading role in scientific research to understand and quantify the contribution of vehicles to climate change. We have also worked with a variety of partners to understand current and projected man-made GHG emissions and steps that can be taken to reduce them. Many scientists, businesses and governmental agencies have concluded that stabilizing the atmospheric concentration of CO<sub>2</sub> may help to forestall or substantially delay the most serious consequences of climate change.

The Carbon Mitigation Initiative, a research partnership based at Princeton University and supported by BP and Ford, has examined what it would take to stabilize atmospheric CO2 at 500 parts per million (ppm) compared with the current 384 ppm and the pre-industrial level of approximately 270–280 ppm). Researchers identified a set of stabilization strategies they call "wedges." Each wedge represents the implementation of a strategy that could cut global annual carbon emissions by 1 billion tonnes by 2054. The diagram below shows that stabilization would require the successful implementation of at least seven of these 15 approaches to achieve the annual reduction of 7 billion tonnes of carbon emissions from business-as-usual-forecasts.



While the wedges may be theoretically achievable, they were not evaluated for their economic, market or political feasibility. Many would require rapid scaling-up of emerging technologies.

Each of the following strategies has the potential to reduce carbon emissions by one wedge.

#### **Efficiency**

- · Double the fuel efficiency of 2 billion vehicles
- . Decrease the number of vehicle miles traveled by half
- Use best efficiency practices in all residential and commercial buildings
- · Produce current coal-based electricity with twice today's efficiency

#### **Biomass Fuels**

 Increase ethanol production 50 times by creating biomass plantations with an area equal to onesixth of world cropland

#### **Carbon Capture and Storage**

- · Capture AND store emissions from 800 coal electric plants
- Produce hydrogen from coal at six times today's rate and store the captured  ${\it CO2}$
- Capture carbon from 180 coal-to-synfuels plants and store the CO<sub>2</sub>

#### Nuclear

• Add double the current global nuclear capacity to replace coal-based electricity

#### Wind

• Increase wind electricity capacity by 50 times present value, for a total of 2 million large windmills

#### Solar

- . Install 700 times the current capacity of solar electricity
- Use 40,000 square kilometers of solar panels (or 4 million windmills) to produce hydrogen for fuel cell vehicles

#### **Fuel Switching**

• Replace 1,400 coal electric plants with natural gas-powered facilities

#### **Natural sinks**

- Eliminate tropical deforestation and create new plantations on non-forested land to quintuple current plantation area
- · Adopt conservation tillage in all agricultural soils worldwide

<sup>1 &</sup>quot;Climate Change 2007: the Physical Science Basis Summary for Policymakers," Intergovernmental Panel on Climate Change, February 2007.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions
   and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

### Climate Change Emissions and Stabilization

#### IN THIS SECTION:

- → Climate Change Emissions and Stabilization
- → Beyond CO2
- → Life Cycle Emissions
- Estimate of Ford's Climate Change Emissions
- Distribution of CO<sub>2</sub> Emissions

#### Beyond CO<sub>2</sub>

We are addressing other greenhouse gases like hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrous oxide (N2O) and sulfur hexafluoride (SF6). Low N2O emission is a requirement for exhaust treatment systems. We have prohibited SF6 in tires and PFCs in open systems since 1999. We restrict the use of HFCs in vehicle air conditioning and prohibit the use of HFCs in other on-board vehicle applications (e.g., as used in some spare tire kits). We prohibited the use of SF6 in magnesium casting as of January 2004 through our Restricted Substance Management Standard. We are working with our suppliers to optimize air conditioning efficiency, reduce leakage rates and investigate alternatives.

We have measured the rates of emission of N<sub>2</sub>O, CH<sub>4</sub> and HFCs associated with the use of our products. In 1999 and 2000, we published reports on N<sub>2</sub>O emissions (*Environmental Science and Technology*, 33, 4134, 1999; *Chemosphere: Global Change Sci.*, 2, 387, 2000). In 2002, we published a report on HFC-134a emissions (*Environmental Science and Technology*, 36, 561, 2002). In 2004, we published a report on CH<sub>4</sub> emissions (*Environmental Science and Technology*, 38, 2005, 2004).

These studies show that  $N_2O$  and  $CH_4$  emissions from vehicles have a global warming impact, which are approximately 1 to 3 percent and 0.3 to 0.4 percent, respectively, of that of  $CO_2$  emissions from vehicles. The global warming impact of R-134a leakage from an air-conditioning-equipped vehicle is approximately 4 to 5 percent of that of the  $CO_2$  emitted by the vehicle.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Mimate Change Emissions
   and Stabilization
- Climate Change Risks and
   Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies





Send feedback

### Climate Change Emissions and Stabilization

#### IN THIS SECTION:

- → Climate Change Emissions and Stabilization
- → Beyond CO<sub>2</sub>
- → Life Cycle Emissions
- Estimate of Ford's Climate Change Emissions
- <u>▲ Distribution of CO₂ Emissions</u>

### Life Cycle Emissions

Life cycle assessment tracks emissions generated and materials consumed for a product system over its entire life cycle, from cradle to grave, including material production, product manufacture, product use, product maintenance and disposal at end of life. For vehicles, this includes the environmental burdens for making materials (e.g., steel, aluminum, brass, copper, various plastics, etc.), fabricating them into parts, assembling the parts into a vehicle, operating the vehicle over its entire lifetime, producing fuel for the vehicle, maintaining the vehicle and finally disposing of the vehicle at the end of its life. Life cycle assessment is an essential tool in thinking about the environmental impacts of complex systems.

The table below details the results of a life cycle analysis for a representative mid-size car and SUV in the United States. Life cycle CO2 emissions from vehicles are dominated by CO2 released during fuel consumption. Product disposal has a minor impact on airborne emissions and energy consumption relative to other phases of the product system (approximately 2 percent).

Because many assumptions were required to generate such a figure, many of which we have little or no control over, we do not expect to use the estimate as an ongoing performance measure. It did, however, enable us to better understand the total system dynamics and the opportunities for reducing emissions.

#### Life cycle CO2 impact for typical vehicles

	Mid-sized car		Mid-sized SUV	
	Tonnes of CO2	% of total	Tonnes of CO <sub>2</sub>	% of total
Raw material production (steel, aluminum, plastics,)	3.5	5.6%	4.3	5.2%
Manufacturing/assembly	2.6	4.2%	2.6	3.2%
Ford manufacturing logistics	0.3	0.5%	0.3	0.4%
Fuel (120,000 miles [192,000 km]) WTW	55.1	88.6%	74.6	90.4%
Maintenance and repair	0.6	1.0%	0.6	0.7%
End of life/recycling	0.1	0.2%	0.1	0.1%
Total life cycle	62.2	100%	82.5	100%

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- . Climate Change Emissions and Stabilization
- Climate Change Risks and
   Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

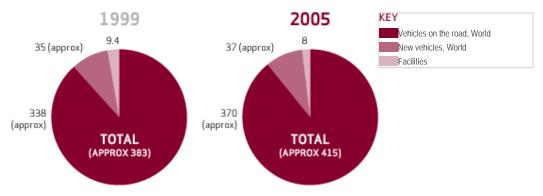
## Climate Change Emissions and Stabilization

#### IN THIS SECTION:

- **†** Climate Change Emissions and Stabilization
- → Beyond CO<sub>2</sub>
- Life Cycle Emissions
- ▲ Estimate of Ford's Climate Change Emissions
- <u>Solution of CO2 Emissions</u>

### Estimate of Ford's Climate Change Emissions

CO2 in million metric tonnes (MMT)



New vehicles are new vehicles sold in the reference calendar year.

Vehicles on the road represents Ford vehicles sold prior to the reference calendar year.

The increase of CO<sub>2</sub> from vehicles is primarily due to additional vehicles on the road and vehicle miles traveled (VMT).

In 2001, we estimated the greenhouse gas emissions (GHG) from our operations and products as part of an assessment of the impact of the climate change issue on our Company. To obtain an updated snapshot, we estimated CO<sub>21</sub> emissions for this report and found that:

- Emissions from our facilities improved by approximately 17 percent during this period. This reflects
  an approximately 7 percent improvement in the amount of CO<sub>2</sub> emitted per vehicle produced,
  largely due to more efficient use of energy: our energy efficiency index improved globally by about
  13 percent from 2000 to 2005. It also reflects lower overall vehicle production. These estimates are
  fairly precise2. Facility GHG emissions, however, are a small percentage (about 2 percent) of the
  total
- Emissions from current year (20053) vehicles on the road increased by about 4 percent, primarily
  reflecting an increase in assumed vehicle miles traveled globally, partially offset by a decline in
  vehicle sales. We have moderate confidence in the precision of the estimate for U.S. vehicles; the
  estimate for the rest of the world is less precise4. These emissions account for about 9 percent of
  the that itself.
- Emissions from all Ford vehicles on the road are estimated to be about 370 million metric tonnes CO<sub>2</sub> per year, perhaps a bit higher than in our previous analysis, due to an increase in the estimated contribution of vehicles to global GHG emissions. This estimate, which accounts for about 90 percent of the total, is highly uncertains.
- The emissions from Ford's facilities and Ford-made vehicles on the road remained relatively stable between 1999 and 2005 at approximately 400 million metric tonnes CO25. The 2005 value represents a smaller share of global GHG emissions from all sources, which increased significantly during this period: the Intergovernmental Panel on Climate Change estimates that CO2 emissions from fossil fuel use during 2000 to 2005 were approximately 11 percent higher than during the
- We are offsetting carbon emissions from the manufacture of our hybrid vehicles and offering U.S.
  customers a means of offsetting the emissions from the use of their vehicles. In the UK, Land Rover
  is offsetting all manufacturing emissions and the first 45,000 miles worth of emissions from 2007
  model year vehicles sold. We view these offsets as an important additional element of our climate

change strategy going forward, but they do not yet affect this overall estimate of emissions.

Because many assumptions are required to generate this figure, and we do not control all of the factors that influence its magnitude, we do not expect to use this estimate as an ongoing performance measure. We intend to continue to reduce our facility GHG emissions, improve the energy efficiency of our operations and the vehicles we sell, and closely track those results.

- 1 CO2 emissions account for substantially all of the GHG emissions from our facilities and vehicles.
- 2 Calculated consistent with the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol; include direct (Scope 1) and indirect (Scope 2) emissions.
- 3 Most recent year for which complete data is available.
- 4 Calculated using Ford U.S. Corporate Average Fuel Economy and global market share figures. This estimate is subject to considerable uncertainty as it incorporates multiple assumptions about how consumers use their vehicles (e.g., miles traveled overall and urban-highway breakdown) and about fuel economy values in markets outside of the United States.
- 5 Calculated based on our market share and Intergovernmental Panel on Climate Change figures for the contribution of road vehicles to anthropogenic (human-caused) GHG emissions. This estimate is subject to considerable uncertainty, as it is based on multiple assumptions, including that all automakers' fleets have the same fuel economy and vehicle life span.
- 6 Intergovernmental Panel on Climate Change "Climate Change 2007: The Physical Science Basis, Summary for Policymakers," February 2007.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions
   and Stabilization
- Climate Change Risks and
   Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- o Land Use
- o Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

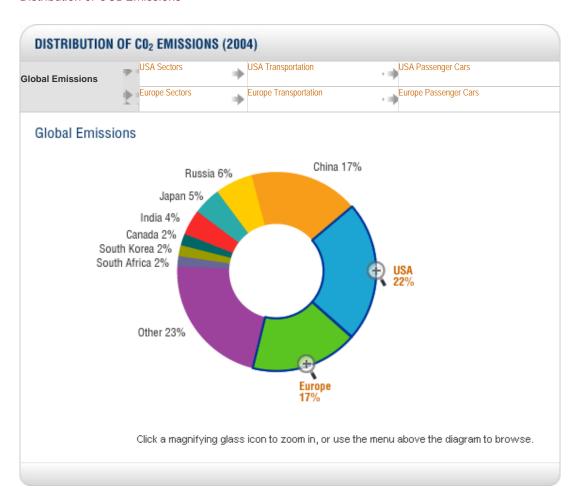
Send feedback

## Climate Change Emissions and Stabilization

#### IN THIS SECTION:

- ₹ Climate Change Emissions and Stabilization
- → Beyond CO<sub>2</sub>
- Life Cycle Emissions
- Estimate of Ford's Climate Change Emissions
- ▼ Distribution of CO₂ Emissions

#### Distribution of CO<sub>2</sub> Emissions



OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- 。 Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Dimate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- o Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies



Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- ₹ Climate Change Risks and Opportuntities
- → Markets
- Regulations
- Investment Community

- → Physical Risks
- → Heightened Risk and Opportunity
- U.S. Energy Security

Since our last report, governments, companies, investors and consumers have tackled climate change in ways that present new risks and opportunities, and place the issue squarely on the agenda for global companies.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Limate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- → Climate Change Risks and Opportuntities
- Markets
- → Regulations
- Investment Community

- Physical Risks
- Heightened Risk and Opportunity
- → U.S. Energy Security

#### Markets

The United States, once a major producer and exporter of oil, has seen oil production decline at the same time that gasoline and other oil consumption has continued to grow, making the country steadily more dependent on imported oil and leading to concerns over <a href="mailto:energy security">energy security</a>. Coupled with the rapid rise in gasoline prices during 2005 and 2006, this has led to greater consumer interest in more fuel-efficient vehicles.

Concerns about fuel economy track fuel prices and drive buyers to shift from larger vehicles and light trucks to smaller vehicles, cars and crossovers. During 2006, small cars and crossover utility vehicles, which generally have better fuel economy than large cars and truck-based SUVs, were the fastest (and some of the only) growing segments of the U.S. market.

In Europe, where awareness of climate change and vehicle CO2 emissions is relatively high and growing, already high fuel prices have also risen sharply in recent years. This has continued to reinforce interest in diesel-powered vehicles, which now account for around half of new vehicle sales in the EU, and other environmentally advanced vehicle technologies. The climate change issue is also linked to concerns about and actions to address congestion, particularly in city centers.

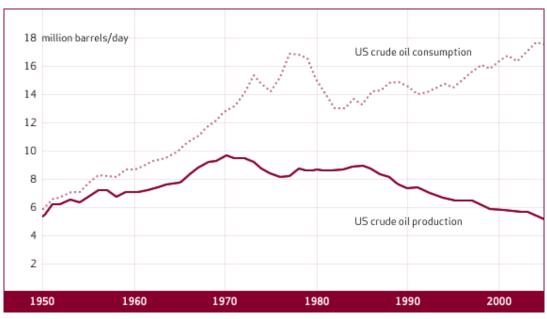
In the markets in which we operate in Asia, the rapid growth in vehicle sales is raising concern about emissions and congestion. A focus on energy independence is also growing along with the rapid rise in demand for energy.

In Brazil, consumers have embraced renewable ethanol as an economical, locally produced alternative to imported oil. This has come about via 30 years of coordinated effort between the government, consumers, fuel providers and automakers.

These market shifts and regional concerns are very significant to our Company. In North America, although our sales market share for cars increased in 2006, the shift away from SUVs and light trucks, our most profitable vehicles, contributed to our loss of revenue and overall market share. Elsewhere in the world, where our profitability is less dependent on large vehicles, we have been less affected. Everywhere we operate, the future financial health of our Company depends on our ability to predict market shifts of all kinds, including those resulting from consumer concerns over fuel prices, greenhouse gas (GHG) emissions and energy security, and our ability to be ready with the products and services our customers demand.

#### **U.S. Crude Oil Consumption and Production**

- In This Report
- Responding to Consumer Demands
- Sustainable Mobility Technologies



Source: Energy Information Administration, Annual Energy Review 2005, Table 5.1

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- · Managemen
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Limate Change Risks and
   Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- → Climate Change Risks and Opportuntities
- Markets
- → Regulations
- Investment Community

- Physical Risks
- Heightened Risk and Opportunity
- U.S. Energy Security

### Regulations

As a global automobile manufacturing company, regulations related to GHGs affect many areas of our business, including our manufacturing facilities and the emissions from our vehicles.

The GHG regulatory landscape is changing rapidly:

- In the United States, CO<sub>2</sub> emissions from vehicles have been regulated through Corporate Average Fuel Economy (CAFE)<sub>1</sub> requirements for more than 30 years. Unlike some of our competitors, Ford has complied with CAFE standards throughout the life of the program. New light truck CAFE standards were recently promulgated, and they are set to increase each year from 2005 through 2011. These will pose a significant challenge for companies like Ford that produce light trucks. California and several other states have adopted regulations limiting GHG emissions from motor vehicles, a move that both the automobile industry and the federal government believe is preempted by the federal CAFE law. The litigation over these regulations is discussed in more detail here.
- In Europe, GHG emissions from manufacturing facilities are regulated through a combination of emission limits and market-based mechanisms. The EU Emission Trading Scheme regulations apply to 15 Ford Motor Company (including Premier Automotive Group) facilities in the UK, Belgium, Sweden, Spain and Germany. Ford anticipated the start of the EU Emission Trading Scheme and established internal business plans and objectives to maintain compliance with the new regulatory requirements. The EU has taken steps to propose stringent regulation of CO<sub>2</sub> emissions from vehicles, following the 2008 end of a voluntary reduction commitment by the European auto industry. The proposed regulation is planned to be effective from 2012.
- The Chinese government has introduced weight-based fuel consumption standards for passenger
  cars and trucks. The standards began with 2005 model year (MY) passenger vehicles and increase
  in stringency for 2008 MY vehicles. Proposed standards for commercial trucks start in 2008. All of
  Ford's product offerings comply with the appropriate 2005 MY standards and are fully expected to
  comply with the 2008 MY standards as well.
- Other countries in the Asia Pacific region have introduced stringent fuel economy requirements, including Japan (2010) and Korea (2006/2009).

We have established global roles, responsibilities, policies and procedures to help ensure compliance with emissions requirements and participate in trading initiatives worldwide.

The regulation of vehicle fuel economy and GHG emissions has a significant impact on our current and future product offerings. We expect regulation to increase in the future, and it is in the interest of our Company and society to reduce the uncertainty and increase the predictability of policy frameworks and market conditions around the issue of climate change. We are committed to being a constructive participant in the formulation of policies to reduce GHG emissions across the entire economy and promote energy security.

Fuel economy standards are functionally equivalent to CO<sub>2</sub> limits, because fuel economy is calculated by measuring the amount of CO<sub>2</sub> emitted by a vehicle.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### **ENVIRONMENT**

- Progress
- . Context
- Management
- Performance
- Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Limate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- o Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- → Climate Change Risks and Opportuntities
- → Markets
- Regulations
- ... Investment Community

- → Physical Risks
- Heightened Risk and Opportunity
- → U.S. Energy Security

### **Investment Community**

Both mainstream investment analysts and those who practice "Socially Responsible Investing" (SRI) have begun to assess companies in the auto sector for their exposure to climate risks and their positioning to take advantage of opportunities created by the issue. The Carbon Disclosure Project, for example, provides investors with a standard set of disclosures about company responses to climate change. We have participated in the project since its inception and have submitted five publicly available reports (<a href="https://www.cdproject.net">www.cdproject.net</a>).

The feedback we receive from regular communications with mainstream investors suggests that their primary interest at this point is in our plans to return to profitability. However, these investors recognize, as we do, that the success of those plans is affected by growing carbon constraints and market shifts influenced by concerns over climate change.

Our response to the issue is an additional – and increasingly important – element of our overall competitiveness. Thus, providing climate change-relevant information to investors and shaping our business strategy with climate change in mind are important elements of maintaining access to capital.

#### RELATED LINKS

- In This Report
- Investor Ratings and Feedback
- **External Web Sites**
- Carbon Disclosure Project

#### DOWNLOADS



Ford Response to Carbon

Disclosure Project

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- · Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Dimate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies



Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- ₹ Climate Change Risks and Opportuntities
- → Markets
- Regulations
- Investment Community

#### → Physical Risks

- → Heightened Risk and Opportunity
- → U.S. Energy Security

#### Physical Risks

Extreme weather such as the severe hurricanes the United States experienced in the Gulf of Mexico in 2005 disrupts the production of natural gas, a fuel necessary for the manufacture of vehicles. Supply disruptions raise market rates and jeopardize the consistency of vehicle production. To minimize the risk of production interruptions, Ford has established firm delivery contracts with natural gas suppliers and installed propane tank farms at key manufacturing facilities as a source of backup fuel.

Although increased energy rates have a significant cost impact to the Company, they do increase awareness of energy conservation, its impact on the environment and the need for alternative energy solutions. Increased utility rates have prompted Ford Motor Company to revisit energy efficiency actions that previously did not meet our internal rate of return. These projects include the replacement or upgrade of heating, ventilating and cooling systems, lighting and vehicle painting systems.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Dimate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Climate Change Risks and Opportunities

#### IN THIS SECTION:

- → Climate Change Risks and Opportuntities
- → Markets
- Regulations
- Investment Community

- Physical Risks
- -> Heightened Risk and Opportunity
- → U.S. Energy Security

#### Heightened Risk and Opportunity

Altogether, this changing landscape presents significant risks for our Company, particularly in the short term due to market shifts and regulatory trends. In the longer term, the steps described in the following section, Ford Response to the Risks and Opportunties of Climate Change, will put our Company in a good position to offer innovative products and services to serve the mobility needs of established and emerging markets.

- In This Report
- Key topic: Mobility

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Limate Change Risks and Opportunities
- Ford Response to the Risks and
   Opportunities of Climate
   Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

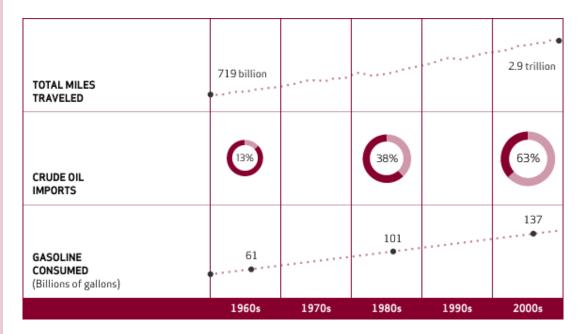
## Climate Change Risks and Opportunities

### IN THIS SECTION:

- ₹ Climate Change Risks and Opportuntities
- → Markets
- Regulations
- Investment Community

- Physical Risks
- → Heightened Risk and Opportunity
- → U.S. Energy Security

#### U.S. Energy Security



OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- Ford Response to the Risks and Opportunities of Climate Change
- Climate Change-Related Commitments and Progress
- <u>
  → Strategic Response</u>
- GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- Emissions Trading
- Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

#### We take the issue of climate change seriously, and we have for some time.

- Ford was the first automaker to estimate its total GHG emissions from our facilities and Ford vehicles. We have updated that estimate for this year. (See <u>Estimate of Ford's Climate Change</u> <u>Emissions</u>).
- We were the first U.S. automaker to offer a full hybrid vehicle, which was also the first hybrid from any automaker in the SUV segment.
- We have played a leading role in scientific research to establish the contribution of vehicles to climate change.
- We were the first in our industry to issue a standalone report on climate change, in late 2005. We continue to do comprehensive reporting on our GHG emissions.
- We were the first automaker to participate in carbon trading markets in North America and the UK.
- We were also the first to offset manufacturing emissions and offer customers an innovative way to
  offset emissions from use of their vehicle, as described in the <u>Driver</u> section.
- We were the first automotive company in the UK to install photovoltaics (solar panels) and onsite
  wind turbines to provide power to our manufacturing sites.

These "firsts" are backed up by a set of commitments covering our operations and products.

To plan and implement our strategic approach, we have established sustainability-related governance systems, which include a strong focus on fuel economy and CO2 improvements. The strategic direction is provided by a senior executive forum, made up of vice president and executive stakeholders, who guide the development of the vision, policy and business goals.

A related executive planning team is responsible for developing detailed and specific policy, product and technical analyses to meet objectives. These teams base their plans on scientific data and promote actions that will achieve the Company's environmental ambitions, recognizing the need to use a holistic approach to effectively protect the environment. Metrics have been established and are reviewed regularly to ensure satisfactory progress.

The Environmental and Public Policy Committee of the Board of Directors is responsible for reviewing the Company's climate change strategy and actions. We have also developed strategic principles to guide our approach.

- In This Report
- Estimate of Ford's Climate Change
   Emissions
- Structures for Managing Sustainability

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and
   Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- o Materials
- o Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- o Land Use
- o Green Buildings
- o Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies







## Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

### Climate Change-Related Commitments and Progress

European Automobile Manufacturers Association CO2 commitment		
	EU new car fleet average of 140 g/km by 2008; equivalent to 25% average CO <sub>2</sub> reduction compared with 19951	*
Australian Industrywide National Average CO <sub>2</sub> Emissions (NACE). Previously known as National Average Fuel Consumption (NAFC)	Voluntary target to achieve national average CO2 emissions of 222 grams of CO2 per km for light vehicles under 3.5 tonnes gross vehicle mass by 2010. Requires an overall reduction in average CO2 emissions of 12% between 2002 and 2010	*
Canadian Greenhouse Gas Memorandum of Understanding	Industry-wide voluntary agreement to reduce GHGs from the Canadian car and truck fleet by 5.3 megatonnes by 2010 compared to projected emissions	*
Commitment - Operations	Target	
Global manufacturing energy efficiency	Improve manufacturing energy efficiency globally by 1% year over year, following an improvement of more than 13% from 2000 to 2005. 2007 target is 3% improvement in global facility energy efficiency	
UK Emissions Trading Scheme	UK operations to achieve 5% absolute reduction target over 2002–2006 timeframe based upon an average 1998–2000 baseline	<b>✓</b>
Chicago Climate Exchange	Reduce North American facility emissions by 6% between 2000 and 2010	*
Greener Miles/Hybrid Offset	Voluntarily offset CO2 emissions from manufacturing 2007 and 2008 MY hybrid electric vehicles	$\checkmark$
Land Rover CO <sub>2</sub> Offset Programme	Voluntarily offset 2007 and 2008 CO <sub>2</sub> emissions from manufacturing facilities	*
Alliance of Automotive Manufacturers	Reduce U.S. facility	

Voluntary GHG Reporting

Voluntarily report facility CO2 emissions to national emissions registries in Australia, Canada, Mexico and the United States





On track to achieve the target as of the 2003 checkpoint. Industry progress to date has already made a very significant contribution to the EU's overall efforts to address climate change. The industry has always said that the agreement represents one of the most challenging CO2 reduction actions within the EU and that it is extremely ambitious, both technically and economically. Despite an increasingly adverse environment, Ford and the industry continue to work hard to move toward the 2008 target.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

### Strategic Response

As the risks and opportunities posed by climate change have evolved, so has our approach to the issue. Our long-term strategy is to contribute to climate stabilization by:

- . Continuously reducing the GHG emissions and energy usage of our operations
- Developing the flexibility and capability to market more lower-GHG-emissions products in line with evolving market conditions
- Working with industry partners, energy companies, consumer groups and policy makers to establish
  an effective and predictable market, policy and technological framework for reducing road transport
  GHG emissions

#### **Operations**

We have reduced our global operational energy use by 27 percent since 2000, as described in <a href="Operational Energy Use">Operational Energy Use</a>. The U.S. Environmental Protection Agency recognized our energy conservation efforts with 2006 and 2007 Energy Star Partner of the Year awards, the first time an automaker has won in successive years.

#### Lower-GHG vehicles

We believe an integrated approach among all relevant stakeholders is needed to reduce GHG emissions from vehicles. Our shorthand for this, and the organizing framework for the discussion, is "Vehicle + Fuel + Driver = GHG emissions." More recently, we have added government to the equation, recognizing the indispensable role of governments in coordinating actions across sectors, providing leadership in areas like infrastructure development to meet transportation demand and creating a harmonized legal and political framework that leverages market forces to lead to the desired result. The developing technologies graphic illustrates the respective roles of vehicle technologies and fuels in driving GHG emissions toward zero.

- In This Report
- Operational Energy Use

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- · Progress
- Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- o Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies



Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- 4 GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

#### **GHG Emissions Equation**



#### Vehicle

Our product portfolio is the most important element of our strategy for contributing to a goal of climate stabilization.

Using this goal for guidance, we are exploring scenarios for the contribution needed by improvements to vehicle technologies. We have also worked closely with strategic partners to explore scenarios for the potential contributions of varying combinations of vehicle technologies and lower-carbon fuels. This analysis is being factored into our vehicle "cycle plan," which sets out the products and technologies we will make over the next five years as well as our longer-range product strategy and technology planning.

In the current to mid-term timeframe, we are improving the fuel economy and reducing the GHG emissions of the vehicles we offer by using a broad array of technologies, as discussed in the Sustainable Mobility Technologies section.

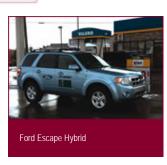
Over the past several years, our vehicle GHG emissions have improved significantly in Europe and modestly in the United States (see <a href="Data Overview">Data Overview</a>). As seen in <a href="Fuel economy">Fuel economy of U.S. Ford vehicles by</a>
<a href="EPA segment">EPA segment</a> graphic, our U.S. vehicles are competitive in fuel economy, ranking better than average in six of 11 categories, worse in four and the same in one.

At the portfolio level, the mix of vehicles we sell will continue to be dictated by the consumer's wants, but our move toward global product design and common platforms and technologies will help us offer greater fuel economy across a wide range of product designs.

A common global approach also allows us to leverage the intellectual and innovative capacity we have developed throughout the Company. For example, in 2006, Volvo announced the establishment of a new hybrid development center in Gothenburg, Sweden, complementing the expertise developed through the launch of Ford's North American hybrid vehicles. Also in 2006, we announced plans to invest £1 billion (approximately \$2 billion) in developing environmental technologies in the UK. Over the next six years, Ford, Jaguar, Land Rover and Volvo will introduce more than 100 models and derivatives with improved fuel consumption and exhaust gases.

Our product plans for the longer term are shaped by a need for flexibility. We know that almost any scenario will call for reducing vehicle GHG emissions, but the future development of technologies, markets and political expectations are all uncertain.

Because of this, we are investing in a broad range of promising advanced powertrain technologies, including advanced gasoline engines; hybrids; diesel hybrids and other clean diesel technologies; biofueled vehicles; hydrogen internal-combustion engines; hydrogen fuel cell powertrains; and various combinations of these technologies, plus weight reductions. We are making steady progress in developing these technologies. For example, we have 30 fuel cell vehicles and 30 hydrogen internal-combustion engine vehicles on the road undergoing testing. Please see the <a href="Sustainable Mobility Technologies">Sustainable Mobility Technologies</a> section for more detail.



GHG EMISSIONS

- In This Report
- Sustainable Mobility Technologies

OVERVIEW > OUR IMPACTS > VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIP

FINANCIAL HEALTH

#### . ENVIRONMENT

- · Progress
- · Context
- Management
- Performance
- Key topic: Climate Change
- Climate Change Emissions and Stabilization
- · Climate Change Risks and Opportunities
- . Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions / Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

#### Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- ★ Ford Response to the Risks and Opportunities of Climate Change
- → Strategic Response
- Market, Policy and Technological Framework
- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- → Partnerships and Memberships Relevant to Climate Change Strategy
- → Supply Chain

#### **GHG Emissions Equation**



#### Fuel

The use of renewable fuels can reduce GHG emissions attributable to vehicle use. While current corn-based bio-ethanol production in the United States provides modest (approximately 20 to 30 percent) reduction in vehicle GHG emissions on a well-to-wheels basis, next-generation biofuels such as lignocellulosic bio-ethanol offer up to approximately 90 percent GHG reduction benefit.1 Thus, building a substantial fleet of Flexifuel vehicles (FFVs) is a bridge to widespread use of lower-carbon biofuels in the future.

We have been a leader in developing and deploying affordable technology allowing vehicles to use renewable fuels. In Brazil, we have produced nearly 3 million vehicles with the ability to run on bio-ethanol. In the United States, we have produced more than 2 million FFVs since 1997 that can be fueled with either conventional gasoline or a blend of up to 85 percent bio-ethanol. We have committed to doubling the number of FFVs in our lineup by 2010. Assuming continuing incentives that encourage the manufacture, distribution and availability of renewable fuels and the production of Flexifuel vehicles, we stand ready to expand FFV output to 50 percent of total vehicle production by 2012.

In Europe, Ford is an FFV market leader and pioneer. The Focus and C-MAX FFVs are presently on sale in 12 European markets, with more markets to come. Building upon the success of its FFVs, Ford of Europe has announced it will extend its FFV range by offering FFV versions of the new Mondeo, Galaxy and S-MAX in early 2008. Additionally Volvo presently markets three FFV vehicles (S40, V50 and C30) and has plans to introduce further derivatives in the next 12 months.

Through its range of alternative fuel vehicle technologies, and its range of low-CO2 conventional vehicle technologies, such as its high-tech clean diesel technologies with among-best-in-class CO2 performance, Ford is offering one of the broadest low-CO2 vehicle portfolios in Europe today.

Alternative fuels pose a classic chicken-and-egg problem: automakers can produce a range of products to use fuels with varying carbon content, but the benefits are only realized if energy providers bring the fuels to market and consumers demand the vehicle and the fuel.

We are working with fuel producers to encourage development of F85 infrastructure in the United States through projects such as the Midwest Ethanol Fuel Corridor. Ford is also engaged in two pilot projects in Europe to test the potential large-scale introduction of bio-ethanol and FFVs.

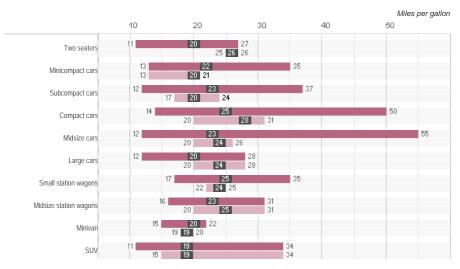
In the longer term, we believe that next-generation biofuels made from a variety of feedstocks, including agricultural wastes (particularly ligno-cellulosic material) will be an important part of the GHG emission reduction equation and will help address concerns about current-generation biofuels, including potential competition between food and fuel crops

More details on our biofuels programs are available in the Sustainable Mobility Technologies section of this report.

#### RELATED LINKS In This Report

Sustainable Mobility Technologies

#### Fuel Economy of U.S. Ford Vehicles by EPA Segment



<sup>1</sup> Ethanol: the Complete Lifecycle Picture, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, March 2007

Chandard sistems	11	17	26		
Standard pickups		15 19	26		
Vans*	11	15 17			
Vdiis					
Industry**	Ford Fle	n+***			

Industry**			F	Ford Fleet***			
MIN	AVE	MAX	MIN	AVE	MAX		

- Due to a weight increase for the 2007 model year, the Ford Econoline Vans were not part of the CAFE calculation.
   EPA miles per gallon estimates were used to calculate the industry averages for all vehicles in each class.
   The Ford data are based on Corporate Average Fuel Economy (CAFE) test values adjusted downward by 15 percent to be equivalent to EPA estimates and better reflect real-world driving conditions for an average U.S. motorist.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

#### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

#### **GHG Emissions Equation**











#### Driver

Paradoxically, the "driver" portion of the GHG emissions equation holds the potential for substantial reductions at minimal cost, but it is often overlooked. We focus on the driver because, ultimately, drivers decide which vehicles and fuels they will purchase and how those vehicles will be driven.

Since 2000, Ford has offered an "eco-driving" program through its German dealerships in partnership with the German Federation of Driving Instructor Associations and the German Road Safety Council. The program has documented the potential for up to a 25 percent improvement in fuel economy when drivers adopt conservation-minded driving and vehicle maintenance habits. During 2006, we built on this experience and rolled out a Web-based eco-driving program to all U.S. salaried employees. The eco-driving approach has also been incorporated into <a href="Driving Skills for Life">Driving Skills for Life</a>, a teen driver education program. <a href="Eco-driving tips">Eco-driving tips are available to the public via the Ford Web site.</a>

We believe that our customers are concerned about vehicle GHG emissions and ready to help reduce them. As a complement to eco-driving, we are offering customers an innovative tool called carbon offsetting, which neutralizes the CO2 emissions from one source by supporting projects that reduce emissions elsewhere by the same amount. Through our Greener Miles program, operated in partnership with TerraPass, Ford owners and customers can easily calculate the amount of GHGs created by driving their vehicle and learn more about climate change and how carbon offsetting works. They can offset, or neutralize, a year of their driving by purchasing a TerraPass customized to their vehicle and driving patterns. The proceeds – ranging from about \$30 to \$80 – are used to fund clean renewable energy production (like that from wind farms), which reduces GHG emissions by displacing coal-fired electricity from the power grid.

During 2006, the program's first year of operation, 23,000 people visited the site, one-third used the calculator and 361 purchased offsets. Together with offsets purchased by Ford to cover the manufacture of its 2007 MY hybrid vehicles, a total of 23,876 tonnes of GHG were avoided.

Our Land Rover brand has built upon the Greener Miles model by including three years' worth of carbon offsets in the purchase price of its vehicles in the UK. The program, developed and run in partnership with the NGO Climate Care, is part of an integrated approach that includes fuel economy improvements to the vehicles and offsets for all of Land Rover's manufacturing GHG emissions.

The offset cost of £85 to £165 (approximately \$165 to \$325) is included on the invoice to the customer and is clearly communicated by the dealer. This amount represents 45,000 miles (equivalent to three years' average driving). Land Rover tested the program with customers before its launch and found that they were prepared to play an active role.

The program, which began with the 2007 model year and will run for an initial three-year period, is projected to offset 2.5 million tonnes of CO<sub>2</sub> in total, including 600,000 tonnes related to manufacturing emissions and the balance to customer vehicle use. Following the success of the UK program, Land Rover is evaluating extension to other countries.

Land Rover selects offset projects in the areas of renewable energy, energy efficiency and technology change cooperatively with Climate Care, with consideration also given to the social and environmental

#### RELATED LINKS

- In This Report
- Driving Skills for Life
- Ford.com
- Eco-driving Tips
- Land Rover Carbon Offset Program

#### **External Web Sites**

- Greener Miles
- o Climate Care





benefits of the project. In March 2007, the first offset projects were announced, including providing run-of-river hydroelectric power to a remote area of Tajikistan and funding a wind farm in China.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## **ENVIRONMENT**

- Progress
- . Context
- Management
- Performance
- 。 Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework
- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## Market, Policy and Technological Framework

Addressing the linked issues of climate change and energy security requires an integrated approach – a partnership of all stakeholders, including the automotive industry, the fuel industry, government and consumers. It will also require the best thinking from all of these sectors.

Ford is involved in numerous partnerships and alliances with universities, coalitions, nongovernmental organizations and other companies to improve our understanding of climate change.

For example, Ford recently joined the United States Climate Action Partnership (USCAP), an alliance of major businesses and leading climate and environmental groups that have come together to develop an economy-wide, market-driven approach to reduce greenhouse gas emissions. The group believes that legislative action on the USCAP solutions-based proposal, entitled *A Call for Action*, would encourage innovation, enhance America's energy security, foster economic growth, improve our balance of trade and provide critically needed U.S. leadership on this vital global challenge.

We are also working closely with BP to explore vehicle and low-carbon fuel technologies. We are working with the World Resources Institute on the "EMBARQ" Istanbul project to reduce vehicle emissions and traffic congestion. We are a founding member of the Carbon Mitigation Initiative at Princeton University to study the fundamental scientific, environmental and technical issues related to carbon management. Our participation in these and other partnerships helps to formulate improved strategies for products and policies that will in turn help to address climate change and energy security.

We try to bring these perspectives to our participation in public policy development.

- External Web Sites
- United States Climate Action Partnership
- EMBARQ
- Carbon Mitigation Initiative

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- · Progress
- Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ebrd Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies



Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework

- **¬** Climate Change Public Policy
- Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## Climate Change Public Policy

Climate change and the closely related concerns of energy security and fuel prices are global issues but policy approaches vary regionally. Everywhere we operate, we seek to be a constructive partner in developing policies that will be effective and efficient in reducing GHG emissions. In this section, we describe our perspective and policy activities in the United States and Europe, two of our major markets.

#### **United States**

In the United States, there is growing interest and activity in regulating GHG emissions at the federal and state level. We are participating in policy development at both levels.

#### U.S. Federal Policy

At the federal level, we believe that policies that put constraints on carbon need to include all sectors of the economy. They should encourage conservation and the introduction of lower-carbon and renewable-carbon fuels and energy sources, while increasing the demand for more energy-efficient products across all sectors at the lowest possible social cost and at a pace consistent with technology maturation, consumer demand and economic viability. These policies need to be implemented in ways that mitigate any related transitions to avoid economic disruptions and unnecessary costs, with incentives playing a key role. Future reduction programs should be based on upstream carbon trading systems that gradually reduce the limits on carbon introduced into the economy.

Within the transportation sector, vehicle, fuels and fuel use must be addressed as a system. Policies need to encourage the use of lower-carbon and renewable-carbon fuels and energy (e.g., bio-ethanol fuels and blends) through favorable market signals and incentives, as well as encourage energy efficiency, carbon sequestration initiatives, offsets and credits across all phases of the energy value chain. An effective system would require gradual but substantial changes in our product and technology mix to remain consistent with shifting consumer demand for more efficient products. Policies should also address educating consumers on their role through programs like eco-driving training and improving road transport and infrastructure (e.g., mass transit) by reducing congestion and fuel consumption through improved traffic flow.

We support working with the technical and safety experts at NHTSA to set standards at maximum feasible levels and to reform the CAFE system. We also support market-driven incentives for advanced technology vehicles to increase their presence in the marketplace.

During 2006 and early 2007, we provided this perspective to policymakers in a variety of settings. In March 2006, we appeared before the Senate Energy and Natural Resources Committee while in May 2006 and again in March 2007, we appeared before the House Subcommittee on Energy and Air Quality. During the summer, we met with Congressional leaders to commit to doubling the number of FFVs we produce, and in the fall, we expanded that commitment to include half of our vehicles produced each year, provided there are sufficient amounts of ethanol and enough retail facilities to support consumers operating these vehicles on E85. In particular, we have promoted federal action to support the development of ethanol fuel infrastructure. We have placed more than 2 million flexible fuel vehicles in service in the United States, but there are only about 1,100 stations that provide high-ethanol-content fuel.

Long term, ethanol is an important step toward development of advanced renewable biofuels that can provide energy security, address customers' concerns over high gas prices and provide environmental benefits. We have advocated specific policy measures as part of an integrated approach that includes support from fuel providers, fuel retailers and automakers in order to engage customers and encourage ethanol infrastructure expansion.

### State level

promulgate rules limiting greenhouse gas emissions from motor vehicles. In 2004, CARB voted to adopt a set of fleet average standards expressed in grams per mile of CO2. Final rules incorporating these standards were adopted in 2005. The standards are set to take effect beginning with the 2009 model year and become increasingly stringent through the 2016 model year. Several other states, including New York, Connecticut, Massachusetts, Vermont, New Jersey, Pennsylvania, Rhode Island, Oregon and Washington, have either adopted parallel regulations or are in the process of doing so.

Ford supports the reduction of vehicle CO2 emissions and is working aggressively toward the development and implementation of real, market-based solutions. However, the entire automobile industry is united in opposition to the AB 1493 rules because they constitute state fuel economy standards. The federal Corporate Average Fuel Economy (CAFE) law calls for a single, nationwide fuel economy program and prohibits individual states from regulating vehicle fuel economy. State-by-state regulation of fuel economy is unworkable because it raises the prospect of an unmanageable patchwork of state standards. Moreover, the AB 1493 regulations seek to impose a fuel economy task that is far more steep and severe than any that has been ever been imposed in the history of CAFE. As time passes and the standards grow more stringent, many if not all manufacturers will have to severely restrict or eliminate sales of larger cars and trucks in order to maintain compliance. Even with our commitment to embrace innovative technologies, Ford would not be able to comply with these standards without restricting our product lineup over time.

In December 2004, the Alliance of Automobile Manufacturers filed an action in federal court in California seeking to overturn the AB 1493 regulations. All members of the Alliance (BMW, DCX, Ford, GM, Mazda, Mitsubishi, Porsche, Toyota and Volkswagen) supported taking this action. The Association of International Automobile Manufacturers (AIAM), which includes Honda, Nissan, Aston Martin, Bosch, Delphi, Denso, Ferrari, Maserati, Hitachi, Hyundai, Isuzu, Toyota, Suzuki, Subaru, Renault, Peugeot, Mitsubishi and Kia, and the Japan Automobile Manufacturers Association, Inc. (JAMA) have since intervened in the litigation on the side of the Alliance. The legal argument being made by the automobile manufacturers in these cases is that state greenhouse gas regulations are functionally equivalent to fuel economy standards and therefore preempted by the federal CAFE law. The Vermont case went to trial in April/May of 2007, and a ruling in that case is expected in the summer of 2007. The California and Rhode Island cases are still pending. It is virtually certain that any ruling in these cases will be appealed by one side or the other, and thus it may be several years before the issue of federal preemption is fully resolved.

### **Europe**

In Europe, Ford has been part of a voluntary industry agreement to reduce the CO2 emissions of vehicles by 2008. Ford also participated in CARS21 ("Competitive Automotive Regulatory System for the 21st Century"), a multi-stakeholder consultation group formed and led by EU Commissioner Verheugen and with Lewis Booth, Executive Vice President, Ford of Europe and Premier Automotive Group as one of the members. CARS21 identified concrete measures to be taken over the next 10 years to enhance the global competitiveness and employment of the European automotive industry while sustaining the progress made on environment and safety at an affordable price for consumers and society as a whole. Ford is a member of ACEA, the European automobile manufacturers association, which is the body that primarily leads the political dialogue on behalf of the European car makers.

### The 2008 Commitment

In 1999, ACEA and the EU Commission signed an industry collective agreement in which the European automotive industry committed itself to voluntarily reduce the average fleet CO<sub>2</sub> emissions of its new cars sold in the EU. The target is 140 g CO<sub>2</sub>/km by 2008, down from 185 g/km in 1995 as the reference year. This translates into an average CO<sub>2</sub> reduction of 25 percent. Part of the agreement was to reach an interim target of 165–170 g/km in 2003, which was overachieved by the industry, but in the recent years, the progress has slowed down. The latest publicly available figure is 161 g for 2004 (13 percent reduction).

The auto industry's progress to date already represents a very significant contribution to the EU's overall efforts to address climate change. The industry has always said that the agreement represents one of the most challenging CO2 reduction actions within the EU and that it is extremely ambitious, both technically and economically. Despite an increasingly adverse environment, Ford and the industry continue to work hard to move towards the 2008 target.

#### Future CO<sub>2</sub> reduction

In February 2007, the EU Commission proposed its post-2008 CO2 emission reduction strategy for vehicles. The proposal calls for average emissions from new cars sold in the EU-27 to be required to reach a target of 120 g CO2/km by 2012. Improvements in vehicle technology would have to reduce average emissions to no more than 130 g/km, while complementary measures would contribute a further emissions cut of up to 10 g/km, thus reducing overall emissions to 120 g/km. These complementary measures include efficiency improvements for car components with the highest impact on fuel consumption, such as tires and air conditioning systems, and a gradual reduction in the carbon content of road fuels, notably through greater use of biofuels.

Ford takes very seriously its responsibility and will continue to play its part to help further reduce CO2 emissions from automotive sources, as part of concerted international efforts to arrest global warming. We welcome that the Commission has recognized the need for "complementary measures" to further reduce CO2 emissions by 2012, but with the 130 g/km proposal for the automotive industry, the EU Commission's proposal still focuses too much on vehicle technology. There is a broad range of options to reduce CO2 in a more cost-effective way. We call on the Commission to adopt a more integrated approach than envisaged in the current proposal, as per the recommendations by the Commission-led CARS21 High-Level Group. Involving all stakeholders – the auto industry, fuel suppliers, infrastructure providers, consumers and government – will result in larger and more cost-effective CO2 emission reductions from road transport. It will also be crucial to define equitably how to achieve any average CO2 reduction target in future over a wide range of vehicle classes, without endangering product diversity and

consumer choice.

### CARS 21

After a public consultation round where societal stakeholders were invited to comment on the CARS21 report, simultaneously to its CO<sub>2</sub> communication, the EU Commission also presented a final proposal on CARS21.

Simultaneously to its  $CO_2$  communication, the EU Commission also presented a final proposal on CARS21.

We believe the proposal does not fully incorporate the recommendations of the multi-stakeholder High-Level Group and the public consultations organized by the EU Commission and the European Parliament. We are asking the EU legislators to adhere to the goals of CARS 21, which are:

- Reduce damaging and costly effects of cumulative legislation by applying better regulation principles
- 2. Conduct proper impact assessments (cost effectiveness, scientific basis, etc.)
- 3. Elaborate integrated approaches to tackle environmental and road safety issues
- 4. Foster R&D/innovation efforts
- 5. Improve international trade environment and protect intellectual property

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies





Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- -> Emissions Trading
- Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## **Emissions Trading**

Emissions trading is a key tool of both voluntary and mandatory GHG emission reduction programs. Ford was an early participant in carbon markets, with a goal of gaining experience valuable in an increasingly carbon-constrained world.

Ford, along with 11 other companies and the City of Chicago, founded the Chicago Climate Exchange. Ford committed to reduce North American facility GHG emissions by 4 percent by 2006, based upon an average 1998–2001 baseline period. This initiative was recently extended with a 6 percent overall reduction target by 2010. The Exchange marks the first time in the United States that major companies in multiple industries have made a voluntary binding commitment to use emissions trading for reducing their North American greenhouse gas emissions. The Exchange will enable participants to receive credit for their reductions and buy and sell credits to find the most cost-effective way of achieving reductions.

Ford and the Chicago Climate Exchange

Ford was also one of the original companies to join the UK Emissions Trading Scheme, the first government-sponsored, economywide, cross-industry greenhouse gas trading program. Ford Motor Company Limited (UK) entered the program in March 2002, committing to a 5 percent CO2 reduction target for eligible plants and facilities over five years.

Despite low to moderate CO<sub>2</sub> emissions from Ford facilities when compared to other industry sectors, the EU Trading Scheme regulations apply to 15 Ford Motor Company (including Premier Automotive Group) facilities. Drawing on its experience in the Chicago and UK markets, Ford is participating in the EU Emissions Trading Scheme and established internal business plans and objectives to maintain compliance with the new regulatory requirements.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- o Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies





Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## Climate Change Strategic Principles

Our approach to GHG stabilization is aligned around four key strategic principles:

- 1. Technical, economic and policy approaches to climate change need to recognize that all CO<sub>2</sub> molecules are equal. Once those molecules reach the atmosphere, they contribute to greenhouse gases, regardless of the source. However, the cost of mitigating those emissions varies significantly depending on their source and we should attempt to achieve the most economically efficient solutions possible.
- 2. The transportation sector represents a closely interdependent system, characterized by the equation: "fuel + vehicle + driver = GHG emissions." Each link in this chain depends on the others. For example, vehicle manufacturers can bring to market flexible fuel vehicles, but successfully reducing GHG emissions will depend on fuel companies providing renewable biofuels and consumer demand for the vehicles and fuels.
- Future developments in technologies, ever-changing markets, consumer demand and political uncertainties require flexible solutions. The business strategies that Ford implements, and the public policies that we encourage, must have the flexibility to meet a range of potential scenarios.
- 4. Early affordable steps to reduce GHG emissions from our products and processes may delay the need for drastic and costly reductions later. Lack of agreement on long-term solutions cannot be used as an excuse to avoid near-term actions.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ebrd Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies





Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- ▲ GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## Partnerships and Memberships Relevant to Climate Change Strategy

Organizations with which we cooperate on climate change issues:

- 25 x 25 (Energy Futures Coalition)
- BP
- Center for Clean Air Policy (CCAP) Climate Policy Initiative
- Diesel Technology Forum (DTF)
- Governors' Ethanol Coalition (GEC)
- Harvard University, Belfer Center for Science and International Affairs
- MIT Joint Program on the Science and Policy of Global Change
- National Ethanol Vehicle Coalition (NEVC)
- The Nicholas Institute for Environmental Policy Solutions
- Princeton Carbon Mitigation Initiative (CMI)
- Resources For the Future (RFF) U.S. Climate Policy Forum
- United States Climate Action Partnership (USCAP)
- Worldwide Business Council for Sustainable Development (WBCSD)
- World Resources Institute (WRI)

Ford has supported many Competitive Enterprise Institute initiatives over the years, but we do not support its national ad campaign on global warming.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Climate Change Emissions and Stabilization
- Climate Change Risks and Opportunities
- Ford Response to the Risks and Opportunities of Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- o Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Ford Response to the Risks and Opportunities of Climate Change

### IN THIS SECTION:

- ₹ Ford Response to the Risks and Opportunities of Climate Change
- → Climate Change-Related Commitments and Progress
- → Strategic Response
- GHG Emissions Equation
- Market, Policy and Technological Framework

- → Climate Change Public Policy
- → Emissions Trading
- → Climate Change Strategic Principles
- Partnerships and Memberships Relevant to Climate Change Strategy
- Supply Chain

## Supply Chain

We have not, as a policy, measured the quantity of emissions generated by our supply chain. However, Ford Europe is piloting capturing the greenhouse gas impact of its material choices and its logistics footprint.

The Supplier Sustainability Forum, formed in 2001, is a place for sharing best practices, developing future Ford-supplier strategies and metrics, and helping us better communicate and refine our sustainability policies. This forum is one area where the topic of climate change has been discussed.

In addition, our efforts to encourage and, in some cases, require suppliers to implement robust environmental management systems will help them report their emissions inventories in the future. We also will seek out opportunities to partner with suppliers to improve the greenhouse gas emissions performance of our products.

As of today, all of our Q1 suppliers are ISO 14001 certified.

- In This Report
- Suppliers
- Environment: Suppliers

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- Key topic: Climate Change
- Greenhouse Gas

#### **Emissions / Fuel Economy**

- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

-

Send feedback

## Greenhouse Gas Emissions / Fuel Economy

Our current fuel economy performance is discussed in this section. We are also aggressively pursuing the development of new technologies, including additional hybrids, advanced diesel engines, hydrogenfueled internal-combustion engines, fuel cell vehicles and biofueled vehicles, as discussed in the <a href="Sustainable Mobility Technologies">Sustainable Mobility Technologies</a> section. Our climate change strategy and participation in public policy processes related to climate change and fuel economy are discussed in the <a href="Climate Change">Climate Change</a> section.

### Fuel Economy Performance - U.S.

Our 2007 vehicle lineup includes the Ford Escape Hybrid, the Ford Ranger and the Ford Five Hundred, which are respectively the most fuel-efficient SUV, pickup truck and all-wheel-drive large car on the market.

The fuel economy of all of our vehicles sold in the United States, compared to the competition, is summarized in the Fuel Economy of U.S. Ford Vehicles by EPA Segment graphic. Our vehicle fuel economy is competitive, scoring above average in six categories, average in one and below average in four.

We currently have 12 vehicles that get 30 miles per gallon or better, including the Ford Focus, Ford Fusion, Mercury Milan, Mazda3, Mazda MX-5, Mazda6, Volvo S40 and Volvo S60 sedans, as well as the 2008 Ford Escape Hybrid, Mercury Mariner Hybrid, Mazda Tribute Hybrid and Land Rover LR2 SUVs.

We continue to add features that boost the fuel economy of our vehicles. See the <u>Sustainable Mobility Technologies</u> section for more information.

These vehicles also illustrate our shift toward "crossovers" – vehicles that combine the features of cars and SUVs while generally achieving better fuel economy than traditional SUVs.

For 2006 model year, the Corporate Average Fuel Economy (CAFE) of our cars and trucks declined 1.0 percent, as expected. The 2006 model year CAFE remained approximately the same for cars and declined by 2.3 percent for trucks, compared to 2005, due largely to model year length variations. A model year typically spans from July to May. One of our trucks with higher fuel economy, the Ford Escape, had an unusually long 2005 model year, while one of our trucks with lower fuel economy has a long 2006 model year.

Preliminary data for 2007 model year shows a 5.4 percent improvement in CAFE compared to 2006, with a 1.7 percent improvement for cars and a 5.2 percent improvement for trucks.

### Fuel Economy Performance - Europe

In Europe, we have reduced the average CO<sub>2</sub> emissions of the vehicles we sell by 11 to 34 percent depending on the brand, compared with a 1995 base. We have achieved these reductions by introducing a variety of innovations, from the advanced common-rail diesel engines available on many of our vehicles to the lightweight materials in the all-aluminum body of the Jaguar XJ.

These reductions reflect progress toward the goal of a voluntary agreement between the European automotive industry (represented by its association, ACEA) and the EU Commission. The agreement committed ACEA members to voluntarily reduce the average fleet CO2 emissions of its new cars sold in the EU. The target is 140 grams of CO2 per kilometer by 2008, down from 186 grams per kilometer in 1995, which translates to an average CO2 reduction of 25 percent.

The auto industry to date has made a very significant contribution to the EU's overall efforts to address climate change. The industry has always said that the agreement represents one of the most challenging CO<sub>2</sub> reduction actions within the EU and that it is extremely ambitious, both technically and economically. Despite an increasingly adverse environment, Ford and the industry continue to work hard to move toward the 2008 target.

- In This Report
- Sustainable Mobility Technologies
- Key topic: Climate Change
- New Products with Better Fuel Efficiency

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## **ENVIRONMENT**

- Progress
- . Context
- Management
- Performance
- 。 Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy

## Pailpipe Emissions

- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

...

Send feedback

## Tailpipe Emissions

#### **United States**

In the United States, we are in the third year of phasing in the most comprehensive and complex set of vehicle emissions requirements in the world, the U.S. EPA's Tier 2 regulations. These light-duty vehicle regulations align with California's LEV II emissions standards in terms of stringency.

We supported the EPA's development of the comprehensive Tier 2 emissions program because it was designed for states outside of California and will produce clean-air benefits equivalent to California's LEV II approach. Tier 2 is also a more cost-effective and flexible approach than the California program. We do not support the state-by-state adoption of the California standards.

Under Tier 2, all passenger car and small truck fleets must achieve fleet average NOx emissions equivalent to the Bin 5 level by 2007 model year. (The Tier 2 regulations allow manufacturers to choose from a range of eight emissions levels, or "Bins," to meet a fleet average requirement.) The Tier 2 program coordinates the introduction of cleaner fuels with more stringent vehicle tailpipe emissions standards and will achieve near-zero emissions from cars and light trucks. On a similar timeframe (i.e., by the 2005 to 2007 model years), California's separate standards will tighten under their LEVII (Low-Emission Vehicle) program.

The results from these programs are impressive. We have continued to significantly cut smog-forming (non-CO<sub>2</sub>) tailpipe emissions from our vehicles. In fact, Ford has completed the first phase of meeting the Tier 2 requirements, which eliminated nearly 3 million pounds of smog-forming emissions from our light-duty fleet over the 2004 to 2006 model years.

We also introduced cleaner heavier trucks two years ahead of the requirements. For example, the 2006 Ford Explorer with V-6 single-overhead-cam uses innovative technology to achieve a 30 percent cleaner vehicle than the EPA's final fleet average requirement. These technologies, which reduced smog-forming emissions by 74 percent compared to the previous model year Explorer, are also available on the Ford Sport Trac and Mercury Mountaineer.

For the California market, we have introduced new mid-size cars from Ford, Lincoln and Mercury that are capable of meeting some of the toughest emissions standards in the United States. The standard four-cylinder (Duratec 23 I-4) engine with automatic transmission used on the Ford Fusion and Mercury Milan is rated as a Partial Zero Emissions Vehicle (PZEV) in states that have adopted California's emissions regulations.

PZEVs are associated with very low vehicle emissions. They have been defined as vehicles producing emissions levels that a power plant would emit in order to generate the electricity to recharge an electric vehicle. Strictly speaking, PZEVs:

- meet California's Super Ultra-Low Emission Vehicle exhaust emissions standard (SULEV II)
- produce virtually no fuel system evaporative emissions

In practical terms, a PZEV, operated over three weeks of average driving, emits less smog-forming emissions than a new lawn mower operating for about 30 minutes. Or, for those who like to barbeque, grilling one quarter-pound burger emits more smog-forming emissions than a 60-mile commute in a PZEV.

In 2006, Ford's brands certified more PZEV models than any of our competitors. Models meeting these very stringent requirements in 2006 included the Ford Focus and Escape Hybrid, the Mercury Mariner and Milan, the Mazda3, Mazda6 and Tribute Hybrid, and the Volvo V70.

Information about the performance of all Ford vehicles sold in the United States can be found at <a href="http://www.epa.gov/greenvehicles/index.htm">http://www.epa.gov/greenvehicles/index.htm</a>.

### Europe

Improving air quality by reducing vehicle emissions has always been – and will continue to be – a major element of Ford's overall environmental commitment. Since 1990, emissions have been reduced by up to 90 percent via the development of improved engine technologies (specifically diesel engines) and high-tech exhaust gas treatment devices. Ford of Europe has introduced several diesel particulate filter systems for an increasing number of its new vehicles, as well as for older diesel-powered Ford vehicles already in customers' hands.

To illustrate the dramatic reduction in emissions, it would take up to 200 of today's Ford Fiestas to produce the same amount of emissions as one 1976 Ford Fiesta.

- In This Report
- Sustainable Mobility Technologies
- Our Path to Increasing Fuel Efficiency and Reducing Emissions
- **External Web Sites**
- Green Vehicle Guide

Further air-quality improvements will occur as Euro 4-technology-equipped vehicles increasingly penetrate the vehicle fleet on the road. (All new passenger cars registered as of January 1, 2006, and all light-duty vehicles as of January 1, 2007, must comply with the more stringent Euro 4 emission standard.)

## Emissions Regulations in the U.S. and Europe

Figures in grams per mile

	Nitrogen oxides	Hydro-carbons
Europe stage III		
	0.24*	0.32*
Europe stage IV		
	0.13*	0.16*
U.S. Tier 1		
	0.60	0.31
U.S. Tier 2 (Bin 5)		
	0.07	0.09
California LEV II		
	0.07	0.09
California SULEV		
	0.02	0.01

<sup>\*</sup> Standard for vehicles using gasoline as fuel

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- 。 Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Choosing More Sustainable
   Materials
- Eliminating Undesirable
   Materials
- End of Life
- Analyzing Material Choices
- Materials Management
   Information Tools
- o Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- o Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report



Send feedback

## Materials

Managing materials for sustainability presents a range of challenges that we are tackling cooperatively with our suppliers. Among the aspects of sustainable materials management are:

- Closing loops in our production systems so that wastes become resources
- Developing and choosing more sustainable materials, including renewable and recycled materials
- · Eliminating or reducing undesirable materials
- Planning for the "end of life" of the vehicle and its eventual treatment, recycling and disposal
- Analyzing how material choices affect vehicle performance in terms of handling, safety, fuel economy and other factors

Our targets for materials management address many of these areas and include:

- . Reducing the weight of components
- . Increasing the use of recycled and renewable materials
- Marking polymeric parts
- · Reporting materials and substances used to the International Materials Data System (IMDS)
- Eliminating or reducing the use of restricted or allergenic substances

- In This Report
- <u>Cradle-to-Cradle Solution for Shipping</u>
   Parts

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Shoosing More Sustainable
   Materials
- Eliminating Undesirable
   Materials
- End of Life
- Analyzing Material Choices
- Materials Management
   Information Tools
- o Operational Energy Use
- o Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- . Data
- · Case Studies

Print this report



Send feedback

## **Choosing More Sustainable Materials**

Materials can be more or less sustainable based on a number of factors, including the origin of the material – virgin, renewable or reclaimed – and the resources used and emissions produced throughout its life cycle.

Vehicles in North America typically are composed of 20 to 25 percent post-consumer recycled material by weight, primarily due to the extensive use of steel and aluminum with recycled content. Ford has concentrated its efforts on developing new uses for recycled materials in the nonmetallic portions of the vehicle, which are typically composed of virgin materials. While the amount of recycled content in each vehicle varies, we are continuously increasing the amount of recycled material used in each vehicle line.

All of Ford's European vehicles use recycled polymers and renewable parts, where these can be seen as contributing to a sustainable material supply and providing a more sustainable solution.

We use Design for Environment and other tools to analyze the properties of materials used in our products and manufacturing and to identify better choices. For example:

- At Ford's Innovation Center, a group of research scientists are focused solely on developing
  automotive foams, plastics and composites derived from renewable resources. In partnership with
  supplier Lear Corporation, they have succeeded in developing 20 percent soy content foam
  formulations that meet or exceed all automotive requirements, reduce petroleum dependency and
  reduce CO2 emissions by 5.5 kg/kg polyol produced. If mass-produced, these materials would offer
  the potential for cost savings and insulation from petroleum-product price swings.
- The scientists are also examining the use of natural fiber composites, which will help to reduce the
  weight of vehicles and improve their fuel economy. Even plastic resins can be generated from
  natural resources such as corn, and the scientists are looking at how to improve the feasibility of
  these materials so that plastic components on future Ford vehicles can be composted instead of
  landfilled.
- Nanotechnology also offers opportunities to improve the materials we use and reduce the weight of
  vehicles.
- The 2008 Escape is believed to be the first U.S. automotive application of 100 percent postindustrial fabric seating surfaces (see <u>Sitting Pretty on Recycled Fabric</u> case study.)
- At the 2007 North American International Auto Show, Ford introduced the Lincoln MKR concept sedan, which featured renewable mohair carpet, soy-based foam seat bases and recycled oak wood in the instrument panel.
- In May 2007, Ford became one of the first European automakers to be certified in compliance with EU Directive 2005/64/EC by demonstrating to external authorities that the Ford processes properly manage the reusability, recyclability and recoverability aspects of vehicles.

## Closing Loops

Many materials are used and many wastes are produced throughout our complex value chain. Among these wastes are high-value materials. We are exploring ways to use wastes we generate as raw materials.

- In This Report
- Nanotechnology and Advanced Materials
- Sitting Pretty on Recycled Fabric
- Cradle-to-Cradle Solution for Shipping
  Parts

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Choosing More Sustainable
   Materials
- Liminating Undesirable
   Materials
- End of Life
- Analyzing Material Choices
- Materials Management
   Information Tools
- o Operational Energy Use
- o Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- . Data
- · Case Studies

Print this report

Download resources

Send feedback

## **Eliminating Undesirable Materials**

For more than 20 years, our Restricted Substance Management Standard has spelled out materials to be avoided or eliminated in Ford operations and the parts and materials provided by suppliers. This and other tools are helping us meet and exceed customer expectations and ensure compliance with regulations.

For example, Ford of Europe vehicles were the first vehicles worldwide to be awarded an "allergy-tested interior" certification. Respective certificates have been given by the German TÜV Rheinland organization, the independent industry body controlling and approving quality standards of industrial and consumer products. The award recognizes that the vehicles' interiors consist exclusively of materials that reduce the risk to allergy sufferers to the lowest possible level. Five models have been certified: the Ka, the European Focus (including the Focus Coupé-Cabriolet), the S-MAX, the Galaxy and, most recently, the new Mondeo. Ford aims to get as many as possible existing and future cars certified according to the TÜV criteria. With this initiative, Ford offers its customers products that address the growing societal concern about allergies.

Ford has decreased the use of mercury-containing components, which can pose problems at the end of a vehicle's life. In 2001, we eliminated mercury-containing switches, which accounted for more than 99 percent of the mercury used in our U.S. vehicles. Since that time, we have continued to focus on mercury reduction by working to eliminate mercury in the remaining mercury-containing components, including high-intensity discharge headlamps and flat-panel displays. The 2007 Lincoln Navigator was recently launched with mercury-free high-intensity discharge headlamps. In addition, we have helped to forge a cooperative industry approach to recycle mercury switches from end-of-life vehicles.

Hexavalent chromium – "hex chrome" for short – is a corrosion coating (used, for example, on nuts, bolts and brackets in cars and trucks) that the U.S. Occupational Safety and Health Administration lists as a potential lung carcinogen. We are not waiting for global regulations banning the use of hex chrome to take effect – we are phasing out its use worldwide. Replacement coatings have been thoroughly tested to ensure that they meet Ford's performance requirements.

In North America, Ford is presently transitioning from lead to steel wheel weights on light-duty vehicles. Two vehicle assembly plants have been largely converted to steel weights, and plans are underway to change over the remainder of our plants. Ford of Europe phased out the use of lead wheel weights in new and serviced vehicles in mid-2005.

### RELATED LINKS

- In This Report
- Ford of Europe Rates Sustainability of Vehicles
- Removing Mercury from Automobile Wastes
- Ford.com
- Ford Ka
- Ford Focus
- Ford S-MAX
- Ford Galaxy
- Ford Mondeo
- TÜV Rhineland

**External Web Sites** 

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Choosing More Sustainable
   Materials
- Eliminating Undesirable
   Materials

#### . End of Life

- Analyzing Material Choices
- Materials Management
   Information Tools
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- o Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report



Send feedback

## End of Life

Automobiles are one of the most highly recycled consumer products around the world. All vehicles contain parts and materials – particularly iron, steel and aluminum – that can be recovered at the end of their useful lives. In North America, about 95 percent of vehicles that go out of registration are processed by a dismantler or scrap metal recycling facility, with 82 to 84 percent of the vehicle by weight recovered for reuse, remanufacturing or recycling.

In theory, end-of-life vehicles are nearly 100 percent recyclable. In practice, however, the cost in energy and labor to recover the final fractions often exceeds the value of the materials, and recent, independently reviewed environmental studies suggest that such efforts also offer no value to the environment. Ford focuses on increasing the economically viable and environmentally sound recycling percentage through a number of means: selection of materials, labeling and providing information to dismantlers on materials and methods for treatment.

In the EU, automakers are required to take back vehicles (that they put on the market) at the end of their lives, ensuring that they are treated in an environmentally responsible manner. Since 2002, Ford has been at the forefront of providing return networks in the EU Member States that have established regulations. For example, Ford was the first major manufacturer in the UK to put in place a comprehensive plan that meets the European Commission End-of-Life Vehicles directive. Ford and Cartakeback Limited, a subsidiary of the UK Shredders consortium, are working in partnership to develop a network of take-back and treatment facilities throughout the UK.

Ford has also participated in research into alternative treatments for end-of-life vehicles. Together with other European automotive manufacturers, a fully ISO 14040-compliant LCA study has been finalized showing that – from a purely environmental point of view – there is no difference between recycling automotive shredder residue (the materials remaining after recovery of metals) and using it for energy recovery.

- **External Web Sites**
- Life Cycle Assessment of Lightweight and End-of-Life Scenarios for Generic Compact Class Passenger Vehicles
- CarTakeBack.com

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Choosing More Sustainable
   Materials
- Eliminating Undesirable
  - Materials
- End of Life

### . Malyzing Material Choices

- Materials Management
   Information Tools
- o Operational Energy Use
- o Water Use
- Volatile Organic Compounds
- Waste Generation
- o Land Use
- o Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## **Analyzing Material Choices**

Automobiles are complex systems. Choices about materials have implications throughout the value chain and can influence safety, fuel economy and performance. We use tools such as Design for Environment, life cycle assessment (LCA) and life cycle costing (LCC) to help make beneficial choices.

For example, Ford is intensively applying simplified life cycle assessment and costing to review the performance of its existing European vehicles and to evaluate future technologies. The most recent example is the use of LCA and LCC in the context of the Product Sustainability Index (PSI) for Ford Galaxy and S-MAX. The external ISO 14040 review panel confirmed the high standard of the LCA and LCC studies done.

Ford is also involved in design for environment research, for example, via a European project called <u>Sustainable Electrical & Electronic System for the Automotive Sector</u> (SEES). SEES is looking for an optimization of electronic systems from a holistic, life cycle perspective.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Choosing More Sustainable
   Materials
- Eliminating Undesirable
   Materials
- End of Life
- Analyzing Material Choices
- Materials Management
   Information Tools
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Materials Management Information Tools

To manage materials across the vehicle life cycle, Ford has developed a comprehensive set of processes and system tools called Enterprise Materials Management. These tools include the Global Material Approval Process (GMAP), which handles all materials processed in Ford's plants, and the International Materials Data System, developed by seven auto manufacturers in 1997 to handle the tracking, review and reporting of all vehicle components and service parts from all suppliers (www.mdsystem.com). The IMDS now has 16 automotive companies as official members. The IMDS is a Web-based system used internationally by suppliers to report on the materials contained in parts for our vehicles. We have cooperated with other automakers to align reporting requirements for restricted substances and to analyze the data provided. This helps us identify materials of concern and target them for elimination.

To further help our suppliers manage their material/substance data, Ford developed and launched the Global Materials Integration & Reporting Supplier Portal, in which reportable parts are listed and their reporting and certification status is posted. Every supplier can monitor their reporting status and understand which parts are required to be reported. This two-way communication helps to clarify a very complex materials management task and saves time and money for Ford and its suppliers.

For nondimensional materials (such as paint and adhesive) that are directly shipped to Ford plants, Ford piloted and launched another electronic tool aimed at simplifying the materials approval process. The GMAP\e-1291 process allows suppliers to use electronic transactions to send in their Material Safety Data Sheets and composition data. Internally, Ford approvers communicate their decisions of approval or rejection electronically. This new process saves time and ensures better-quality data to comply with government regulations and Ford policies.

- In This Report
- Suppliers
- **External Web Sites**
- International Material Data System

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- o Greenhouse Gas Emissions / Fuel Economy
- Tailpipe Emissions
- Materials

### bperational Energy Use

- Renewable Energy Use
- A Look at Logistics
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- · Case Studies

Print this report

Download resources

Send feedback

## Operational Energy Use

Ford has reduced global energy use by 27 percent, compared to 2000 levels. In 2006, Ford improved energy efficiency in the United States by 5 percent, resulting in savings of approximately \$25 million.

The EPA recognized Ford's performance by awarding it Energy Star Partner of the Year in Energy Management in 2006 and 2007, the first time an automaker has received this recognition in consecutive years. In September 2006, for the first time, the EPA awarded 17 U.S. manufacturing plants with the Energy Star recognition for their superior energy efficiency. Four Ford plants received the award – Chicago, St. Paul, Norfolk and Claycomo, Missouri - more than any other automaker. In 2006, Ford participated in the Energy Star "Change a Light" campaign, through which we encourage employees to replace conventional light bulbs with energy-efficient compact fluorescent bulbs.

The 2007 Energy Star Partner of the Year Award recognizes efforts to use energy efficiently in facility operations and to integrate superior energy management into overall organizational strategy. Among the achievements recognized by the award were a 25 percent improvement in the energy efficiency of Ford's U.S. facilities since 2000, equivalent to the amount of energy consumed by 220,000 homes.

In addition, the Canadian GHG Challenge Registry® recognized Ford Motor Company of Canada, Limited, as a Gold Champion level reporter, the highest level of achievement, which is awarded to companies that surpass the most rigorous reporting standards. Overall, Ford of Canada reduced its energy consumption by 23 percent from 1995 to 2003 and an additional 22 percent between 2003 and 2005.

To drive continued progress, we have set 2007 targets to improve our facility energy efficiency by 3 percent globally and 3 percent in North America. We measure energy efficiency using our Energy Efficiency Index.1

1 The Index is "normalized" based on an engineering calculation that adjusts for typical variances in weather and vehicle production. The Index was set at 100 for the year 2000 to simplify tracking against energy efficiency targets.

- **External Web Sites**
- U.S. EPA Energy Star Program
- Canadian GHG Challenge Registry

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- o Greenhouse Gas Emissions / Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- . Renewable Energy Use
- A Look at Logistics
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- · Case Studies

Print this report

Download resources

Send feedback

## Renewable Energy Use

Globally, renewable or "green" power supplies 3 percent of Ford's energy needs. In the United States, we use hydropower, landfill gas, waste gases or other sources to supply 5 percent of our energy needs.

In the UK, construction was completed in 2004 on London's first wind power park, at Ford's Dagenham complex. The wind turbines provide 100 percent of the electricity requirements of our new <a href="Dagenham">Dagenham</a> <u>Diesel Centre</u>. This is equivalent to the electricity needs of more than 2,000 homes.

During 2006, we piloted carbon-neutral manufacturing for our hybrid vehicles. We offset the greenhouse gas emissions associated with the manufacturing of these vehicles by purchasing carbon offset credits, many of which will fund renewable energy projects.

- In This Report
- **GHG Emissions Equation Driver**
- Dagenham Diesel Centre
- Carbon Offset Credits

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- · Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions / Fuel Economy
- o Tailpipe Emissions
- Materials
- Operational Energy Use
- Renewable Energy Use

### . NLook at Logistics

- Water Use
- Volatile Organic Compounds
- Waste Generation
- o Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## A Look at Logistics

packaging system.

Logistics (the transportation of parts and vehicles) is a relatively small part of Ford's environmental footprint, accounting for about 0.5 percent of vehicle life cycle emissions, for example. However, logistics is a key business function that requires more than getting things from point A to point B. Logistics managers are key partners in ensuring that our factories have the parts and materials needed for efficient | Lifecycle Emissions operation without maintaining excess inventory. They also try to minimize costs, fuel use and the environmental impacts of packaging and protect the quality of shipped items. An example of an innovative approach to optimize these factors for sustainability is the development of a closed-loop

- In This Report
- Closing Loops

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Water Use

In 2000, Ford launched a water-reduction initiative and set a target of 3 percent year-over-year reduction in water use. Since then, the Company has reduced its water consumption by more than 25 percent worldwide

When the initiative began, many facilities had little ability to track their water usage. Ford engineers developed a patented Water Estimation Tool (WET), a software program that helps facilities to predict their water usage. They then paired WET with WILD (Water Ideas to Lessen Demand), a list of practical ideas for reducing water usage depending on where and when usage is the greatest. Our facilities made good progress for several years, meeting or exceeding the 3 percent year-over-year water reduction goal that applied to all facilities. To encourage continued progress, Ford environmental engineers are developing "single point lessons" that document practices demonstrated to save water. Implementation of the single point lessons is mandatory and included in business plans.

Ford facilities have used these tools and innovative engineering to cut water use. For example:

Ford's assembly plant in Hermosillo, Mexico, is doubling its production of vehicles while cutting
water use. This unusual feat is being accomplished through the addition of innovative water
treatment systems that allow extensive recycling of water within the plant.

An extended drought and population growth has created a severe water shortage in the Sonoran Desert where the plant is located. The Hermosillo plant had responded to the shortage by cutting water usage by 65 percent over an eight-year period. But when the plant was selected to build the new Ford Fusion, Mercury Milan and Lincoln Zephyr sedans, water use was projected to double along with production.

To accommodate the growth in production without increasing water use, the Hermosillo plant installed a novel biological water treatment system called a Membrane Biological Reactor, similar to one installed at our Chennai Plant in India. The system uses an ultra-filtration membrane process followed by reverse osmosis to make 75 percent of the plant's wastewater suitable for high-quality reuse within the plant's processes. Water treated through the biological treatment process can also be used for irrigation, so in total 80 percent of the wastewater discharge can be recycled, cutting potable water use by 40 percent and exceeding the plant's original commitment to keep potable water use at the same level as the plant expanded its production.

A pilot project at a Ford plant in Saarlouis, Germany, could lead to new water-saving techniques at
Ford facilities worldwide. Launched in March 2005, the test is aimed at eliminating industrial
wastewater. The project, which combines several state-of-the-art water treatment technologies, is
designed to more effectively cleanse the wastewater resulting from the plant's vehicle painting
operation. The wastewater goes through a regular treatment facility before undergoing the new
three-step cleaning process.

The first step – a biological stage – decomposes the wastewater's degradable substances. This is followed by nanofiltration and reverse osmosis, which together separate the waste particles from the wastewater stream. Once cleaned, the water can be re-circulated into the production process.

The ultimate goal is to eliminate wastewater from the paint operation and considerably limit the need for fresh water at the Saarlouis plant, where the Focus and the C-MAX are built. The new treatment system, which represents just one component of Ford's water conservation commitment, has the potential to significantly reduce the environmental impact of auto manufacturing.

### RELATED LINKS

In This Report

Global Operations

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use

#### Nolatile Organic Compounds

- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Volatile Organic Compounds

Since 2000, Ford's North American operations have cut volatile organic compound (VOC) emissions associated with the painting process (by far the largest sources of VOC emissions) by 25 percent. In 2006, these operations emitted 26 grams per square meter of surface coated, beating their target of 29 grams per square meter. Because the control equipment used to reduce VOC emissions consumes significant amounts of energy, we have worked to identify innovative approaches to painting operations that meet cost, quality and production goals while allowing us to reduce energy use significantly and maintain environmental compliance.

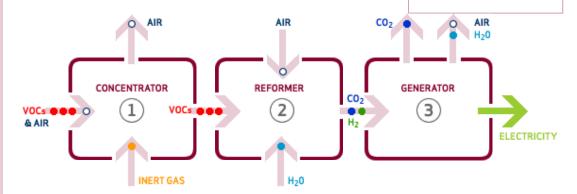
As one element of this approach, Ford developed an innovative fumes-to-fuel system in partnership with Detroit Edison. Initially tested at the Ford Rouge Center, the system concentrates fumes containing VOC emissions from solvent-based paint for use as fuel to generate electricity. The Rouge test fed the concentrated fumes into a fuel cell.

#### TARGETS

2007 North America target: Reduce VOC emissions to 24 gm/m2

#### RELATED LINKS

- In This Report
- Global Operations
- Ford.com
- Ford Rouge Center
- **External Web Sites**
- Detroit Edison



### Generating electricity from paint fumes

Move over the numbers above to see what happens at each stage.

A production-scale plant has been installed as a pilot project at Ford's Michigan Truck Plant. This pilot represents the final test of the system before full-scale implementation by the end of the decade. The Michigan Truck pilot uses a specially designed Stirling Cycle Engine that is currently more cost-effective than a fuel cell. The engine produces about 50 kilowatts of electricity to help power the facility. The only byproducts of the system, which cuts electrical usage by one-third to one-half, are small amounts of water vapor, CO<sub>2</sub> and nitrogen oxides. The Stirling Engine also produces heat during combustion, which may be another useful source of energy in the future.

A larger-scale version of the fuel cell fumes-to-fuel system is being installed in Oakville, Ontario, with support from the Canadian government. That system will be operational in 2008.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds

### 

- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

n 🗀

Send feedback

## **Waste Generation**

In 2006, we began switching our data collection over to the European waste classification system, which is a good fit for our waste streams and will allow improved benchmarking and comparison. These enhancements are part of our overall Global Emissions Manager database launch. Our data-collection process improvements will help our facilities continue to develop new methods of reducing and better managing waste. More extensive results will be published in future reports when year-over-year trend data are available.

Our facilities continue to reduce waste and improve its management. For example, Ford's Livonia (Michigan) Transmission Plant eliminated virtually all regulated hazardous waste generation. The Livonia plant was regulated as a "small-quantity generator" due to its generation of wastes from solvent-containing paint and a waste from the plant's heat treat process.

With the help of Ford's environmental experts, plant managers and workers in the painting and heattreating functions worked together to identify alternatives to the use of solvent-based paints and process modifications that would eliminate hazardous waste generation from the plant.

Following a one-time effort to use up and dispose of solvent-based paint, Livonia switched to purchasing only water-based paints, working cooperatively with the paint vendor. The team conducted trials to ensure the alternative paint would serve the needs of the plant.

The team also identified changes to the process of cleaning "salt quench" tanks that made the material removed suitable for recycling, rather than disposal.

The zero hazardous waste approach eliminates potential risks, reduces regulatory requirements and saves disposal costs.

Other waste reduction projects include the following:

- Implementation of a minimum-quantity lubrication system for machining at the Livonia Transmission Plant. An industry first in North America for high-volume powertrain production, the system uses a precisely dosed oil mist in place of multiple gallons of metal-working fluid. The metal chips created during the machining process are removed from the work zone by a vacuum extraction system and subsequently recycled. The system results in a cleaner work environment, reduction of the machining fluid waste and increased metal recovery. It also extends the life of the machining equipment and saves money compared to traditional processes.
- Ford's Sharonville, Ohio, transmission plant provides an incentive to its waste management
  contractor to achieve at least 5 percent waste reduction each year. The Sharonville plant recycles
  dozens of waste materials. For example, the plant recently began recovering shot blast pellets, the
  small steel balls used to take edges off of metal parts, in addition to the steel dust created by shot
  blasting.
- The Michigan Truck Plant has run tests using paint waste as a filler in a liquid sound-deadening material that helps keep vehicle interiors quiet.

#### TARGETS

2007 North America target: Reduce waste to landfill by 5 percent

#### RELATED LINKS

In This Report

Global Operations

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- o Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- ₀ Land Use
- Creating Wildlife Habitat
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

11/--

Send feedback

## Land Use

Our activities have the potential to affect land use, nature and biodiversity, directly and indirectly. We own land that is used for manufacturing operations and administration. The construction and operation of these facilities have direct impacts on land. The extent of these impacts depends on the size of each facility and whether it is a greenfield site (involving new construction) or a brownfield site (one previously used for industrial purposes).

The most significant potential impacts on land and biodiversity are indirect, occurring elsewhere in our value chain or arising from the use of our vehicles. Indirect impacts include the extraction of raw materials to make vehicle parts, habitat fragmentation from road construction, localized pollution from vehicles and the potential effects of climate change on biodiversity.

Many of our facilities have taken steps to improve biodiversity and wildlife habitat on their lands.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- o Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use

### . Streating Wildlife Habitat

- 。 Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Nownload resources

11/--

Send feedback

## Creating Wildlife Habitat

Several of Ford's global facilities have been certified as wildlife habitat sites by the Wildlife Habitat Council (WHC), a nonprofit organization dedicated to increasing the quality and amount of wildlife habitat on corporate, private and public lands. The WHC certification program recognizes outstanding wildlife habitat management and environmental education efforts at corporate sites and offers third-party validation of the benefits of such programs. Certification requirements are strict and must be periodically renewed.

RELATED LINKS

• External Web Sites

• Wildlife Habitat Council

Ford facility wildlife habitats range in size from five to more than 100 acres and include ecosystems as diverse as wetlands, woodlands, prairies, meadows and forests. They provide habitat for dozens of native plant and wildlife species, and are developed and maintained by Ford employees, often in partnership with local civic and education groups. At many of the facilities, nature trails have been built, bird and bat houses erected, and wildflower gardens planted, in addition to the establishment of wildlife habitats. They have also developed community education programs to encourage broader understanding of the importance of corporate wildlife sanctuaries.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use

### 

- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

Send feedback

## Green Buildings

Ford is a leader in green building, committed to the sustainable design of its facilities and landscapes using the basic principles of resource effectiveness, lifecycle assessment, health, safety and environmental performance. We have developed partnerships to help educate and exchange information on the concepts of sustainable design with our professional service providers and employees and have provided training to them on site selection, water efficiency, energy-use reductions, sustainable materials and resources, and indoor environmental quality.

Ford is a member of the U.S. Green Building Council and an active supporter of its green building rating system, LEED® (Leadership in Energy and Environmental Design).

### **Ford Rouge Center**

Ford's largest green building initiative is the redevelopment of the 600-acre Ford Rouge Center in Dearborn, Michigan, into a state-of-the-art lean, flexible and sustainable manufacturing center. The focal point of the center, the Dearborn Truck Plant, boasts the world's largest living roof, at 10.4 acres. The Ford Rouge Center also features an extensive stormwater management system with bio-swales and porous pavement, significant use of daylight inside the plant, and the restoration of soils and natural areas.

### Rouge Visitor Center (LEED - Gold)

The redeveloped Ford Rouge Center includes the LEED-Gold certified Rouge Visitor Center, a 30,000-square-foot facility featuring two multi-screen theaters and an observation deck. The facility uses rainwater for plumbing and irrigation, solar panels to produce energy and green screens to reduce energy use

### Fairlane Green (LEED - Gold)

Ford is developing a one-million-square-foot green retail center on its 243-acre industrial waste landfill in Allen Park, Michigan. Fairlane Green Phase I received the nation's first LEED-Gold certification for a core and shell retail development for its use of retention ponds for irrigation, sustainable landscaping, white roofs and preservation of natural areas. (See <a href="case-study">case-study</a>.)

### Product Review Center (LEED - Silver)

Ford's Product Review Center in Dearborn showcases Ford's latest products and green building principles. The LEED-Silver-certified building incorporates an innovative system to recycle water for irrigation and cooling, large windows to maximize daylight, and extensive use of local and recycled materials

## Premier Automotive Group Headquarters (LEED - Certified)

The 240,000-square-foot North American headquarters for Ford's premium brands in Irvine, California, received Ford's first LEED certification in 2001. The building exceeds the state's energy conservation standard by 40 percent and includes a fuel cell, living roof, green screens and certified wildlife habitat.

#### **Sustainable Landscapes**

A highly visible example of Ford's commitment to sustainability can be seen on more than 100 acres of land throughout southeast Michigan adorned with sunflowers and wildflowers, providing vegetation and habitat for wildlife while reducing mowing and other maintenance costs.

- . In This Report
- Ford Turns a Landfill into Gold
- Ford.com
- Ford Rouge Center
- **External Web Sites**
- Ford Rouge Center Interactive
- U.S. Green Building Council LEED
   Program

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- o Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings

### Ehvironmental Compliance

- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

....

Send feedback

## **Environmental Compliance**

#### **Manufacturing Plant Notices of Violation**

Ford received 13 notices of violation (NOV)\* from government agencies in 2006. The issuance of an NOV is an allegation of noncompliance with anything from a minor paperwork requirement to a permit limit, and does not mean that the Company was in noncompliance or received a penalty.

### Woodhaven Stamping Plant Letter of Violation

In 2005, the Michigan Department of Environmental Quality (DEQ) issued a letter of violation to Ford's Woodhaven Stamping Plant alleging that the facility had failed to properly report emissions from boilers and space heaters, and that the facility had failed to apply for a Title V permit as required by Michigan law. We have resolved this matter and paid a fine of \$47,500.

#### Offsite Spills

In 2006, offsite spills occurred at two Ford manufacturing facilities. Fewer than 225 gallons of material were spilled.

#### **Fines and Penalties Paid**

In 2006, Ford paid \$47,500 in fines, penalties and associated costs globally pertaining to environmental matters in our facilities.

\* The majority of these NOVs are for odor and other concerns at the AAI Plant in Flat Rock, Michigan. Ford and AAI have been working diligently with the MDEQ to resolve the concerns associated with these NOVs. Nevertheless, the MDEQ issued multiple NOVs while the matter was pending because of ongoing complaints and associated litigation.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## **ENVIRONMENT**

- Progress
- . Context
- Management
- Performance
- o Key topic: Climate Change
- Greenhouse Gas Emissions /
   Fuel Economy
- Tailpipe Emissions
- Materials
- Operational Energy Use
- Water Use
- Volatile Organic Compounds
- Waste Generation
- Land Use
- Green Buildings
- Environmental Compliance
- Environmental Remediation
- Data
- · Case Studies

Print this report

Download resources

...

Send feedback

## **Environmental Remediation**

### Kingsford, Michigan

In October 2004, Ford Motor Company and the Kingsford Products Company reached a judicial settlement with the Michigan Department of Environmental Quality and the Michigan Attorney General to resolve historic environmental contamination in the Kingsford-Breitung Township area in Dickinson County, Michigan. The settlement builds on the work the companies have already undertaken and calls for them to provide methane monitoring, vapor control systems and annual inspections for structures within the area. The companies will also cap former waste disposal areas, extract and treat contaminated groundwater, develop and implement a comprehensive remedial action plan and reimburse the state for any future response activity costs. To date, Ford and Kingsford Products have reimbursed the state \$1.4 million in past response activity costs incurred at this facility.

Ford opened a car and glider parts manufacturing facility in Kingsford in the 1920s, and subsequently operated a wood chemical distillation plant to make use of wood scraps from the manufacturing facility. The Kingsford Products Company's predecessor, Kingsford Chemical Company, subsequently purchased the Ford chemical plant and operated it from 1951 to 1961. From the 1920s until 1961, both companies disposed of wood chemical distillation waste into pits in this area. Methane from the decomposing waste and other industrial chemicals in the pits have entered the soils, groundwater and the Menominee River.

### **Ringwood Mines Landfill Site**

Ford Motor Company has stepped up and agreed to address concerns that have been raised related to Ford's prior disposal activities at the Ringwood Mines landfill site, including the adequacy of the prior investigation and cleanup of waste disposed by Ford. In September 2004, Ford Motor Company entered into an Administrative Order on Consent and Settlement Agreement (AOC) with the U.S. Environmental Protection Agency regarding additional environmental activities at the Ringwood site. The EPA also requested the Borough of Ringwood's assistance in completing work at the site, and the EPA issued a Unilateral Administrative Order against the Borough regarding the Ringwood site. Ford is conducting work at the site pursuant to the AOC, all under the direction of the EPA and the New Jersey Department of Environmental Protection.

Although the Ringwood site has been used for decades for the legal and illegal disposal of wastes of all types by the Borough of Ringwood and other parties, Ford only used the site to dispose of waste materials (primarily cardboard and wood wastes and paint sludge from the former Mahwah Assembly Plant) from 1967 to the middle of 1971. Ford previously participated in investigative activities at the site. Ford is committed to addressing issues related to its prior waste disposal activities at the site.

Send feedback

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 OVERVIEW > OUR IMPACTS > VOICES > PRODUCTS AND CUSTOMERS QUALITY OF RELATIONSHIPS FINANCIAL HEALTH **ENVIRONMENT** COMMUNITY Data . ENVIRONMENT • Progress View our environmental data by clicking on the topics below. Context Vehicle Fuel Economy and CO<sub>2</sub> Emissions Management Facility Energy Use and CO2 Emissions • Performance Materials > Data Water Use > o Vehicle Fuel Economy and CO2 Waste > Emissions Other Emissions Facility Energy Use and CO2 Emissions Materials Water Use o Waste o Other Emissions · Case Studies Print this report Download resources

See notes to the data

В

2003

2002

### Ford U.S. Corporate Average Fuel Economy – without FFVs

2007 is a preliminary estimate

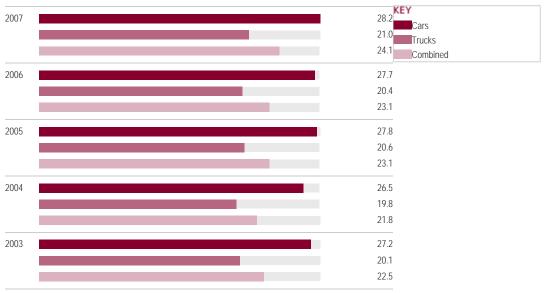
Miles per gallon

22.8

27.9 21.3 23.6 27.9

20.723.2

top

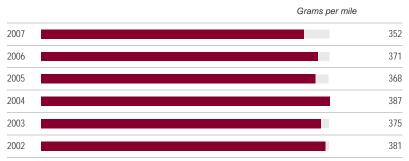


See notes to the data

top

### C Ford U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle – with FFVs (Combined Car and Truck Fleet Average CO<sub>2</sub> Emissions)

2007 is a preliminary estimate

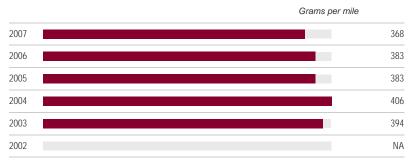


See notes to the data

top

### D Ford U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle – without FFVs (Combined Car and Truck Fleet Average CO<sub>2</sub> Emissions)

2007 is a preliminary estimate NA - Not available



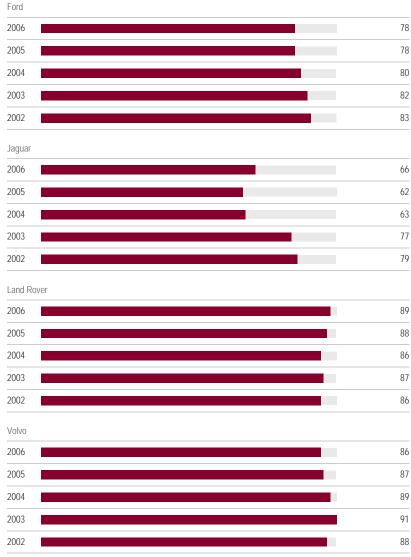
See notes to the data

<u>top</u>

Ε

European CO2 Performance, Passenger Vehicles - Percent of 1995 Base

1995 base = 100 percent



See notes to the data

### top

### NOTES TO THE DATA

### Chart A and Chart B

See the Climate Change and Environment sections for a discussion of our Corporate Average Fuel Economy (CAFE) performance. For 2006 model year, the CAFE of our cars and trucks declined 1.0 percent, as expected. Preliminary data for 2007 model year shows a 5.4 percent improvement in CAFE compared to 2006, with a 1.7 percent improvement for cars and a 5.2 percent improvement for trucks. Improvement is reflected by increasing miles per gallon. Due to a weight increase for the 2007 model year, the Econoline Vans were not part of the CAFE calculation.

### Chart C and Chart D

See the Climate Change section for a discussion of our CO2 emissions performance. Improvement is reflected by decreasing grams per mile.

#### Chart I

Official EU data. Jaguar performance did not improve compared to 2005 due to model mix. Land Rover performance did not improve compared to 2005 and 2004 due to model mix.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA

See data charts

data as charts?

Would you prefer to view the

#### . ENVIRONMENT

- Progress
- Context
- Management
- Performance
- · Data
- Sehicle Fuel Economy and CO<sub>2</sub> Emissions
- Facility Energy Use and CO2
   Emissions
- Materials
- o Water Use
- o Waste
- o Other Emissions
- · Case Studies



Download resources

Send feedback

## Vehicle Fuel Economy and CO<sub>2</sub> Emissions

### **Tables on This Page**

- A Ford U.S. Corporate Average Fuel Economy with FFVs
- B Ford U.S. Corporate Average Fuel Economy without FFVs
- C Fjord U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle with FFVs (Combined Car and Truck Fleet Average GO<sub>2</sub> Emissions)
- D Fjord U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle without FFVs (Combined Car and Truck Fleet Ayerage CO<sub>2</sub> Emissions)
- E <u>Furopean CO2 Performance, Passenger Vehicles Percent of 1995 Base</u>

#### Α

### Ford U.S. Corporate Average Fuel Economy - with FFVs

2007 is a preliminary estimate

				Miles pe	er gallon
	2002	2003	2004	2005	2006
Cars (domestic and import)	27.9	27.9	27.0	28.6	28.5
Trucks	20.7	21.3	21.0	21.6	21.1
Combined car and truck fleet	23.2	23.6	22.8	24.1	23.8

See notes to the data

### top

#### В

### Ford U.S. Corporate Average Fuel Economy – without FFVs

2007 is a preliminary estimate

			N	files per gallon
	2003	2004	2005	2006
Cars	27.2	26.5	27.8	27.7
Trucks	20.1	19.8	20.6	20.4
Combined	22.5	21.8	23.1	23.1

See notes to the data

#### to

#### C

# Ford U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle – with FFVs (Combined Car and Truck Fleet Average CO<sub>2</sub> Emissions)

2007 is a preliminary estimate

## Grams per mile

2002	2003	2004	2005	2006	2007
381	375	387	368	371	352

See notes to the data

top

#### ח

# Ford U.S. CO<sub>2</sub> Tailpipe Emissions per Vehicle – without FFVs (Combined Car and Truck Fleet Average CO<sub>2</sub> Emissions)

2007 is a preliminary estimate NA - Not available

### Grams per mile

2002	2003	2004	2005	2006	2007
NA	394	406	383	383	368

See notes to the data

top

# E European $CO_2$ Performance, Passenger Vehicles – Percent of 1995 Base

1995 base = 100 percent

					Percent
	2002	2003	2004	2005	2006
Ford	83	82	80	78	78
Jaguar	79	77	63	62	66
Land Rover	86	87	86	88	89
Volvo	88	91	89	87	86

See notes to the data

top

### NOTES TO THE DATA

#### Table A and Table B

See the Climate Change and Environment sections for a discussion of our Corporate Average Fuel Economy (CAFE) performance. For 2006 model year, the CAFE of our cars and trucks declined 1.0 percent, as expected. Preliminary data for 2007 model year shows a 5.4 percent improvement in CAFE compared to 2006, with a 1.7 percent improvement for cars and a 5.2 percent improvement for trucks. Improvement is reflected by increasing miles per gallon. Due to a weight increase for the 2007 model year, the Econoline Vans were not part of the CAFE calculation.

#### Table C and Table D

See the Climate Change section for a discussion of our CO<sub>2</sub> emissions performance. Improvement is reflected by decreasing grams per mile.

#### Table E

Official EU data. Jaguar performance did not improve compared to 2005 due to model mix. Land Rover performance did not improve compared to 2005 and 2004 due to model mix.

FINANCIAL **HEALTH** 

## Ford Motor Company

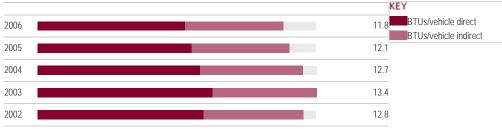
OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT VIEWING THIS DATA Facility Energy Use and CO2 Emissions Would you prefer to view the . ENVIRONMENT data as text tables? · Progress See data tables **Charts on This Page** · Context Worldwide Facility Energy Consumption Worldwide Facility Energy Consumption per Vehicle · Management Worldwide Facility CO2 Emissions · Performance Worldwide Facility CO<sub>2</sub> Emissions per Vehicle Energy Efficiency Index · Data o Vehicle Fuel Economy and CO2 Emissions **Worldwide Facility Energy Consumption** 5 Sacility Energy Use and CO2 Trillion British Thermal Units Emissions KEY Direct Materials 2006 Indirect o Water Use 2005 76.3 Waste 80.3 2004 o Other Emissions 2003 83.2 · Case Studies 83.7 2002 Print this report

Download resources

Send feedback

## Worldwide Facility Energy Consumption per Vehicle

Million British Thermal Units per vehicle



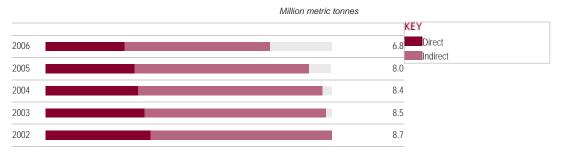
See notes to the data

top

top

## Worldwide Facility CO<sub>2</sub> Emissions

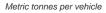
Target: Various regions are developing mandatory targets, and this makes it difficult to set a global corporate target for greenhouse gas emissions. Voluntary manufacturing greenhouse gas emission targets apply (see Commitments and Requirements). Our energy efficiency index target also has the effect of driving reductions in CO2 emissions.

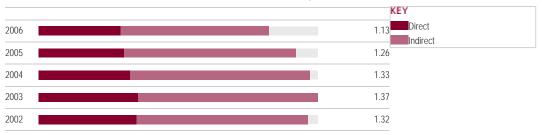


D

### Worldwide Facility CO<sub>2</sub> Emissions per Vehicle

Target: Various regions are developing mandatory targets, and this makes it difficult to set a global corporate target for greenhouse gas emissions. Voluntary manufacturing greenhouse gas emission targets apply (see Commitments and Requirements). Our energy efficiency index target also has the effect of driving reductions in CO2 emissions.





See notes to the data

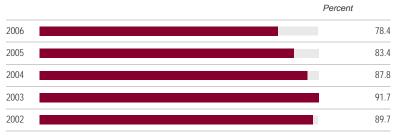
top

### E Energy Efficiency Index

Targets:

3% improvement in global facility energy efficiency

3% improvement in North American facility energy efficiency



See notes to the data

tep

### NOTES TO THE DATA

### Chart A and Chart C

Data have been adjusted to account for facilities that were closed, sold or new. This data does not include ACH.

### Chart B and Chart D

Energy consumption and CO<sub>2</sub> emissions per vehicle divides energy used or CO<sub>2</sub> emitted by the number of vehicles produced. Averaging energy and CO<sub>2</sub> emissions by the number of vehicles produced yields a somewhat imperfect indicator of production efficiency. When the number of vehicles produced declines, as it has since 2000, per-vehicle energy use tends to rise because a portion of the resources used by a facility is required for base facility operations, regardless of the number of vehicles produced. We believe that stable-to-declining per-vehicle energy use and CO<sub>2</sub> emissions indicate that more efficient production since 2000 is offsetting the tendency of these indicators to rise during periods of declining production. This interpretation is reinforced by our Energy Efficiency Index, which focuses on production energy efficiency, and which has been steadily improving. Our Energy Efficiency Index target also has the effect of driving reductions in CO<sub>2</sub> emissions. These data do not include ACH.

### Chart E

The Index is "normalized" based on an engineering calculation that adjusts for typical variances in weather and vehicle production. The Index was set at 100 for the year 2000 to simplify tracking against our target of 1 percent improvement in energy efficiency.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA

See data charts

data as charts?

Would you prefer to view the

#### . ENVIRONMENT

- Progress
- · Context
- Management
- Performance
- Data
- Vehicle Fuel Economy and CO2
   Emissions

### Lacility Energy Use and CO2

#### Fmissions

- Materials
- Water Use
- 。 Waste
- o Other Emissions
- · Case Studies



Download resources

Send feedback

# Facility Energy Use and CO2 Emissions

### **Tables on This Page**

- A Worldwide Facility Energy Consumption
- B Worldwide Facility Energy Consumption per Vehicle
- C Worldwide Facility CO2 Emissions
- D <u>Worldwide Facility CO2 Emissions per Vehicle</u>
- E Energy Efficiency Index

#### Α

# **Worldwide Facility Energy Consumption**

#### Trillion British Thermal Units

	2002	2003	2004	2005	2006
Direct	52.2	52.3	49.2	46.7	43.3
Indirect	31.5	30.9	31.1	29.6	28.5

See notes to the data



### В

### Worldwide Facility Energy Consumption per Vehicle

### Million British Thermal Units per vehicle

	2002	2003	2004	2005	2006
BTUs/vehicle direct	8.0	8.4	7.8	7.4	7.1
BTUs/vehicle indirect	4.8	5.0	4.9	4.7	4.7

See notes to the data



### C

### Worldwide Facility CO<sub>2</sub> Emissions

Target: Various regions are developing mandatory targets, and this makes it difficult to set a global corporate target for greenhouse gas emissions. Voluntary manufacturing greenhouse gas emission targets apply (see <a href="Commitments">Commitments and Requirements</a>). Our energy efficiency index target also has the effect of driving reductions in CO<sub>2</sub> emissions.

### Million metric tonnes

	2002	2003	2004	2005	2006
Direct	3.2	3.0	2.8	2.7	2.4
Indirect	5.5	5.5	5.6	5.3	4.4

See notes to the data

top

### D

### Worldwide Facility CO<sub>2</sub> Emissions per Vehicle

Target: Various regions are developing mandatory targets, and this makes it difficult to set a global corporate target for greenhouse gas emissions. Voluntary manufacturing greenhouse gas emission targets apply (see Commitments and Requirements). Our energy efficiency index target also has the effect of driving reductions in  $CO_2$  emissions.

### Metric tonnes per vehicle

	2002	2003	2004	2005	2006
Direct	0.48	0.49	0.45	0.42	0.40
Indirect	0.84	0.88	0.88	0.84	0.73

#### Ε

### **Energy Efficiency Index**

Targets:

3% improvement in global facility energy efficiency

3% improvement in North American facility energy efficiency

Pe	rce	nt

2002	2003	2004	2005	2006
89.7	91.7	87.8	83.4	78.4

See notes to the data

top

### NOTES TO THE DATA

### Table A and Table C

Data have been adjusted to account for facilities that were closed, sold or new. This data does not include ACH.

#### Table B and Table D

Energy consumption and CO<sub>2</sub> emissions per vehicle divides energy used or CO<sub>2</sub> emitted by the number of vehicles produced. Averaging energy and CO<sub>2</sub> emissions by the number of vehicles produced yields a somewhat imperfect indicator of production efficiency. When the number of vehicles produced declines, as it has since 2000, per-vehicle energy use tends to rise because a portion of the resources used by a facility is required for base facility operations, regardless of the number of vehicles produced. We believe that stable-to-declining per-vehicle energy use and CO<sub>2</sub> emissions indicate that more efficient production since 2000 is offsetting the tendency of these indicators to rise during periods of declining production. This interpretation is reinforced by our Energy Efficiency Index, which focuses on production energy efficiency, and which has been steadily improving. Our Energy Efficiency Index target also has the effect of driving reductions in CO<sub>2</sub> emissions. These data do not include ACH.

#### Table E

The Index is "normalized" based on an engineering calculation that adjusts for typical variances in weather and vehicle production. The Index was set at 100 for the year 2000 to simplify tracking against our target of 1 percent improvement in energy efficiency.

OVERVIEW > OUR IMPACTS > VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- Б.
- Vehicle Fuel Economy and CO2
   Emissions
- Facility Energy Use and CO2Emissions
- Water Use
- Waste
- o Other Emissions
- · Case Studies

Print this report

Download resources

Send feedback

# Materials

# **Cumulative Number of Parts Launched Containing Recycled Non-Metallic Materials**

We no longer track cumulative data but continue to implement new applications on new vehicles.

Ford Motor Company OVERVIEW > OUR IMPACTS > VOICES > ENVIRONMENT Water Use . ENVIRONMENT • Progress **Charts on This Page**  Context • Management • Performance

• Data

Emissions

Emissions

o ₩ater Use

· Case Studies

Print this report

Send feedback

Download resources

o Materials

o Waste o Other Emissions

Vehicle Fuel Economy and CO2

Facility Energy Use and CO2

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

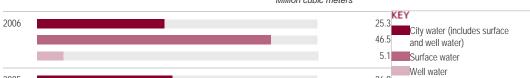
Global Water Use By Source

Regional Water Use

### VIEWING THIS DATA Would you prefer to view the data as text tables?

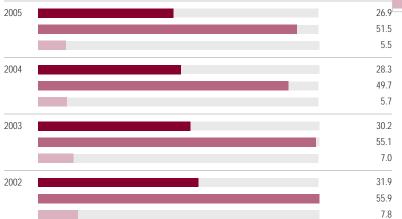
See data tables

# **Global Water Use by Source**



Million cubic meters

Million cubic meters



COMMUNITY

Asia-Pacific

# **Regional Water Use**

PAG is now included in Europe

2006	2.6
2005	2.5
2004	2.0
2003	2.2
2002	2.3
Europe	
2006	8.3

2006	8.3
2005	6.3
2004	7.2
2003	8.7
2002	8.9

### top

North America	
2006	63.5
2005	68.8
2004	68.1
2003	74.8
2002	77.9
South America	
2006	2.5
2005	2.6
2004	2.4
2003	2.5
2002	2.5
Premier Auto Group (all regions)	
2006	0.0
2005	2.2
2004	2.3
2003	2.3
2002	2.1

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- Context
- Management
- Performance
- Data
- Vehicle Fuel Economy and CO2
   Emissions
- Facility Energy Use and CO2Emissions
- Materials

#### Mater Use

- o Waste
- o Other Emissions
- · Case Studies



Download resources

Send feedback

# Water Use

#### **Tables on This Page**

- A Global Water Use By Source
- B Regional Water Use

#### VIEWING THIS DATA

Would you prefer to view the data as charts?



#### Α

### **Global Water Use by Source**

### Million cubic meters

	2002	2003	2004	2005	2006
City water (includes surface and well water)	31.9	30.2	28.3	26.9	25.3
Surface water	55.9	55.1	49.7	51.5	46.5
Well water	7.8	7.0	5.7	5.5	5.1

top

### В

### **Regional Water Use**

PAG is now included in Europe

### Million cubic meters

	2002	2003	2004	2005	2006
Asia-Pacific	2.3	2.2	2.0	2.5	2.6
Europe	8.9	8.7	7.2	6.3	8.3
North America	77.9	74.8	68.1	68.8	63.5
South America	2.5	2.5	2.4	2.6	2.5
Premier Auto Group (all regions)	2.1	2.3	2.3	2.2	0.0

top

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- Context
- Management
- Performance
- Data
- Vehicle Fuel Economy and CO2
   Emissions
- Facility Energy Use and CO2Emissions
- Materials
- Water Use
- ∘ Waste
- o Other Emissions
- · Case Studies



Download resources

Send feedback

# Waste

In 2006, we began switching our data collection over to the European waste classification system, which is a good fit for our waste streams and will allow improved benchmarking and comparison. These enhancements are part of our overall Global Emissions Manager (GEM) database launch. Our data collection process improvements will help our facilities continue to develop new methods of reducing and better managing waste. More extensive results will be published in future reports when year-over-year trend data are available.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- Context
- Management
- Performance
- · Data
- Vehicle Fuel Economy and CO2 Emissions
- Facility Energy Use and CO2 Emissions
- o Materials
- Water Use
- Waste

### o bther Emissions

· Case Studies



Download resources

Send feedback

# Other Emissions

### **Charts on This Page**

- North America Volatile Organic Compounds Released by Assembly Facilities
- Ford U.S. TRI Releases
- С Fjord U.S. TRI Releases per Vehicle
- D Ford Canada NPRI Releases
- Fjord Canada NPRI Releases per Vehicle
- Australia National Pollutant Inventory Releases (Total Air Emissions)
- Fjord U.S. Average NOx Emissions
- Ford U.S. Average NMOG Emissions
- Ford U.S. Average Vehicle Emissions

#### VIEWING THIS DATA

Would you prefer to view the data as text tables?



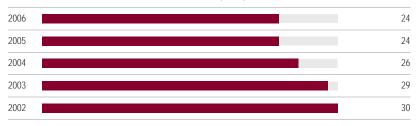
Report Home | Contact | GRI Index | Site Map | Glossary & Key Terms

See data tables

### North America Volatile Organic Compounds Released by Assembly Facilities

2006 target = 24





top

### Ford U.S. TRI Releases

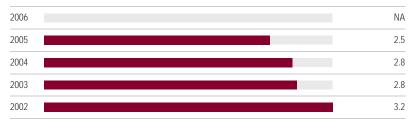
	Million pounds
2006	NA
2005	6.9
2004	8.2
2003	8.6
2002	10.8

See notes to the data

top

Ford U.S. TRI Releases per Vehicle

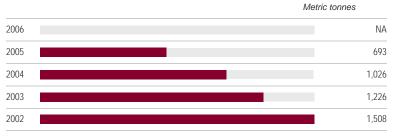
Pounds per vehicle



See notes to the data

top

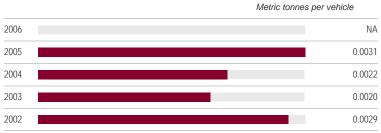
### D Ford Canada NPRI Releases



See notes to the data

<u>top</u>

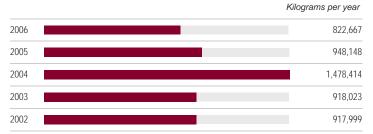
### E Ford Canada NPRI Releases per Vehicle



See notes to the data

top

F
Australia National Pollutant Inventory Releases (Total Air Emissions)

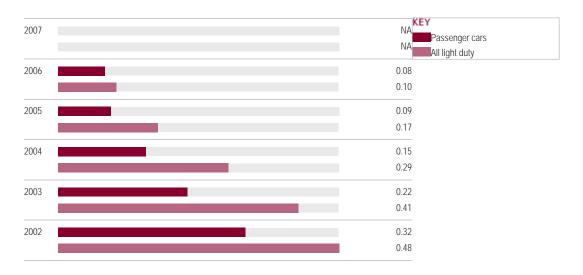


See notes to the data

top

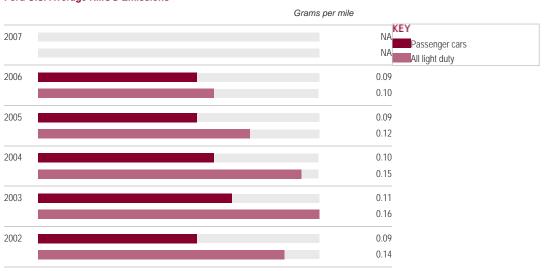
Ford U.S. Average NOx Emissions

Grams per mile



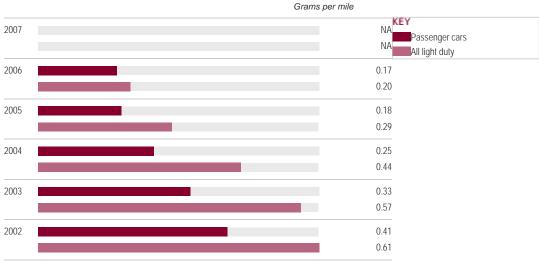
top

H Ford U.S. Average NMOG Emissions



top

I Ford U.S. Average Vehicle Emissions



See notes to the data

### NOTES TO THE DATA

### Chart B, Chart C, Chart D, Chart E, Chart F

Releases reported under the U.S. Toxics Release Inventory, Canadian National Pollutant Release Inventory and Australian National Pollutant Inventory are all in accordance with the law, and many of them are subject to permits. Data are the most recent reported to authorities.

#### Chart

Average vehicle emissions are the smog-forming pollutants from vehicle tailpipes, characterized as the sum of [(NMOG + NOx emissions) x volume] for all products in the fleet.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### . ENVIRONMENT

- Progress
- Context
- Management
- Performance
- Data
- Vehicle Fuel Economy and CO<sub>2</sub>
   Emissions
- Facility Energy Use and CO2
   Emissions
- o Materials
- o Water Use
- 。 Waste
- Other Emissions
- · Case Studies



Download resources

Send feedback

# Other Emissions

### **Tables on This Page**

- A North America Volatile Organic Compounds Released by Assembly Facilities
- B Ford U.S. TRI Releases
- C Ford U.S. TRI Releases per Vehicle
- D Fjord Canada NPRI Releases
- E Ford Canada NPRI Releases per Vehicle
- F Australia National Pollutant Inventory Releases (Total Air Emissions)
- G Ford U.S. Average NOx Emissions
- H Fjord U.S. Average NMOG Emissions
- I Fjord U.S. Average Vehicle Emissions

# Would you prefer to view the data as charts? See data charts

#### Α

### North America Volatile Organic Compounds Released by Assembly Facilities

2006 target = 24

### Grams per square meter of surface coated

2002	2003	2004	2005	2006
30	29	26	24	24

### В

### Ford U.S. TRI Releases

ivillion pounas				
2006	2005	2004	2003	2002
NA	6.9	8.2	8.6	10.8

See notes to the data

### top

top

### С

# Ford U.S. TRI Releases per Vehicle

per vehicle	Pound			
2006	2005	2004	2003	2002
NA	2.5	2.8	2.8	3.2

See notes to the data

### <u>top</u>

### D

### Ford Canada NPRI Releases

1,508

				Metric tonnes
2002	2003	2004	2005	2006

1,226

1,026

693

NA

See notes to the data



### Ford Canada NPRI Releases per Vehicle

### Metric tonnes per vehicle

2002	2003	2004	2005	2006
0.0029	0.0020	0.0022	0.0031	NA

See notes to the data

top

### F

### Australia National Pollutant Inventory Releases (Total Air Emissions)

#### Kilograms per year

2002	2003	2004	2005	2006
917,999	918,023	1,478,414	948,148	822,667

See notes to the data



#### G

# Ford U.S. Average NOx Emissions

### Grams per mile

	2022	0000	0004	0005	0007
	2002	2003	2004	2005	2006
Passenger cars	0.32	0.22	0.15	0.09	0.08
All light duty	0.48	0.41	0.29	0.17	0.10

top

#### н

# Ford U.S. Average NMOG Emissions

### Grams per mile

	2002	2003	2004	2005	2006
Passenger cars	0.09	0.11	0.10	0.09	0.09
All light duty	0.14	0.16	0.15	0.12	0.10

top

### 1

# Ford U.S. Average Vehicle Emissions

### Grams per mile

	2002	2003	2004	2005	2006
Passenger cars	0.41	0.33	0.25	0.18	0.17
All light duty	0.61	0.57	0.44	0.29	0.20

See notes to the data



### NOTES TO THE DATA

### Table B, Table C, Table D, Table E, Table F

Releases reported under the U.S. Toxics Release Inventory, Canadian National Pollutant Release Inventory and Australian National Pollutant Inventory are all in accordance with the law, and many of them are subject to permits. Data are the most recent reported to authorities.

### Table

Average vehicle emissions are the smog-forming pollutants from vehicle tailpipes, characterized as the sum of [(NMOG + NOx emissions) x volume] for all products in the fleet.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- · Data

### Case Studies Case Studies

- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe RatesSustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
- Removing Mercury from
   Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Download resources

1125

Send feedback

# Case Studies

### Lima's Cool Solution

When it's hot outside, a newly renovated section of the Lima Engine Plant stays comfortably cool, thanks to an innovative geothermal project that uses 40-degree quarry water to chill the plant's air.

### Cradle-to-Cradle Solution for Shipping Parts >

Ford's material planning and logistics engineers faced a challenge at the Livonia (Michigan) Transmission Plant. Cardboard fibers from overseas shipping containers were creating quality concerns in a plant that required a super-clean operation.

### Ford of Europe Rates Sustainability of Vehicles

What impact does a new vehicle have on air quality over its lifetime? How much noise will it make when it passes people standing on the street?

# Ford Takes Action to Protect Unique Coastal Ecosystems

Sand dunes along the shore of Lake Michigan have been a traditional source of high-quality sand that automakers have used in molding parts such as engine blocks and cylinder heads.

# Clean Diesel Factory Runs on Wind

Ford's Dagenham Diesel Centre, completed in 2004, is home to London's first large-scale wind power project. The project consists of two wind turbines, each 85 meters tall with 35-meter blades.

# Sitting Pretty on Recycled Fabric >

The 2008 Escape is believed to be the first U.S. automotive application of 100 percent post-industrial fabric seating surfaces.

### Removing Mercury from Automobile Wastes

Ford was one of the founding members of the End-of-Life Vehicle Solutions Corporation (ELVS). ELVS's purpose is to enhance vehicle recyclability by managing programs to recycle mercury switches on a nationwide basis.

### Ford Turns a Landfill into Gold

A Ford redevelopment project, Fairlane Green Phase I, earned a Gold environmental certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- · Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe RatesSustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
   Fabric
- Removing Mercury from Automobile Wastes
- o Ford Turns a Landfill into Gold

Print this report

Nownload resources

11/-

Send feedback

# Lima's Cool Solution

When it's hot outside, a newly renovated section of the Lima Engine Plant stays comfortably cool, thanks to an innovative geothermal project that uses 40-degree quarry water to chill the plant's air.

Water from a pair of 85-foot-deep quarries on the Ohio plant property is pumped into the facility through two circulation loops. A pump house ferries cold reservoir water up to one of several heat exchangers in the plant. Warmer water from the plant's cooling system transfers its heat to the quarry water. Because the two water supplies circulate in separate paths and never mix, the purity of the quarry water is maintained.

The warmed quarry water is then returned to the quarry, sprayed over the surface to encourage evaporation and minimize heat gain. Meanwhile, the plant water is pumped back to the plant, through more than 3,500 feet of pipe, and then re-cooled.

The Lima plant began manufacturing the new aluminum Duratec 35 V-6 engine in the summer of 2006. Aluminum engine components react and perform better when the ambient temperature remains constant.

Installing the environmentally friendly project cost \$300,000 less than a traditional cooling system. Moreover, Ford expects the new application to save another \$150,000 and millions of gallons of water annually.

This project earned the 2005 Ohio Governor's Award for Excellence in Energy and the Design-Build Institute's 2005 national award.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# **ENVIRONMENT**

- Progress
- . Context
- Management
- Performance
- · Data
- · Case Studies
- Lima's Cool Solution

# tradle-to-Cradle Solution for Shipping Parts

- Ford of Europe Rates
   Sustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled Fabric
- Removing Mercury from
   Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Nownload resources

11/-

Send feedback

# Cradle-to-Cradle Solution for Shipping Parts

Ford's material planning and logistics engineers faced a challenge at the Livonia (Michigan) Transmission Plant. Cardboard fibers from overseas shipping containers were creating quality concerns in a plant that required a super-clean operation. An interim solution – repacking parts shipped in cardboard into reusable containers at a logistics supplier's plant – solved the immediate problem but was costly and inefficient.

The logistics team began a 6-Sigma project in cooperation with the Georgia Institute of Technology. This project was part of a unique Ford–Georgia Tech collaborative research program on sustainability and strategic decision making for product/process design and manufacturing operations. Georgia Tech completed a triple-bottom-line analysis, evaluating several options for shipping high-volume parts that mate four-wheel-drive capability to a vehicle's transmission. The analysis considered costs, ergonomics and a life cycle assessment using the ECO indicator 99 methodology, which helps to quantify environmental impacts such as wastes, emissions, energy use and raw materials. The results of the analysis helped the team to choose an innovative solution that met their design goals.

The team proposed to ship components from China to the Livonia plant in a specially designed polypropylene shipping container that would then be recycled into automotive components such as splash shields. The container design improved ergonomics by disassembling for easier unloading and improved part density by 25 percent, which translates to a 20 percent (projected) reduction in shipping costs. The first full production shipment of 4,800 transmission components using the new packaging system was safely received in May 2007. The corrugated plastic containers will be recycled via the secondary market into multiple vehicle components. The team hopes to eventually replace the conventional polypropylene with bioplastic.

- . Cost improvement: 20 percent
- Environmental improvement: 7 percent

Based on Georgia Institute of Technology assessment

This project is part of a larger initiative to look at cradle-to-cradle logistics options. Other projects in collaboration with Georgia Tech and the University of Michigan include identifying additional components that could be shipped in this kind of packaging and designing that packaging.

- In This Report
- Global Operations
- External Web Sites
- Georgia Tech

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- · Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Sustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
   Fabric
- Removing Mercury from Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Nownload resources

11/2-

Send feedback

# Ford of Europe Rates Sustainability of Vehicles

What impact does a new vehicle have on air quality over its lifetime? How much noise will it make when it passes people standing on the street? Ford of Europe engineers considered in detail these and a wide range of other sustainability issues when developing the all-new Ford Galaxy and S-MAX models.

Using a new tool called the Product Sustainability Index (PSI), Ford is taking a leading role within the automotive industry by addressing the environmental, social and economic impact of its vehicles from the earliest stages of their development.

Ford's PSI tracks eight product attributes identified as key sustainability elements of a vehicle. These are: life cycle global warming potential (mainly carbon dioxide emissions), life cycle air-quality potential (other air emissions), the use of sustainable materials (recycled and renewable materials), vehicle interior air quality (including TÜV <u>allergy certification</u>), exterior noise impact (drive-by noise), safety (for occupants and pedestrians), mobility capability (seat and luggage capacity relative to vehicle size) and life cycle ownership costs (full costs for the customer over the first three years).

These metrics echo the multi-dimensional nature of sustainability and Ford's holistic approach. An external study of the PSI was conducted by independent experts in the area of life cycle science and sustainability – Professor Dr. Hunkeler (formerly of Vanderbilt University in Tennessee and the University of Lausanne in Switzerland) and Professor Dr. Kloepffer (University of Mainz, Germany). These scholars found the PSI to be a step that aims to provide a full sustainability assessment and as being compliant with ISO 14040, the international Life Cycle Assessment standard.

The PSI provides a basis for permanent evaluation and improved sustainability performance for new generations of vehicles. Consequently, the all-new Ford S-MAX and Galaxy both show improved performance when compared to the previous Galaxy model in all three sustainability areas: environmental, social and economic performance. (See <u>Context</u> for more information.)

For instance, more recycled and renewable materials have been used, life cycle air emissions have been significantly reduced and, at the same time, safety performance has been improved while life cycle cost of ownership has been reduced.

The PSI was also used to improve the environmental performance of the new Mondeo, available in mid-2007.

The following is an example of a label showing the results of PSI analysis of the Ford Galaxy and Ford S-MAX.

- In This Report
- Eliminating Undesirable Materials
- **Environment Context**

# Ford Engineers design vehicles following the Product Sustainability Index (PSI)

Indicator	Method	Impro	wement(A)	
		FordGalaxy	FordS-MAX	
Life Cycle Global Warming Potential	CO <sub>2</sub> & other gasses - cradle- to-cradle / ISO 14040 (LCA)	2.5 %	5%	
Life Cycle Air Quality Potential	Summer smog – LCA cradie-to-cradie / ISO 14040	5%	5%	
Sustainable Materials	Recycled & natural materials	ocycled & natural materials Factor 18:		
Substance Management	Allergy-tested interior etc.	TÜV allergy-tested inte and pollen filter <sup>(8)</sup>		
Drive-by-noise	dB(A)	2 dB (A)	2 dB (A)	
Safety	Complex incl EuroNCAP stars	Significant (class leading)		
Mobility capability	Mobility service (seats, luggage) (future: mobility for disabled)	10,4 m², 7 seats, 435i	10,25 m <sup>2</sup> , 5 seats, 1171i	
Life Cycle Ownership costs <sup>(5)</sup>	Price + fuel, maintenance, insurance, tax - residual value	5%	10%	
(previous FordGalaxy 1 (B) TUV certification, co	TDCi diesel variants relative to success .9(TDI); third party reviewed (Prof Dr I) ertification number AZ 137 12, TUVdot the costs reflect market conditions.	Göpffer / Prof Dr		

- Ford is taking a leading role by using PSI as a basis for permanent evaluation and improved sustainability performance for all new generations of vehicles during product development. PSI is a sustainability management tool of engineering.
- Consequently, both the Ford S-MAX and Galaxy show improved performance when compared to the previous Galaxy model in all three sustainability areas: environmental, social and economic performance.

FordGalaxy

FordS-MAX Feel the difference Sord

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . ENVIRONMENT

- · Progress
- . Context
- Management
- · Performance
- Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe Rates Sustainability of Vehicles
- Ford Takes Action to **Protect Unique Coastal Ecosystems**
- o Clean Diesel Factory Runs on

Wind

 Sitting Pretty on Recycled Fabric

Removing Mercury from

Automobile Wastes

Ford Turns a Landfill into Gold

Print this report

Download resources

Send feedback

# Ford Takes Action to Protect Unique Coastal Ecosystems

Sand dunes along the shore of Lake Michigan have been a traditional source of high-quality sand that automakers have used in molding parts such as engine blocks and cylinder heads. But the dunes – some hundreds of feet high – also have unique ecological, geological, cultural and recreational value.

Concerned about the practice, Ford worked with Michigan State University scientists and the Alliance for the Great Lakes to study the feasibility of halting coastal sand dune mining. The study concluded that other, inland sources of high-quality sand are available to meet the industry's needs. Ford has stopped using coastal dune sand, ahead of other automakers. The only supplier to Ford's two North American casting foundries - in Cleveland and Windsor, Ontario - is an inland mine.

### RELATED LINKS

Ford.com

Alliance for the Great Lakes

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- Data
- · Case Studies
- o Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe RatesSustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Mean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
   Fabric
- Removing Mercury from Automobile Wastes
- o Ford Turns a Landfill into Gold

Print this report

Download resources

11/-

Send feedback

# Clean Diesel Factory Runs on Wind

Ford's Dagenham Diesel Centre, completed in 2004, is home to London's first large-scale wind power project. The project consists of two wind turbines, each 85 meters tall with 35-meter blades. During the first full year of the project's operation (2005), the turbines generated 6 million kilowatt-hours (kWh) of electricity, more than enough to power the Centre. The Dagenham Diesel Centre produces high-performance, fuel-saving diesel engines, which are assembled in sterile conditions, as required for the latest high-precision common-rail fuel and turbo systems.

The Dagenham Diesel Centre expanded during 2006, and it will expand further in 2007. Construction of a third wind turbine, to be completed in early 2008, will add more than 3 million kWh of annual production, so that the Dagenham project will represent half of all planned wind power capacity in the London region.

- Ford.com
- o Ford UK

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . ENVIRONMENT

- Progress
- . Context
- Management
- · Performance
- · Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe RatesSustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
- Removing Mercury from
   Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Download resources

ne-

Send feedback

# Sitting Pretty on Recycled Fabric

The 2008 Escape is believed to be the first U.S. automotive application of 100 percent post-industrial fabric seating surfaces.

Ford's Color and Materials team worked with a team of designers from Interface Fabrics, Inc., to develop the new recycled-content fabric. Like every new fabric, the Interface fabric was subjected to a battery of tests, including wear and tear, seam strength, color consistency, fade resistance and even odor evaluations looking for that new car smell.

The fabric is produced from 100 percent post-industrial waste – defined as materials intended for retail use that never make it to the consumer. This can be anything from plastic intended for pop bottles to undyed polyester fibers that don't make the cut for consumer use. This plastic and polyester is processed, spun into yarn, dyed and woven into seat fabric. Recycling waste otherwise intended for landfills has obvious environmental benefits. The recycled fabric was in some cases less expensive than comparable fabric made from virgin fibers.

Interface Fabrics estimates that Ford's use of post-industrial recycled materials in the 2008 Escape, rather than virgin fibers, could:

- · Conserve an estimated 600,000 gallons of water
- Conserve an estimated 1.8 million pounds of carbon dioxide equivalents
- . Conserve the equivalent of more than 7 million kilowatt hours of electricity

The new fabric significantly exceeds Ford's internal target of introducing seating fabrics with 25 percent recycled content into production by 2009.

- In This Report
- Materials
- Ford.com
- Ford Escape Hybrid

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# ENVIRONMENT

- Progress
- . Context
- Management
- Performance
- · Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for Shipping Parts
- Ford of Europe Rates
   Sustainability of Vehicles
- Ford Takes Action to Protect
   Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
- Nemoving Mercury from Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Nownload resources

ne-

Send feedback

# Removing Mercury from Automobile Wastes

Ford was one of the founding members of the End-of-Life Vehicle Solutions Corporation (ELVS). ELVS's purpose is to enhance vehicle recyclability by managing programs to recycle mercury switches on a nationwide basis

Autos are only one of many sources of mercury in products. Because mercury has special properties that make it ideal for electrical conductivity, it has been widely used in thermostats, appliances, switches and many other products. Industrial use of mercury has dropped significantly over the years as substitutes have been found.

Mercury emissions from steel furnaces, the pathway by which auto switch mercury can enter the environment, do contribute to the United States' total mercury inventory. Therefore, ELVS members support shared responsibility programs to collect and recycle mercury from end-of-life vehicle switches.

Prior to 2003, mercury switches were used in some autos for convenience lights and anti-lock brake sensors. Ford phased out these uses in 2001. On January 1, 2003, vehicle manufacturers completed their voluntarily phase-out of these switches in an effort to reduce mercury emissions.

Through ELVS, participating auto recyclers collect mercury-containing switches from scrap automobiles and send them to a specialized waste handler, which dismantles the switches and recovers the mercury and other materials for recycling.

As of May 2007, more than 470,000 mercury switches have been received from program participants. The mercury from these switches is estimated to weigh more than 1,000 pounds. This is a very encouraging start to the program, considering that the majority of participating states joined the program in the fourth quarter of 2006.

### RELATED LINKS

- In This Report
- Eliminating Undesirable Materials

#### **External Web Sites**

The End of Life Vehicle Solutions
Corporation

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### ENVIRONMENT

- · Progress
- . Context
- Management
- Performance
- · Data
- · Case Studies
- Lima's Cool Solution
- Cradle-to-Cradle Solution for **Shipping Parts**
- Ford of Europe Rates Sustainability of Vehicles
- Ford Takes Action to Protect Unique Coastal Ecosystems
- Clean Diesel Factory Runs on Wind
- Sitting Pretty on Recycled
- Removing Mercury from Automobile Wastes
- Ford Turns a Landfill into Gold

Print this report

Download resources

Send feedback

# Ford Turns a Landfill into Gold

A Ford redevelopment project, Fairlane Green Phase I, earned a Gold environmental certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. Fairlane Green, a 405,000-square-foot retail center in Allen Park, Michigan, is the first retail center to receive LEED-Gold certification as a core and shell development in the United States.

The LEED green building rating system is the national standard in the United States for evaluating green buildings. LEED recognizes state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. The core and shell certification program is designed for developers responsible for base building elements, such as the structure and building-level systems like central heating and cooling, but the not the building interior. The Gold designation represents significant achievement.

Ford owns the Allen Park Clay Mine Landfill, a 243-acre industrial waste site that underlies Fairlane Green. The largest planned retail development on a landfill, Fairlane Green will expand to be a onemillion-square-foot retail center. Ford Land is also developing Phase II, which will add another 450,000 square feet. They will seek LEED certification for Phase II as well.

The site is a prime example of responsible land use. Ford's productive reuse of the landfill provides amenities, jobs and taxes on a site that would otherwise have remained dormant in a high-density urban

Ford Land ensured that the development fit within the community by preserving wide tracts of open green spaces, reserving 43 acres for a park and installing several miles of trails. Only one-third of the 243-acre site will be developed, making it 60 percent less dense than typical retail centers, according to statistics from the International Council of Shopping Centers.

Highly visible green landscape features remind visitors of the site's environmental mission. Large landscaped parking islands and hedgerows divide parking areas, green screens enable vegetation to grow up the sides of the buildings, and large planter boxes and rock gardens surround store entrances and ponds support wildlife.

Borrowing from lessons learned at other Ford sites, Fairlane Green uses landscaped swales, rock purification beds and ponds to cleanse and slow the flow of rainwater. The site even includes two green parking areas built with concrete pavers that allow grass to grow through them.

Fairlane Green Phase I is energy efficient and will employ high-efficiency heating and cooling systems, added insulation and weather sealing, and efficient windows and doors. The use of white roofing materials will reduce heat generated from the sun's exposure.

The development is equally efficient in its use of water. Water-efficient fixtures will reduce water use, and no city water will be used for landscape irrigation. Instead, all irrigation will be provided from captured rainwater in ponds. Fairlane Green is landscaped with native plants and grasses that require less maintenance to survive.

To preserve indoor air quality, the stores were built using paints, adhesives and sealants that emit low levels of fumes, and the ventilation system was protected from dust during construction.

Recycling was a key construction consideration. Recycled-content materials comprise nearly a guarter of all building materials used, and two-thirds of the construction waste was recycled.

### RELATED LINKS

- In This Report
- Green Buildings

Program

- **External Web Sites**
- U.S. Green Building Council LEED

OVERVIEW >

OUR IMPACTS >

VOICES :

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . COMMUNITY

### **R** Progress

- . Context
- · Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback



# Community

### **About This Principle**

We will respect and contribute to the communities around the world in which we work.

We will achieve this by:

- Respecting and supporting, in line with the legitimate role of business, the basic human rights of all
  people within our businesses and throughout our entire value chain
- $\bullet\,$  Being sensitive to and engaging in the cultures of the communities in which we participate
- . Making responsible and mutually beneficial investment in the communities we serve

### **Progress Since Our Last Report**

We at Ford Motor Company have continued our major effort to implement and assess compliance with our Code of Basic Working Conditions, which articulates our commitments on key human and labor rights issues. In 2006, we revised the Code to reflect our greater understanding of the scope of issues that fall under the umbrella of human rights and, in particular, the ways in which community and human rights issues are linked. In 2007, the updated Code was approved and designated as a formal Policy Letter.

During the past year we conducted assessments in our own facilities and those of hundreds of our suppliers; we have also tailored training sessions for suppliers on human rights issues. As of the end of 2006, more than 750 managers representing more than 500 supplier companies had attended the sessions. In addition, we launched a new effort to engage with our Global Strategic Suppliers on this issue. Finally, we helped launch an industry-wide effort to address working conditions across the global supply chain.

Ford also continued its longstanding tradition of investing in local communities, although challenging business conditions affected the amount of money Ford Motor Company Fund was able to provide in grants in 2006. During the year, the Fund and other corporate giving programs supported hundreds of organizations with charitable grants totaling \$87 million. We continued programs and initiatives focusing on education, American heritage and auto-related safety.

Also in 2006, Ford's Employee Volunteer Corps entered its second year, and nearly 30,000 Ford employees donated 80,000 volunteer hours to help build stronger communities around the world. Ford also held its first Global Week of Caring – a week of organized employee and retiree volunteer efforts around the globe. During this inaugural week, 2,900 people volunteered 17,600 hours of time, doing such things as building homes, cleaning up parks, hosting food drives and raising money. Nearly \$600,000 was raised for various causes.

#### **FAST FACTS**

Nearly 30,000 Ford employees donated 80,000 volunteer hours to help build stronger communities around the world.

### **VOICES**

#### lan Olson

Ford Motor Company



### KEY TOPICS

Key material issues covered in this section:

• Human Rights

### RELATED LINKS

. In This Report

Code of Basic Working Conditions

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

Progress

### № Context

- Global Business PressuresImpact Local Communities
- Respecting and Meeting the Needs of Communities in Emerging Markets
- Assessing Materiality
- Management
- Performance
- · Data
- · Case Studies



Download resources

Send feedback

# Context

Our Company impacts the communities in which we operate in numerous ways, from the employment we provide and taxes we pay, to the environmental and safety performance of our operations, to the ways in which we support and participate in civic life. Responsibly managing these impacts is not just about being a good neighbor, it is fundamental to the success of our business.

The communities in which we operate are composed of a diverse range of stakeholders. They include our customers, our employees, our business partners and their employees, government regulators, members of civil society and community organizations, and those individuals who live and work around our facilities, among others. Developing and maintaining positive relationships with these stakeholders contributes to Ford's license to operate, reputation and operational efficiency. It also helps us attract and retain employees and access markets for our products.

- . In This Report
- Corporate Profile
- Who Are Our Stakeholders?

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- Context
- Mobal Business Pressures
   Impact Local Communities
- Respecting and Meeting the Needs of Communities in Emerging Markets
- Assessing Materiality
- Management
- · Performance
- · Data
- · Case Studies



Download resources

Send feedback

# Global Business Pressures Impact Local Communities

Fundamental changes are underway within our industry and our Company, including increased competition globally and changing markets for our products, with the bulk of future sales growth expected to occur in emerging markets. At the same time, companies are expanding their sourcing in these lowercost emerging markets, as a way to serve both local markets and the global supply chain. These changes are affecting not only how we manage our operations, but also how we engage with and affect the communities in which we operate.

In North America, we are taking some significant and difficult actions as part of our effort to restore these operations to profitability. These actions include idling facilities, reducing employment and reducing the amount we spend on charitable contributions. We recognize and regret that these actions will have negative consequences in the affected communities, and we are working closely with our stakeholders to manage them responsibly. See <a href="Financial Health">Financial Health</a> for more information.

- In This Report
- Developing Sustainable MobilityStrategies for Emerging Markets
- Financial Health

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Global Business Pressures
   Impact Local Communities
- Respecting and Meeting the Needs of Communities in Emerging Markets
- Assessing Materiality
- Management
- · Performance
- · Data
- · Case Studies



Download resources

Send feedback

# Respecting and Meeting the Needs of Communities in Emerging Markets

In addition to the changes underway in our North American operations, sourcing and sales trends mean Ford is operating in a greater number of emerging economies. Whether doing business in Michigan or Malaysia, we seek to respect and make a positive contribution to our host communities. Operating in emerging economies, however, does bring with it some new community issues for us to understand and manage.

One of these issues is human rights. Specifically, we must ensure that our products, no matter where they are made, are manufactured under conditions that demonstrate respect for the people who make them. We also must respect the rights of people living in the communities around our facilities, as well as our suppliers' facilities, who may be affected by those operations.

Human rights is a universal concept – not unique to emerging markets – and Ford is committed to respecting and supporting human rights everywhere we operate. The legal structures governing working conditions and levels of enforcement vary across the countries in which we operate, however. In some locations, therefore, we must dedicate additional resources to ensuring we are meeting our commitments in this area. We view respect for human rights as not only a core operational issue, but also as a key to maintaining the trust and respect of local communities. That trust is critical if we want to continue to operate and, increasingly, sell our products in those locations. See <a href="Human Rights">Human Rights</a> for more information.

The anticipated changes in the market for our products also have implications for how we engage with local communities. The mobility needs of potential customers in emerging markets differ in some fundamental ways from those in the developed markets the auto industry has primarily served to date. Local community engagement is a key strategy Ford is using to learn about and understand how best we can meet the needs of these critical and fast-growing markets. See Mobility for more information.

- In This Report
- Key topic: Human Rights
- Key topic: Mobility

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Global Business Pressures
   Impact Local Communities
- Respecting and Meeting the Needs of Communities in Emerging Markets
- Assessing Materiality
- Management
- · Performance
- Data
- · Case Studies

Print this report

Download resources

Send feedback

# **Assessing Materiality**

In our <u>materiality analysis</u>, community impacts and human rights were identified as issues of importance to Ford and our stakeholders.

We judged community-related issues to be of high concern to stakeholders – particularly, of course, to members of the communities most directly impacted by the Company – and of moderate potential impact on Ford. While our relationships with host communities are key to maintaining our license to operate, we are currently facing more acute issues that could have potentially greater impact on the Company in a three- to five-year timeframe.

We judged human rights to be of high concern to stakeholders, and also of high potential impact on the Company. Our understanding of human rights issues and our integration of them into our core business practices is still less mature than some other operational issues we have a longer history of managing. Over time, however, as human rights is further mainstreamed into our business, we expect that it may move from its current position on the materiality matrix to become more of a standard operating issue.

Based on this assessment, we have included substantive discussion of both community and human rights in this full, online version of our Sustainability Report. At the same time, we have included discussion of human rights in the printed version of the report, which is focused on those issues we considered to be the most material for our Company at this time.

### RELATED LINKS

In This Report

Materiality Analysis

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context

### Management

- Taking a More Integrated
   Approach
- Community Impacts and Engagement
- o Investing in Communities
- Human Rights
- Performance
- · Data
- · Case Studies



Download resources

Send feedback

# Management

Ford's Community Business Principle encompasses the traditional areas of philanthropy and volunteerism, as well as the social, environmental and economic impacts of our operations in host communities and the working conditions under which our products are made.

These issues – which are broad and diverse in scope – are inherently linked to many parts of our business, and Ford uses a variety of policies, programs and processes to manage them. Central to our approach is the belief that effective and sustainable management of community issues means embedding them in our core business practices and seeking to manage them with the same rigor we do other aspects of our business.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Faking a More IntegratedApproach
- Community Impacts and Engagement
- o Investing in Communities
- Human Rights
- · Performance
- · Data
- · Case Studies



Download resources

Send feedback

# Taking a More Integrated Approach

In recent years, we have taken steps to develop a more integrated approach to managing the different dimensions of our community involvement. Our goal is to more closely connect our traditional community relations programs, community impact assessment processes and human rights efforts. Over time, we also want to link all of these efforts with the work we have underway to develop new products and services to meet the unique mobility needs of communities in emerging markets. In our view, this approach will not only increase efficiencies, but also maximize our impact and effectiveness.

One of the key steps we took in this direction in 2006 is the revision of our Code of Basic Working Conditions to include issues that extend beyond our own facilities into the communities in which we operate. Specifically, we added new commitments on "community engagement and indigenous populations," "environment and sustainability" and "bribery and corruption." These new commitments reflect our increased understanding of the broad set of issues that fall under the umbrella of human rights and, in particular, the ways in which human rights and community issues are linked. The revised Code was approved and rolled out to employees and suppliers as a formal Policy Letter in 2007.

- In This Report
- Key topic: Human Rights
- Plans for the Future

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Taking a More Integrated
   Approach
- Community Impacts and Engagement
- o Investing in Communities
- Human Rights
- Performance
- Data
- · Case Studies



Download resources

Send feedback

# Community Impacts and Engagement

Our new focus on integrated management is also reflected in the evolution of our Community Impact and Assessment Model. Based on our experience developing the model and conducting pilot assessments (see Community Investment Model from our 2005/6 Sustainability Report for description), we now believe it will be more effective to integrate – or expand existing – community components in some of our other core processes, rather than conducting a stand-alone Community Impact and Assessment process.

For example, the revised Code now addresses several key community issues, and we will assess our performance against those new elements as part of the broader Code compliance assessment process. To do so, we are planning to expand the Code assessment process to include more engagement with members of the local community to find out how well they feel Ford is meeting its commitments in these areas

Community engagement is also being integrated as a fundamental part of our sustainable mobility strategy. In our view, developing a deep understanding of the unique mobility needs of emerging markets is a pre-condition of being able to do business in those places. To help us develop that understanding, we intend to conduct engagement sessions in several communities.

- In This Report
- Taking a New Approach to Personal

  Mobility in Developing Countries
- Code of Basic Working Conditions
- Key topic: Mobility

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Taking a More IntegratedApproach
- Community Impacts and Engagement

### b Investing in Communities

- Human Rights
- Performance
- · Data
- · Case Studies



Download resources

Send feedback

# **Investing in Communities**

Ford has a long history of investing in the communities in which we operate through charitable contributions and employee volunteerism. Even in difficult times, we believe it is important to continue these programs.

Ford makes direct corporate contributions, and also contributes funds through Ford Motor Company Fund, a not-for-profit corporation established in 1949. Made possible by Ford Motor Company profits, Ford Motor Company Fund makes contributions to qualified U.S. not-for-profit organizations that enhance and improve opportunities for those who live in the communities in which Ford operates. The Fund supports organizations in three strategic areas: education, auto-related safety and American heritage and legacy.

Community Relations Committees (CRCs), managed by Ford employees who live and work in our host communities, are a principal way we link to those communities. CRCs not only provide insight into the particular needs of each community, thus helping Ford to select grant recipients, but their members also often pitch in their own volunteer time to support those causes. The Company currently has 38 formal CRCs in the United States.

Corporate contributions are managed across the Company. Ford Motor Company Fund and Community Services oversees philanthropy, community relations committees and volunteerism efforts.

- Ford.com
- Ford Motor Company Fund

OVERVIEW >

OUR IMPACTS >

VOICES ≫

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# COMMUNITY

- Progress
- Context
- Management
- Taking a More Integrated

  Approach
- Community Impacts and Engagement
- o Investing in Communities
- · Performance
- Data
- . Case Studies



Download resources

Send feedback

# **Human Rights**

Implementation of Ford's Code of Basic Working Conditions is managed jointly by Ford's Sustainable Business Strategies and Supply Chain Sustainability functions, in partnership with facility management. For more information on Ford's human rights efforts, see <a href="Key topic: Human Rights">Key topic: Human Rights</a>.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# COMMUNITY

- Progress
- . Context
- Management

### Performance

- o Key topic: Human Rights
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Performance

While some aspects of Ford's sustainability performance lend themselves to corporate-wide, quantitative performance measurement, community and human rights issues are often local and qualitative in nature. While we are continuing to explore ways to better measure and report on our performance in these important areas, we also rely on descriptions of our processes and practices – along with anecdotal information – to enable stakeholders to assess our performance in these areas.

OVERVIEW >

OUR IMPACTS >

VOICES 2

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . COMMUNITY

- Progress
- . Context
- · Management
- Performance
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies

Print this report

Download resources

Send feedback

# Key topic: Human Rights

While Ford has long recognized the business and moral case for treating our employees and suppliers with dignity and respect, in 2000, human rights became a formal focus of our Company's sustainability agenda. At that time, we consulted with stakeholders, looked at the public's changing expectations for companies such as ours, and assessed the evolving landscape and competitive pressures in our industry. What we learned convinced us that developing explicit human rights policies and processes for our Company and suppliers was not only the right thing to do, but also a business imperative.

Human rights refers to basic standards of treatment to which all people are entitled. It is a broad concept, with economic, social, cultural, political and civil dimensions. For Ford, this means ensuring that our products, no matter where they are made, are manufactured under conditions that demonstrate respect for the people who make them. It also means respecting the rights of people living in the communities around our facilities, and those of our suppliers, who may be affected by these operations.

### OICES

David Duesterberg >

Johnson Controls, Inc.



OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- · Performance
- o Key topic: Human Rights
- Industry Trends Bring Human Rights to the Forefront
- Complex and Evolving Challenges
- Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies

Print this report

Download resources

Send feedback

# Industry Trends Bring Human Rights to the Forefront

Several broad trends in our industry have served to bring human rights into clearer focus on our radar screen. For example, we have an increasingly complex and dispersed supply chain. At the same time, we are expanding our presence in emerging markets, where most of the growth in automobile sales is expected to occur. To more effectively serve those markets – and remain competitive – we, like others in our industry, are exploring sourcing alternatives in those locations.

This means we have a greater opportunity to contribute to economic development around the world and help meet the mobility needs of a more diverse customer base. It also means we face a range of new human rights challenges. For example, the legal structures governing working conditions, and the level of enforcement, vary widely across the countries in which we operate. Our human rights efforts are designed to help us address challenges such as this. (For more background on the development of our human rights program, see <a href="Why Human Rights?">Why Human Rights?</a> Why Ford? from our 2005/06 Sustainability Report.)

## RELATED LINKS

- In This Report
- Supply Chain Profile
- Developing Sustainable Mobility
  Strategies for Emerging Markets

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- o Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving
   Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Complex and Evolving Challenges

Over the past year, several events reaffirmed the importance of human rights for our industry and our Company – and also reminded us that it is an extremely complex issue, and one that is constantly evolving. For example, the high incidence of violence against women in Cuidad Juarez, Mexico – where Ford has operations – caused us to consider what responsibility we have to help address public safety concerns, even when the human rights issue is not attributed to Ford or its suppliers. In Brazil, the use of one of our vehicles by a group accused of conducting discriminatory policing and using excessive force caused us to evaluate our responsibility in helping to ensure that our products are not used in ways for which they were not designed.

Finally, 2006 saw the discovery of the use of slave labor in Brazil to produce pig iron, one of the commodities used to make automobiles. When we learned of the situation, Ford immediately stopped sourcing from the site that was identified in the investigation and, subsequently, found a site in the United States for ongoing supply. We then identified all potential points of entry for pig iron in the Ford value chain. Finally, we sought to engage all suppliers identified as purchasing pig iron and asked for assurances from them that forced labor is not employed anywhere in their value chain. We also requested detail regarding their systems for safeguarding human rights throughout their operations. In addition, all Ford suppliers in Brazil are required to take training on working conditions in 2007. We will continue dialogue with supplier management globally to ensure that local labor laws are observed within supplier facilities and addressed in sub-tier supplier contracts.

These examples illustrate the complexities that arise when business and human rights issues intersect – when boundaries of responsibility are tested and spheres of influence for companies such as Ford must be explored. The examples also emphasize that while Ford's Code of Basic Working Conditions is a critical part of our efforts in this area, human rights nonetheless extends beyond the specific elements articulated in the Code. That is why we view our human rights efforts as an ongoing learning process, rather than a static set of policies and procedures.

The examples also underscore both our obligation to be sensitive to the issues of importance in the communities in which we operate and the critical need to engage with stakeholders. In each case, we sought to listen to and understand the concerns of stakeholders and respond in ways that were consistent with our values and our commitments on human rights.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- · Performance
- o Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- + Human Rights at Ford
- → Code of Basic Working Conditions
- → Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- → Supply Chain Profile
- Expanding Our Approach
- 🍶 Taking Action as an Industry

In 2003, following significant internal and external engagement, Ford adopted a Code of Basic Working Conditions, which articulates our commitments on key human and labor rights issues, and provides the foundation for our efforts in this area.

The Code is based on fundamental elements of internationally recognized labor standards, including the Universal Declaration of Human Rights, International Labour Organization Covenants, the Organization for Economic Cooperation and Development's Guidelines for Multinational Enterprises, the United Nations' Global Compact Principles, Global Sullivan Principles, and standards of the Fair Labor Association and International Metalworkers Federation.

Since 2003, we have developed a range of processes to ensure that our own operations and those of our suppliers are adhering to the Code in practice, including integrating the Code and its supporting assessment process into Ford's Global Manufacturing Scorecard, a key tool we use to manage our manufacturing operations. This section provides information on key actions we took in 2006 to continue to integrate human rights into our operations, including:

- · Revising our Code
- · Assessing working conditions in Ford facilities and our supply chain
- Working with our suppliers to build their capacity on human rights
- Helping launch an industry-wide effort to address working conditions across the global supply chain

## RELATED LINKS

- In This Report
- Code of Basic Working Conditions
- **External Web Sites**
- Universal Declaration of Human Rights
- <u>United Nations' Global Compact</u><u>Principles</u>
- Global Sullivan Principles

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- · Progress
- · Context
- Management
- Performance
- o Key topic: Human Rights
- . Industry Trends Bring Human Rights to the Forefront
- . Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- · Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- Human Rights at Ford
- Code of Basic Working Conditions
- Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- Supply Chain Profile
- Expanding Our Approach
- Taking Action as an Industry

# Code of Basic Working Conditions

This Code of Basic Working Conditions represents the commitment of Ford and its worldwide subsidiaries. The diverse group of men and women who work for Ford are our most important resource. In recognition of their contributions, we have developed policies and programs designed to ensure that our employees enjoy the protection afforded by the principles articulated today in this Code. While these principles are not new to Ford, they are vitally important to what we stand for as a company. Consequently, we have chosen to summarize them here in an expression of our global commitment.

While this Code of Conduct serves to detail, specifically, our standards for labor and environmental standards throughout our global operations, it also stands as a general endorsement of the following human rights frameworks and charters:

- The UN Universal Declaration of Human Rights
- The ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy
- · OECD Guidelines for Multinational Enterprises
- . The Global Sullivan Principles of Social Responsibility

The diverse universe in which Ford operates requires that a Code such as this be general in nature. In certain situations, local legal requirements, collective bargaining agreements and agreements freely entered into by employees may supercede portions of this Code. Nevertheless, we believe this Code affirms important, universal values that serve as the cornerstone of our relationship with employees.

## **Child Labor**

We will not use child labor. In no event will we employ any person below the age of 15, unless this is part of a government-authorized job training or apprenticeship program that would be clearly beneficial to the persons participating.

## Compensation

We will promote our employees' material well-being by providing compensation and benefits that are competitive and comply with applicable law.

### **Forced Labor**

We will not use forced labor, regardless of its form. We will not tolerate physically abusive disciplinary practices

## Freedom of Association and Collective Bargaining

We recognize and respect our employees' right to associate freely and bargain collectively. We will work constructively with recognized representatives to promote the interests of our employees. In locations where employees are not represented by unions, we will seek to provide opportunities for employee concerns to be heard

### **Harassment and Discrimination**

We will not tolerate harassment or discrimination on the basis of sex, race, color, creed, religion, age, ethnic or national origin, marital/parental status, pregnancy, disability, sexual orientation, or veteran

## **Health and Safety**

We will provide and maintain for all employees a safe and healthy working environment that meets or exceeds applicable standards for occupational safety and health.

## RELATED LINKS

- In This Report
- Revising Our Code
- **External Web Sites**
- International Labor Organization

### DOWNLOADS



Code of Basic Working Conditions PDF format, 14 Kb

### **Work Hours**

We will comply with applicable law regulating hours of work.

### **Community Engagement & Indigenous Populations**

We shall consider indigenous peoples among our primary stakeholders in all projects we consider undertaking. We will openly and honestly engage all recognized members of our stakeholder community who have an interest in our activities.

## **Bribery and Corruption**

We will under no circumstances tolerate the giving or receiving of undue reward to influence the behavior of another individual, organization, politician, or government body, so as to acquire a commercial advantage; this extends to all of our regional operations, regardless of whether bribery is officially tolerated and condoned.

### **Environment & Sustainability**

We will conduct business in an environmentally-friendly and responsible manner. We will seek to reduce and minimize the environmental impact of all of our operations in the short term, as we seek to become an environmentally restorative and truly sustainable company in the long term.

## Responsibility and Implementation

We will communicate this Code of Basic Working Conditions to all employees. As appropriate under local practice, we will seek the support and assistance of unions and employee representatives in this effort. We will encourage our business partners throughout our value chain to adopt and enforce similar policies. We will seek to identify and utilize business partners who aspire in the conduct of their business to standards that are consistent with this Code.

Employees with a good-faith belief that there may have been a violation of this Code should report it through established channels, if known, or to the Office of the General Counsel at fordlaw@ford.com. No retaliatory actions will be taken against any employee who makes such a report or cooperates in an investigation of such a violation reported by someone else.

### Verification

We will, as appropriate, seek the assistance of independent third parties to verify our compliance with this Code.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- · Management
- Performance
- o Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- → Human Rights at Ford
- → Code of Basic Working Conditions
- → Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- Supply Chain Profile
- → Expanding Our Approach
- Taking Action as an Industry

# Revising Our Code

In 2006, we revised our Code to include additional provisions that we felt were important to strengthen our efforts in this area, based on our experience implementing and assessing compliance with the Code. Specifically, we added commitments on "community engagement and indigenous populations," "bribery and corruption" and "environment and sustainability." We also added explicit reference to – and our general endorsement of – several human rights frameworks and charters.

The revised Code reflects our increased understanding of the broad set of issues that fall under the umbrella of human rights. In particular, it seeks to articulate our commitments on several key issues that extend beyond the fenceline of our facilities and those of our suppliers – where we have focused the majority of our initial efforts on human rights – to include our impacts on the broader communities in which we operate. It is one of the key steps we have taken in our effort to take a more integrated approach to managing human rights and community issues.

The revised Code was approved and was rolled out to employees and suppliers as a formal Policy Letter in 2007.

## RELATED LINKS

- In This Report
- Code of Basic Working Conditions
- Setting and Communicating Standards for Employees

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- · Progress
- · Context
- Management
- Performance
- o Key topic: Human Rights
- . Industry Trends Bring Human Rights to the Forefront
- . Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- · Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- Human Rights at Ford
- Code of Basic Working Conditions
- Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- Supply Chain Profile
- Expanding Our Approach
- Taking Action as an Industry

# Working Conditions in Ford Plants

Following the adoption of our Code, our first step was to develop and implement a process for assessing our owned-and-operated facilities' compliance with the Code. Our next step was to expand that process to include majority- and minority-owned joint venture operations.

### **Ford Facility Assessment Process**

We have continued to refine the process for assessing Ford facilities' compliance with our Code since we conducted our first pilot assessment in late 2004. (See <u>last year's report</u> for more information.)

Today, the process includes a questionnaire to be completed by facility management and a detailed review of documents related to the full range of working conditions issues (e.g., collective bargaining agreements, grievance procedure logs, employee hotline records and health and safety audit reports). The findings of both of these serve as the basis for interviews with facility management.

Where procedures and/or documentation are lacking, or where we feel it would otherwise be valuable, the assessments also include facility visits. The findings of the assessments are initially shared with human rights organizations with which Ford works and then published on our Web site. We have sought the opinions of neutral third parties who have visited plants and/or reviewed the assessment process, and they have agreed that the process is robust and has integrity.

Since 2004, we have conducted a total of eight formal assessments of Ford facilities, three of which were in joint venture facilities. During 2006, we conducted assessments at our owned facility in Tamil Nadu, India, and at joint venture facilities in Changan, China, and Otosan Kocaeli, Turkey, in which Ford owns a 35% and 41% stake, respectively. The findings were generally consistent with those from previous assessments and confirmed that Ford's wholly and majority-owned facilities are operating in compliance with our Code. The full reports are available on our Web site.

We have received considerable and consistent positive feedback from external stakeholders about the policies and systems in place at Ford facilities. While both our and our stakeholders' confidence in our systems is high, we nonetheless believe it is important to continue conducting the assessments given that conditions can change and new issues emerge.

# **Next Steps**

In 2007, we plan to conduct assessments in select Ford facilities in South Africa, Brazil and Russia. In addition to providing the usual insight into working conditions in these facilities, these assessments will give us our first opportunities to evaluate compliance with the new elements of our Code. For example, to better understand performance related to the added "community engagement and indigenous populations" element, we intend to engage with members of the local communities as part of planned site

We are also taking steps to align the community engagement efforts related to our Code with our exploration of new approaches to personal mobility in developing countries. Specifically, we plan to conduct extensive stakeholder engagement with new and existing partners, community members and others to help us understand the mobility needs, opportunities and challenges in those locations.

## RELATED LINKS

In This Report

New Approaches to Developing Markets

### DOWNLOADS



Hermosillo Human Rights Assessment

PDF format, 105 Kb



PDF format, 105 Kb



Broad Meadows Human Rights Assessment

PDF format, 132 Kb



Lio Ho Human Rights Assessment

PDF format, 102 Kb





PDF format, 56 Kb



India Human Rights Assessment PDF format, 41 Kb



OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . COMMUNITY

- Progress
- . Context
- Management
- Performance
- o Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- → Human Rights at Ford
- → Code of Basic Working Conditions
- → Revising Our Code
- Working Conditions in Ford Plants

# → Working Conditions in Our Supply Chain

- → Supply Chain Profile
- Expanding Our Approach
- Taking Action as an Industry

# Working Conditions in Our Supply Chain

Understanding and, where necessary, working with our suppliers to help improve working conditions in their facilities is another key focus of our human rights efforts. This is a major undertaking, as Ford has tens of thousands of supplier facilities globally. It is also a critical undertaking, as we have less control in suppliers' facilities than in our own, and sourcing is increasingly expanding to emerging economies.

The discovery in 2006 that pig iron made from slave labor in Brazil had found its way into our supply chain emphasized for us the complexity of this challenge. (Pig iron is used to make steel, one of the principal materials in automobiles.) When we learned of the situation, Ford immediately stopped sourcing from the site that was identified in the investigation and, subsequently, found a site in the United States for ongoing supply. We then identified all potential points of entry for pig iron in the Ford value chain and engaged with all relevant suppliers, seeking assurances from them that forced labor is not employed anywhere in their value chain. We also requested detail regarding their systems for safeguarding human rights throughout their operations. This situation underscored the importance of the major effort we have underway to assess, train and engage our suppliers on our Code and assist them in integrating the Code into their own policies and systems.



AutoAlliance Plant in Rayong, Thailand

For more information, click on the jump links below:

- Supply Chain Overview
- ▼ Setting Expectations for Our Suppliers
- Supplier Assessment and Training Program
- → Building Supplier Capacity
- Expanding the Program with our Global Strategic Suppliers
- Next Steps

## FAST FACTS

400

assessments of existing and prospective suppliers in nine countries since 2003

### RELATED LINKS

- In This Report
- Complex and Evolving Challenges
- Supply Chain Profile

## **Supply Chain Overview**

Since 2005, we have made some significant changes in how we manage relationships with our suppliers and in the profile of the supply chain itself. While Ford's supply chain remains one of the largest and most complex in the world, we are taking steps to rationalize and streamline our supply base. Over time, we plan to reduce by approximately 50 percent the number of suppliers for key high-impact parts and components.

This strategic supplier strategy, which we call the Aligned Business Framework, is designed to create a sustainable business model to increase mutual profitability, improve quality and drive innovation. What it means in practice is that we are working more closely and collaboratively with a smaller number of Global Strategic Suppliers.

Ford's Code of Basic Working Conditions is an integral part of the new Aligned Business Framework, on par with other fundamental production requirements such as managing financial data and product quality. As previously, Ford's Global Strategic Suppliers are required to adhere to our Global Terms and Conditions. They must now also take further steps to ensure proper working conditions in their facilities and those of their sub-tier suppliers. Ford is providing additional support and resources to assist them in doing so.

The changes we are making in our supply chain are taking place in the context of broader sourcing shifts underway in our industry. In particular, Ford is expanding its market presence in emerging markets, where the bulk of future sales growth is expected to occur. At the same time, in order to remain competitive, the Company is increasing its sourcing in these lower-cost, emerging markets, as a way to serve both local markets and the global supply chain. Legal structures governing working conditions may not be as well established or consistently enforced in these locations, which has been one of the key drivers of our human rights efforts.

To reinforce our commitment to our Code, Ford's Global Terms and Conditions – our core contract covering all suppliers – reflect our specific working conditions requirements on the prohibition of the use of forced labor, child labor and physical disciplinary abuse. These requirements were added in January 2004 for production suppliers and in September 2005 for all others. We have provided a standard for these areas – the same as we use in our own facilities – that supersedes local law if our standard is more stringent. The Global Terms and Conditions also prohibit any practice in violation of local laws.

In addition, the Global Terms and Conditions serve to:

- Set the expectation that suppliers will work toward alignment with our Code in their own operations and their respective supply chains in the
  areas of harassment and discrimination, health and safety, wages and benefits, freedom of association and working hours
- Make clear Ford's right to perform third-party site assessments to evaluate supplier performance
- · Communicate that Ford can terminate the relationship for noncompliance or for failure to address the noncompliance in a timely manner
- Alert suppliers that repeated failures to comply may be subject to debits of the suppliers' payables

top

### **Supplier Assessment and Training Program**

Over the past several years, we have developed and continued to refine a supplier assessment and training program. (See <u>last year's report</u> for more information.) Assessments consist of a detailed questionnaire, document review, factory visits, and management and employee interviews, and are conducted with the assistance of external auditors. Since 2003, we have conducted nearly 400 assessments of existing and prospective suppliers in nine countries.

In 2006, we conducted assessments and training sessions in India, Turkey, Russia, Romania and China. We also conducted follow-up assessments in Mexico, where we had held training sessions the previous year. The findings from the assessments in 2006 were generally consistent with those we had previously conducted in China and Mexico. Namely, they identified a wide range of general health and safety issues, several wages and benefits issues and a limited number of other types of noncompliance.

The findings from Ford's 2006 supplier assessments included:

- · No evidence of forced labor or physical disciplinary abuse
- · A wide range of general health and safety issues, including inadequate emergency systems
- In some cases, a lack of appropriate timekeeping systems, and thus a failure to pay correct overtime wages
- . In some cases, a failure to pay the correct local minimum wage or overtime or to provide the correct social insurance
- · A general need to clearly define policy on harassment and discrimination
- . One case of underage workers and a few cases of young workers doing hazardous work

In addition, freedom of association has been difficult to verify. While all suppliers have either union representatives or a grievance process, we believe there may be issues we have not been able to identify with our assessment process.

We continue to focus on the 17 countries we had previously identified as having higher risks of substandard working conditions, see <a href="Expanding Our Approach">Expanding Our Approach</a>. Among those countries, locations are prioritized based on production and sourcing trends; sales trends; and relative perceived risk based on the input of human rights groups, other companies' experience and other geopolitical analysis.

While we initially focused the bulk of our efforts on the assessment component, our experience has convinced us that while assessments are a useful tool as part of a larger program, they should not be our main emphasis. Rather, we have learned that we can better understand the conditions of each facility – and help improve conditions where needed – when we engage with suppliers in a more interactive, collaborative way.

This process – focused on training and education – may mean that in some cases suppliers will be in noncompliance while they work to meet our standards. However, we continue to engage with cooperative suppliers to develop and implement appropriate corrective action plans. In this manner, we also have an opportunity to encourage change throughout the tiers of suppliers and affect positive change more broadly.

top

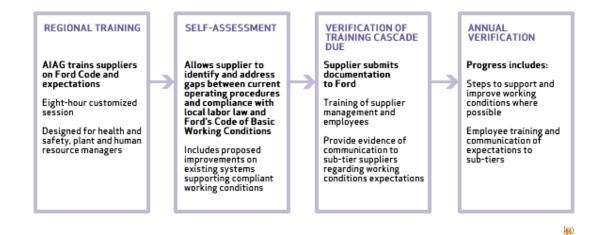
## **Building Supplier Capacity**

Our primary focus now is building capacity among suppliers by developing and conducting tailored training programs. The locally customized workshops emphasize interpretation and application of legal standards and international best practice rather than a simple review of labor law and expectations. The interaction with managers from the Human Resources, Health and Safety, Labor Affairs and Legal departments of participating companies allows for a two-way learning experience touching on the areas of interest for each company. Material for the training workshops is developed by Ford and typically delivered by the Automotive Industry Action Group, a member-based, nonprofit industry group that will be offering industry-wide working conditions training in select markets in 2007.

While Ford's supplier training sessions are customized to align with the unique laws, customs, cultures and needs of each location, in general they consist of:

- A daylong interactive workshop with specialized Ford trainers and other automotive suppliers to develop and confirm an understanding of Ford
  expectations, local labor law, best practices and management systems, and
- A confirmed communication cascade including information obtained during the classroom training, to all supplier personnel and direct sub-tier suppliers

As of the end of 2006, 755 managers from 534 different supplier companies in nine countries had completed a full day of training. These suppliers have now moved on to the process of self-assessing their facilities for compliance with local law and Ford expectations, and completion of the final stage of the program, which is communication to both personnel and suppliers on the topic of working conditions expectations.



## **Expanding the Program with our Global Strategic Suppliers**

Over the last year, one of our central areas of focus has been to embed our supplier working conditions expectations into our new strategic supplier strategy – called the Aligned Business Framework – and to communicate these expectations to our suppliers. The Aligned Business Framework emphasizes longer-term, more collaborative relationships with a set of Global Strategic Suppliers. Through this approach, we also saw an opportunity to strengthen and expand the ways in which we engage with our suppliers on human rights.

As part of the Aligned Business Framework, Ford's Global Strategic Suppliers explicitly commit to manage and assure proper working conditions in their facilities and in their sub-tier suppliers' facilities. In addition to complying with Ford's Global Terms and Conditions, this means we expect suppliers to develop:

- . Their own working conditions code (if they do not have one already), aligned with Ford's Code of Basic Working Conditions,
- · Internal training and compliance processes, and
- Training and compliance processes for their sub-tier suppliers

As a first step in rolling out this new program, we have distributed a questionnaire to Global Strategic Suppliers to help us understand how their policies, processes and programs align with Ford's Code. Initial findings suggest that few respondents already have consolidated processes driven by stand-alone codes. However, the majority have policies or programs in place to manage some or all elements of Ford's Code – and, indeed, some do have consolidated processes, including those that extend beyond their own operations into those of their supply chain.

Ford has committed to providing suppliers with a range of support and assistance based on our experience in this area. We have developed an indepth resource guide to give suppliers information and background on human rights, generally, and on the development of their own codes, specifically. We have also offered to share the training materials we have developed, as well as information on our compliance and training processes. Finally, we have committed to working with suppliers to help resolve issues or concerns, rather than issue automatic exclusions.

We are particularly excited about this new phase, which represents a further shift from a top-down, compliance-focused approach to managing human rights issues in our supply chain to a more collaborative, in-depth one. In our view, it will help embed ownership for human rights issues throughout our value chain, and lead to the development of more robust, sustainable human rights programs.

The shift towards greater emphasis on tailored training and engagement versus assessments is inherently more qualitative than quantitative. This has meant a reevaluation of our approach to collecting and managing data. We have begun collecting new data on training. Additionally, as our systems mature, we are working to develop new indicators that are more reflective of performance, rather than just process. Finally, we have taken steps to better align the data we provide with that used elsewhere in the Company to ensure it is useful and accessible to people within our business. While we have made progress developing – and remain committed to – a data tracking and reporting system, we are also looking for ways to streamline the data collection process, targeting those indicators that are of highest value to us and our stakeholders. See <a href="Working Conditions">Working Conditions</a>.

Assessment Status for Supply Chain.

## Next Steps

In 2007, we plan to launch supplier assessments and training programs in Brazil, Colombia, Malaysia, Thailand and Venezuela. In addition, as part of the working conditions efforts under the Aligned Business Framework, we plan to work with our Global Strategic Suppliers to assist them in developing their own codes and/or expanding their programs or processes, where needed, to ensure they meet Ford's working conditions expectations.

<u>top</u>

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving
   Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies
- Print this report
- Download resources
- Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- **Human Rights at Ford**
- → Code of Basic Working Conditions
- Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- → Supply Chain Profile
- → Expanding Our Approach
- Taking Action as an Industry

# Supply Chain Profile .

## Production

(Anything that is part of the vehicle)

**60+** Countries in which suppliers are located

30 Emerging markets in which suppliers are located

17 Emerging markets considered to have risks of substandard working conditions

These countries were identified as higher risk based on consultation with NGOs, other companies with human rights experience, local Ford operations and various media and government reports.

107 Ford manufacturing sites1

2,000+ Supplier companies

**7,500+** Supplier manufacturing sites

130,000 Parts currently being manufactured

250+ Production commodities to manage

# Nonproduction

(Anything that is not in the vehicle such as services, marketing, construction, computers, industrial materials, health care, machinery, trains)

**9,000+** Supplier companies

**500+** Nonproduction commodities

**TOTAL GLOBAL BUY** 

\$90+ billion

### RELATED LINKS

In This Report

Suppliers

<sup>1</sup> As of year end 2006

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies

Print this report

Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- **Human Rights at Ford**
- → Code of Basic Working Conditions
- Revising Our Code
- Working Conditions in Ford Plants

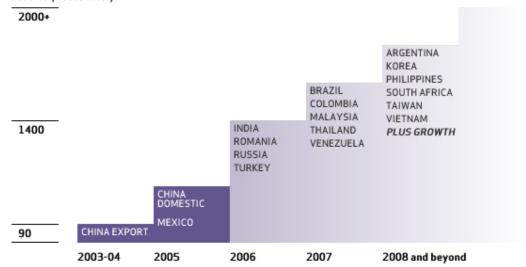
- ₹ Working Conditions in Our Supply Chain
- → Supply Chain Profile
- Expanding Our Approach
- 🍒 Taking Action as an Industry

# **Expanding Our Approach**

Laws, culture and customs vary in the different countries in which our suppliers are located. To ensure compliance with our Code of Basic Working Conditions in each of these countries, our practice is to:

- Build an understanding of the market by consulting with sourcing experts, our internal network and a network of NGOs with expertise in human rights
- Analyze local laws and compare them to our Code, using internal and NGO legal experts
- If local laws are absent or lacking, analyze international best practices to select a recommended approach
- · Develop training materials tailored to the market
- · Adapt our assessment approach for the market
- Conduct pilot assessments
- Evaluate assessment results to identify where issues are arising and get feedback on the assessment process
- . Use the feedback to revise the assessment and training process

## Estimated number of sites covered (Not to scale)



OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- · Progress
- . Context
- Management
- Performance
- o Key topic: Human Rights
- Industry Trends Bring Human
   Rights to the Forefront
- Complex and Evolving Challenges
- . Human Rights at Ford
- A Tradition of Giving
- Volunteer Corps
- Data
- · Case Studies



Download resources

Send feedback

# Human Rights at Ford

## IN THIS SECTION:

- → Human Rights at Ford
- → Code of Basic Working Conditions
- Revising Our Code
- Working Conditions in Ford Plants

- → Working Conditions in Our Supply Chain
- → Supply Chain Profile
- Expanding Our Approach
- 🗸 Taking Action as an Industry

# Taking Action as an Industry

Despite the progress Ford has made implementing systems to ensure proper working conditions in our and our suppliers' facilities, we recognize that there are limitations to what Ford alone can do. The long-term sustainability of these efforts depends on the active participation of all parties in the value chain – from the original equipment manufacturers (OEMs) such as Ford, to the suppliers themselves, to the government agencies that set and enforce the regulations governing operations. Such collective action will not only minimize costs and increase efficiency for OEMs and suppliers alike, but also lead to further-reaching impact than individual companies taking steps in isolation.

## **Automotive Industry Action Group Initiative**

In 2006, Ford was pleased to be among a group of major automakers and suppliers to announce the launch of a collaborative, industry-wide project focused on advancing a shared vision and promoting decent working conditions throughout our supply chains. The effort is coordinated by the Automotive Industry Action Group (AIAG) in partnership with Business for Social Responsibility (BSR), a nonprofit group that works with companies to advance responsible business practices. BSR received a \$185,000 grant from the U.S. State Department to help support the project. Ford has contributed an "executive on loan" – the global manager of our supply chain sustainability group – to AIAG to support the project and facilitate sharing what we have learned based on our experience working on these issues within our own operations.

## **Progress and Plans**

Project participants have established a set of guiding statements to create a shared industry voice on key working conditions issues. The statements cover the core elements of individual companies' codes and policies, joint codes created by other industries and key international standards. These elements include child labor, forced labor, freedom of association, harassment and discrimination, health and safety, wages and benefits, and working hours.

Another key objective of the project is to develop country-specific training sessions that can be delivered by AIAG. The sessions will be particularly targeted toward suppliers that are shared by multiple automakers. The initial areas of focus will be China and Mexico, with plans to conduct the first sessions in those regions by mid-2007.

Going forward, project participants plan to explore other areas of cooperation, including developing trainings tailored to other regions. Additionally, they intend to engage with others in the industry to continue to expand membership in the effort.

In 2006 the AIAG, the organization coordinating the industry effort, gave Ford Chairman Bill Ford its Executive of the Year award. In profiling Ford, the AIAG highlighted the Company's work on sustainability issues, including industry working conditions, as one of the reasons for the honor.

### RELATED LINKS

- External Web Sites
- Automotive Industry Action Group
- Business for Social Responsibility

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . COMMUNITY

- Progress
- . Context
- Management
- Performance
- 。 Key topic: Human Rights

### 

- Volunteer Corps
- Data
- Case Studies

Print this report

Download resources

Send feedback

# A Tradition of Giving

Ford has a long history of investing in the communities in which we operate by making charitable contributions to nonprofit organizations. In 2006, Ford contributed a total of \$87 million, of which \$58 million was grants awarded by Ford Motor Company Fund and the remainder corporate was giving. This amount is a reduction compared to previous years, which reflects challenging business conditions that affected the amount of money Ford was able to donate. Despite these challenges, Ford's commitment to supporting our local communities remains unchanged. Indeed, even in difficult times, we believe it is important to continue these programs.

# Ford Motor Company Fund

Ford Motor Company Fund supports organizations in three strategic areas: education, auto-related safety and American heritage and legacy. The following are examples of some of our most significant or new programs:

- Ford Partnership for Advanced Studies (Ford PAS) is our flagship education program. Its objective
  is to provide high school students with academically rigorous 21st-century learning experiences. By
  combining the resources of high schools, community-based organizations, higher education
  institutions, government entities and businesses, Ford PAS teaches a curriculum based on realworld skills. In 2006, Ford PAS was active in 21 states, reaching more than 10,000 students.
- In 2006, Ford Motor Company Fund launched the Ford Career Academy Innovation Community, the newest component of our innovative education strategy. Career academies are small learning communities that draw on career themes to bring real-world relevance to academic instruction. When they are successfully implemented, career academies improve attendance, grades, graduation rates, transition to post-secondary schools, and financial success after high school and college. They also are thought to reduce the need for remediation at post-secondary institutions, foster more rapid acquisition of proficiency in the English language and improve test scores. In partnership with education policy specialist Social Marketing Services, Ford Motor Company Fund designed a 12-point action plan to serve as a guide to career academies. Academies adhering to the plan have the opportunity to receive start-up grants, as well as implement the Ford PAS curriculum. In 2006, Chattanooga, Tennessee, and the Coachella Valley, California, were designated Ford Career Academy Innovation Communities.
- Ford Motor Company Fund supports teen safe driving through implementation of <u>Driving Skills for Life</u>, a safe driving curriculum and training program aimed at teens. Developed in 2003 by Ford, the Governors Highway Safety Association and a panel of safety experts, the free program educates teens with a combination of ride-and-drive events, educational materials and an interactive Web site.
- Ford Motor Company Fund partnered with the National Latino Children's Institute and the National Highway Transportation Safety Administration to support Corazón de Mi Vida, a national bilingual initiative about child passenger safety. See <u>Human Behavior</u>.
- In 2006, Ford continued to support organizations and initiatives that preserve America's heritage, aimed at honoring the country's past and providing a window into the future. For example, Ford sponsored the Ford Orientation Center at George Washington's Mount Vernon Estate & Gardens, which opened its doors in 2006. In addition, Ford is a major contributor to the Martin Luther King Jr. Memorial in Washington, DC, which broke ground in November of 2006.
- Ford employees and Ford Motor Company Fund are major supporters of the United Way in the United States, giving more than \$13 million in 2006 to support numerous community-based social services organizations.

Ford also supports a wide variety of organizations through corporate contributions and sponsorships. Highlights include the following:

- For more than 20 years, Ford has been involved in helping find a cure for juvenile diabetes. In 1998, the grassroots initiative now known as the Ford Global Walk Team began, and, since 2002, Ford has been the top corporate sponsor of the Juvenile Diabetes Research Foundation International (JDRF). Ford volunteers also donate significant time to leverage the Company's financial support of the JDRF. In 2006, an estimated 20,000 Ford employees, retirees, families and friends in 10 countries participated in walkathons and held books sales, silent auctions and raffles to raise money for diabetes research. Together, they raised more than \$3.1 million, bringing the total amount raised by Ford volunteers to more than \$20 million since 1998.
- Ford has also been a long-time supporter in the fight against breast cancer. Since 1995, the
  Company been a National Series Sponsor of the Susan G. Komen Breast Cancer Foundation Race
  for the Cure®. During that time, Ford has donated more than \$87 million to the Foundation in
  donations and in-kind gifts. In 2006, Ford launched a new initiative in its fight against breast cancer
  called Warriors in Pink Powered by Ford. The initiative raises funds for the Komen Breast Cancer

## RELATED LINKS

- Ford.com
- Ford in the Community Ford Motor
   Company Fund 2006 Annual Report

Foundation through the sale of specially designed clothing and accessories on www.fordcares.com. One hundred percent of the net proceeds from Warriors in Pink gear benefits the Komen Foundation. In addition to providing financial support, the Company encourages employees and dealers to get involved. To date, more than 50,000 Ford employees and thousands of dealers have participated in Races across the United States.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- o Key topic: Human Rights
- A Tradition of Giving

### Volunteer Corps

- Data
- · Case Studies

Print this report

Download resources

Send feedback

# Volunteer Corps

In addition to the financial contributions made by Ford and Ford Motor Company Fund to hundreds of organizations globally in 2006, hundreds of thousands of Ford employees and retirees volunteered to help build stronger communities around the world.

Volunteerism and community service have long been a part of Ford's culture. In 1997, Ford instituted its 16-Hour Community Service Program, which allows salaried employees in the United States and several other countries to volunteer two days per year on Company time. More than 30,000 salaried employees donated more than 80,000 volunteer hours last year. In response to the December 2004 Indian Ocean tsunami, Bill Ford created the Ford Volunteer Corps in February 2005. The Corps acts as an umbrella organization that supports and coordinates Company volunteer efforts.

In 2006, Ford launched its first Global Week of Caring, a week-long series of volunteer events around the world, coordinated by the Volunteer Corps. During the week, nearly 3,000 Ford employees in 10 countries donated more than 17,600 hours of their time. They built homes, donated blood, cleaned up parks and beaches, entertained children, and collected food, clothing and other essential items. Collectively, they built 27 homes, donated 44 computer packages, collected more than 45,000 toys and nearly 300 pounds of food. They also raised nearly \$600,000 for nonprofit organizations.

Ford received the 2006 U.S. Chamber of Commerce award for our relief and recovery efforts in the wake of Hurricanes Katrina and Rita. In addition, the State of Michigan recognized the mission and accomplishments of the Ford Volunteer Corps with the Michigan Governor's Service Award for commitment to the community.

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 OVERVIEW > OUR IMPACTS > VOICES > COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL HEALTH VIEWING THIS DATA Data Would you prefer to view the . COMMUNITY data as text tables? · Progress See data tables **Charts on This Page**  Context **Gharitable Contributions Yolunteer Corps** · Management Working Conditions Assessment Status for Supply Chain · Performance 2 Data **Charitable Contributions** · Case Studies \$ million Ford Motor Company Fund 2006 Print this report Corporate 2005 109 Download resources 2004 111 Send feedback 121 2003 2002 131 See notes to the data top **Volunteer Corps** Thousand volunteer hours 2006 80 2005 NA 2004 NA NA 2003 NA 2002 See notes to the data top

С

## Working Conditions Assessment Status for Supply Chain

-			obal Total
4 2	= 4.4		
~ <u>~</u> ,	,544	201	3,529
.8 1	11.9	11.2	12.4
3	214	18	285
2	99	0	131
3	32	32 99	32 99 0

Working Conditions Training (as of 12/31/06)	Americas	Asia	Europe	Global Total
Training sessions completed to date	11	5	5	21
Total number of attending companies	245	146	143	534
Total number of trained managers	399	198	158	755

Americas: Mexico and Central America (Dominican Republic, Honduras, Nicaragua)

Asia: China, India

Europe: Romania, Russia, Turkey

See notes to the data

# NOTES TO THE DATA

#### Chart A

See the  $\underline{\text{Community}}$  section for a description of our charitable contributions.

#### Chart F

The Volunteer Corps was founded in 2005, and 2006 is the first year data are available. However, volunteerism and community service have long been a part of Ford's culture, and these efforts were formalized in 1997 with the creation of the 16-hour Community Service Program.

#### Chart C

While the general findings were consistent with previous years, 2006 saw an increase in the total number of issues identified. We believe that reflects the fact that Ford has become more skilled at identifying potentially at-risk facilities – and thus targeting them for assessments – rather than an actual decline in suppliers' performance.

OVERVIEW >

OUR IMPACTS >

VOICES ≫

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA

See data charts

data as charts?

Would you prefer to view the

## . COMMUNITY

- Progress
- Context
- Management
- Performance

## Data

· Case Studies

Print this report

Download resources

Send feedback

# Data

## **Tables on This Page**

- A Gharitable Contributions
- B <u>Volunteer Corps</u>
- C Working Conditions Assessment Status for Supply Chain

#### Α

## **Charitable Contributions**

					\$ million
	2002	2003	2004	2005	2006
Ford Motor Company Fund	84	78	78	80	58
Corporate	47	43	33	29	29

See notes to the data

top

#### В

## **Volunteer Corps**

Δ002	2003	Z004 NA	Z005 NA	2000
INA	INA	IVA	INA	00

See notes to the data

top

### С

## **Working Conditions Assessment Status for Supply Chain**

## **Working Conditions Assessments**

(as of 12/31/06)	Americas	Asia	Europe	Global Total
Total violations per region	784	2,544	201	3,529
Average violations per assessment	14.8	11.9	11.2	12.4
Assessments completed to date	53	214	18	285
Follow-up Assessments completed to date				
(third party and/or internal)	32	99	0	131

# Working Conditions Training

(as of 12/31/06)	Americas	Asia	Europe	Global Total
Training sessions completed to date	11	5	5	21
Total number of attending companies	245	146	143	534
Total number of trained managers	399	198	158	755

Americas: Mexico and Central America (Dominican Republic, Honduras, Nicaragua)

Asia: China, India

Europe: Romania, Russia, Turkey

See notes to the data

top

## NOTES TO THE DATA

## Table B

The Volunteer Corps was founded in 2005, and 2006 is the first year data are available. However, volunteerism and community service have long been a part of Ford's culture, and these efforts were formalized in 1997 with the creation of the 16-hour Community Service Program.

#### Table C

While the general findings were consistent with previous years, 2006 saw an increase in the total number of issues identified. We believe that reflects the fact that Ford has become more skilled at identifying potentially at-risk facilities – and thus targeting them for assessments – rather than an actual decline in suppliers' performance.

Send feedback

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 VOICES > COMMUNITY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT Case Studies COMMUNITY • Progress Ford Motor China's Corporate Social Responsibility Programs Context Recognized > Management In China, Ford is putting its commitment to sustainability into practice in a variety of ways, from robust environmental management systems to collaborative road safety initiatives to well-established community • Performance programs. • Data Ford of Australia Supports Employment and Education in Local Communities Case Studies  $For d's\ facilities\ have\ a\ long\ history\ of\ community\ involvement\ and\ investment.\ For d\ of\ Australia's$ o Ford Motor China's Corporate Broadmeadows Assembly and Geelong Stamping manufacturing facilities provide one example of how we strive to have a positive impact on the communities in which we operate. Social Responsibility Programs Recognized Ford of Australia Supports Employment and Education in Local Communities Print this report Download resources

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- Data
- · Case Studies
- Ford Motor China's
   Corporate Social
   Responsibility Programs
   Recognized
- Ford of Australia Supports
   Employment and Education in
   Local Communities

Print this report

Download resources

Send feedback

# Ford Motor China's Corporate Social Responsibility Programs Recognized

In China, Ford is putting its commitment to sustainability into practice in a variety of ways, from robust environmental management systems to collaborative road safety initiatives to well-established community programs.

To integrate the Company's corporate-level sustainability vision into its on-the-ground operations, Ford China has developed its own corporate social responsibility (CSR) strategy. The strategy covers the full spectrum of CSR issues, with a particular emphasis on environment, road safety, education and health. Ford China has created a cross-functional, senior-level CSR Committee to oversee implementation. In addition, since 2003, Ford China has published a <a href="CSR report">CSR report</a> every three years detailing its activities across a range of issues.

To support the implementation of Ford's Code of Basic Working Conditions – which applies to all Ford operations and suppliers globally – Ford China conducts trainings for suppliers in China. The trainings help the suppliers understand Ford's expectations and requirements concerning working conditions. Since 2004, more than 100 managers from supplier companies have taken part in the sessions. Ford China also runs tailored general management and technology training courses for suppliers, with the aim of helping suppliers build and develop their businesses while ensuring that Ford maintains a strong and reliable supply base in China.

Ford China also undertakes a variety of efforts to engage with and contribute to the local community. The Company has an active employee volunteer program and makes cash and in-kind donations to a range of organizations. It also runs the annual Ford Motor Company Conservation and Environmental Grants program. Now in its seventh year in China, the grants program aims to encourage environmental protection and education projects by nongovernmental organizations and individuals. The program has become the largest environmental grants program operated independently by a company in China and, to date, has awarded grants to more than 100 organizations and individuals.

Over the past year, Ford China has received several awards recognizing its community involvement and CSR programs. The Shanghai American Chamber of Commerce honored the Company with the first prize of "2006 Corporate Social Responsibility Award." The award was based on the Company's overall CSR performance in 2005, including on-going projects, in China mainland. Also in 2006, Guangming Daily, a prominent Chinese newspaper, selected Ford China as recipient of the Guangming Philanthropy Award, in recognition of the Company's environmental grants program.

This recognition followed Ford China's receipt of the "2005 Corporate Citizenship in Action Award" by the 21st Century Business Herald for its continuous efforts in corporate social responsibility – the second consecutive year that the Company received the award – as well as the "2005 Model Company for Outstanding Corporate Citizen in China" title by the China Charity Federation, the largest charity organization in China.

### RELATED LINKS

- In This Report
- Expanding Our Product Offerings in Developing Countries and Revitalizing Economies

### DOWNLOADS



OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . COMMUNITY

- Progress
- . Context
- Management
- Performance
- Data
- · Case Studies
- Ford Motor China's Corporate
   Social Responsibility Programs
   Recognized
- Ford of Australia Supports
   Employment and Education
   in Local Communities



Download resources

Send feedback

# Ford of Australia Supports Employment and Education in Local Communities

Ford's facilities have a long history of community involvement and investment. Ford of Australia's Broadmeadows Assembly and Geelong Stamping manufacturing facilities provide one example of how we strive to have a positive impact on the communities in which we operate. Managers and other employees of these plants have initiated a wide range of community activities, ranging from employee volunteering to charitable contributions to innovative programs supporting local community employment.

Broadmeadows and Geelong have strong employee volunteer and charitable giving programs. All employees are given 16 hours of paid time off for use in local community volunteer efforts. In addition, employees can have a portion of their paycheck deducted as a charitable contribution to an approved organization, such as the United Way; the Salvation Army; Variety, the Children's Charity; the Society of St. Vincent de Paul; the Smith Family; and Greening Australia. Ford of Australia further bolsters these contributions with annual corporate charitable donations.

Broadmeadows' and Geelong's Community Affairs Committees largely focus their community activities on supporting local education and disadvantaged community members. For example, Broadmeadows has partnered with Hume community schools and Green PC to establish the Connecting Hume PC program. This program awards economically disadvantaged 4th graders from local schools with refurbished computers. In 2006, 24 students received computers. Geelong funds and hosts an annual Ford Kids Day Out, which provides a Christmas Day out at a local Adventure World theme park for 370 local disabled children. Ford employees volunteer as quides and chaperones throughout the day.

Broadmeadows and Geelong also participate in the development of innovative employment and training programs, which are designed to increase economic and personal opportunities for their local communities. Employees in both plants are encouraged to volunteer in mentoring programs, which are focused on building the skills and employability of local youths. For example, Broadmeadows supports the Poll Position program, which trains at-risk youth in basic automotive repair skills, with the aim of helping them to gain employment in the automotive industry. Similarly, Geelong employees support the Hand Brake Turn program, an eight-week training and job search program. Hand Brake Turn is addressing the lack of good social role models and positive life experiences for 15- to 19-year-olds from at-risk backgrounds, including many with a history of car-related crime. These corporate community partnerships provide mutual benefit to all parties. The mentors and mentor trainers gain transferable skills that can be utilized in the workplace or in their personal lives. They also obtain a greater understanding of community issues and the problems that young people face today.

## RELATED LINKS

Ford.com

Ford of Australia

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . SAFETY

## Introduction

- . WORKPLACE SAFETY
- Progress
- · Context
- Management
- · Performance
- Data
- · Case Studies

## . VEHICLE SAFETY

- Progress
- Context
- Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback



# Safety

### **About This Principle**

We will protect the safety and health of those who make, distribute or use our products.

## We will achieve this by:

- Striving to create a safe and healthy workplace
- Striving to continuously reduce the risk of accidents, injuries and fatalities involving our products
- . Striving to protect people and property

## **Progress Since Our Last Report**

Our progress in implementing the Safety Principle is discussed in the following sections that address safety at our facilities and plant communities and the safety of our vehicles.

# Workplace Safety >

Vehicle Safety >

#### AST FACTS

Ford has three of the seven highest-rated vehicles ever tested by EuroNCAP, the European vehicle safety testing authority

## KEY TOPICS

Key material issues covered in this section:

HIV/AIDS Efforts

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- Introduction
- . WORKPLACE SAFETY

## Progress

- Context
- Management
- Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback

# Workplace Safety

### **Progress Since Our Last Report**

In 1999, Ford began a Safety Leadership Initiative aimed at making our workplaces safer. In the eight years since, we have seen dramatic results, with key injury rates dropping to nearly a tenth of their previous levels. The practices established in this initiative are now so fully a part of how we run our business that we've dropped the term "Initiative" and now simply call it "Safety Leadership."

This past year, two major safety indicators – global lost-time case rates and severity rates – continued their trend of steady and marked improvement. In 2006, these two measures dropped 31 and 39 percent over 2005, respectively. Since 2000, these indicators have decreased 78 and 80 percent, respectively.

Our serious injury and fatality rates, however, reached unacceptable levels in 2006. Tragically, we experienced six fatalities, including four direct Ford Motor Company employees, one contractor, and one joint venture employee. We also experienced 64 serious injuries. In most of the cases, the causes were known, existing high-risk focus areas for us, including issues relating to pedestrian safety in plants, energy control and power lockout, and lifting and rigging.

Ford of Europe, which experienced four of the six fatalities, underwent a corporate review in which all of the causes contributing to the fatalities were assessed. In addition, we have increased the frequency of corporate safety reviews in all of the various regions globally. We have also strengthened our governance of workplace safety by reviewing key health and safety indicators more frequently with senior management.

Also in 2006, we have been implementing a strategic approach to managing health and wellness issues. A standard set of global workplace health indicators is expected to be approved in 2007. A new safe driving policy was approved in March 2006.

## RELATED LINKS

In This Report

Health as a Strategic Advantage

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## SAFETY

- Introduction
- . WORKPLACE SAFETY
- Progress

#### Context

- Management
- Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback

# Context

Ford faces workplace safety challenges similar to those of many multinational manufacturing companies, including establishing and reinforcing high, common expectations for the safety of our employees worldwide, as discussed in the <a href="Management">Management</a> section.

Substantially all of the hourly employees in our Automotive operations in the United States are represented by unions and covered by collective bargaining agreements. Most hourly employees and many nonmanagement salaried employees of our subsidiaries outside the United States are also represented by unions. These unions are key partners in achieving a safe workplace. Most of our manufacturing facilities have joint union—management safety committees that guide the development and implementation of safety programs in their operations.

We are increasingly outsourcing services at our facilities – everything from janitorial tasks to materials handling services. We are also direct hiring more temporary and part-time workers. A key focus for us has thus become ensuring that contractors and temporary and part-time employees are fully informed about health and safety practices, so that they can move about our facilities and do their jobs in a manner that does not endanger either their own safety or the safety of our permanent, full-time workforce.

The "health" part of health and safety is also an increasing focus for Ford. This is driven by growing recognition of the impact that health issues like heart disease, diabetes and obesity can have on the well-being of our employees, as well as the cost of providing health care to our current and retired workforce. (See the Financial health section for further discussion of health care costs.) By helping employees to prevent serious diseases and effectively manage chronic conditions, we can have a positive impact on our employees' quality of life and our bottom line.

In the <u>materiality analysis</u> conducted for this report, workplace health and safety was identified as an issue of high potential impact on Ford and a moderate level of concern for stakeholders. Ford's cost to provide health care coverage to current and retired employees was recognized as a very important issue by the Company and stakeholders alike because of the significant competitive disadvantage it presents for the Company, as compared to U.S. transplant competitors that do not have the same legacy costs.

## RELATED LINKS

- In This Report
- Workplace Safety Management
- Employees
- Key topic: Legacy Health Care Costs
- Materiality Analysis

OVERVIEW > OUR IMPACTS > VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

PRODUCTS AND CUSTOMERS QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT COMMUNITY

# . SAFETY

• Introduction

# . WORKPLACE SAFETY

- Progress
- Context

### Management

- Systematic Leadership
- Safe Conditions
- o Safe Acts
- 。 Relationship Management
- Health as a Strategic Advantage
- Performance
- Data
- · Case Studies

## . VEHICLE SAFETY

- Progress
- Context
- · Management
- Performance
- Data
- . Case Studies



Download resources

Send feedback

# Management

We organize our health and safety programs using the framework below. Click on the column headers to learn more about how we address each topic.

A SAFE WORKPLACE =						
SYSTEMATIC +	SAFE CONDITIONS +	SAFE ACTS +	RELATIONSHIP MANAGEMENT			
=	=	=	=			
Governance	Design	Awareness	Internal Relationships			
+ Evaluation	→ Maintenance	→ Training & Competency	+ External Relationships			
- Accountability	Operating Systems	→ Motivation & Compliance	+ Effective Communication			
	→ Workplace Environment Controls					

OVERVIEW > OUR IMPACTS > VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

- SAFFTY
- Introduction
- . WORKPLACE SAFETY
- Progress
- . Context
- Management
- Systematic Leadership
- Safe Conditions
- Safe Acts
- Relationship Management
- Health as a Strategic Advantage
- · Performance
- · Data
- · Case Studies
- . VEHICLE SAFETY
- Progress
- . Context
- Management
- Performance
- Data
- · Case Studies



Download resources

Send feedback

# Systematic Leadership



The "leadership" in Safety Leadership reflects our view that leaders at all levels achieve the safety results they expect and demand. When leaders demonstrate zero tolerance for unsafe actions and conditions, everyone develops a zero-injury mindset. We seek to build safety leaders at all levels in the organization.

We consider systematic leadership to have three components: governance, evaluation and accountability.

#### Governance

We have comprehensive governance systems for health and safety management. Our overarching Occupational Health and Safety (OHS) policy is established through a corporate Policy Letter and Directives. In addition, global OHS standards cover all health and safety topics, including safety, ergonomics, occupational hygiene, toxicology, clinical operations, fire and security.

The most efficient and cost-effective way to reduce safety and ergonomic risks in the manufacturing process is to engineer them out upfront. That's the purpose of our global manufacturing engineering OHS Forum, which includes senior engineering representatives of all the Ford brands. The Forum defines engineering processes and tools that are deployed during the design and engineering of manufacturing processes to minimize safety risks.

In 2006, we strengthened our global governance of workplace safety by reviewing key health and safety indicators more frequently with senior management. We review safety regularly at the plant level and in regional OHS committees. The Group Vice President for Corporate Human Resources and Labor Affairs now also conducts quarterly in-depth reviews, our Board of Directors reviews our safety performance every six months, and our President and CEO now includes safety as part of a weekly Business Plan Review.

### Evaluation

Health and safety specialists conduct Safety and Health Assessment Review Process (SHARP) audits at our manufacturing facilities as an integral part of our manufacturing management systems. During 2007, SHARP will undergo a major global revision to streamline and simplify it and align it with current Ford corporate standards and plant operating systems. We also conduct unannounced audits, as well as audits of special high-risk areas. Facility staff perform quarterly SHARP self-assessments and more frequent internal audits to verify key processes. Any significant incidents are reported weekly on a global basis so plant managers at other facilities can learn from the incident and take preventive action.

Nonmanufacturing sites conduct yearly self-assessments of their OHS risks and performance. A specific safety audit tool for the nonmanufacturing organizations was developed as part of the modular control review program (MCRP) implemented by Ford's General Auditor's Office (GAO). Health and safety will become a more frequent part of all GAO reviews. This allows us to cover a much broader range of workplaces, since our primary OHS focus is on the higher-risk manufacturing sites. Ford of Europe is leading the way in the deployment of a structured approach to health and safety in the nonmanufacturing functions and in the use of the MCRP for health and safety.

We also conduct a safety culture survey (recently integrated into the overall Pulse survey of employees) to assess attitudes toward health and safety. The results of this survey, combined with audit results and routine gathering and sharing of performance data, provide a comprehensive picture of health and safety performance trends, as well as early warning of conditions that could lead to a decline in performance.

## Accountability

We establish accountability for health and safety performance through our business planning and scorecard processes, which set targets and assign responsibility for meeting those targets. Business Operation and plant managers are responsible for health and safety in the operations they manage, and their performance in this area is a significant factor in their incentive compensation. In addition, safety performance is included in the scorecards of salaried employees as appropriate, including those of the CEO and Executive Vice Presidents, where it affects annual bonus and merit awards.

OVERVIEW > OUR IMPACTS > VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- Context
- . Management
- Systematic Leadership
- Safe Conditions
- Safe Acts
- 。 Relationship Management
- o Health as a Strategic Advantage
- · Performance
- · Data
- · Case Studies

### . VEHICLE SAFETY

- Progress
- . Context
- · Management
- Performance
- Data
- . Case Studies





Send feedback

# Safe Conditions



A safe workplace is a product of the design and maintenance of the facility and its equipment, effective work processes and appropriate safeguards for potentially hazardous conditions. We use a variety of processes and programs to assess and manage risks. When potential hazards cannot be addressed through engineering, we use personal protective equipment and procedural controls to help prevent accidents and exposures.

We use internal and external benchmarking to drive health and safety improvements. Internal benchmarking helps us learn from plants that have demonstrated exemplary results and share the key leadership attributes that drive OHS excellence. External benchmarking on injury performance and safety processes serves to challenge our facilities to achieve best-in-class performance and document effective injury performance and management processes.

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY PRODUCTS AND CUSTOMERS ENVIRONMENT COMMUNITY SAFETY QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

- SAFETY
- · Introduction
- . WORKPLACE SAFETY
- Progress
- . Context
- · Management
- Systematic Leadership
- Safe Conditions
- Safe Acts
- Relationship Management
- Health as a Strategic Advantage
- · Performance
- · Data
- · Case Studies
- . VEHICLE SAFETY
- Progress
- · Context
- · Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback

# Safe Acts



Even the best-designed workplace is only as safe as the behavior of the people who work there. We raise awareness of safety issues and reinforce it consistently with employees via regular communication at work group meetings and training for managers, supervisors and engineers who design equipment.

Our President's Health & Safety Award recognizes facilities with outstanding safety innovations and results, thereby encouraging others to follow suit. The award is given in two categories – performance and innovations. To win a performance award, facilities must meet or exceed the corporate health and safety objective of a 10 percent reduction in lost-time case rate, a 50 percent reduction in serious injuries and zero fatalities in a major business component. Innovation awardees are selected by a panel of judges based on documentation of continuing health and safety improvements. For 2006 results, see "Our

## Safety Record This Year."

As mentioned previously, we are increasingly outsourcing various service tasks at our facilities. In 2006, we published health and safety standards for service contractors, similar to the standards we have in place for our construction contractors. The service contractor standards are directed at ensuring the health and safety of contracted employees while they are onsite, and ensuring that those individuals do not operate in a manner that endangers the health or safety of our direct employees. Similarly, we developed and implemented this year a standardized induction program for temporary and part-time direct employees, to ensure that they are given a thorough orientation in safety (and quality) issues and practices.

OVERVIEW > OUR IMPACTS > VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- . Context
- . Management
- Systematic Leadership
- Safe Conditions
- Safe Acts

#### Relationship Management

- Health as a Strategic Advantage
- · Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- Progress
- . Context
- · Management
- Performance
- Data
- · Case Studies





Send feedback

# Relationship Management



We know that to manage health and safety effectively, we must maintain good relationships with all stakeholders. Our unions globally share our commitment to a safe working environment and have been our partners at every step of the Safety Leadership Initiative and other health and safety programs. We also maintain important external relationships with regulatory agencies, professional organizations and suppliers. The formal partnership among Ford, the United Auto Workers and the U.S. Occupational Safety and Health Administration (federal and state) is a visible example.

We use multiple communication channels to reinforce safety messages, from our internal video broadcast system to messages from senior executives. In addition to regular safety talks, we periodically hold safety stand-downs that shut production at our plants to focus attention on a safety message. We can communicate nearly instantaneously with health and safety specialists worldwide, alerting those at similar facilities when a significant accident occurs, so they can take appropriate preventive action.

OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Systematic Leadership
- Safe Conditions
- Safe Acts
- Relationship Management
- Health as a Strategic Advantage
- · Performance
- Data
- · Case Studies
- VEHICLE SAFETY
- · Progress
- Context
- Management
- · Performance
- · Data
- · Case Studies

Print this report

Download resources

Send feedback

# Health as a Strategic Advantage

We have many programs and processes to ensure that our working environment does not damage the health of our people. A natural extension of this idea is to seek to enhance the health of our workforce, their families and the communities in which we operate. Good health contributes to well-being, longevity and productivity, among other benefits. And since families tend to share health habits, good and bad, promoting health among our employees can contribute to healthier communities.

In the United States, where total health care cost is a major issue for the Company, there is increased emphasis on health and wellness programs. We are providing resources and tools to employees to help them make sound choices about health care services and coverage, and help them understand the benefits of being a better health care consumer.

- We have introduced an internal wellness campaign, with the tagline of "Good Health Isn't Automatic, It's Manual." We are encouraging and motivating employees to take control of their
  - o Providing the skills that will help them understand their risks and improve their health habits, and
  - Encouraging them to be better health care consumers by using health care quality information.
- We are also implementing a health improvement program, called "Healthy Highway," to prevent and manage illness. The program includes:
  - Disease management,
  - Individualized wellness programs,
  - Health assessments, and
  - o 24-hour phone access to nurse and onsite screening services.

This is also an area in which we are collaborating with communities and government agencies by:

- Promoting and investing in the adoption of health care information technology (HIT) through local initiatives, with funding assistance from government. HIT will enable physicians and hospitals to have access to all the information they need to provide their patients with the most appropriate care
- Participating in regional health care quality measurement and public reporting initiatives, with potential data sharing and funding assistance from government.

We also provide health benefits to our employees and their families in varying forms in many other countries. We are working to ensure that all of these programs are designed and administered in a way that delivers optimum health results. In addition, we are developing a comprehensive global health strategy to ensure that our efforts are targeted at local health priorities and that our people receive quality health care when they need it. Working with employees to identify and modify their personal health risk factors is a core element of the strategy. We are also working to leverage our global strengths by improving the way we share and coordinate our health promotion programs.

Elements of health and wellness programs around the world include health screenings, education and promotional campaigns. For example, Ford of Brazil implemented "Programa Viva Bem," which is described in a case study at the end of this section. Ford of Mexico developed programs at its facilities targeting similar issues. Health strategies vary by region and are flexible, in order to be tailored to local

We spent significant effort during 2006 making sure we had the appropriate plans and preparedness for any potential global pandemic, such as avian influenza. By first quarter 2007, this planning process will have ensured that all of our operations are prepared to respond to any threat, and we will continue to work with our supply base to establish a similar level of preparedness.

## RELATED LINKS

- In This Report
- Employees
- Key topic: Legacy Health Care Costs

OVERVIEW >

OUR IMPACTS >

VOICES ≫

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

# . SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- . Context
- Management

## Performance

- Key topic: HIV/AIDS Efforts
- Our Safety Record This Year
- Data
- · Case Studies

## . VEHICLE SAFETY

- Progress
- Context
- Management
- Performance
- Data
- · Case Studies

Print this report

Nownload resources

-

Send feedback

# Performance

# Key topic: HIV/AIDS Efforts

Addressing the HIV/AIDS pandemic is both a moral and business imperative. In countries where the disease is prevalent or spreading, and where people lack access to the necessary health care, HIV/AIDS poses threats to our workforce and the communities in which we operate.

## Our Safety Record This Year

Ford's workplace safety record in 2006 was mixed. On the positive side, two major safety indicators – lost-time case rates and severity rates – continued to improve markedly.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Performance
- Key topic: HIV/AIDS Efforts
- Our Safety Record This Year
- · Data
- Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies

Print this report

P Download resources

11

Send feedback

# Key topic: HIV/AIDS Efforts

Addressing the HIV/AIDS pandemic is both a moral and business imperative. In countries where the disease is prevalent or spreading, and where people lack access to the necessary health care, HIV/AIDS poses threats to our workforce and the communities in which we operate.

In 1999, we began to develop a blueprint for a comprehensive approach to HIV/AIDS in our operations in South Africa, a country where more than 5 million people are infected with the virus. Building on that experience, we adopted a global HIV/AIDS policy in 2003. Its key principles are nondiscrimination in hiring and employment; a safe and healthy work environment; confidentiality and privacy; prevention; and care and support.

To provide further guidance in implementing the policy, we have also developed HIV/AIDS Program Guidelines. An important element of our approach is that each country operation implementing the program assesses its local needs, often with the help of local NGOs or other experts, and tailors a culturally appropriate program based on the policy and guidance. Ford's Executive Physician, International Clinical Operations, reviews each country's program plans.

In early 2004, Ford launched an HIV/AIDS Workplace and Community Initiative, expanding our programs to additional countries including China, India, Thailand and Russia. We selected these countries based on the prevalence of infection (India, for example, is second only to South Africa in the number of people infected), its rate of spread, our business presence and our market opportunity.

Ford's China, India and Thailand locations began implementing the Initiative and by early 2006 were close to completing the employee training process and offering voluntary counseling and testing onsite. Educational materials and condoms are distributed to the workforce in these locations.

In Russia, Ford operations started its HIV/AIDS Initiative, and is making progress on delivering training materials by plant medical personnel. Voluntary testing is provided by governmental clinics upon application.

During 2006, Ford South Africa achieved its highest participation ever in its voluntary testing program. More than 60 percent of employees participated in the Company's "Choose Life" campaign. Ford South Africa's comprehensive program focuses on education, awareness, prevention, care and treatment and was recognized with the 2006 Star of Africa award by the American Chamber of Commerce.

Ford of Brazil has delivered HIV/AIDS awareness training to its workforce in all manufacturing locations, and continues to provide educational material through its wellness program "Viva Bem." The program has also included free condom distribution to employees, and voluntary counseling and testing during the year or during the promotional campaign every 12 months.

Ford of Mexico is participating in an innovative national partnership model – known by its Spanish acronym CONAES – that involves the governments of the United States (USAID) and Mexico (CENSIDA), a group of multinational companies and NGOs. Ford of Mexico is a Charter member of CONAES and currently a member of the board of directors. In 2006, Ford of Mexico received an "HIV/ AIDS Workplace Certification" supported by CENSIDA. In addition, Ford leads one of CONAES's three committees (on Programs and Communication). This committee seeks to share best practices among companies, develop surveys, and get and distribute information about HIV/AIDS.

Finally, in March 2007, Ford was invited to be the only U.S. company featured in a high-profile program in Mumbai, India, entitled "The Private Sector and the Fight Against HIV/AIDS: The Case of India." Other speakers included representatives of the Bill and Melinda Gates Foundation, USAID and several of India's leading companies.

Ford was the first automaker to issue a detailed report on the effects of HIV/AIDS on the Company using the guidelines of the Global Reporting Initiative. The full report, issued in late 2004, is available <a href="https://example.com/heres

## RELATED LINKS

In This Report

Viva Bem

### DOWNLOADS



OVERVIEW >

OUR IMPACTS >

VOICES >

# FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- · Performance
- o Key topic: HIV/AIDS Efforts
- Dur Safety Record This Year
- Data
- Case Studies
- . VEHICLE SAFETY
- Progress
- . Context
- Management
- · Performance
- Data
- · Case Studies

Print this report

Nownload resources

Send feedback

# Our Safety Record This Year

Ford's workplace safety record in 2006 was mixed. On the positive side, two major safety indicators – lost-time case rates and severity rates – continued to improve markedly. These two measures dropped 31 and 39 percent since 2005, respectively. Since 2000, global lost-time case rates and severity rates have decreased 78 and 80 percent, respectively.

The continued steady improvement in these routine indicators is not only good for our employees, it's good for our business. We recently calculated that progress in lost-time cases and days since 2000 has saved the Company \$124 million, with recurrent annual savings of approximately \$30 million in direct costs.

Unfortunately, the news last year was not all good. The number of serious injuries and fatalities reached unacceptable levels in 2006. Tragically, we experienced six fatalities, including four direct Ford Motor Company employees, one contractor and one joint venture employee. We also experienced 64 serious injuries, involving 44 employees, 18 contractors and two joint venture employees. In most of the cases, the causes were known, existing high-risk focus areas for us, including issues relating to pedestrian safety in plants, energy control and power lockout, and lifting and rigging.

Ford of Europe, which experienced four of the six fatalities, underwent a corporate review in which all of the causes contributing to the fatalities were assessed. In addition, we have increased the frequency of corporate safety reviews in all of the various regions globally. We have also strengthened our governance of workplace safety by reviewing key health and safety indicators more frequently with senior management.

In 2006, 48 President's Health & Safety Awards were given to facilities around the world, up from 37 awards given in 2005. Five individuals were honored as Health and Safety Professionals of the Year. Two special recognition awards honoring individuals were also given – the President's Special Recognition Award and the Roman Krygier Award for Health & Safety Leadership. In addition, 23 facilities experienced zero lost-time during 2006.

## Ford Plants Reporting Zero Days Lost Due to Work-Related Injuries

### North America

- Denver HVC (HVC parts distribution for dealers) (Colorado)
- Detroit HVC (Michigan)
- · National Parts Sales (Michigan)
- Ontario HVC (California)
- · Portland HVC (Oregon)
- Santa Fe General Office Building (Mexico)
- Twin Cities HVC (Minnesota)
- · Washington, DC HVC
- Woodhaven Forging (Michigan)

## Europe

- Jaguar Whitley Product Development (England)
- · Valencia Parts Distribution Center (Spain)

## South America

· Tatui Proving Ground (Brazil)

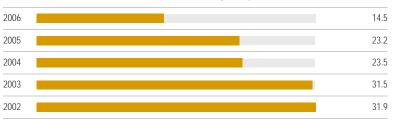
### **Asia Pacific**

- AutoAlliance Co., Ltd. (Thailand)
- Ford Australia Support Operations
- · Ford India, Ltd., Keelakaranai Village
- Ford Information Technology Services India
- Ford Malaysia
- Ford Vietnam
- Geelong Casting (Australia)
- Nanjing Assembly Plant (China)
- Nanjing Engine (China)
- National Parts Distribution Center (Australia)
- Ford Philippines

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 COMMUNITY QUALITY OF RELATIONSHIPS ENVIRONMENT FINANCIAL HEALTH VIEWING THIS DATA Workplace Safety Data Would you prefer to view the SAFETY data as text tables? • Introduction See data tables **Charts on This Page** Global Lost-time Case Rate (per 100 Employees) . WORKPLACE SAFETY Lost-time Case Rate by Region (per 100 Employees) • Progress Global Severity Rate (per 100 Employees) · Context Severity Rate by Region (per 100 Employees) · Management Ε Workplace Health and Safety Violations Global Fatalities · Performance Data Global Lost-time Case Rate (per 100 Employees) · Case Studies NA - Not available VEHICLE SAFETY Cases with one or more days away from work per 200,000 hours · Progress 2006 1.1 Ford Motor Company (global) Context NA U.S. Bureau of Labor · Management Statistics average for SIC 2005 1.4 Code 371 (motor vehicles · Performance 1.9 and equipment) · Data 2004 1.2 1.8 · Case Studies 2003 1.8 1.8 Print this report 2002 2.1 Download resources 2.1 See notes to the data Send feedback top Lost-time Case Rate by Region (per 100 Employees) Cases with one or more days away from work per 200,000 hours 2006 Americas 0.9 Europe 0.1 Asia Pacific/Africa 2005 2.1 1.0 0.2 1.7 2004 0.7 0.3 2003 2.3 1.0 0.4 See notes to the data

# C Global Severity Rate (per 100 Employees)

### Days lost per 200,000 hours worked

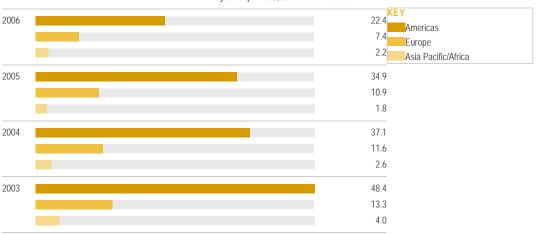


top

D

## Severity Rate by Region (per 100 Employees)

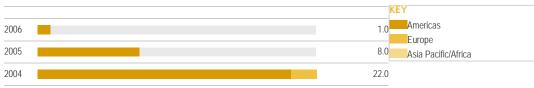
Days lost per 200,000 hours worked



top

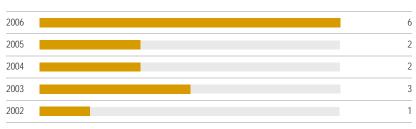
# E Workplace Health and Safety Violations

## Number of violations



top

## **Global Fatalities**



## NOTES TO THE DATA

## Chart A

2005 is the most recent Bureau of Labor statistics data available.

## Chart B

European data were amended for 2005.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### . SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- Context
- Management
- · Performance

### M Data

· Case Studies

## . VEHICLE SAFETY

- · Progress
- Context
- Management
- Performance
- Data
- · Case Studies



Download resources

Send feedback

## Workplace Safety Data

## **Tables on This Page**

- A Global Lost-time Case Rate (per 100 Employees)
- B Global Lost-time Case Rate (by Region)
- C Global Severity Rate (per 100 Employees)
- D Global Severity Rate (by Region)
- E Workplace Health and Safety Violations
- F Global Fatalities

## VIEWING THIS DATA

Would you prefer to view the data as charts?



See data charts

#### Α

## Global Lost-time Case Rate (per 100 Employees)

NA - Not available

## Cases with one or more days away from work per 200,000 hours

	2002	2003	2004	2005	2006
Ford Motor Company (global)	2.1	1.8	1.2	1.4	1.1
U.S. Bureau of Labor Statistics average for SIC Code 371 (motor vehicles and equipment)	2.1	1.8	1.8	1.9	NA

See notes to the data

## top

### В

## Lost-time Case Rate by Region (per 100 Employees)

### Cases with one or more days away from work per 200,000 hours

	2003	2004	2005	2006
Americas	2.3	1.7	2.1	1.5
Europe	1.0	0.7	1.0	0.9
Asia Pacific/Africa	0.4	0.3	0.2	0.1

See notes to the data

## top

### c

## Global Severity Rate (per 100 Employees)

### Days lost per 200,000 hours worked

2002	2003	2004	2005	2006
31.9	31.5	23.5	23.2	14.5

top

## D

## Severity Rate by Region (per 100 Employees)

## Days lost per 200,000 hours worked

	2003	2004	2005	2006
Americas	48.4	37.1	34.9	22.4
Europe	13.3	11.6	10.9	7.4
Asia Pacific/Africa	4.0	2.6	1.8	2.2

# E Workplace Health and Safety Violations

## Number of violations

	2004	2005	2006
Americas	20.0	8.0	1.0
Europe	2.0	0.0	0.0
Asia Pacific/Africa	0.0	0.0	0.0

top

## **Global Fatalities**

2002	2003	2004	2005	2006
1	3	2	2	6

top

## NOTES TO THE DATA

## Table A

2005 is the most recent Bureau of Labor statistics data available.

European data were amended for 2005.

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 PRODUCTS AND CUSTOMERS FINANCIAL HEALTH QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY Case Studies . SAFETY • Introduction Viva Bem Health Program > . WORKPLACE SAFETY Ford Brazil, as part of its Great Place to Work project, created "Programa Viva Bem," with the goal of • Progress improving the quality of life of Ford and non-Ford employees and their relatives. Context Management • Performance • Data Case Studies o Viva Bem Health Program . VEHICLE SAFETY Progress Context • Management • Performance • Data · Case Studies Print this report Download resources Send feedback

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . SAFETY

Introduction

## . WORKPLACE SAFETY

- Progress
- · Context
- Management
- · Performance
- Data
- · Case Studies

## Viva Bem Health Program

## . VEHICLE SAFETY

- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies



Download resources

Send feedback

## Viva Bem Health Program



Ford Brazil, as part of its *Great Place to Work* project, created "Programa Viva Bem," with the goal of improving the quality of life of Ford and non-Ford employees and their relatives. The program challenges employees to set and attain goals in areas including weight control, stress management, alcohol/drug/ tobacco abuse, nutrition, diabetes prevention, breast cancer prevention and flu vaccination. By meeting their goals, employees earn points that could be redeemed for prizes. In addition, this campaign reflects positively on Ford's social commitment and reduces absenteeism.

A total of 6,644 employees and family members have participated in the program, now in its fourth year. The plants involved include Sāo Bernardo do Campo (SBC), Taubaté, Tatuí and Camaçari. Viva Bem was honored at the 2006 Global Diversity and Worklife Summit.

In May 2006, as part of Viva Bem, a full week was spent focusing on quality-of-life activities. There were 15 events in total, including lectures, diabetes and cholesterol exams, blood pressure examinations, influenza vaccinations, trekking, quick massages, yoga classes and dance classes. In total, 4,821 participants took part during this week at the SBC Plant, including Ford employees, agencies and family members. This important series of events helped to reinforce the image of Ford Brazil as an employer with a quality-of-life orientation and an overall Great Place to Work.

## RELATED LINKS

Ford.com

Ford Brazil

OVERVIEW >

OUR IMPACTS >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- Introduction
- . WORKPLACE SAFETY
- Progress
- · Context
- · Management
- · Performance
- · Data
- · Case Studies
- . VEHICLE SAFETY

### Progress

- . Context
- Management
- · Performance
- Case Studies



Download resources

Send feedback

## Vehicle Safety

## **Progress Since Last Report**

We are continuously enhancing the safety of our vehicles through the sharing of research and technologies across brands and regions.

Others have recognized the results of our efforts. In 2006, we again earned high marks for safety from the U.S. National Highway Traffic Safety Administration (NHTSA), the Insurance Institute for Highway Safety (IIHS) and the European New Car Assessment Programme (EuroNCAP):

- 18 Ford vehicles received five-star ratings for frontal impact and side impact from NHTSA in its 2007 U.S. New Car Assessment Program (NCAP) ratings.
- The IIHS awarded 22 Ford vehicles with "good" ratings for frontal offset performance in crash tests, and singled out three vehicles – the brand-new Ford Edge and Lincoln MKX, as well as the Volvo XC90 – as Top Safety Picks. To earn a Top Safety Pick, a vehicle must receive a rating of "good" in offset frontal impact, side impact and rear impact evaluations and offer electronic stability control.
- Recent EuroNCAP assessments of the Ford Focus, S-MAX and Galaxy resulted in best-in-class ratings for adult and child occupant protection. Ford now has three of the seven highest-rated vehicles ever tested by EuroNCAP. The Galaxy achieved the highest score possible for a righthand-drive vehicle.
- In 2007, the Land Rover Freelander 2 received the EuroNCAP best-in-class rating for a small offroad vehicle for adult occupant protection. This vehicle is also among the highest rated in its class for child occupant protection.

In addition to high marks on these third-party measures of safety, we are pleased to report that the volume of Ford Motor Company vehicles affected by safety-related recalls dropped last year, from more than 6 million units in 2005 to 1.7 million units in 2006.

Ingrid Skogsmo >

Volvo Car Corporation



## RELATED LINKS

- Ford.com
- Lincoln MKX
- Volvo XC90 Ford Focus
- Ford C-MAX
- Ford Galaxy
- . External Web Sites
- National Highway Traffic Safety Administration
- Insurance Institute for Highway Safety
- European New Car Assessment Program

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- Progress
- Context
- Management
- Performance
- . Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress

### **Context**

- Management
- · Performance
- Data
- · Case Studies



Download resources

Send feedback

## Context

Traffic safety is a growing public health challenge, particularly in developing countries. Worldwide, approximately 1.2 million people die each year in traffic accidents. The vast majority of those fatalities – more than 1 million – occur in countries with low- and middle-income economies.

The World Health Organization reports that traffic accidents were the ninth leading threat to global public health in 1990, but such accidents are expected to rise to the third leading threat by 2020. All of that projected increase is forecasted to take place in low- and middle-income countries; high-income countries are actually expected to see a decrease of 30 percent in traffic deaths between 2000 and 2020.

Many of the traffic deaths in developing nations involve pedestrians and/or motorcycles. And their effect on families and communities is devastating: traffic accidents in developing countries are a major cause of poverty, since those killed or disabled are often family breadwinners.

This critical global challenge requires holistic solutions, including infrastructure improvements, the modification of road user behavior and the enforcement of traffic laws, as well as continued improvements in vehicle safety. We at Ford continue to take seriously our responsibility to build safe vehicles. Increasingly, we have also become more involved in finding new and innovative ways to modify road user behavior (for example, through new technologies and driver education efforts) and to encourage infrastructure and enforcement improvements in the communities in which we operate. This section details our latest efforts and achievements in all of these areas.

## **Assessing Materiality**

We analyzed the importance of vehicle safety to our Company and stakeholders as part of the materiality analysis conducted for this report. Vehicle safety was identified as one of a small set of material issues for the Company. Customers are showing greater concern for vehicle safety and making it a higher priority in purchase decisions, while other stakeholders, including NGOs, tend to focus on particular aspects of safety. There is a trend toward increased regulation of vehicle safety worldwide, with inconsistent regulations creating barriers to trade. An emerging issue for us at Ford is how to respond to consumer interest in in-vehicle communication, navigation and entertainment systems while maintaining or improving vehicle safety (see <a href="Materiality Analysis">Materiality Analysis</a>).

## RELATED LINKS

- In This Report
- Materiality Analysis
- The Driving Environment
- **External Web Sites**
- World Report on Road Traffic Injury <u>Prevention</u>

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## SAFETY

· Introduction

## . WORKPLACE SAFETY

- Progress
- · Context
- Management
- · Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- . Context

## Management 1

- Global Technical Regulations
- Performance
- . Data
- · Case Studies



Download resources

Send feedback

## Management

Our objective is to provide our customers with vehicles that achieve high levels of vehicle safety for a wide range of people over the broad spectrum of real-world conditions.

Real-world safety data, research, regulatory requirements and voluntary agreements provide much of the input into our safety processes, including our Safety and Public Domain Design Guidelines, which are Ford's stringent internal targets that exceed regulatory requirements. Ford utilizes engineering analysis, extensive computer modeling and its crash-test facilities – including our state-of-the-art Safety Innovation Laboratory in Dearborn, Michigan and the Volvo Car Safety Centre in Gothenburg, Sweden – to evaluate the performance of vehicles and individual components. These evaluations help to confirm that our vehicles meet or exceed regulatory requirements and our even more stringent internal guidelines.

Ford and Volvo are working together toward the development and introduction of new crash avoidance features. For example, the new 2007 Volvo S80 is equipped with our Collision Warning with Brake Support system, which was jointly developed in Dearborn, Michigan, and Gothenburg, Sweden. Soon, Volvo will introduce our next generation of collision mitigation technology with autonomous braking (which slows a vehicle's speed in an unavoidable collision), Lane Departure Warning and Driver Alert (to monitor driver drowsiness). These technologies, as well as other advanced features such as Emergency Lane Assist, which automatically steers the vehicle into the correct lane under some conditions, are all being developed by the Dearborn/Gothenburg team.

## RELATED LINKS

In This Report

o Volvo S-80

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

· Introduction

## . WORKPLACE SAFETY

- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management

## Sobal Technical Regulations

- Performance
- . Data
- · Case Studies



Download resources

Send feedback

## **Global Technical Regulations**

Two systems of vehicle regulation currently predominate: the United Nations Economic Commission for Europe (UN/ECE) Regulations, based on a 1958 Agreement, and the U.S. Federal Motor Vehicle Safety Standards. A limited number of countries (including Canada and Mexico) base many of their regulations on U.S. requirements. Much of the rest of the world has adopted the UN/ECE regulations or regulations that are based upon them. Unfortunately, many of these UN/ECE-based regulations have unique premises and interpretations, and opposed requirements when implemented by individual countries. The members of the European Union (EU) and the European Economic Commission employ a common set of directives that increasingly mirror the UN/ECE regulations.

When countries develop and apply unique regulatory requirements – purportedly to meet the same overall safety objectives – manufacturers must modify their vehicle designs and features to meet the different regulations of the various markets. These modifications increase vehicle complexity and cost, often with no additional real-world safety benefit.

Recognizing the potential benefits of harmonizing world vehicle regulations, the United States proposed an agreement to create a system to harmonize the competing national and regional regulatory systems. The end result was the "1998 Agreement Concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles" ("the 1998 Agreement"). The 1998 Agreement has the backing of all the world's major automotive-producing countries. Presently, 40 nations are signatories to the Agreement, including the United States, Japan, Canada, Russia, South Korea, South Africa, Turkey, Romania, Azerbaijan, India, the EU and a number of EU member states individually. Both the 1958 and 1998 Agreements are administered by the UN/ECE Working Party 29. By signing the 1998 Agreement, countries have begun to develop harmonized Global Technical Regulations (GTRs).

Ford Motor Company has actively participated in the GTR development process. The first GTR, concerning standards for door locks and door retention components, was agreed to by the contracting parties in 2004. In 2005 and late 2006, four more GTRs were approved. These included, for example, pollution-testing procedures for certain engines fueled with natural gas or liquefied petroleum gas, and technical requirements for on-board diagnostic systems. Numerous additional GTRs are under consideration, but progress has been slow. Significant opportunities for harmonization, such as standards for lighting, have stalled because governments are unable to reconcile historical differences within their own regulations. Ford Motor Company will continue to support the meaningful harmonization of global regulations via the 1998 Agreement.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## SAFETY

• Introduction

## WORKPLACE SAFETY

- Progress
- · Context
- Management
- Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- Progress
- Context
- Management

#### Performance

- Human Behavior
- Vehicle Safety
- o Driving Environment
- Future Technologies
- Data
- Case Studies





1125

Send feedback

## Performance

Vehicle safety is the product of complex interactions among the driver, the vehicle and the driving environment. We use the Haddon Safety Matrix (developed by William Haddon, a former NHTSA administrator and IIHS president) to take a holistic view of the factors that affect automotive safety. The Haddon Matrix looks at injuries in terms of causal and contributing factors, including human behavior, vehicle safety and the driving environment. Each factor is then considered in the pre-crash, crash and post-crash phases. In the pre-crash phase, the focus is to help avoid the crash. In the crash and post-crash phases, the primary objective is to help reduce the risk of injury to occupants during and after a collision. Another goal is to minimize the amount of time that elapses between the crash and when help arrives.

## **Haddon Safety Matrix**

Click on the column headers for information and examples of our activities in each area.

	HUMAN BEHAVIOR	VEHICLE SAFETY	ENVIRONMENT
Pre-crash (accident avoidance)	<ul><li>Research</li><li>Education</li><li>Advocacy</li></ul>	Crash avoidance     Security	Road design for accident avoidance     Traffic control
Crash (occupant protection)	Technology and proper use	Crashworthiness	Road design for injury mitigation     Research
Post-crash (injury mitigation)	• Telematics	Automatic crash notification	Emergency medical services
Example of Ford actions (detailed in this section)	<ul> <li>VIRTTEX Simulator</li> <li>Driving Skills for Life</li> <li>Beltminder™</li> </ul>	<ul> <li>Roll Stability Control™</li> <li>Personal Safety System™</li> <li>Safety Canopy™</li> <li>Automatic crash notification</li> </ul>	Global Road Safety Partnership

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Data
- Case Studies

Print this report

Download resources

1100

Send feedback

## **Human Behavior**

#### < back to Safety Model overview

The U.S. Department of Transportation reports that human factors cause or contribute to more than 90 percent of serious crashes. In the pre-crash stage, drivers can try to avoid crashes by practicing safe driving. Drivers can help reduce the risk of injury in the crash and post-crash phases by always properly using safety equipment such as safety belts. Ford Motor Company provides information, educational programs and technologies to assist in promoting safe driving practices.

Ford continued its commitment to educating young drivers about safer driving in 2006 and 2007 through Driving Skills for Life, our national education program for teens. This program earned Ford the 2007 Traffic Safety Achievement Award for Community Service from the World Traffic Safety Symposium at the 2007 New York Auto Show. Driving Skills for Life provides outstanding learning tools, including a DVD, printed materials and a newly redesigned Web site, to help young drivers improve their ability behind the wheel. The program was upgraded in 2006 to provide information about eco-driving, car care tips and information for mature drivers. A case study at the end of this section describes this comprehensive program in greater detail.

In addition, Ford continues to lead the industry in promoting safety belt use through its Beltminder™ system, an industry-first innovation that uses technology to influence the behavior of drivers and vehicle occupants by prompting them to buckle their safety belts. In the United States, and many regions outside of North America where regulations permit, Beltminder for the driver's seat is standard equipment on all Ford Motor Company vehicles. Ford has continued to expand the availability of Beltminder for the front passenger seat in its vehicles. In Europe, the Volvo S40, V50, C30, C70 and S80 have Beltminder for the rear seats as well. NHTSA has requested that the rest of the industry adopt systems similar to Ford's Beltminder, and EuroNCAP offers points for manufacturers who offer a Beltminder-type system. Ford licenses this proprietary technology to other vehicle manufacturers at no cost.

An important element of our research into human behavior is VIRTTEX, our VIRtual Test Track EXperiment simulator. In April 2005, Ford's industry-leading efforts with the VIRTTEX driving lab were recognized with an award from the World Traffic Safety Symposium. Ford has publicly released data from two major VIRTTEX studies – one on driver distraction and another on the effects of drowsy driving. The findings from these studies are being used to develop technologies to help drivers avoid crashes. These technologies are discussed in the <a href="Future Technologies">Future Technologies</a> section and the <a href="Volvo S80">Volvo S80</a> case study of this report.



To promote more effective child passenger safety in Latino communities around the United States, Ford Motor Company Fund helps to support Corazón de Mi Vida, a bilingual and bicultural educational program. The program was developed by the National Latino Children's Institute (NLCI) and NHTSA. The NLCI and Ford Motor Company Fund join forces with local partners in various U.S. cities to inform Latino families, child care providers and the Spanish-speaking community about the important role that safety seats and safety belts play in saving children's lives.

Ford also has been working to research and help improve driver behavior factors on a global basis. In China, Ford is cooperating with the China Automotive Technology & Research Center and the Chinese Ministry of Public Security to launch a new project that aims to provide accurate and scientific data for research into road safety in China. As part of that project, Ford took part in a workshop in Shanghai in January 2007 that brought together road safety experts from the United States, Europe and China to exchange information and experience, as well as to define a road safety project that will help establish a

## RELATED LINKS

- In This Report
- Driving Skills for Life Case Study
- **External Web Sites**
- Driving Skills for Life
- Corazon de mi Vida

"glide path" for rapidly reaching an accident reduction target.

Since 1995, Ford has been setting aside \$20 for every Ford and Mazda vehicle sold in the Philippines for its road safety programs in that country. The funds are used to educate drivers and promote road safety through training programs, research and other road safety projects. The funds have also been used to create the R.I.D.E. program (Responsibility in Driver Education) – a series of road safety talks. After being successfully rolled out in 13 schools and seven Ford corporate accounts, and among Ford employees, the 2006 R.I.D.E. program was expanded to include pre-school and elementary students and a train-the-trainer program for teachers. The funds also made possible another road-safety first in the Philippines – giving child safety seats to Ford and Mazda customers.

In Thailand, Ford undertook a joint campaign in 2005 with its dealers on a road safety education program. Customers were invited to a Ford dealership to participate in the course, which was hosted by a well-known national motoring journalist and columnist. Ford Thailand also co-sponsored a road safety training campaign with the Red Cross, as well as a road safety education campaign and University Safe Drive.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Human Behavior

## 

- Driving Environment
- Future Technologies
- Data
- Case Studies

Print this report

Download resources

1100

Send feedback

## Vehicle Safety

< back to Safety Model overview

## Pre-Crash/Accident Avoidance

A variety of new technologies, in addition to a vehicle's basic handling and braking capabilities, can help a driver avoid accidents.

One new Ford innovation is the next generation of adaptive headlamps. With a unique two-part optics package, the Adaptive Front Lighting System (AFLS) is an industry breakthrough that allows drivers to see better at night around curves in the road. Most cornering, or swivel, lighting systems are one-piece modules that turn as a single unit with the vehicle as it approaches a curve. In contrast, the AFLS incorporates two independent light sources: a high-output halogen projector for the main beam and a secondary row of light-emitting diodes that illuminates almost instantaneously, distributes the light beam evenly, and consumes less power than conventional lights. The system allows drivers to take corners and curves more safely, and to consume less energy while doing so. The AFLS was unveiled on a concept vehicle at the 2006 North American International Auto Show and is now available on the 2007 Lincoln

All-wheel drive (AWD) and four-wheel drive (4WD) can also help drivers negotiate difficult driving conditions by utilizing the available traction at both the front and rear wheels to help keep the vehicle moving during slippery or snowy conditions. Ford has been expanding its offerings of these important features and now offers AWD or 4WD on all SUVs and light trucks, including all Land Rovers. For 2007, AWD is also offered on the following passenger cars and crossovers: the Ford Five Hundred, Freestyle, Fusion and Edge; the Mercury Montego and Milan; the Lincoln MKZ and MKX; the Jaguar X-Type; and the Volvo S40, S60, S80, V50, V70 and XC70. AWD is also offered in Australia on the Ford Falcon and Territory.

Our industry-leading innovation known as Roll Stability Control™ (RSC) continues to give drivers more confidence in emergency situations (see figure below). Ford and its global brands have built four million vehicles globally with electronic stability control systems. To date, more than one million of those vehicles feature AdvanceTrac® with Roll Stability Control, which actively measures and helps control both yaw and roll movements. RSC uses two gyroscopic sensors to detect when a driver corners too fast or swerves sharply to avoid an obstacle. It then applies pressure to select brake(s) to help the driver maintain control and thus reduce the risk of a rollover event. Roll Stability Control was first introduced on the 2003 Volvo XC90 and is now standard equipment on the Ford Explorer, SportTrac, Expedition, Edge and new 2008 Escape, as well as E-series Wagons equipped with the 5.4L engine. It is also standard equipment on the Mercury Mountaineer, the new 2008 Mariner, Lincoln Navigator and Lincoln MKX. Ford is also developing the next-generation regenerative braking system for the 2009 Escape Hybrid and Mariner Hybrid to be compatible with RSC.

## RELATED LINKS

- In This Report
- o Volvo S80
- Ford.com
- Lincoln MKX
- Ford Explorer
- Mercury Mountaineer
- Roll Stability Control

## **External Web Sites**

- National Highway Traffic Safety Administration
- Insurance Institute for Highway Safety
- <u>European New Car Assessment Program</u>

## YAW STABILITY CONTROL

## TRACTION CONTROL

AdvanceTrac™



#### ΔRS

INPUTS:

1988 KEY SYSTEM

M KEY SYSTEM INPUTS:

1998

Wheel speeds Latitudinal & Steering longitudinal wheel angle acceleration 2001 KEY SYSTEM

YAW rate MC pressure KEY SYSTEM INPUTS:

2003

YAW and Roll rate Roll Stability Control™ (RSC) system and AdvanceTrac® electronic stability system first available on Volvo XC90 2005

AdvanceTrac® with Roll Stability Control standard on 2005 MY Explorer, Mountaineer, Aviator and Navigator

## **Future developments**

AdvanceTrac® with Roll Stability Control standard on 2006 MY E-350 Econoline Extended Passenger vans

In critical situations, the driver needs to focus fully on the traffic and on his or her own driving. Under these conditions, information not relevant to driving may present a distraction. Volvo Cars' Intelligent Driver-Information System (IDIS) helps the driver to screen out irrelevant information in certain critical situations. For example, the system can delay incoming calls to the integrated telephone until the situation is less critical. The system continually monitors driver activity and prioritizes the information flow on that basis. Launched in 2003, IDIS has been standard on the Volvo S40 and V50 in most markets since 2004.

Ford has developed numerous additional innovations to help the driver avoid accidents, including several technologies that use forward-looking radar and vision sensors. Among these is the Collision Warning feature, which uses forward-looking radar to warn the driver of a potential collision when he or she is approaching another moving vehicle from behind. Collision Warning is available in Europe on the 2007 Ford S-MAX, the 2007 Galaxy and the 2007 Volvo S80, and in the United States on the 2007 Volvo S80. The Collision Warning feature and other new technologies are discussed in more detail in the Volvo S80 case study at the end of this section.

## **Crash/Occupant Protection**

In 2006, Ford was recognized for its commitment to occupant protection via high marks for safety from the U.S. National Highway Traffic Safety Administration (NHTSA) and the Insurance Institute for Highway Safety (IIHS). Notably, 18 Ford vehicles received five-star ratings for frontal impact and side impact from NHTSA in its U.S. 2007 New Car Assessment Program (NCAP) ratings. The IIHS awarded 22 Ford vehicles with "good" ratings for frontal offset performance in crash tests, and singled-out three vehicles – the brand-new Ford Edge and Lincoln MKX, as well as the Volvo XC90 – as Top Safety Picks.



10,000th Ford crash test

Recent EuroNCAP results for the Ford Focus, S-MAX and Galaxy have demonstrated best-in-class ratings for adult and child occupant protection. Ford now has three of the top seven vehicles ever tested by the EuroNCAP. In addition, the Galaxy has achieved the highest score possible for a right-hand-drive vehicle.

Many factors influence a vehicle's crashworthiness, including the design of the vehicle's structure to absorb impact energy and the use of passive safety equipment such as air bags. To help protect drivers and passengers in the event of a crash, our newest technologies further enhance the performance of safety belts and air bags, and provide additional occupant protection in side crashes and rollovers.

The Ford Personal Safety System™ helps reduce the risk of injury to the driver and front passenger in the event of a moderate to severe frontal collision. The system is designed to adjust the deployment of the front air bags to enhance protection for front-seat occupants. It accomplishes this with the help of crash severity sensors, safety belt usage sensors, dual-stage driver and front-passenger air bags, a driver's seat position sensor and front outboard safety belt pretensioners. The Personal Safety System is standard on many Ford vehicles in the United States.

The 2007 Ford Explorer and Mercury Mountaineer are equipped with numerous standard advanced safety technologies to help meet our stringent internal requirements to enhance occupant protection. For starters, the Explorer/Mountaineer's Intelligent Safety System includes two key sensors. One sensor

estimates the driver's size by his or her distance from the steering wheel, and another (the patented Five-Level Passenger Sensing System) detects whether the passenger seat is empty or occupied by a child or a small, medium or large adult. In the event of a frontal crash, a variety of technologies work together as a system to engage innovative safety features in milliseconds to help protect the driver and passenger.

In addition, the 2007 Ford Explorer and Mercury Mountaineer are equipped with features to enhance occupant protection during a side-impact event. Side-impact air bags for the driver and front passenger, mounted in the outboard side of each front seat, enhance chest-area protection and are standard on all models. Door armrests and door trim also provide additional abdomen and lower torso cushions, and a four-inch-thick foam block inside each door helps to manage side-impact forces on the occupants' hips. The all-new 2007 Volvo S80 includes a long list of innovations in occupant protection (see <a href="Volvo S80">Volvo S80</a> includes a long list of innovations in occupant protection (see <a href="Volvo S80">Volvo S80</a> includes a long list of innovations in occupant protection (see

In Europe, Ford has been at the forefront of industry efforts to attempt to develop feasible and effective measures to help reduce pedestrian injuries and fatalities. This is also discussed more fully at the end of this section (see <u>Jaguar case study</u>).

#### **Crash Compatibility**

Ford has been the industry leader in developing crash-compatible vehicles. Beginning with the 2000 model year, Ford began equipping vehicles with BlockerBeams™ to help align the front crush structures of our trucks and SUVs with those of most passenger cars. In December 2003, the Alliance of Automobile Manufacturers, of which Ford Motor Company is a member, announced historic voluntary industry agreements to improve the collision compatibility of light trucks and passenger cars. The goal of the agreements is to enhance occupant safety in front-to-front impact and front-to-side impact collisions between the two styles of vehicles.

The front-to-front compatibility agreement requires that the primary and secondary energy-absorbing front-crash structures of light trucks be better aligned with the bumper zones of passenger cars. These requirements help reduce the potential for structural override (i.e., misalignment of the energy-absorbing parts) between, for example, light trucks and passenger cars in a head-on collision. In the 2006 model year, approximately 60 percent of all light trucks produced by Ford Motor Company met the requirements of this voluntary agreement. By the 2010 model year, all of the applicable light trucks and SUVs produced by Ford will meet the agreement.

The front-to-side voluntary agreement included head protection requirements that will help further protect occupants in a side-impact collision in which the striking vehicle is larger and/or taller than the vehicle being struck. This voluntary agreement goes beyond the current U.S. side-impact regulation, which envisions that the striking vehicle is a passenger car.

Ford vehicles will meet the voluntary front-to-side impact agreement by providing side air curtains or seatmounted combination head/chest side air bags. In the 1999 model year, Ford was the first domestic automobile manufacturer to offer side air bags designed to enhance head protection (front seat-mounted head/chest side air bags). The 2002-1/2 Ford Explorer and Mercury Mountaineer were the first vehicles in the industry to offer side air curtains (the innovation known as Ford's Safety Canopy™) that activate in both rollovers and side impacts. Today, nearly all of our products offer side air bags that include enhanced head protection, and nearly all of our SUVs offer the Safety Canopy for enhanced head protection in both rollovers and side impacts. Most of our side air bag systems already meet the stringent requirements of the voluntary agreement. By September 1, 2009, all Ford vehicles covered by the agreement will meet the front-to-side compatibility requirements.

### Post-Crash/Injury Mitigation

One method of assisting emergency responders to reach the scene of a vehicle crash quickly is through in-vehicle emergency call systems, also called automatic crash notification. These systems enable a driver to summon assistance in an urgent situation either automatically (if, for example, an air bag deploys) or at the touch of a button. The Volvo On Call system: — a GSM- and GPS-based emergency and assistance system — is currently sold in seven European countries, and Volvo is the first OEM to have the service working across borders in 13 European countries. The infrastructure is now fully installed and operating in the UK, Sweden, France, Italy, Belgium, Luxemburg, Austria and Denmark. Over the next few years, Volvo will offer the Volvo On Call service to other markets as well.

In late 2004, Ford, via its membership in the European Automobile Manufacturers Association, signed a memorandum of understanding (MOU) regarding the development of a pan-European, in-vehicle emergency call system dubbed "eCall." The purpose of the MOU is to promote the development and implementation of eCall systems throughout Europe, in order to improve the number of vehicles reached by emergency responders within a short period of time. With Volvo's On Call system, Ford has made and will continue to make significant progress toward increasing the availability of eCall technology on vehicles in Europe.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- · Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Data
- Case Studies

Print this report

P Download resources

Send feedback

## **Driving Environment**

## < back to Safety Model overview

The driving environment includes physical infrastructure (roads, signs, traffic lights, etc.) and the condition and maintenance of that infrastructure. Increasingly, information technologies play a role in the driving environment - for example, by controlling the timing of traffic lights. All of these factors have an enormous influence on traffic safety.

Safety challenges related to the driving environment vary between countries and between developed and developing economies. Around the world, we work with government agencies and private-sector partners to promote road safety. In late 2004, working in partnership with General Motors, Honda, Michelin, Renault, Shell and Toyota, we helped to found the Global Road Safety Initiative. The purpose of the initiative is to transfer best practices, with the objective of reducing accidents and building capacity in developing countries to manage road safety. Projects include educational outreach to increase safety belt and helmet usage rates, and training aimed at improving roadway design.

The first focus of the initiative is China, where both the number and rate of traffic accidents are high and growing. Ford and other participating companies have pledged \$1 million each over five years to fund important road safety projects in China, Brazil and countries in the Association of Southeast Asian Nations (ASEAN). The projects are being implemented through the Global Road Safety Partnership, an existing organization founded by partners including the World Bank and national governmental aid organizations. Ford is taking a leadership role in the Partnership through chairing the Executive Committee as well as being actively involved in project execution. The projects will rely on delivery through local organizations to build local capacity, so that those organizations can continue their work in a sustainable fashion long after the projects are completed.

In 2003, Volvo partnered with the Thailand Department of Highways and the Global Road Safety Partnership to establish the Thailand Accident Research Center (TARC). According to Thailand's health sector, approximately 20,000 people die in traffic accidents each year in Thailand. This gives the country the dubious distinction of having one of the highest traffic fatality rates in the world. TARC builds on the Volvo Traffic Accident Research Team's 30-plus years of experience in Sweden. Volvo has donated substantial in-kind expertise to the project, along with a specially equipped accident investigation vehicle to carry out in-depth, on-the-scene accident research.

TARC has two main objectives: first, to build a database of knowledge gleaned from local accident experience, and second, to provide policy makers with information to help them prioritize traffic safety solutions and ultimately reduce the number of accidents. The project has now trained a team of investigators, and has been conducting research at accident scenes in several provinces in Thailand. The team, which also has two doctoral and four Master's students working with the investigators, has published several reports and presentations internationally. They have also built up an accident database, making it possible for researchers to use material from traffic investigations and reconstructions of accidents in Thailand. (More information can be found at www.tarc.or.th)

In Europe, Ford has also been taking a leadership role in two major accident research activities, in cooperation with public bodies. These activities include the German In-Depth Accident Study and the United Kingdom's Car Crash Injury Study. Ford sees these two different but complementary studies as key components of its policy of data-driven decision making, both internally to ensure that our safety strategy is targeted at the most productive areas, and externally to help governments focus their rulemaking attention on genuine safety issues, where they can make a difference.

## \$65million

#### RELATED LINKS

- **External Web Sites**
- Global Road Safety Partnership
- Global Road Safety Initiative
- Thailand Accident Research Center

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## . SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- · Context
- Management
- Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- Progress
- Context
- Management
- Performance
- Human Behavior
- Vehicle Safety
- Driving Environment

### Future Technologies

- Forward-Looking Radar and
   Vision Sensor Technologies
- Inflatable Safety Belts
- Advanced Crash-test Dummies
- Partnerships with Other Parties
- University Partnerships
- Data
- · Case Studies

Print this report



Send feedback

## **Future Technologies**

Engineers across the Ford Motor Company brands are creating technologies to help drivers avoid accidents and help protect occupants during a collision. Ford's state-of-the-art safety testing facility in Dearborn, Michigan, known as the Safety Innovation Laboratory, is helping to drive these innovations. The laboratory is part of a \$65 million investment in advanced vehicle testing technology that is expected to deliver faster, more accurate and more efficient testing, in order to accelerate the introduction of new safety technologies to the marketplace. Some examples of these exciting new technologies are described in this section.



New Safety Certification Test lab

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFFTY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

· Introduction

## . WORKPLACE SAFETY

- · Progress
- Context
- Management
- . Performance
- . Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies

# Forward-Looking Radar and Vision Sensor Technologies

- Inflatable Safety Belts
- Advanced Crash-test Dummies
- Partnerships with Other Parties
- University Partnerships
- Data
- · Case Studies

Print this report



Send feedback

## Forward-Looking Radar and Vision Sensor Technologies

Together with Volvo, Ford is developing a suite of accident avoidance features that use forward-looking radar and vision sensors. These features are being developed to help forewarn drivers of potentially dangerous situations, such as an unintended lane departure, following too closely to a car in front or a pedestrian who might have walked into the path of a car. Several of these technologies are now available on the 2007 Volvo S80 and are discussed in the case study on that vehicle.

Driver Alert and Lane Departure Warning systems are among several advanced technologies being developed. Driver Alert aims to combat driver fatigue, which is a major traffic-safety problem throughout the world. This world-first innovation analyzes a car's progress on the road and alerts the driver before he or she falls asleep. Driver Alert uses a camera, sensors and a computer processor to monitor the vehicle's movements and assess whether it is being driven in a controlled or uncontrolled manner. This patented method is unique among vehicle manufacturers and has been tested both on the road and in simulators with excellent results and very high dependability. Driver Alert is expected to be available on production vehicles in two years.

Lane Departure Warning uses a forward-looking camera to continuously monitor the road and keep track of where the car is in relation to the lane markings. If the driver loses concentration and the vehicle's wheels move outside the lane markings, a warning chime alerts the driver. Lane Departure Warning has been demonstrated on various concept vehicles but is not yet available on production models.

Forward-looking radar and vision sensors may also be used in the future to help drivers avoid collisions with pedestrians. In 2006, the VIRTTEX lab broke new ground by using its advanced computer graphics to simulate pedestrians in the virtual world. Ford and Volvo worked together to test advanced systems that can help alert a driver in some situations when a pedestrian unexpectedly crosses the road near the path of the driver's car. By using "virtual pedestrians" in a VIRTTEX-simulated drive, researchers were able to test a wide variety of situations involving people and moving cars in the safety of the laboratory. Different warning strategies for helping the driver recognize the situation and take action were analyzed by our safety experts, and the most promising strategies are being developed for possible inclusion in future products.

Ford was recently awarded \$1.8 million to develop a simulation tool for NHTSA to estimate the benefits of future active safety features. Ford, Volvo and the University of Michigan Transportation Research Institute will work together to research Lane Departure Warning and Driver Alert systems, as well as other advanced technology systems, as case studies. Accident database information and driver data from test track and VIRTTEX experiments will be used as input for this simulation.

### RELATED LINKS

- In This Report
- o Volvo S80

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- Progress
- · Context
- Management
- · Performance
- . Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Forward-Looking Radar and
   Vision Sensor Technologies
- . Inflatable Safety Belts
- Advanced Crash-test Dummies
- Partnerships with Other Parties
- University Partnerships
- Data
- · Case Studies

Print this report



Send feedback

## Inflatable Safety Belts

Safety belts remain the most important vehicle safety technology available. Responding to the changing demographics of today's driving population, Ford is researching advanced next-generation safety belt technologies that could help to further reduce the number of annual vehicle fatalities, which are already at their lowest levels since 1994 in developed countries.

One new design, envisioned for possible use in rear seats, incorporates an air bag into the safety belt itself. In this design, a tube of air bag material is hidden in the safety belt webbing, and the tube inflates into a cylindrical shape when the frontal air bags deploy. The inflatable belts have the potential to spread the forces from a vehicle crash over a broader section of the body than a traditional safety belt, helping to reduce pressure on the chest. At the same time, the bag catches the occupant's chin, helping to control the motion of the head and neck.

Though much work remains, early research and studies have shown that the inflatable belt may effectively enhance the protection of occupants in the rear seat, including children and the elderly. When not inflated, the thicker belt was judged in consumer clinics to be more comfortable than a standard safety belt, because it felt like it was padded. A version of the inflatable belt system was shown on a concept car at the Detroit Auto Show in January 2006. As with most new technologies, a number of technical challenges remain and need to be overcome before these belts can be considered for use on production vehicles.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

· Introduction

## . WORKPLACE SAFETY

- Progress
- Context
- Management
- · Performance
- . Data
- · Case Studies

### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Forward-Looking Radar and
   Vision Sensor Technologies
- Inflatable Safety Belts
- . Advanced Crash-test

### Dummies

- Partnerships with Other Parties
- University Partnerships
- Data
- · Case Studies





Send feedback

## **Advanced Crash-test Dummies**

Crash-test dummies are essential research tools that aid in the development of passive safety technologies, and Ford Motor Company continues to develop, often in partnership with other parties, more advanced test dummies.

Recently, Ford partnered with Children's Hospital of Philadelphia (CHOP), the University of Virginia, Wayne State University and the Takata Corporation in a multi-year project to develop a new abdominal insert and sensor for a crash-test dummy representing a six-year-old child. CHOP studies have shown that, in vehicle crashes, significant abdominal injury in four- to eight-year-old children is second in frequency of occurrence only to head and facial injuries. Abdominal injuries often occur when children too young (i.e., the four- to eight-year-old range) utilize adult restraint systems without a booster seat. The abdominal insert and sensor will allow restraint engineers industry-wide to test the potential for abdominal injuries in children and ultimately improve the development of in-vehicle restraint systems for young children.

In another effort, Ford, GM and DaimlerChrysler work together under the auspices of the Occupant Safety Research Partnership (OSRP), a partnership under USCAR, to research, develop, test and evaluate advanced crash-test dummies and other pre-competitive safety systems. A number of years ago, the OSRP initiated development of WorldSID, a male side-impact dummy that is recognized as the most advanced crash-test dummy ever created. In 2006, the OSRP worked with NHTSA to help them evaluate WorldSID for potential use in the federal government's new side-impact crash-test standard. WorldSID is also the first side-impact dummy with the potential to be commonly used in side-impact regulations around the world.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

- Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- 0--4---
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Forward-Looking Radar and
   Vision Sensor Technologies
- Inflatable Safety Belts
- Advanced Crash-test Dummies
- Partnerships with Other
   Parties
- University Partnerships
- . Data
- Case Studies





Send feedback

## Partnerships with Other Parties

Ford Motor Company is involved with a number of partners to develop future technologies and enhance the safety of the driving experience.

For example, in 1995, Ford and GM launched the Crash Avoidance Metrics Partnership (CAMP). Within CAMP, the Vehicle Safety Communications Two (VSC-2) Consortium, which includes Ford, General Motors, Toyota, DaimlerChrysler and Honda, is working with the U.S. Department of Transportation on two major projects to develop safety applications that utilize vehicle communications. Their efforts are focused on developing a communication system whereby vehicles can "talk" to each other and to the roadway. This would be analogous to wireless internet or cellular telephone for cars. CAMP VSC-2 successfully completed a project that demonstrated the basic feasibility of this technology, and they will be evaluating the following applications in a follow-on project:

- Cooperative Intersection Collision Avoidance System: Violation Warning

  As a vehicle approaches a traffic light, it would receive a message from the traffic light with the signal phase (red, yellow or green) and the amount of time until the signal changes. The vehicle would use this information, together with the vehicle position and speed, to decide if a warning or some other countermeasure (such as brake assist) is appropriate.
- Vehicle-to-Vehicle Communications for Safety Applications, such as Electronic Emergency Brake Lights (EEBL)

The vehicle manufacturers in the VSC-2 are working together and with NHTSA to investigate the messages needed for a host of vehicle-to-vehicle safety applications, including EEBL. For example, when a driver applies the brakes, the brake lights are illuminated, but there is currently no way to distinguish hard braking from light or moderate braking. Further, often only the vehicle directly behind the braking vehicle is able to see the brake lights. If a vehicle performing hard braking could send a message to other vehicles, then those vehicles could warn their drivers, activate brake assist or even start automatic braking.

Ford is also participating in a Vehicle Infrastructure Integration National Coalition (VIINC) to assess the feasibility of deploying wireless technologies to support the above safety applications as well as mobility and commercial applications (e.g., e-payment for parking, tolling and gasoline purchases). Under a \$56 million cooperative agreement, the U.S. Department of Transportation and eight OEMs are evaluating the framework for a national strategy to implement vehicle-to-roadway and vehicle-to-vehicle communications to support safety, commercial and consumer services. In this partnership, the government would fund the roadside infrastructure and the OEMs would provide the wireless on-board equipment. A special Dedicated Short Range Communications (DSRC) radio is being developed for this purpose, and the Federal Communications Commission has allocated bandwidth for its operation. The U.S. Department of Transportation has proposed installing 250,000 DSRC roadside transceivers nationwide by 2010 to support the deployment of vehicle transceivers by OEMs. Projects are underway to demonstrate technical feasibility in 2007.

In addition, Ford is a board member of the ComCARE Alliance, a nonprofit organization that encourages the establishment of wireless communication networks, infrastructure and technologies that enable emergency communications between the motoring public and public safety agencies. This alliance is a coalition of the medical community; public health and safety officials; automobile, telematics and technology companies; safety groups; and others.

In Europe, Ford has been a leading contributor to the EU's "RESPONSE" project. RESPONSE is developing a code of practice aimed at ensuring that new Advanced Driver-Assistance Systems technologies are designed to be safe, considering the complex interaction of drivers and vehicle systems in multiple traffic situations.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- · Context
- Management
- · Performance
- Data
- · Case Studies

### . VEHICLE SAFETY

- Progress
- . Context
- Management
- · Performance
- Human Behavior
- Vehicle Safety
- Driving Environment
- Future Technologies
- Forward-Looking Radar and
   Vision Sensor Technologies
- Inflatable Safety Belts
- Advanced Crash-test Dummies
- Partnerships with Other Parties
- University Partnerships
- Data
- · Case Studies

Print this report



Send feedback

## **University Partnerships**

Ford Motor Company often works in partnership with universities. For example, Ford has given two University Research Program grants (URPs) to researchers at the Virginia Polytechnic Institute and State University (Virginia Tech). Each URP grant of \$40,000 per year for one to three years funds one graduate student working on an issue of interest to Ford. One of the grants given to Virginia Tech in 2005, 2006 and 2007 is aimed at better characterizing the material properties of human ribs. Knowledge of these properties will help Ford improve its computer model of the full human body. Ford developed this model over the past 10 years and currently uses it to help answer research questions in automotive safety. The second URP grant, given to Virginia Tech in 2007, will enable Virginia Tech and Ford researchers to develop a better understanding of the properties of maternal tissues from pregnant women. These properties will enable the improvement of computer models of pregnant women previously independently developed by Virginia Tech and Volvo. These models may help in understanding the injury risk to pregnant women and their fetuses.

See notes to the data

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 PRODUCTS AND CUSTOMERS QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT COMMUNITY VIEWING THIS DATA Vehicle Safety Data Would you prefer to view the . SAFETY data as text tables? • Introduction See data tables **Charts on This Page** ⊌.S. Safety Recalls . WORKPLACE SAFETY Α JHS Top Safety Picks • Progress С <u>2007 Public Domain Ratings of Ford Motor Company Products – U.S.</u> Context 2007 Public Domain Ratings of Ford Motor Company Products - Europe Management Performance **U.S. Safety Recalls** · Data Number of safety recalls · Case Studies 2006 11 . VEHICLE SAFETY 2005 16 · Progress 2004 21 Context 2003 16 · Management 2002 16 Performance Number of units Data 2006 1,737,000 Case Studies 2005 6,005,000 2004 5,034,000 Print this report 2003 3,405,000 Download resources 2002 2,323,000 See notes to the data Send feedback top **IIHS Top Safety Picks** Number of vehicles 2006 03 2005 02 2004 NA 2003 NA 2002 NA

2007 Public Domain Ratings of Ford Motor Company Products - U.S.

to

## Escape / Tribute / NCAP Star Rating: Full Frontal Impact Driver Mariner / Hybrid Passenger NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Acceptable Visit Tribute Web site Visit Mariner Hybrid Web site F-150 Super Crew NCAP Star Rating: Full Frontal Impact Driver Passenger F-150 Super / Reg Cab NCAP Star Rating: Full Frontal Impact Driver \*\*\*\* \*\*\*\* Passenger NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Ford 500 / Mercury NCAP Star Rating: Full Frontal Impact Driver Montego Passenger Front NCAP Star Rating: Side Impact Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Visit Mercury Montego Web site Ford Crown Victoria / NCAP Star Rating: Full Frontal Impact Driver **Grand Marquis** Passenger NCAP Star Rating: Side Impact Front \*\*\*\* Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Visit Grand Marquis Web site Ford Expedition NCAP Star Rating: Full Frontal Impact Driver Passenger NCAP Rollover Resistance Rating 4x2 4x4 Visit Web site Ford Explorer / NCAP Star Rating: Full Frontal Impact Driver Mountaineer, 4dr Passenger NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good

Visit Mountaineer Web site

Ford Explorer Sport Trac (2007 MY)	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
4	NCAP Star Rating: Side Impact	Front	****
	NCAP Rollover Resistance Rating	Rear 4x2	***
Visit Explorer Sport Trac Web site	J. C.	4x4	****
Ford Focus 2 dr	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front Rear	***
Visit Web site	NCAP Rollover Resistance Rating		****
Ford Focus 4 dr	NCAP Star Rating: Full Frontal Impact	Driver Passenger	**** ****
	NCAP Star Rating: Side Impact	Front Rear	*** ****
Visit Web site	NCAP Rollover Resistance Rating		****
Ford Freestar /	IIHS Offset Frontal Rating	Drivor	Good
Mercury Monterey	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front	****
Comment of	NCAP Rollover Resistance Rating	Rear	***** ****
8	IIHS Offset Frontal Rating		Good
Visit Freestar Web site			
Visit Monterey Web site			
Ford Freestyle	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front	****
	NCAP Rollover Resistance Rating	Rear	**** ****
-0	IIHS Offset Frontal Rating		Good
Visit Web site NEW MODEL			
Ford Edge / Lincoln MKX	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front Rear	****
	NCAP Rollover Resistance Rating	Real	****
Visit Ford Edge Web site	IIHS Offset Frontal Rating		Good
Visit Lincoln MKX Web site			
Ford Fusion / Mercury Milan / Lincoln Zephyr	NCAP Star Rating: Full Frontal Impact	Driver Passenger (with side airbag)	****
	NCAP Star Rating: Side Impact	Front	****
	NCAP Rollover Resistance Rating	Rear	****
Visit Ford Fusion Web site	IIHS Offset Frontal Rating		Good
Visit Mercury Milan Web site			
Visit Mercury Milan Web site			
	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
Visit Mercury Milan Web site  Ford Mustang coupe	NCAP Star Rating: Full Frontal Impact NCAP Star Rating: Side Impact	Driver Passenger Front Rear	X X X X X X X X X X X X X X X X X X X

Ford Ranger Extended Cab / Mazda B	NCAP Star Rating: Full Frontal Impact	Driver <b>2005 rating:</b> Passenger	**** **** ****
	NCAP Star Rating: Side Impact	Front	****
S20 1 / 22	NCAP Rollover Resistance Rating  IIHS Offset Frontal Rating	4x4 4x2	* * * Acceptable
/isit Ranger Web site	v		·
0 0 0			
/isit Mazda B Web site Ford Ranger Reg.	NCAP Star Rating: Full Frontal Impact	Driver	*****
Cab / Mazda B	NOAF Stal Rating. I dir Hontai impact	2005 rating: Passenger	**** ****
	NCAP Star Rating: Side Impact	Front	****
420	NCAP Rollover Resistance Rating	4x4	<b>*</b> *
16	IIHS Offset Frontal Rating	4x2	Acceptable
/isit Ranger Web site	iiris oliset riolitai itatilig		Ассеріавіс
A			
Visit Mazda B Web site Ford Taurus	NCAP Star Rating: Full Frontal Impact	Drivor	****
-oru raurus	INCAP Star Kating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front	***
<b>8 8</b>	NCAP Rollover Resistance Rating	Rear	***
/isit Taurus Web site	IIHS Offset Frontal Rating		Good
Ford Thunderbird	NCAP Star Rating: Full Frontal Impact	Driver	****
	NCAD Char Dating Cida Insurant	Passenger	****
* *	NCAP Star Rating: Side Impact NCAP Rollover Resistance Rating	Front	****
Jaguar S-Type	NCAP Rollover Resistance Rating  NCAP Star Rating: Side Impact	Front	<del>- 1111</del>
		Rear	****
9 200 3	NCAP Rollover Resistance Rating		****
/isit Web site			
Jaguar X-Type	NCAP Star Rating: Side Impact	Front	****
		Rear	****
40000	NCAP Rollover Resistance Rating		****
(A) 2	IIHS Offset Frontal Rating		Good
<u>/isit Web site</u> _incoln Navigator	NCAP Star Rating: Full Frontal Impact	Driver	*****
	North Star Nating. Fair Frontal Impact	Passenger	****
	NCAP Rollover Resistance Rating		****
<b>-</b>			
<u>/isit Web site</u> _incoln Town Car	NCAP Star Rating: Full Frontal Impact	Driver	****
		Passenger	****
-0-0	NCAP Star Rating: Side Impact	Front Rear	****
/isit Wah site	NCAP Rollover Resistance Rating		****
/isit Web site	IIHS Offset Frontal Rating		Good
/olvo S40	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front	****
6 ***	NCAP Rollover Resistance Rating	Rear	<u> </u>
/isit Web site	IIHS Offset Frontal Rating		Good
Volvo S60	NCAP Star Rating: Full Frontal Impact	Driver	****
		Passenger	****
1	NCAP Star Rating: Side Impact	Front Rear	****
		₽Dar	

Visit Web site

olvo S80	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
9	NCAP Star Rating: Side Impact	Front Rear	****
Variation and	NCAP Rollover Resistance Rating		****
0.	IIHS Offset Frontal Rating		Good
	3		
isit Web site			
	NCAP Star Rating: Full Frontal Impact	Driver	****
	V	Driver Passenger	**** ****
	V		**** *****
olvo XC90	NCAP Star Rating: Full Frontal Impact	Passenger	**** ***** *****
	NCAP Star Rating: Full Frontal Impact	Passenger Front	**** **** **** ****

See notes to the data

top D 2007 Public Domain Ratings of Ford Motor Company Products - Europe Ford S-MAX Euro NCAP Star Rating Adult Occupant Child Occupant Pedestrian Ford Galaxy **Adult Occupant** Euro NCAP Star Rating Child Occupant Pedestrian Ford Focus Euro NCAP Star Rating Adult Occupant Child Occupant Pedestrian Visit Web site Ford Focus C-MAX Euro NCAP Star Rating Adult Occupant Child Occupant Pedestrian Visit Web site \*\*\*\* NA Ford Fiesta Euro NCAP Star Rating Adult Occupant Child Occupant Pedestrian Visit Web site Ford Fusion Adult Occupant Euro NCAP Star Rating \*\*\*\* NA Child Occupant Pedestrian Visit Web Ford Mondeo (MY Euro NCAP Star Rating Adult Occupant \*\*\*\* NA 2001) Child Occupant Pedestrian Ford Ka Euro NCAP Star Rating Adult Occupant ★★★ NA Child Occupant Pedestrian

Volvo S40	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** **** **
Visit Web site			
Volvo XC90	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** NA **
/isit Web site /olvo S60	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	* * * * NA * *
licit Web cite			
/isit Web site Jaguar X Type	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** NA *
<u>Visit Web site</u> Land Rover Discovery	Euro NCAP Star Rating	Adult Occupant Child Occupant	****
on scovery		Pedestrian	****
/isit Web site			
Mazda5	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** *** **
/isit Web site			
Mazda3	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** *** **
Visit Web site  Mazda2	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** ***
0			1273
<u>visit Web site</u> Mazda6	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** ****
Visit Web site			

See notes to the data



## **U.S. New Car Assessment Program**

Government star ratings are part of the New Car Assessment Program (NCAP) of the U.S. National Highway Traffic Safety Administration (NHTSA). In NHTSA's frontal crash rating tests, vehicles with belted front-seat test dummies are crashed into a fixed barrier at 35 mph, which is equivalent to a head-on collision between two similar vehicles, each moving at 35 mph. Since the test is designed to reflect a crash between two similar vehicles, one can meaningfully compare vehicles from the same weight class (within +/- 250 lbs) when looking at frontal crash test ratings.

Instruments measure the force of the impact to each test dummy's head, chest and legs. NHTSA uses the readings from these instruments to estimate the chance that a real occupant would sustain a serious injury in the tested frontal crash. A serious injury is defined as one that requires immediate hospitalization and may be life-threatening.

For side crash ratings, belted test dummies are placed in the driver seat and rear passenger seat (driver's side). The side crash rating is designed to represent an intersection-type collision with a 3,015 lb barrier moving at 38.5 mph into a standing vehicle. The moving barrier is covered with material that has "give" to replicate the front of a vehicle. Since all rated vehicles are impacted by the same size barrier, it is possible to compare all vehicles with each other when looking at side

crash protection ratings. Instruments measure the force of impact to each dummy's head, neck, chest and pelvis. Side crash star ratings indicate the chance of a serious chest injury for the driver, front seat passenger and the rear seat passenger (first and second row occupants).

What do the stars mean? Chance of serious injury

\*\*\*\* \*\*\*\* \*\*\* \* Frontal Crash Rating

10 percent or less

11–20 percent

21–35 percent

36–45 percent

46 percent or greater

Side Crash Rating

5 percent or less

6–10 percent

11–20 percent

11–20 percent

21–25 percent

26 percent or greater

For more information, go to <a href="www.nhtsa.dot.gov">www.nhtsa.dot.gov</a>. Data are for the model year noted.

## **IIHS Frontal Offset Evaluation**

In the 40 mph offset test of the Insurance Institute for Highway Safety (IIHS), 40 percent of the total width of a vehicle strikes a barrier on the driver's side. The forces in the test are similar to those involved in a frontal offset crash between two vehicles of the same weight, each going just less than 40 mph. Test results can be compared only among vehicles of similar weight. Like full-width crash test results, the results of offset tests cannot be used to compare vehicle performance across weight classes.

Based on a vehicle's performance in three areas evaluated in the frontal offset crash tested - structural performance, injury measures and restraints/dummy kinematics - the IIHS assigns a vehicle an overall crashworthiness measure of Good, Acceptable, Marginal or Poor. For more information, go to <a href="www.iihs.org">www.iihs.org</a>.

#### **Euro NCAP**

Adult Occupant ratings range from 0 to 5 stars.

Child Occupant ratings theoretically range from 0 to 5 stars (but 4 stars is the highest rating currently available.)

Pedestrian ratings range from 0 to 4 stars.

For additional information, go to www.euroncap.com

### NOTES TO THE DATA

#### Chart A

Recalls are by calendar year rather than model year. A single recall may affect several vehicle lines and/or several model years. The same vehicle may have multiple recalls. (Source: U.S. National Highway Traffic Safety Administration.)

#### Chart B

To earn a Top Safety Pick from the Insurance Institute for Highway Safety (IIHS), a vehicle must receive a rating of "good" in offset frontal impact, side impact and rear impact evaluations, and offer electronic stability control. Top Safety Picks are the best vehicle choices for safety within size categories. 2005 (2006 model year) was the first year IIHS issued Top Safety Picks. As we attempt to balance frequently changing government and nongovernment test requirements with real-world safety, we have continued to assess the appropriate metrics for measuring our performance. We have chosen to present public domain safety ratings for all of our models, rather than a percentage of models tested receiving a particular star rating.

## Chart C

\* No Data – the instruments used to record the rating data malfunctioned.

## Chart D

NA = not applicable; child protection ratings were introduced from tests published in November 2003

These results are the ratings applicable to vehicles on sale in 2006. Many of the tests took place in earlier years.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA

See data charts

data as charts?

Would you prefer to view the

### . SAFETY

• Introduction

## . WORKPLACE SAFETY

- Progress
- Context
- Management
- Performance
- Data
- · Case Studies

## . VEHICLE SAFETY

- Progress
- Context
- Management
- Performance

## Data

Case Studies



Download resources

Send feedback

## Vehicle Safety Data

## **Tables on This Page**

- A U.S. Safety Recalls
- B JHS Top Safety Picks
- C 2007 Public Domain Ratings of Ford Motor Company Products U.S.
- D <u>2007 Public Domain Ratings of Ford Motor Company Products Europe</u>

#### Α

### **U.S. Safety Recalls**

## Number of safety recalls

2002	2003	2004	2005	2006
16	16	21	16	11

### Number of units

Number of vehicles

2002	2003	2004	2005	2006
2,323,000	3,405,000	5,034,000	6,005,000	1,737,000

See notes to the data

## **IIHS Top Safety Picks**

2002	2003	2004	2005	2006
NA	NA	NA	02	03

See notes to the data

## top

top

### C

## 2007 Public Domain Ratings of Ford Motor Company Products – U.S.

## Escape / Tribute / Mariner / Hybrid



Visit E	scape	Web	site

NCAP Star Rating: Full Frontal Impact	Driver	***
	Passenger	***
NCAP Star Rating: Side Impact	Front	****
	Rear	****
NCAP Rollover Resistance Rating		***
IIHS Offset Frontal Rating		Acceptable



Visit Tribute Web site



Visit Mariner Hybrid Web site



## Ford Freestar / NCAP Star Rating: Full Frontal Impact Driver **Mercury Monterey** Passenger NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Visit Freestar Web site Visit Monterey Web site Ford Freestyle NCAP Star Rating: Full Frontal Impact Driver Passenger NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good NEW MODEL Ford Edge / Lincoln NCAP Star Rating: Full Frontal Impact Driver Passenger NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Ford Fusion / Mercury NCAP Star Rating: Full Frontal Impact Driver Milan / Lincoln Zephyr Passenger (with side airbag) NCAP Star Rating: Side Impact Front Rear NCAP Rollover Resistance Rating IIHS Offset Frontal Rating Good Ford Mustang coupe NCAP Star Rating: Full Frontal Impact Driver Passenger NCAP Star Rating: Side Impact ★★★★ No Data\* Front Rear NCAP Rollover Resistance Rating \*\*\*\* Visit Web site Ford Ranger NCAP Star Rating: Full Frontal Impact Driver Extended Cab / 2005 rating: Mazda B Passenger NCAP Star Rating: Side Impact Front NCAP Rollover Resistance Rating \*\* \*\*\* 4x4 4x2 IIHS Offset Frontal Rating Acceptable Visit Ranger Web site

Visit Mazda B Web site

Ford Ranger Reg. Cab / Mazda B	NCAP Star Rating: Full Frontal Impact	Driver <b>2005 rating:</b> Passenger	**** **** ****
	NCAP Star Rating: Side Impact NCAP Rollover Resistance Rating	Front 4x4 4x2	****
Visit Ranger Web site	IIHS Offset Frontal Rating	INE_	Acceptable
Visit Mazda B Web site Ford Taurus	NCAP Star Rating: Full Frontal Impact	Driver	****
	NCAP Star Rating: Side Impact	Passenger Front	****
₹ <b>3</b>	NCAP Rollover Resistance Rating	Rear	<del>-                                    </del>
Visit Taurus Web site	IIHS Offset Frontal Rating		★★★★ Good
Ford Thunderbird	NCAP Star Rating: Full Frontal Impact	Driver Passenger	****
	NCAP Star Rating: Side Impact	Front	****
***	NCAP Rollover Resistance Rating		***
Jaguar S-Type	NCAP Star Rating: Side Impact	Front Rear	**** ****
A 200 W	NCAP Rollover Resistance Rating		****
Visit Web site			
Jaguar X-Type	NCAP Star Rating: Side Impact	Front Rear	****
40.00	NCAP Rollover Resistance Rating		****
Visit Web site	IIHS Offset Frontal Rating		Good
Lincoln Navigator	NCAP Star Rating: Full Frontal Impact  NCAP Rollover Resistance Rating	Driver Passenger	**** ****
<b>-</b> 9-0	NOAF ROHOVEL RESIstance Rating		
<u>Visit Web site</u> Lincoln Town Car	NCAP Star Rating: Full Frontal Impact	Driver	*****
	NCAP Star Rating: Side Impact	Passenger Front	****
<b>50</b> 00		Rear	<del></del>
Visit Web site	NCAP Rollover Resistance Rating IIHS Offset Frontal Rating		Good
Volvo S40	NCAP Star Rating: Full Frontal Impact	Driver	****
	NCAP Star Rating: Side Impact	Passenger Front	*****
®	NCAP Rollover Resistance Rating	Rear	****
Visit Web site	IIHS Offset Frontal Rating		Good
Volvo S60	NCAP Star Rating: Full Frontal Impact	Driver Passenger	**** ****
	NCAP Star Rating: Side Impact	Front Rear	****
10 mm 23	NCAP Rollover Resistance Rating	Rodi	****
Visit Web site	IIHS Offset Frontal Rating		Good
Volvo S80	NCAP Star Rating: Full Frontal Impact	Driver	****
9	NCAP Star Rating: Side Impact	Passenger Front	****
A come and	NCAP Rollover Resistance Rating	Rear	*****
0.00	IIHS Offset Frontal Rating		Good
	MCAD Star Dating: Full Frontal Impact	Drivor	
	NCAP Star Rating: Full Frontal Impact	Driver Passenger	*****
Visit Web site Volvo XC90	NCAP Star Rating: Full Frontal Impact  NCAP Star Rating: Side Impact		**** ***** *****

Visit Web site

D			
2007 Pt	ublic Domain Ratings of Ford	<b>Motor Company Produc</b>	ts – Europe

Drd S-MAX	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** **** **
it Web site			
DEW MODEL ord Galaxy	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** ****
it Web site			
ord Focus	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** **** **
it Web site			
rd Focus C-MAX	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** ****
<b>28 8</b>		reuestildii	**
it Web site ord Fiesta	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	NA NA
<b></b>		Pedesinan	**
t Web site rd Fusion	Euro NCAP Star Rating	Adult Occupant	
A STATE OF THE STA	Eulu NOAF Stal Ratility	Child Occupant Pedestrian	* * * * NA * *
it Web site			
rd Mondeo (MY 01)	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	* * * * NA * *
it Web site			
rd Ka	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	NA
A Total			
t Web site	Fura NCAD Star Dallar	Adult Consument	44444
170 540	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	**** **** **
t Web site			
Ivo XC90	Euro NCAP Star Rating	Adult Occupant Child Occupant Pedestrian	***** NA
		r cucsilidii	**
G.			



See notes to the data

top

## **U.S. New Car Assessment Program**

Government star ratings are part of the New Car Assessment Program (NCAP) of the U.S. National Highway Traffic Safety Administration (NHTSA). In NHTSA's frontal crash rating tests, vehicles with belted front-seat test dummies are crashed into a fixed barrier at 35 mph, which is equivalent to a head-on collision between two similar vehicles, each moving at 35 mph. Since the test is designed to reflect a crash between two similar vehicles, one can meaningfully compare vehicles from the same weight class (within +/- 250 lbs) when looking at frontal crash test ratings.

Instruments measure the force of the impact to each test dummy's head, chest and legs. NHTSA uses the readings from these instruments to estimate the chance that a real occupant would sustain a serious injury in the tested frontal crash. A serious injury is defined as one that requires immediate hospitalization and may be life-threatening.

For side crash ratings, belted test dummies are placed in the driver seat and rear passenger seat (driver's side). The side crash rating is designed to represent an intersection-type collision with a 3,015 lb barrier moving at 38.5 mph into a standing vehicle. The moving barrier is covered with material that has "give" to replicate the front of a vehicle. Since all rated vehicles are impacted by the same size barrier, it is possible to compare all vehicles with each other when looking at side crash protection ratings. Instruments measure the force of impact to each dummy's head, neck, chest and pelvis. Side crash star ratings indicate the chance of a serious chest injury for the driver, front seat passenger and the rear seat passenger (first and second row occupants).

What do the stars mean? Chance of serious injury



Frontal Crash Rating	Side Crash Rating
10 percent or less	5 percent or less
11-20 percent	6-10 percent
21-35 percent	11-20 percent
36-45 percent	21-25 percent
46 percent or greater	26 percent or greate

For more information, go to www.nhtsa.dot.gov. Data are for the model year noted.

### **IIHS Frontal Offset Evaluation**

In the 40 mph offset test of the Insurance Institute for Highway Safety (IIHS), 40 percent of the total width of a vehicle strikes a barrier on the driver's side. The forces in the test are similar to those involved in a frontal offset crash between two vehicles of the same weight, each going just less than 40 mph. Test results can be compared only among vehicles of similar weight. Like full-width crash test results, the results of offset tests cannot be used to compare vehicle performance across weight classes.

Based on a vehicle's performance in three areas evaluated in the frontal offset crash tested - structural performance, injury measures and restraints/dummy kinematics - the IIHS assigns a vehicle an overall crashworthiness measure of Good, Acceptable, Marginal or Poor. For more information, go to <a href="www.iihs.org">www.iihs.org</a>.

### **Euro NCAP**

Adult Occupant ratings range from 0 to 5 stars. Child Occupant ratings theoretically range from 0 to 5 stars (but 4 stars is the highest rating currently available.) Pedestrian ratings range from 0 to 4 stars.

For additional information, go to www.euroncap.com

## **NOTES TO THE DATA**

#### Table A

Recalls are by calendar year rather than model year. A single recall may affect several vehicle lines and/or several model years. The same vehicle may have multiple recalls. (Source: U.S. National Highway Traffic Safety Administration.)

#### Table B

To earn a Top Safety Pick from the Insurance Institute for Highway Safety (IIHS), a vehicle must receive a rating of "good" in offset frontal impact, side impact and rear impact evaluations, and offer electronic stability control. Top Safety Picks are the best vehicle choices for safety within size categories. 2005 (2006 model year) was the first year IIHS issued Top Safety Picks. As we attempt to balance frequently changing government and nongovernment test requirements with real-world safety, we have continued to assess the appropriate metrics for measuring our performance. We have chosen to present public domain safety ratings for all of our models, rather than a percentage of models tested receiving a particular star rating.

### Table C

\* No Data – the instruments used to record the rating data malfunctioned.

## Table D

NA = not applicable; child protection ratings were introduced from tests published in November 2003. These results are the ratings applicable to vehicles on sale in 2006. Many of the tests took place in earlier years.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . SAFETY

- Introduction
- . WORKPLACE SAFETY
- Progress
- Context
- Management
- Performance
- Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- . Context
- Management
- Performance
- Data

#### Case Studies

- Dearborn Development Center
- Driving Skills for Life
- o The Volvo S80
- Rollover Crashes and Roof Strength
- Pedestrian Safety The Jaguar
   XK150



Download resources

Send feedback

## Case Studies

#### Dearborn Development Center

In June 2006, Ford Motor Company unveiled one of the automotive industry's most advanced test tracks. Dubbed the Dearborn Development Center, this \$43 million transformation of the Company's historic proving ground represents a key part of Ford's Way Forward turnaround plan.

#### **Driving Skills for Life**

Established in 2003 by Ford, the Governors Highway Safety Association and a panel of safety experts, Driving Skills for Life is a program that helps youngsters develop the skills necessary for safe driving, beyond what they learn in standard driver education programs.

### The Volvo S80 >

Ford and Volvo have been working together closely to develop innovative new safety technologies. Many of these technologies are now available for the first time on the all-new Volvo S80, which has been completely redesigned for the 2007 model year and boasts an impressive array of new or upgraded accident avoidance and occupant protection safety systems.

## Rollover Crashes and Roof Strength

Unlike front and side crashes, which can vary greatly in severity from minor to major, rollovers, by definition, tend to be severe crashes because of the energy required to roll a vehicle over. Due to their severity, rollovers account for about one-third of all crash fatalities, even though they account for less than 10 percent of all crashes.

#### Pedestrian Safety - The Jaguar XK150 >

In 2006, Jaguar received the Traffic Safety Achievement Award in the Automaker Category from the World Traffic Safety Symposium for the new Jaguar XK's Pedestrian Impact Safety System.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . SAFETY

· Introduction

#### . WORKPLACE SAFETY

- Progress
- Context
- Management
- · Performance
- . Data
- · Case Studies

#### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies

#### Dearborn Development

#### Center

- o Driving Skills for Life
- o The Volvo S80
- Rollover Crashes and Roof
   Strength
- Pedestrian Safety The Jaguar
   XK150





Send feedback

## Dearborn Development Center

In June 2006, Ford Motor Company unveiled one of the automotive industry's most advanced test tracks. Dubbed the Dearborn Development Center, this \$43 million transformation of the Company's historic proving ground represents a key part of Ford's Way Forward turnaround plan. The facility is core to the Company's efforts to streamline product development and shave more than a year off the time it takes to bring new vehicles to market.

At the testing facility, vehicles under development will be driven more than one million miles per year on flooded asphalt, rutted roads and high-banked curves. The site includes a new 43-acre vehicle dynamics area, a 12-acre asphalt wet pad, a 2.5-mile steering and handling course and a 4,000-foot straightaway. The facility's "World Roads" section includes varying types of extreme road conditions. The roads allow engineers to test early vehicle prototypes in a real-world environment – yet in a manner that is safe, controlled and secure from prying eyes and traffic interruptions.

The new investment transforms the 81-year-old Dearborn Proving Ground from a single-purpose facility – used in the past for fuel economy measurement and routine testing – into one of the most advanced automotive testing facilities in the world. It allows Ford engineers to test future vehicles with unparalleled precision and rigor.

The new Dearborn Development Center also has had a positive impact on the environment and the surrounding community. The facility's improvements allowed for the reopening of an oxbow – or bend in the river – on the nearby Rouge River. Reopening the oxbow restores natural wetlands for wildlife and creates a place for recreational use of the river. In addition, the facility was built with recycled crushed concrete from a local road construction project, keeping 500,000 tons of concrete out of local landfills.

- In This Report
- Financial Health
- Delivering Customer-Focused Innovations

  Easter

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- · Performance
- · Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- Performance
- Data
- · Case Studies
- Dearborn Development Center
- Driving Skills for Life
- o The Volvo S80
- Rollover Crashes and Roof Strength
- Pedestrian Safety The Jaguar
   XK150



Download resources

Send feedback

## Driving Skills for Life

Established in 2003 by Ford, the Governors Highway Safety Association and a panel of safety experts, Driving Skills for Life is a program that helps youngsters develop the skills necessary for safe driving, beyond what they learn in standard driver education programs. This program earned Ford the 2007 Traffic Safety Achievement Award for Community Service from the World Traffic Safety Symposium.

Vehicle crashes are the No. 1 killer of teenagers in America. According to the National Highway Traffic Safety Administration, nearly 7,000 teens die annually in automobile crashes in the United States. Studies demonstrate that crash rates decline considerably as young drivers gain experience. Driving Skills for Life helps young drivers improve their skills in four key areas that are factors in more than 60 percent of teen vehicle crashes: hazard recognition, vehicle handling, space management and speed management.

Driving Skills for Life provides outstanding learning tools, including a DVD, printed materials and a newly redesigned <a href="Web site">Web site</a> that features stunning graphics, upbeat music and interactive features (such as simulation games) that help young drivers improve their ability behind the wheel. The Web site – relaunched in May 2006 – includes a points system whereby visitors can register and earn prizes (such as laptops, MP3 players and music downloads) for repeat visits. The content was also upgraded in 2006 with information about eco-driving, car care tips and information for mature drivers. Between May and December, more than 2,500 individuals registered at the Web site, which experienced a total of more than 136,000 logins and 2.3 million page views.

Driving Skills for Life also reached up to 90,000 individuals through in-person events in 2006, including a four-day Summer Camp for new drivers, a ride-and-drive event for teens near Orlando, and displays and presentations at 14 conferences or other events.

At the Summer Camp, 700 teens and parents from 123 cities took part in in-depth classroom instruction and behind-the-wheel training at Ford's Michigan Proving Ground in August. The Summer Camp was free to all participants, and included a special "parents-only" session attended by 100 parents.

The Orlando Ride and Drive event, held in March, came about at the request of a local Parent Student Teacher Association, after the deaths of five students from one high school in automobile crashes. During the event, 300 teens participated in driver training activities – a 26 percent increase in participation over all of the 2005 ride-and-drive events combined. A participant survey showed that 89 percent were very satisfied with the experience, and students' confidence levels in their driving skills rose significantly.

Finally, 2006 also saw the release of a 30-minute documentary on Driving Skills for Life, which was made available to public television stations, including PBS, via satellite.

Driving Skills for life opened its 2007 season in January with a ride-and-drive event in Sacramento, at which 300 students honed their driving skills on challenging driving courses under the supervision of a team of professional instructors. In February 2007, Ford partnered with KDKA-TV (the CBS affiliate in Pittsburgh) and Westfield Insurance to announce a new partnership to assist young drivers in Pittsburgh and western Pennsylvania called Taking the Lead, based on Driving Skills for Life. Furthermore, a Driving Skills for Life program was launched in Tazewell County, Illinois, in March. Tazewell County has lost 15 teens in car crashes in just over a year, and the Driving Skills for Life "Operation Teen Safe Driving" program is designed to be an intensive two-month immersion into teen safe-driving issues.



Oriving Skills for Life is a program that nelps youngsters develop the skills necessary for safe driving

- **External Web Sites**
- Driving Skills for Life

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . SAFETY

- · Introduction
- . WORKPLACE SAFETY
- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies
- . VEHICLE SAFETY
- · Progress
- Context
- Management
- Performance
- Data
- · Case Studies
- o Dearborn Development Center
- Driving Skills for Life
- → The Volvo S80
- Rollover Crashes and Roof
   Strength
- Pedestrian Safety The Jaguar
   XK150



Download resources

Send feedback

### The Volvo S80

Ford and Volvo have been working together closely to develop innovative new safety technologies. Many of these technologies are now available for the first time on the all-new Volvo S80, which has been completely redesigned for the 2007 model year and boasts an impressive array of new or upgraded accident avoidance and occupant protection safety systems.

In the accident avoidance area, the S80 contains an entirely new generation of advanced driving and support systems, several of which utilize forward-looking radar and vision sensors. Among these is **Adaptive Cruise Control (ACC)**, which helps a driver to maintain distance from the vehicle in front. While primarily a comfort function, Adaptive Cruise Control also contributes to more controlled driving when traffic flow is uneven. The ACC control module is mounted at the front of the vehicle and contains radar to measure the gap and closing speed to the vehicle ahead. The system automatically adapts the speed of the car to help maintain a pre-set distance from the vehicle ahead. Radar-based ACC was a world first when Jaguar, working with Ford Research, launched it on its XKR several years ago.

The S80's **Collision Warning with Brake Support** system uses a related technology to help avoid rear-end collisions or minimize the effects of those collisions. Again, the area in front of the car is monitored with a radar sensor (the same as that used for Adaptive Cruise Control). If the car approaches another moving vehicle from behind and the driver does not react, a red warning light flashes on the windscreen and an audible signal can be heard. This feature is called Forward Collision Warning, and it may be sufficient for the driver to react and avoid the hazard. If the risk of collision increases despite the warning, Brake Support is activated. The system supports driver-initiated braking by pre-charging the brakes and preparing for panic brake application.

The all-new Volvo S80 is also equipped with the **Blind Spot Information System** (BLIS) and **Intelligent Driver-Information System** (IDIS). BLIS uses cameras beside the door mirrors to register if another vehicle is in the blind spot alongside the car. In such a situation, a warning light beside the mirror is activated to alert the driver. IDIS continuously monitors certain functions in the car, such as wheel movements and braking, and blocks distractions such as incoming telephone calls or text messages in critical driving situations.

The S80 also offers **Active Bi-Xenon Lights** – swiveling headlamps that produce an optimal range of vision when driving in the dark on winding roads. A mini-processor is used to measure and analyze a number of parameters and optimize the light to suit the situation. To save wear on the system, this function is disconnected automatically in daylight.

The S80's brake system includes four new advanced braking functions that interact to ensure the shortest possible braking distance in all situations. These functions include **Hydraulic Brake Assist**, **Optimized Hydraulic Brakes**, **Ready Alert Brakes** and **Fading Brake Support**. As an example, Ready Alert Brakes can predict rapid braking and place the brake pads against the brake discs even before the driver presses the brake pedal. In doing so, the braking system's reaction time – and braking distance – is shortened.

In a world-first for preventative safety and personal security, the new Volvo S80 works in tandem with the new **Personal Car Communicator** (PCC) to provide information that could be crucial to the car's owner. With this new pocket-sized control function, the owner can determine – for example when approaching the vehicle on foot in a parking lot – whether the car is locked or unlocked, whether the alarm is activated or not and whether or not someone is in the car. The latter is determined through a highly sensitive heartbeat sensor and an advanced calculation process. The information is accessible and relevant so long as the distance between the PCC and the car is less than 100 meters.

The Volvo S80 also contains a network of interactive protective safety systems that make it one of the very safest cars in its class. For example, the **patented front body structure** of the new S80 has been divided into zones, each with a different task during the deformation process. The outer zones are responsible for most of the deformation. The closer the collision forces get to the passenger compartment, the less the material deforms. To give each zone the correct properties, four different grades of steel are used.

Also, a new type of side collision air bag makes the Volvo patented **Side Impact Protection System** (SIPS) into an even more effective safety system. The new side-impact airbags have two separate chambers – one for the hips and one for the chest. As the hips can withstand greater forces than the chest, the lower chamber can be inflated to a pressure up to five times greater than the upper chamber. The side-impact air bags interact with the inflatable curtains and the car body's cross-member structure to offer the most effective protection possible.

#### RELATED LINKS

Ford.com

Volvo S80

The Volvo system for avoiding neck injuries – the **Whiplash Protection System** (WHIPS) – remains one of the most effective on the market. In a serious rear-end collision, the front seat back support and head restraint follow the movement of the body, suppressing the forces in roughly the same way as when catching a ball. In the S80, the WHIPS mechanism has been developed even further, making the "catching" action even more compliant and contributing to even better contact between the head and the head restraint throughout the process.

Protection for pedestrians and cyclists has also been improved in the new Volvo S80. The front of the car has **energy-absorbing features**, including a well-proportioned soft structure in front of the bumper that helps to counteract the risk of pedestrian leg injuries.

As with other Volvo models, the S80 has a **transverse-mounted engine**, which gives more room in the engine compartment and contributes to reducing the risk of the engine intruding into the passenger compartment in a frontal collision.

Finally, other safety solutions in the all-new Volvo S80 include safety belt reminders for all five seats; a collapsible steering wheel (which, during deformation, moves horizontally), airbags with a dual-stage function, safety belt pretensioners for all five seats and safety belt force limiters for the front safety belts.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . SAFETY

· Introduction

#### . WORKPLACE SAFETY

- · Progress
- Context
- Management
- Performance
- . Data
- · Case Studies

#### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies
- o Dearborn Development Center
- o Driving Skills for Life
- o The Volvo S80
- Rollover Crashes and Roof
   Strength
- Pedestrian Safety The Jaguar
   XK150

Print this report

Download resources

Send feedback

## Rollover Crashes and Roof Strength

Unlike front and side crashes, which can vary greatly in severity from minor to major, rollovers, by definition, tend to be severe crashes because of the energy required to roll a vehicle over. Due to their severity, rollovers account for about one-third of all crash fatalities, even though they account for less than 10 percent of all crashes. More importantly, nearly 80 percent of rollover fatalities involve people not wearing safety belts. Safety belts are extremely effective in reducing the risk of serious and fatal injuries in these crashes. Real-world data indicate that more than 90 percent of safety-belted occupants in rollovers escape without a serious injury, and NHTSA estimates that safety belts are 74–80 percent effective in preventing fatalities in rollovers.

Recently, attention has focused on whether there is a relationship between roof strength and occupant safety in rollovers. Due to the severe nature of rollover crashes, there is often roof deformation or crush in those crashes involving a serious injury or fatality. When there is roof deformation present and a serious injury or fatality, the common misconception is to assume that the deformation caused the injury or fatality.

Ford Motor Company has conducted extensive research and testing to examine the purported relationship between roof strength/deformation and injury in rollovers. Real-world accident data and laboratory testing have demonstrated that increasing roof strength levels beyond the current NHTSA requirements, by itself, does not significantly enhance safety in rollovers. Rollover crash testing comparing vehicles with production roofs to vehicles with reinforced, roll-caged roofs has demonstrated that the injurious forces acting on safety-belted crash-test dummies occur before there is any significant roof deformation in the vehicles with production roofs. Furthermore, these forces also occur in roll-caged vehicles. There is no meaningful difference between them.

How do we explain these results? The rotational forces acting on belted occupants in rollovers can result in the occupant's head being close to, or in contact with, the roof before the roof contacts the ground. When the roof strikes the ground, the occupant's head simultaneously strikes the ground (with the roof sheet metal in between), resulting in a potentially injurious impact. The injury from this impact occurs prior to significant deformation of the roof. Other vehicle manufacturers and numerous researchers have conducted similar testing, and their findings are consistent with Ford's.

Ford is a leader in researching and developing technologies, including our Roll Stability Control™ system (see Vehicle Safety), to help reduce the risk of rollovers, as well as systems to help further enhance occupant protection should a rollover occur. We are conducting research into advanced safety belt systems that may have the potential to further reduce occupant motion in rollovers. We also continue to evolve the design of our rollover-deploying side air curtains, known as the Safety Canopy™, to help further reduce the chance of being ejected in a rollover. As safety belt and ejection reduction technologies progress, there may be the potential in the future to further reduce the risk of injury in rollovers by combining these technologies with revised roof and vehicle structures.

- Ford.com
- Roll Stability Control

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### . SAFETY

· Introduction

#### . WORKPLACE SAFETY

- Progress
- Context
- Management
- Performance
- . Data
- · Case Studies

#### . VEHICLE SAFETY

- · Progress
- Context
- Management
- · Performance
- Data
- · Case Studies
- Dearborn Development Center
- o Driving Skills for Life
- o The Volvo S80
- Rollover Crashes and Roof Strength
- Pedestrian Safety TheJaguar XK150



Download resources

Send feedback

## Pedestrian Safety – The Jaguar XK150

In 2006, Jaguar received the Traffic Safety Achievement Award in the Automaker Category from the World Traffic Safety Symposium for the new Jaguar XK's Pedestrian Impact Safety System.

The World Traffic Safety Symposium recognizes organizations and individuals that are creating a safer environment for motorists and pedestrians. The winners are selected by the Symposium's Advisory Committee, which is comprised of auto safety experts from government agencies, educational institutions and private foundations, as well as individuals with a passion for the advancement of traffic safety.

Jaguar's award was due in large part to the 2006 XK's pyrotechnic deployable bonnet system – an allnew, industry-leading feature that was created to meet Phase One of the new European safety legislation on pedestrian safety and vehicle fronts.

The European standards are designed to help mitigate the severity of injuries to pedestrians in traffic accidents. In the 1980s, researchers at NHTSA in the United States observed a potential link between under-hood clearance and risk of head injury to pedestrians. In the unfortunate event of a pedestrian impact, the XK's unique deployable hood automatically "pops up" a few inches, to increase the space between the engine and the hood. This helps to isolate the pedestrian from hard points in the engine compartment and provides room for the hood to deform upon head impact, thus absorbing impact energy and helping to reduce head injury risk. The popping action takes place in a fraction of the time it takes to blink an eye. An advanced sensing system is mounted in the front bumper to help discriminate between a pedestrian collision and any other possible front-end collision.

In addition to this most recent award, the Jaguar XK was awarded the Engineering and Technology Award in December 2005 at the prestigious Prince Michael International Road Safety Awards in London. Ford continues to play an active role with other industry partners in working with the European Commission to define workable requirements for Phase 2 of the legislation, which is projected to be effective in 2010.



Jaguar XK15

OVERVIEW >

OUR IMPACTS >

VOICES 2

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### QUALITY OF RELATIONSHIPS

#### Progress

- . Context
- Management
- Performance
- Data



Download resources

Send feedback



## Quality of relationships

#### **About This Principle**

We will strive to earn the trust and respect of our investors, customers, dealers, employees, unions, business partners and society.

We will achieve this by:

- Building and maintaining a caring culture of partnership and mutual benefit
- Developing individual and team skills so employees can reach their full potential and contribute to the success of Ford Motor Company
- Creating a business climate that encourages innovation, learning and exceptional performance
- Actively pursuing the benefits derived from a diverse workforce, as well as those from the diversity
  of perspectives provided by our stakeholders

#### **Progress Since Our Last Report**

We have vital, sustained relationships with many stakeholders. The quality of these relationships contributes to our ability to achieve our goals and succeed in the marketplace. We are truly interdependent with our stakeholders.

During 2006, Ford's difficult financial condition and restructuring affected our stakeholders in many ways.

Our plan to return the Company to profitability will reduce salary-related costs through the elimination of the equivalent of about 14,000 salary-related positions, which represents about one-third of our North American salaried workforce. Most salaried employee departures were expected to be completed by the end of the first quarter of 2007. By agreement with the UAW, we also extended early retirement or separation packages to all U.S. hourly employees. Through year-end 2006, about 37,000 hourly employees represented by the UAW had accepted (and not rescinded) an early retirement or separation offer.

We have focused on communicating effectively about these changes and assisting departing employees in preparing for new opportunities. For more information go to <a href="Sustaining Ford">Sustaining Ford</a>.

Among our salaried employees, overall employee satisfaction for 2006 did not change from 2005 levels. Our comprehensive Pulse survey showed minor improvement in one performance area (Supervisor Satisfaction) and a minor decline in three performance areas.

We are working closely with our suppliers to implement programs to improve quality, find cost efficiencies and align our social and environmental practices. In 2006, we began a new supplier partner program called the Aligned Business Framework. Through this system, we are reducing the number of suppliers of different components but increasing our level of cooperation and commitment with these preferred suppliers. This system is cutting costs, improving quality, and increasing innovation and teamwork with our strategic suppliers. See <a href="Human Rights at Ford"><u>Human Rights at Ford</u></a> for information on our Aligned Business Framework.

In 2006, we attained our goal of having 100 percent of our preferred, or Q1, production supply facilities gain ISO 14001 environmental management certification.

Our dealers present our face to customers and communities and provide the Company with important feedback. We are working to strengthen our relationships with our dealers through open dialogue on key issues such as new products, vehicle quality and customer satisfaction.

We continue to make progress in embracing and fostering the diversity of our employees, customers and business partners, and we have been recognized for our achievements in these areas. Our diversity programs and progress are the <a href="key topic">key topic</a> of the Quality of Relationships section for this report.

## FAST FACTS

in 2006, For purchased \$3.6 offilion in goods and services from almost 300 minority-owned suppliers, making the Company the auto industry leader in minority business spending for the year

#### **VOICES**

#### Eric Wingfield >

Ford Motor Company



#### KEY TOPICS

Key material issues covered in this section:

Diversity and Inclusion

#### RELATED LINKS

#### In This Report

Who Are Our Stakeholders?

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### QUALITY OF

- . RELATIONSHIPS
- · Progress

#### 

- o Who Are Our Stakeholders?
- Management
- · Performance
- . Data







#### Context

## Why Are Quality Relationships Important?

Maintaining quality relationships with our employees, customers, suppliers, dealers and society at large is not just the right thing to do, it is an important part of our ability to meet our goals and build a strong business. Quality relationships with employees and business partners help us improve efficiencies, cost and quality, and develop and deliver new innovations. Strong two-way communication with dealers, customers and society at large helps us understand and deliver products that customers want and attract new customers. Finally, maintaining quality relationships with our suppliers allows us to partner with them to implement the environmental and human rights initiatives we believe are critical to sustainable business.

Our forums for communicating and engaging with these stakeholders are summarized in this table.

Please see the Products and Customers section for discussion of our relationships with customers and the Community section for information on how we engage with the communities in which we do business.

#### **Assessing Materiality**

Our <u>materiality analysis</u> identified that quality of relationships and diversity were important issues for both the Company and our stakeholders. Specifically, our analysis identified that issues of employee relationships, supplier relationships and dealer relationships, community engagement and impacts, and diversity and inclusion ranked as highly or moderately important.

Our key issue "focus" in this section is diversity and inclusion. We believe that building and supporting diversity is critical to the quality of our relationships and the success of our business. This section also addresses our efforts to build and maintain strong relationships with employees, dealers, and suppliers. For a more detailed overview of our community engagement activities, please see the <a href="Community">Community</a> section of this report.

- In This Report
- Community
- Financial Health
- Products and Customers

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### QUALITY OF . RELATIONSHIPS

- Progress
- . Context
- Who Are Our Stakeholders?
- Management
- · Performance
- Data



Download resources

Send feedback

## Who Are Our Stakeholders?

Our stakeholders – those who affect Ford or are affected by us – are numerous. A closer look, however, shows that we have sustained, interdependent relationships with several distinct categories of stakeholders: our employees, customers, dealers, suppliers, investors and communities. Also important is . In This Report our relationship to "society," including government, nongovernmental organizations (NGOs) and academia.

- Products and Customers
- Community
- Materiality Analysis
- Global Operations

Stakeholder	Communication Forums
COMMUNITIES/SOCIETY	Community Relations Committees
271 plants; distribution centers/warehouses; and engineering, resear	rch/ Interactions with governments
development, and sales facilities worldwide*	Membership in associations
*We have announced plans to cease operations at a number of Nortl	h NGO dialogues
American manufacturing facilities as part of our restructuring actions;	
the number above does not include plants that have been idled to da	te.
INVESTORS	Investment community forums
172, 583 stockholders*	Quarterly earnings communications
*As of February 9, 2007	Annual Shareholders Meeting
	Annual Report
	Proxy Statement
	S.E.C. Filings (e.g., 10-K, 10-Q, 8-K)
CUSTOMERS	Consumer Insight process
6.6 million vehicles	Customer care programs
	Dealer interactions
SUPPLIERS	International Supplier Advisory Council
2,000+ production suppliers	Executive champion program
9,000+ nonproduction suppliers	Top supplier meetings
Over \$90 billion annual buy	Supplier quality roundtables
	Supplier Sustainability Forum
	Supplier Diversity Development
DEALERS	Intranet communications
Ford: 9,480	Brand sales and service representatives
Mercury: 1,971	Brand Dealer Councils
Lincoln: 1,515	Dealer roundtables
Volvo: 2,352	President's Circle
Land Rover: 1,376	Salute to Dealers
Jaguar: 871	Advertising and public service announcements
*As of December 31, 2006. Because many of these dealerships	
distribute more than one of our brands from the same sales location,	a
single dealership may be counted under more than one brand.	
EMPLOYEES	Town Hall meetings
More than 280,000 employees	Labor-management committees
•	Pulse survey
	Union representation
	Intranet surveys and chats
	Executive Council on Diversity
	Local Diversity Councils
	Employee Resource Groups

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### QUALITY OF

- RELATIONSHIPS
- · Progress
- Context

### Management 1

- · Performance
- Data

Print this report

Download resources

Send feedback

## Management

Communication, clear expectations and consistency are the keys to managing and maintaining strong relationships. We manage our relationships with employees, suppliers, dealers and society through a range of communication forums and by setting strong codes for acceptable behavior.

#### **Employees**

Approximately 208,000 of our hourly and salaried employees worldwide are represented by labor unions, including substantially all of our hourly employees in our automotive operations in the United States. Most o Code of Basic Working Conditions hourly employees and many nonmanagement salaried employees of our subsidiaries outside of the United States also are represented by unions. We work closely with these unions to develop agreements and governance plans through a collective bargaining process. Policy and procedures involving information, consultation and negotiations with employees over changes in the reporting organization's operations (e.g., reorganization, plant shutdown, employee transfers and reductions) are negotiated with the appropriate union. In addition, joint labor-management committees are set up at each plant to give employees an opportunity to influence working conditions and practices.

Most of our salaried employees are not covered by union agreements. We have a strong Code of Conduct and comprehensive Policy Letters and Directives covering topics, including diversity, relevant to our employees. We are updating our processes and governance in 2007. We also practice regular twoway communication with all employees through weekly interactive webcasts, surveys and informal communications.

#### RELATED LINKS

#### In This Report

- Setting and Communicating Standards for **Employees**
- Key topic: Human Rights
- Products and Customers
- Accountability
- Key topic: Climate Change
- Financial Health

#### DOWNLOADS



#### **Dealers**

We manage our relationships with dealers through Dealer Councils. Each brand has its own Dealer Council that provides a forum for dealers to voice their concerns, their needs and ways in which we could work more productively together. Dealer advisory committees also provide input into future product offerings. Through these various methods of interaction, Ford management has the opportunity to meet with, and hear from, the majority of the dealers in their respective franchises. The feedback gathered through these interactions has helped us develop various programs, change policies and enhance processes to improve customer handling and other significant elements of the dealers' business.

#### **Suppliers**

We manage our relationships with suppliers through several forums and codes. Our recently implemented Aligned Business Framework agreements with suppliers are helping ensure better communication, better transparency on costs and volume data, and better long-term quality and price control. In addition, we have a Ford Supplier Sustainability Forum that improves communication and collaboration on sustainability issues. Finally, under our Global Terms and Conditions, all of our suppliers are prohibited from using forced labor or child labor or engaging in physically abusive disciplinary practices. In addition, all of our suppliers are encouraged to adopt and enforce a code of practice similar to our Code of Basic Working Conditions and to have their subcontractors do so as well.

#### Society

Our relationships with "society" include communications with nongovernmental organizations, our government relations activities, our advertising practices and our university partnerships. Please see our Products and Customers section for more information on our advertising practices and our Accountability section for information about engagement with other societal stakeholders. Our engagement in climate change public policy is discussed in the Climate Change section, and our health care policy is discussed in the Financial Health section.

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 VOICES > ENVIRONMENT QUALITY OF RELATIONSHIPS FINANCIAL HEALTH COMMUNITY Performance QUALITY OF . RELATIONSHIPS Progress Key topic: Diversity and Inclusion . Context Our definition of diversity includes all those things that make each of us unique individuals. Our backgrounds, opinions, experiences, perspectives and life situations are just some of the distinctions we Management bring to the workplace. Performance Employees > o Key topic: Diversity and Our employees are our most valuable resource. We invest in their development, and they invest their Inclusion time, talent and energy in the success of Ford Motor Company Employees Dealers > Dealers Our dealers are the face of Ford to our customers and communities. They are key employers and Suppliers contributors to local economies. Society Suppliers > Data

Suppliers are an integral part of our business, and our success is interdependent with theirs.

We engage regularly with "society," as represented by government officials, NGOs, academia and other

Print this report

Download resources

Society >

organizations and individuals.

Send feedback

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## QUALITY OF

- . RELATIONSHIPS
- Progress
- . Context
- Management
- · Performance
- Key topic: Diversity and

#### Inclusion

- Diversity in the Workplace
- Diversity of Customers and
   Business Partners
- Awards
- Employees
- o Dealers
- o Suppliers
- Society
- Data



Download resources

Send feedback

## Key topic: Diversity and Inclusion

Our definition of diversity includes all those things that make each of us unique individuals. Our backgrounds, opinions, experiences, perspectives and life situations are just some of the distinctions we bring to the workplace.

#### At Ford, diversity is:

- Respect for our employees, customers, communities, dealers, suppliers, and retirees
- Appreciation of our differences
- Inclusion of every person and every perspective
- Integrity to do the right thing, always

Ford values the skills, strengths and perspectives of our talented and diverse team. Our customers are located around the world, and we believe this diversity is a competitive advantage, helping the Company to be more innovative and focused on individuals in the workplace and marketplace.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### QUALITY OF

- . RELATIONSHIPS
- Progress
- Context
- Management
- · Performance
- Key topic: Diversity and Inclusion
- . Diversity in the Workplace
- Diversity of Customers and
   Business Partners
- Awards
- Employees
- Dealers
- Suppliers
- Society
- Data



Download resources

Send feedback

## Diversity in the Workplace

Ford Motor Company has a history of diversity and inclusiveness, dating back to its early days when Henry Ford was among the first to establish a company with employees who represented the communities it served.

At Ford, we have made diversity and inclusion a priority of our Company. We believe that building and supporting a culture of respect is a business imperative that enables all of our employees to do their best work. Diversity and inclusion play a key role in creating an effective, collaborative culture and help us work as a unified team to most effectively improve our business.

We integrate our diversity strategy into our business based on five focus areas: leading the way, supporting our diverse workforce, fostering a respectful and inclusive environment, work/life integration and strengthening our external partnerships. Examples of our efforts in these focus areas include the following:

- Ford currently supports 10 Employee Resource Groups that help foster diversity. These groups represent ethnic groups including African-Americans, Hispanics, Asian-Indians, Chinese and Middle Eastern employees as well as other employee groups such as employees dealing with disabilities, working parents, gay, lesbian, bisexual and transgendered employees, female professionals and employees of multiple religious faiths. In addition to supporting our employees, these Resource Groups organize significant community volunteer activity and provide us with an opportunity to better understand the consumer needs and wants of individuals of diverse backgrounds. Though these groups are based in the United States, many have chapters around the world.
- Ford's leadership ensures that the importance of diversity and inclusion is communicated in ongoing forums, such as town hall meetings and newsletters. As a part of these efforts, we have held an annual Diversity and Worklife Summit since 1999. The goals of the Summit are to share information and best practices about diversity and worklife; promote dialogue on diversity, inclusion and worklife; celebrate successes; and recognize employees who have contributed to the Company's success in building a diverse and inclusive culture that drives business results. At the 2006–2007 Summit, Ford affiliates in Europe, Asia Pacific, Africa, South America, Mexico, Canada and the United States were recognized for their efforts in leading and cultivating a diverse and inclusive workplace and community. Among the awards received were Taiwan's Ministry of Labor Commission's "Most Friendly Workplace Award," presented by the Premier on March 8, 2007, and the 2006 China Charity Federation's "Model Company for Outstanding Corporate Citizenship in China.

#### RELATED LINKS

In This Report

Employees

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## QUALITY OF

- . RELATIONSHIPS
- · Progress
- Context
- Management
- Performance
- Key topic: Diversity and Inclusion
- . Diversity in the Workplace
- . Diversity of Customers and **Business Partners**
- Awards
- Employees
- Dealers
- Suppliers
- Society
- · Data



Download resources

Send feedback

## Diversity of Customers and Business Partners

Our customers are increasingly diverse. Our Insight program helps dealers better understand and serve minority customers. The program includes Web-based cultural training, in-dealership workshops and assistance in developing comprehensive multicultural strategies.

As part of our multicultural efforts, we have launched a new multi-language Asian-American Web site. Meanwhile, our integrated Spanish Web site – Ford's "Mi Negocio" (My Business) – is one of the most comprehensive of its kind in the auto industry, offering a one-stop resource and outreach services in key Hispanic markets

Ford continues to lead other automakers in its percentage of minority-owned dealerships – with 377 or 7.6 percent of our 4,973 U.S. dealerships. Ford was the first automaker to launch a post-graduate training program aimed at helping minorities gain the necessary skills to become future dealership owners. Minorities who have dedicated themselves to a career in automotive retailing often are eligible for funding from Ford. Through our Dealer Development Investment Program, Ford will fund up to 90 percent of an eligible candidate's investment capital - the seed money that's needed to purchase a dealership.

We are also committed to increasing the diversity of our supply base. Our Supplier Diversity Development Office works with business leaders, trade associations and community-based organizations to create opportunities for businesses owned by minorities and women. In 2006, we purchased \$3.6 billion in goods and services from almost 300 minority-owned suppliers, making Ford the auto industry leader in minority business spending for the year. We also purchased \$855 million in goods and services from more than 400 women-owned businesses. Financial commitments like these have earned us a seat at the "Billion Dollar Roundtable," an exclusive group of 12 companies that spend at least \$1 billion annually with diverse suppliers. Despite considerable headwinds, Ford's commitment is to incremental year-overyear percentage increases in sourcing from diverse suppliers. We encourage similar actions across our supply chain. In 2006, more than 500 of our largest suppliers purchased more than \$1.8 billion from minority- and women-owned enterprises in support of Ford business.

In the majority of cases, our efforts to promote diversity are positively recognized by stakeholders. However, in some instances, certain groups may be critical of Ford because of the organizations or events we choose to support. This has been the case with the American Family Association (AFA), which in 2006 announced a one-year boycott of Ford and our dealers, citing concerns that the Company has an "anti-family agenda." Specifically, the AFA has criticized Ford because we, like many other leading American companies, have marketed in gay and lesbian media and made charitable contributions to gay and lesbian community events.

As we do with all our stakeholders, we have sought to listen to those concerned. Our response has been to reiterate that Ford values all people - regardless of their race, religion, gender, sexual orientation and cultural or physical differences. This is a strong commitment that we intend to carry forward with no exception. We are proud of our tradition of treating all with respect, and we remain focused on what we do best – and the Company's only agenda – which is building and selling the most innovative cars and trucks worldwide.

Going forward, we intend to use the same approach we have always taken regarding advertising and contributions decisions; namely, doing so where it makes sense for our business.

- In This Report
- o Dealers
- Suppliers

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## QUALITY OF

- . RELATIONSHIPS
- Progress
- Context
- Management
- Performance
- Key topic: Diversity and Inclusion
- Diversity in the Workplace
- Diversity of Customers and
   Business Partners
- . Awards
- Employees
- Dealers
- Suppliers
- Society
- Data



Download resources

Send feedback

#### **Awards**

We have received more than 200 awards over five years from publications and organizations that recognize the value we place on diversity and inclusion. We have been recognized by *DiversityInc* as a Top Company for Diversity since the award's inception, and placed on the Top 5 Companies list for 2007. Also in 2006 and 2007 we were recognized with awards from the Minority Business Development Agency of the U.S. Department of Commerce, the United States Hispanic Chamber of Commerce, the National Minority Supplier Development Council, the American Legion, the Australian Equal Opportunity for Women in the Workplace Agency and the German business magazine *CAPITAL*. Specific diversity awards include the following:

#### Awarded in 2007

- 30 Best Companies for Executive Women List National Association of Female Executives
- Disability Matters Award Springboard Consulting & Work Life Matters Magazine
- Div50 List: America's Top Organizations for Multicultural Business Opportunities DiversityBusiness.com
- Most Friendly Workplace Award Taiwan's Ministry of Labor Commission
- Shining Star National Mobility Equipment Dealers Association
- · Workplace Equality Index, Ford of Britain Stonewall
- Super Empresas 2007 Top Companies of Mexico List Expansion Magazine
- Top 25 Best Employers of India in 2007 Hewitt Associates
- Top 5 Companies for Diversity in 2007 DiversityInc Magazine
- Top 50 Companies for Minorities *Minority Engineer* Magazine
- Top 50 Companies for Women Engineers *Woman Engineer* Magazine
- Top Diversity Company Diversity/Careers in Engineering and Information Technology Magazine
- Top Supporter of HBCU Engineering Programs U.S. Black Engineer & Information Technology

#### Awarded in 2006

- 2006 China's Corporate Citizenship in Action Award 21st Century Business Herald
- Appreciation Award American GI Forum
- Appreciation Award National Education Service Centers
- Asian Executive of the Year: Hau Thai-Tang Urban Wheels
- Best Employer Award of Taiwan Watson Wyatt and Commonwealth Magazine Group
- China Corporate Social Responsibility Award Gaungming Daily
- . Company of the Year for Diversity Urban Wheels
- Corporate Diversity Honor Roll Latin Business Magazine
- Corporate Equality Index 100% Rating Human Rights Campaign
- First Prize, Corporate Social Responsibility Award for CSR Program Excellence China Charity Federation
- First Prize, 2006 Corporate Social Responsibility Award for CSR Program Excellence in China Shanghai American Chamber of Commerce
- National Education Service Appreciation Award League of United Latin American Citizens
- Outstanding Corporate Citizenship Award Michigan Governor's Award
- Presidential Award League of United Latin American Citizens
- Workplace Equality Index Stonewall
- Top 100 Best Companies for Women Working Mother
- Top 30 Corporate Recognition Award Hispanic Scholarship Fund
- Top 50 Companies Black Enterprise Magazine
- Top 50 Companies for Diversity in America DiversityInc
- Top 50 Companies for Hispanics Hispanic Business Magazine
- Top 50 Companies for Minorities *Minority Engineer* Magazine
- Top 50 Companies for Women Engineers Woman Engineer Magazine
- Women in Science Engineering and Technology Award UK Resource Centre (UKRC), Dept of Trade & Industry

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### QUALITY OF

- . RELATIONSHIPS
- Progress
- Context
- Management
- Performance
- Key topic: Diversity and
   Inclusion
- Employees
- Dealers
- Suppliers
- Society
- Data



Download resources

Send feedback

## **Employees**

Our employees are our most valuable resource. We invest in their development, and they invest their time, talent and energy in the success of Ford Motor Company.

Our employees are the stakeholders most immediately affected by our restructuring. During 2005 and 2006, we took painful but necessary steps to reduce our salaried and hourly workforce as part of our efforts to return our North American operations to profitability. This reduction includes our elimination of the equivalent of nearly 5,000 salaried positions by the end of 2006; the additional reductions are being achieved through early retirements, voluntary separations and, as necessary, involuntary separations, with most employee departures expected to be completed by the end of the first quarter of 2007.

By agreement with the UAW, we also extended early retirement or separation packages to all U.S. hourly employees, including Ford employees at our Automotive Component Holdings LLC (ACH) plants. Through year-end 2006, about 37,000 hourly employees represented by the UAW had accepted (and not rescinded) an early retirement or separation offer. The vast majority of these employees are expected to separate from the Company by September 2007, though many of the offers include an opportunity for the employee to rescind acceptance until the time of separation. The accelerated plan to sell or close most ACH facilities by the end of 2008 will result in additional personnel reductions.

We have focused on handling these separations with sensitivity and assisting departing employees in preparing for new opportunities. Most of these separations have been accomplished through voluntary packages. See <u>Sustaining Ford</u> for more information.

In 2006, we negotiated new Ford collective bargaining agreements with labor unions in Argentina, Australia, Belgium, Brazil, France, Germany, Mexico, Russia, Taiwan, Thailand, United Kingdom and Vietnam. We will also negotiate new collective bargaining agreements at our Jaguar (UK) and Volvo (Sweden) affiliates

In 2007, we will be negotiating 18 new collective bargaining agreements with labor unions in 15 different countries, as well as conducting negotiations with the UAW in the United States. These negotiations will include agreements with labor unions in Argentina, Belgium, Brazil, France, India, Mexico, New Zealand, the Philippines, Russia, Southern Africa, Spain, Taiwan, Thailand, the United States (hourly and salaried), Venezuela and Vietnam. We will also negotiate new collective bargaining agreements at our Land Rover (Britain) and Volvo (Sweden) affiliates.

Our agreements with the UAW and CAW represent the largest percentage of our unionized workforce. These agreements expire on September 14, 2007, and September 16, 2008 respectively. Historically, negotiation of new collective bargaining agreements with the UAW and CAW have typically resulted in increases in wages and benefits, including retirement benefits; some of these increases have been provided to salaried employees as well.

We remain concerned about the rapidly rising cost of providing health care to our active and retired employees in the United States. Although we are proud of providing excellent benefits for employees, controlling health care costs is critical to our competitiveness. See <a href="Legacy Health Care Costs">Legacy Health Care Costs</a> for more information.

In 2005, business conditions forced us to suspend contributions to U.S. employees' 401(k) retirement plans. Contributions had initially been suspended early in 2002, but were reinstated in 2004 until we were forced to halt them again last year. In 2006, however, we did offer employees bonuses based on performance, and in June 2007 401(k) contributions will again be reinstated.

## **Employee Satisfaction**

In 2006, 69 percent of our salaried employees participated in the annual Pulse survey, which provides feedback on employees' overall satisfaction with the Company, their jobs, diversity and other aspects of workplace satisfaction. The 2005 participation rate was also 69 percent.

The Pulse survey includes a total of 55 items, eight of which make up what we call the Employee Satisfaction Index (ESI). Sixty-two percent of respondents gave favorable ratings on the ESI in 2006, unchanged from 2005 levels. Compared with 2005, about 33 percent of the 55 items improved, 23 percent declined and about 44 percent remained the same.

Among the areas showing improvement were employees' satisfaction with supervision, workplace stress, workload, training, diversity and communications. In addition, employee satisfaction with actions being taken to improve quality maintained a high level of favorable employee satisfaction.

- In This Report
- Restructuring the Company
- Key topic: Legacy Health Care Costs

As part of our efforts to increase employee satisfaction, we are constantly improving our strategies for fostering open dialogue with employees. We know that communication is especially important during these difficult financial times and employee reductions. As part of these efforts, we hold weekly interactive webcasts with all employees, during which employees can submit questions directly to top executives. We also have a Web-based innovation idea submission and discussion forum.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### QUALITY OF

- RELATIONSHIPS
- Progress
- Context
- Management
- · Performance
- Key topic: Diversity and Inclusion
- Employees
- Dealers
- Suppliers
- Society
- · Data

Print this report

Download resources

Send feedback

### **Dealers**

Our dealers are the face of Ford to our customers and communities. They are key employers and contributors to local economies. Ford and Lincoln-Mercury dealers in the United States alone employ 211,000 people, with a payroll of almost \$8.0 billion and tax payments of more than \$850 million.

We are working to expand our network of dealers in markets where we have growth opportunities. In China, for example, we added 50 new dealerships in 2006 alone to keep up with growing demand for our vehicles. The Ford Dealer network in South America has been strengthened during the last three years with an exciting product lineup, a stronger brand and growing local industry. And in Russia, the opening of a new parts depot in 2005 was a clear signal to dealers that we are committed to their markets and their business.

Dealers are an important part of our product-led strategy. Our new product introductions will be of mutual benefit to Ford and its dealers, and will help strengthen our relationships.

We measure dealer satisfaction within all of our brands and regions through various methods. Day-to-day interaction with our dealers, ongoing meetings with our Dealer Councils and input from third-party surveys assist us in assessing the state of our important relationship with our dealers. Dealer Attitude Survey results for overall satisfaction among Ford, Lincoln and Mercury dealers remained steady during the summer of 2006 but decreased slightly in the winter of 2006. However, overall Dealer satisfaction remains at a 10-year high.

#### Salute to Dealers

Ford annually recognizes outstanding dealer contributions to the community through its "Salute to Dealers" program. The program was established in 2001 to demonstrate our commitment to dealers who provide outstanding products and services and improve the lives of those in need. Dealers from all eight of our brands representing more than 6,000 dealership franchises nationally are eligible to be nominated. Ford Motor Company is very proud of the contributions made by the dealers who are nominated for this award and the 58 men and women who have been selected as "Salute to Dealers" honorees over the past seven years. Considering the high quality and community spirit of our dealer body, this is a tribute to their hard work and dedication to make the world a better place.



The 2007 Salute to Dealers award recipients are as follows:

- Randy and Michael Chapman, Chapman Auto Group, Philadelphia, PA: Many businesspeople give back to the community, but making a real difference in others' lives is what Randy and Michael Chapman are all about. The brothers, who run seven Ford and Lincoln-Mercury dealerships as part of their Philadelphia-based company, are especially devoted to children's causes. They support Special Equestrians – a nonprofit therapeutic riding program for children and adults with physical, mental and emotional disabilities – and the Special Olympics. They are also supporters of the Susan G. Komen Breast Cancer Foundation, the Juvenile Diabetes Research Foundation and other local charities, sports teams, schools, orphanages, hospitals, law enforcement and food banks.
- · Raymond J. Ciccolo, Boston Volvo Village, Boston, MA:

- In This Report
- Focusing on Customers

Family and children are everything to Raymond J. Ciccolo. So this father and grandfather finds himself driven to share the blessings in his life with children who are less fortunate than his own. Raymond supports the Best Buddies program, which is dedicated to enhancing the lives of people with intellectual disabilities by providing opportunities for one-to-one friendships and integrated employment. He is a board member of Medical Missions for Children, which works to provide care for critically ill children in less-developed countries, and he works with The Alliance for Children Foundation, an international relief organization dedicated to improving the physical and emotional well-being of abandoned children living in orphanages in Asia, Eastern Europe and Latin America. In addition, Raymond provides a college scholarship each year to support the education of a student in need, and he is an active supporter of Toys for Tots.

#### . Irma B. Elder, Elder Automotive Group, Troy, MI:

Irma Elder was brought up believing it is better to give than receive, and she puts that belief into action through contributions of time and resources to countless charitable groups and community organizations. As the first woman to own a Ford dealership in metro Detroit, she is a strong supporter of empowering others through groups such as LASED (Latin Americans for Social and Economic Development Inc.) in Detroit's Mexicantown. She is also a strong supporter of Oakland Family Services. In addition to volunteering her time and making financial contributions, she provides her financial and strategic advice to the boards of dozens of charitable organizations, including Northwood University and the Josephine Ford Cancer Foundation.

#### . Marie J. Fritts, Fritts Ford, Riverside, CA:

Marie Fritts is a beloved member of her community, with which she connects by donating her time, leadership skills and money to support numerous organizations and causes. She has doubled her dealership's contributions to Riverside Against Drugs, an organization her husband founded. She also is actively involved in animal welfare organizations, including contributing generously to the Riverside Humane Society Pet Adoption Center's capital campaign. Her contributions to the Arlanza Health Care Center in Riverside allow thousands of underinsured and uninsured families and individuals to receive quality vision care and glasses, regardless of their ability to pay for it. She is also an active contributor to other local organizations, including the YMCA, the local school district and the Riverside Arts Council.

• Marty Giles, Northstar Ford Lincoln, Fort McMurray, Alberta, Canada: Marty Giles's philosophy in business and in community work is to "get it done." He is a strong supporter of increasing access to health care in rural communities, including chairing a \$3.5 million campaign for the Northern Lights Regional Health Foundation. He is also a member of Leadership Wood Buffalo, a group that coaches and supports the next generation of entrepreneurs. He is also a strong supporter of United Way, Unity House for Battered Women, the Canadian Cancer Society, Juvenile Diabetes Research Foundation and more.

#### . Tim Razzari, Razzari Ford/Mazda, Merced, CA:

Tim Razzari is not just a businessman but a passionate community activist who uses all of his many talents to inspire others to help raise money and support for a wide variety of causes. He is a strong supporter of A Woman's Place, a shelter for battered women. He also helps raise money for Trails of Happy Tails, a nonprofit group that takes animals from the local shelter and places them with rescue organizations throughout the region. He also supports St. Luke's Episcopal School, for which he has raised more than \$1 million.

#### . Paul Rusnak, Rusnak Auto Group, Pasadena, CA:

Paul Rusnak focuses his efforts on children-oriented causes, such as Make-A-Wish Foundation of Greater Los Angeles and Children's Hospital Los Angeles, because he believes children are the future. He is also a strong supporter of the AIDS Service Center in Pasadena, which reaches out to almost 1,700 individuals and families affected by, and at risk from, HIV/AIDS. The Rusnak Auto Group's community commitments also include the Marine Corp's annual Toys for Tots campaign, the Pasadena POPS Orchestra, Loving Heart Hospice Foundation, March of Dimes, Haven House, Pasadena Unified Educational Foundation and many others.

#### . Bruce Schindler, Bob Davidson Ford, Inc., Baltimore, MD:

Bruce Schindler believes getting involved is the only way to ensure improvement in one's community. He is deeply involved with his community and holds children and families as his main focus. Bruce is an active board member of Pathfinders for Autism, to which he lends his financial and strategic advice. Bruce's dealership also founded Operation Home Base to support local military and their families. The organization packages and handles all the local contributions to Maryland's troops and assists returning service members and their families. He is also an active supporter of St. Paul's School, for which he and his wife chair the Parents' Association.

• David C. Wintrode, Causeway Ford Lincoln-Mercury, Manahawkin, NJ: David Wintrode is passionate about improving the lives of current and future generations through his work to promote literacy and enhance educational programs and opportunities. He has served the Ocean County College Foundation for 25 years, helping the community college expand its offerings, distribute scholarships and raise money for a new daycare center and early learning center on campus. He helped develop the "Reading for Excellence" program in the Stafford Township schools in 1992. The program encourages a love for reading and makes a connection between home and school. Bruce also established the Wintrode Family Foundation in 2003 to provide libraries for the Head Start program. And he supports a summer theater series that reaches more than 8,000 children each year and allows donations to medical facilities.

OVERVIEW >

OUR IMPACTS >

VOICES >

#### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### QUALITY OF

- RELATIONSHIPS
- · Progress
- Context
- Management
- Performance
- Key topic: Diversity and Inclusion
- Employees
- Dealers
- Suppliers
- Society
- · Data



Download resources

Send feedback

## **Suppliers**

Suppliers are an integral part of our business, and our success is interdependent with theirs. We rely on more than 2,000 production suppliers to provide many of the parts that are assembled into Ford vehicles. Another 9,000 suppliers provide a wide range of nonproduction goods and services, from production equipment to computers to advertising.

#### **Working Together for a Sustainable Future**

Ford and its suppliers must work jointly to deliver great products, to have a strong business and to make a better future. In today's economic environment, achieving lower costs and improving quality will require an unprecedented level of cooperation and strong supplier relationships. In 2006, we introduced an Aligned Business Framework (ABF) with our strategic suppliers to accomplish these goals. Through this process, we will be reducing the number of our suppliers for select commodities from more than five to as few as two. We are also increasing the use of common parts for multiple vehicles. This will allow us and our suppliers to reduce costs and improve quality. It will also increase our level of coordination with suppliers and facilitate greater sharing in development of new innovations. The ABF will give chosen suppliers a greater share of our business and better knowledge of future volumes. In addition to these ABF goals, we are committed to maintaining strong relationships with suppliers by:

- · Adhering to Ford Supplier Relationship Values
- Deploying a single common global product creation process that encompasses aggressive execution of product plans with minimal variances
- · Enhanced process stability, commonality and reusability
- Improving communication by providing real-time performance data to the supply base
- Providing suppliers with greater access to senior management in small-group settings
- Establishing organizational stability models in Manufacturing, Product Development and Purchasing
- · Continuing to improve release stability and production predictability through implementation of order fulfillment
- Engaging the supply base in discussions on process stability, incoming quality and corporate citizenship, and involving suppliers in coalitions to create awareness of industry issues

In 2006, Ford was honored by the Automotive Industry Action Group's (AIAG) CEO of the Year Award for William Clay Ford Jr. AIAG, a group of 1,500 member companies including OEMs, suppliers, automotive media and industry analysts, gives the award to the CEO who has made the greatest contribution to the industry. In profiling Ford, AIAG highlighted the Company's work on sustainability issues, including industry working conditions, as one of the reasons for the honor. For more information, see Taking Action as an Industry.

#### **Environmental Management and Human Rights**

It is important that our suppliers share our commitment to environmental and social performance.

In September 2005, we added language to our core contract covering all nonproduction suppliers to reflect our specific Code of Basic Working Conditions requirements prohibiting the use of forced labor, child labor and physical disciplinary abuse. We did the same for production suppliers in January 2004. In 2007, we revised the Code to include commitments on "community engagement and indigenous populations," "bribery and corruption" and "environment and sustainability." These revisions reflect our increased understanding of the broad set of issues that fall under the umbrella of human rights and our interest in including broader community impacts beyond "the fence line" of our facilities. By building this language into the Ford Global Terms and Conditions, the Code now applies to all Ford suppliers. We have conducted training and assessments of suppliers in India, China, Turkey, Romania, Russia and Mexico, and developed an approach to ensuring alignment with our Code throughout our supply chain.

Mid-2003 was the deadline for Ford's Q1 (preferred) production suppliers to attain ISO 14001 environmental management certification of manufacturing facilities that ship products to Ford. ISO 14001 certification is expected of Q1 nonproduction suppliers if the supplier site is a manufacturing site or a nonmanufacturing site with significant environmental impact. We worked with General Motors and DaimlerChrysler, which adopted similar requirements, to communicate consistently with suppliers and monitor progress.

By 2006, 100 percent of Q1 production suppliers had ISO 14001 certification. Suppliers that did not meet the deadline are not eligible for Q1 status, which is a prerequisite for consideration for future Ford business. We also encourage our suppliers to extend the benefits of improved environmental performance by implementing similar requirements for environmental management systems in their own

#### RELATED LINKS

#### In This Report

- Supply Chain Profile
- Working Conditions in Our Supply Chain
- Taking Action as an Industry
- Voices: David Duesterberg Johnson Controls, Inc.

supply base.

#### **Supplier Environmental Forum**

To provide a venue for ongoing collaboration between Ford and suppliers that are demonstrating leadership in sustainability, we created the Ford Supplier Sustainability Forum (the successor to the Supplier Environmental Forum). The Forum's mission is to:

- Foster communication and information-sharing among participants
- Provide an opportunity for open dialogue between Ford and its suppliers
- Identify areas for collaboration, share best practices, explore common emerging issues and generate actions to address issues that deliver business value
- Advocate for the implementation of actions at our companies and our supply chains

During 2005 and 2006, Forum members focused on environmental health and safety, global working conditions training, materials reporting and climate change strategies.

#### **Supplier Environmental Leadership**

For several years, Ford has recognized supplier companies that demonstrate leadership in environmental and social performance with a Corporate Responsibility Award. This award was developed to foster excellence in both social and environmental performance. Suppliers must meet several criteria, including ISO 14001 certification at all manufacturing sites, full acceptance of Ford Motor Company's Global Terms and Conditions and demonstration of overall sustainability leadership by incorporating environmental and social considerations into their business.

In 2006, Johnson Controls, Inc. (JCI) won the Corporate Responsibility Recongnition of Achievement Award for its significant achievements in environmental and social performance. JCI has made excellent achievements in waste minimization and reduction, including using 70 to 80 percent recycled lead and plastic in its battery production, reducing waste by 4.8 percent in 2005 and converting 10 percent of production waste back into raw materials. JCI also reduced heavy metal emissions by 41 percent, eliminated ozone depleting substances from manufacturing processes and reduced greenhouse gas emissions by 24 percent over 2004 levels. In 2006, JCI completed implementation of a human rights code covering JCI facilities and its suppliers. The code was developed in cooperation with Ford and major nonprofit organizations including Oxfam International and ICCR.

Download resources

Send feedback

OVERVIEW > OUR IMPACTS > VOICES > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 PRODUCTS AND CUSTOMERS QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT COMMUNITY Society QUALITY OF RELATIONSHIPS We engage regularly with "society," as represented by government officials, NGOs, academia and other Progress organizations and individuals. Examples of these engagements can be found in the Accountability RELATED LINKS section, the "key topics" sections and throughout this report. In This Report • Context Accountability Who are our stakeholders? • Management • Performance o Key topic: Diversity and Inclusion Employees o Dealers Suppliers Society • Data Print this report

Ford Motor Company OVERVIEW > OUR IMPACTS > VOICES >> ENVIRONMENT Data QUALITY OF RELATIONSHIPS **Charts on This Page** 

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

- Progress
- . Context
- · Management
- · Performance
- Data

## 🗐 Print this report

Download resources

Send feedback

- Employee Satisfaction, Pulse Survey
- Qverall Dealer Attitude В
- С Employment by Business Unit
- Total Average Hourly Labor Costs D
- Total Purchases from Minority-owned Businesses United States Ε
- ⊌.S. Employment of Minority-group Personnel and Women at Year-end

COMMUNITY

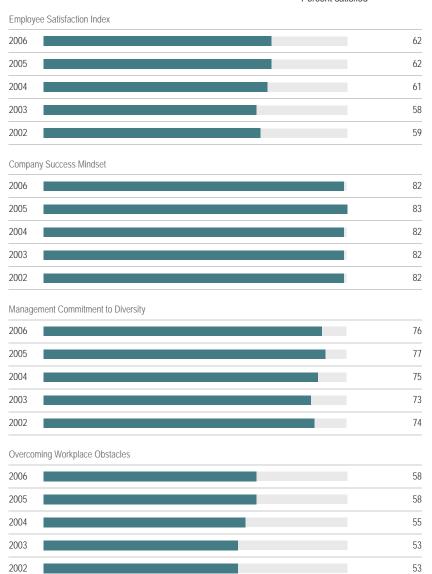
### VIEWING THIS DATA

Would you prefer to view the data as text tables?



## **Employee Satisfaction, Pulse Survey**





See notes to the data

#### B Overall Dealer Attitude

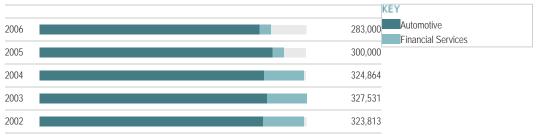
#### Relative ranking on a scale of 1-100 percent

	2002	2003	2004	2005	2006
Ford (summer/winter score)	58/61	64/67	67/69	70/72	70/64
Lincoln Mercury (summer/winter score)	46/46	50/50	56/56	64/64	64/64
Industry (summer/winter score)	67/46	72/56	72/61	73/64	74/64

See notes to the data

<u>top</u>

#### C Employment by Business Unit

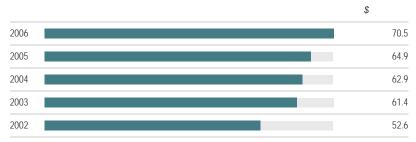


See notes to the data

top

#### D

### **Total Average Hourly Labor Costs**



See notes to the data

top

Е

## Total Purchases from Minority-owned Businesses – United States



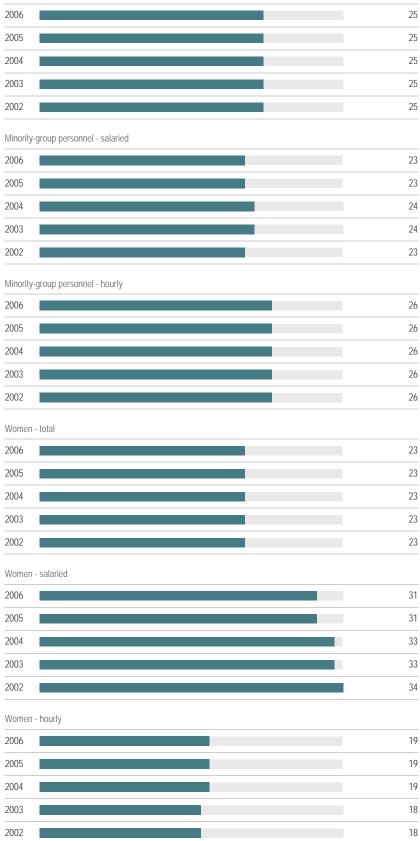
See notes to the data

top

F

U.S. Employment of Minority-group Personnel and Women at Year-end

Percent



#### Chart A

In 2006, the Pulse survey was changed to incorporate new dimensions. While there was no change to the number or content of the existing 55 core questions asked on Pulse, they were realigned into eight revised dimensions. These changes were made because the revised dimensions are: better focused on current business priorities; can be benchmarked externally – two revised dimensions (including the revised Employee Satisfaction Index) can be benchmarked externally, none of the prior 13 dimensions could be benchmarked outside the Company; provide a framework for more focused feedback and action planning.

#### Chart B

Overall dealer attitude is measured by the National Automobile Dealer Association (NADA) Dealer Attitude Survey. Scores are for the summer and winter respectively of the year noted.

#### Chart C

The approximate number of individuals employed by us and our consolidated entities (including entities we do not control) as of year end. The decrease in employment levels primarily reflects implementation of our personnel-reduction programs in North America.

#### Chart D

Total average hourly labor costs reflect earnings and benefits per hour worked for hourly employees, excluding subsidiaries.

#### Chart

In 2003, we expanded our reporting to include purchases from non-minority women-owned businesses. This accounted for \$0.2 billion in 2003 and is not included in data for prior years.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFET!

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

VIEWING THIS DATA

See data charts

data as charts?

Would you prefer to view the

#### QUALITY OF

- . RELATIONSHIPS
- Progress
- . Context
- Management
- Performance

#### Data

Print this report

Download resources

Send feedback

### Data

#### **Tables on This Page**

- A Employee Satisfaction, Pulse Survey
- C Employment by Business Unit
- D <u>Jotal Average Hourly Labor Costs</u>
- E <u>Total Purchases from Minority-owned Businesses United States</u>
- F <u>U.S. Employment of Minority-group Personnel and Women at Year-end</u>

#### Α

### **Employee Satisfaction, Pulse Survey**

#### Percent satisfied

\$

	2002	2003	2004	2005	2006
Employee Satisfaction Index	59	58	61	62	62
Company Success Mindset	82	82	82	83	82
Management Commitment to Diversity	74	73	75	77	76
Overcoming Workplace Obstacles	53	53	55	58	58

See notes to the data

### top

#### В

#### **Overall Dealer Attitude**

#### Relative ranking on a scale of 1-100 percent

	2002	2003	2004	2005	2006
Ford (summer/winter score)	58/61	64/67	67/69	70/72	70/64
Lincoln Mercury (summer/winter score)	46/46	50/50	56/56	64/64	64/64
Industry (summer/winter score)	67/46	72/56	72/61	73/64	74/64

See notes to the data

#### ţρ

#### C

#### **Employment by Business Unit**

	2002	2003	2004	2005	2006
Automotive	273,923	278,909	276,029	286,000	270,000
Financial Services	49,890	48,622	48,835	14,000	13,000

See notes to the data



#### D

#### **Total Average Hourly Labor Costs**

2002	2003	2004	2005	2006
52.6	61.4	62.9	64.9	70.5

See notes to the data

#### Total Purchases from Minority-owned Businesses - United States

\$ billion

3.7	3 /	3 7	3 7	2 7
2002	2003	2004	2005	2006

See notes to the data

top

#### F

### U.S. Employment of Minority-group Personnel and Women at Year-end

#### Percent

	2002	2003	2004	2005	2006
Minority-group personnel - total	25	25	25	25	25
Minority-group personnel - salaried	23	24	24	23	23
Minority-group personnel - hourly	26	26	26	26	26
Women - total	23	23	23	23	23
Women - salaried	34	33	33	31	31
Women - hourly	18	18	19	19	19



#### NOTES TO THE DATA

#### Table A

In 2006, the Pulse survey was changed to incorporate new dimensions. While there was no change to the number or content of the existing 55 core questions asked on Pulse, they were realigned into eight revised dimensions. These changes were made because the revised dimensions are: better focused on current business priorities; can be benchmarked externally – two revised dimensions (including the revised Employee Satisfaction Index) can be benchmarked externally, none of the prior 13 dimensions could be benchmarked outside the Company; provide a framework for more focused feedback and action planning.

#### Table B

Overall dealer attitude is measured by the National Automobile Dealer Association (NADA) Dealer Attitude Survey. Scores are for the summer and winter respectively of the year noted.

#### Table (

The approximate number of individuals employed by us and our consolidated entities (including entities we do not control) as of year end. The decrease in employment levels primarily reflects implementation of our personnel-reduction programs in North America.

#### Table D

Total average hourly labor costs reflect earnings and benefits per hour worked for hourly employees, excluding subsidiaries.

#### Table E

In 2003, we expanded our reporting to include purchases from non-minority women-owned businesses. This accounted for \$0.2 billion in 2003 and is not included in data for prior years.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL HEALTH

#### **Progress**

- . Context
- Management
- Performance
- Data
- · Case Studies









## Financial health

#### **About This Principle**

We will make our decisions with proper regard to the long-term financial security of the Company.

We will achieve this by:

- Striving to create value for our shareholders that is sustainable over the long term
- Seeking enhanced stakeholder loyalty as a route to competitive advantage and long-term growth

#### **Progress Since Our Last Report**

During 2006, we continued to implement our Way Forward plan for North America to restore Ford to profitability. Actions in 2006 included idling two assembly plants, offering separation packages to our UAW-represented hourly workers (substantially all of our U.S. hourly workers) and beginning the process of reducing our salaried workforce-related costs by about one-third. These painful but necessary actions have a range of impacts on our employees, business partners and the communities in which we operate. We strive to manage these impacts responsibly. For more information, see <a href="Sustaining Ford">Sustaining Ford</a>.

The factors that are reshaping markets globally – including increased competition, market segmentation, high <a href="health-care">health-care</a> costs and rising costs for manufacturing inputs – continue to affect our core business. In addition, fuel prices rose sharply during the first half of 2006, encouraging a further market shift toward smaller vehicles and away from other, more profitable vehicles such as trucks and sport utility vehicles.

We are accelerating implementation of the Way Forward plan, aimed at returning Ford to profitability in 2009. Our priorities include:

- Restructuring the Company to be profitable at lower volumes and with a changed vehicle mix
- · Accelerating product development and reducing manufacturing complexity
- Obtaining and maintaining adequate liquidity to fund the first two priorities
- · Working together through teamwork and accountability

Our sustainability agenda is an integral part of our overall strategy for responding to changes in global markets with products that offer great design, safety and environmental features (see <a href="Products and customers">Products and customers</a> section).

We engage regularly with the investment community about our current performance and future plans. We have received favorable rankings in socially responsible investment indices and continue to benefit from constructive feedback from the rating organizations on our performance and our approach to sustainability.

#### **FAST FACTS**

Ford's health care costs add about \$1,200 to the cost of each vehicle built in the United States.

#### **KEY TOPICS**

Key material issues covered in this section:

- Sustaining Ford
- Legacy Health Care Costs

- In This Report
- Restructuring the Company
- Ford.com
- Ford 2006 Annual Report

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- · Progress

#### **№** Context

- Management
- · Performance
- . Data
- · Case Studies







#### Context

The financial health of Ford is vitally important to millions of people, thousands of other companies and hundreds of communities worldwide (see <a href="Economic Impact of the Automotive Industry">Economic Impact of the Automotive Industry</a> case study). We take our responsibility to these stakeholders very seriously. To sustain our Company, meet our responsibilities and contribute to tackling global sustainability issues, we must operate at a profit. During 2006, we reported a \$12.6 billion loss, primarily due to restructuring costs, and took a series of actions to restore the Company to profitability, including closing manufacturing facilities and reducing our workforce.

The auto manufacturing business in North America has changed fundamentally. It is no longer dominated by the "big three" domestic manufacturers. Rather, dozens of brands from all over the world compete for a share of a fairly fixed volume of vehicles sales. To restore profitability, we must align our North American manufacturing capacity to overall demand and shift our product mix toward the growing segments of the markets.

Even as we become a smaller company, we will continue to be a major force in mature and developing global automotive markets. Demand for vehicles is rising rapidly in emerging markets. Our sales in Asia Pacific and Africa were up 9 percent in 2006, while sales in South America grew 14 percent. We intend to expand our presence in these and other markets in innovative ways. For more information, see <a href="Developing Sustainable Mobility Strategies for Emerging Markets">Developing Sustainable Mobility Strategies for Emerging Markets</a>.

Our plan to return to profitability is discussed in the <u>Management</u> section. A wide range of risks and competitive factors discussed in our <u>Annual Report on Form 10-K</u> may affect the implementation of this plan.

#### **Assessing Materiality**

The <u>materiality analysis</u> conducted for this report confirmed that the Company and stakeholders alike have a high level of concern about Ford's financial condition. The issue has in fact risen in significance since the previous analysis, conducted for the 2004/5 report.

Within this broad topic, the issue of managing downsizing is of concern to a range of stakeholders, particularly in terms of its impact on employees and communities. There is also interest in the impact of Ford's legacy costs and current health care costs on the Company's profitability, and related interest in Ford's participation in public policy concerning health care reform. These two issues are discussed in detail in this section. Vehicle quality and Ford's manufacturing, marketing and product competitiveness were also of significant concern to internal and external stakeholders.

- In This Report
- Developing Sustainable MobilityStrategies for Emerging Markets
- Materiality Analysis
- Restructuring the Company
- Key topic: Legacy Health Care Costs
- Ford.com
- Company Reports

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- HEALTH
- · Progress
- Context

#### **Management**

- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- Obtaining and Maintaining
   Adequate Liquidity
- Working Together through
   Teamwork and Accountability
- Financial Impact andAssumptions
- · Performance
- Data
- · Case Studies

Print this report

Download resources

-

Send feedback

## Management

We have set out a strategy for returning the North American segment of Ford's Automotive sector to profitability in 2009. The vision guiding this plan is that of a more integrated company that leverages its scale, with fewer platforms and more global sharing of technology. This will mean building fewer kinds of drivetrains and powertrains, but in doing so, having the opportunity to improve them more often and customize vehicles to fit local markets and evolving consumer expectations.

#### Strategy for Returning to Profitability

To compete more effectively in today's global marketplace, and particularly in North America, we have embarked on a plan to restructure aggressively our Automotive business to address the realities of lower demand, higher fuel prices and the shifting model mix from trucks and large SUVs to more fuel-efficient vehicles. On January 23, 2006, we announced a major business improvement plan for our North American Automotive operations, which we refer to as the Way Forward plan.

On September 15, 2006, responding to changing facts and circumstances, we announced an acceleration of this plan, including actions designed to further reduce operating costs and increase the flow of new products. We are focusing on the following four key priorities:

- Restructuring the Company to be profitable at lower volumes and with a changed vehicle mix
- · Accelerating product development and reducing manufacturing complexity
- Obtaining and maintaining adequate liquidity to fund the first two priorities
- · Working together through teamwork and accountability

For additional details on our plan, consult our 2006 Annual Report or 2006 Annual Report on Form 10-K for the year ended December 31, 2006. For periodic updates to progress on the Way Forward, visit <a href="https://www.ford.com">www.ford.com</a>.

- Ford.com
- Company Reports

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### FINANCIAL

- . HEALTH
- · Progress
- Context
- Management
- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- Obtaining and Maintaining
   Adequate Liquidity
- Working Together through
   Teamwork and Accountability
- Financial Impact and
   Assumptions
- · Performance
- Data
- · Case Studies

Print this report

Download resources

-

Send feedback

## Restructuring the Company

#### **Workforce Reductions**

Our accelerated plan reduces salaried-related costs through the elimination of the equivalent of about 14,000 salaried positions, which represents about one-third of our North American salaried workforce. This reduction includes eliminating the equivalent of nearly 5,000 salaried positions by the end 2006. The additional reductions are being achieved through early retirements, voluntary separations and, as necessary, involuntary separations, with most employee departures expected to be completed by the end of the first quarter of 2007.

By agreement with the UAW, we also extended early retirement or separation packages to all UAW-represented hourly employees, including Ford employees at our Automotive Component Holdings, LLC (ACH, formerly Visteon) plants. Through year-end 2006, about 37,000 hourly employees represented by the UAW had accepted (and not rescinded) an early retirement or separation offer. The vast majority of these employees are expected to separate from the Company by September 2007, though many of the offers include an opportunity for the employee to rescind acceptance until the time of separation. The accelerated plan to sell or close all ACH facilities by the end of 2008 will result in additional personnel reductions.

Overall, including ACH hourly employees, as of December 31, 2006, we had about 89,000 hourly employees in North America (including Canada and Mexico), down from about 99,500 employees at year-end 2005. By the end of 2008, our plan is to operate with between 55,000 to 60,000 hourly employees in North America.

#### **Capacity Alignment**

We also intend to reduce and realign our vehicle assembly capacity to bring it more in line with demand and shifting customer preferences.

As part of this reduction, we have announced plans to idle 16 North American manufacturing facilities, including seven vehicle assembly plants, by the end of 2012. Of these, the following nine facilities have been or are planned to be idled by the end of 2008:

- Atlanta Assembly Plant (idled in 2006)
- Batavia Transmission Plant (to be idled in 2008)
- Essex Engine Plant (to be idled in 2007)
- Maumee Stamping Plant (to be idled in 2008)
- Norfolk Assembly Plant (to be idled in 2007)
- . St. Louis Assembly Plant (idled in 2006)
- Twin Cities Assembly Plant (to be idled in 2008)
- Windsor Casting Plant (idled in 2007)
- Wixom Assembly Plant (idled in 2007)

Also in 2007, we are eliminating a shift at each of the Norfolk, Twin Cities, St. Thomas (Ontario) and Michigan Truck assembly plants, and plan to add a third crew at the Dearborn Truck Assembly Plant to accommodate additional F-150 truck production.

We continue to work to sell or close the majority of our ACH facilities by the end of 2008, though we now expect that portions of one or two facilities may remain open beyond 2008 to provide for an orderly resourcing of business to the supply base.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## FINANCIAL

- . HEALTH
- · Progress
- . Context
- Management
- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- Obtaining and Maintaining
   Adequate Liquidity
- Working Together through
   Teamwork and Accountability
- Financial Impact andAssumptions
- · Performance
- Data
- · Case Studies

Print this report

Download resources

-

Send feedback

# Accelerating Product Development and Reducing Manufacturing Complexity

As part of our acceleration of the Way Forward plan, 70 percent of Ford, Lincoln and Mercury products (by volume) in North America will be new or significantly upgraded by the end of 2008 compared with 2006 models. These efforts will include the expansion of our product lineup in growth segments such as crossover vehicles.

We plan to accelerate the development of new products designed to meet shifting consumer preferences for more fuel-efficient, smaller vehicles. For more information see <a href="Sustainable Mobility Technologies">Sustainable Mobility Technologies</a>. To facilitate this, we have reorganized our product development activities into a unified and integrated global organization that reports directly to our Chief Executive Officer, and we are developing a truly global product plan that takes full advantage of our global product development assets, technologies and people. By better leveraging our scale, we will be able to apply our global product development capital and engineering resources to fewer vehicle platforms, drivetrains and powertrains. This commonality of platforms, drivetrains and powertrains, in turn, will reduce complexity in our vehicles and processes.

Moreover, as we make investments in new products, we will continue to improve our production system's quality, productivity and flexibility.

#### RELATED LINKS

#### In This Report

- Sustainable Mobility Technologies
- Delivering Customer-Focused Innovations
   Faster

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## FINANCIAL

- . HEALTH
- Progress
- Context
- Management
- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- bbtaining and Maintaining
   Adequate Liquidity
- Working Together through
   Teamwork and Accountability
- Financial Impact and Assumptions
- Performance
- Data
- · Case Studies



Download resources

-

Send feedback

## Obtaining and Maintaining Adequate Liquidity

We obtained \$23.5 billion of new liquidity in December 2006, including proceeds from a convertible debt offering of \$4.95 billion, proceeds from a secured term loan of \$7 billion and a secured revolving credit facility of \$11.5 billion. This resulted in total automotive liquidity of about \$46 billion at year-end 2006, which we believe should allow us to fund our restructuring and product development priorities and provide us with a cushion for a recession or other unforeseen events in the near term.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

### FINANCIAL

- . HEALTH
- Progress
- . Context
- · Management
- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- Obtaining and Maintaining
   Adequate Liquidity
- Working Together through

#### Teamwork and

#### Accountability

- Financial Impact and Assumptions
- Performance
- Data
- · Case Studies

Print this report

P Download resources

1 15----

Send feedback

## Working Together through Teamwork and Accountability

Our global management team is focused on a single, global business plan that establishes clear performance goals for the entire Company. This requires all functions – product development, purchasing, information technology, manufacturing, etc. – across the globe to work together and be accountable to meet the performance goals established by our business plan.

To facilitate this, our senior management team has established weekly meetings to assess our progress against the business plan goals, to identify risks to meeting and opportunities for exceeding those goals, and to make decisions about actions to mitigate risks or implement opportunities to meet or exceed those goals.

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- Progress
- . Context
- · Management
- Restructuring the Company
- Accelerating Product
   Development and Reducing
   Manufacturing Complexity
- Obtaining and Maintaining
   Adequate Liquidity
- Working Together through
   Teamwork and Accountability
- Financial Impact and
   Assumptions
- Performance
- Data
- · Case Studies

Print this report

Download resources

-

Send feedback

## Financial Impact and Assumptions

Execution of the four priorities <u>discussed in this section</u> is expected to result in our Ford North America segment, and our Automotive sector overall, being profitable in 2009. This projection is based on the following operating assumptions in the 2008 and 2009 time period:

- Sales volume and mix of products stabilizing in North America, with total U.S. market share in the 14 percent to 15 percent range for Ford, Lincoln and Mercury brands, and lower fleet sales as a percentage of total sales. This in part reflects the cessation in 2006 of production of the Ford Taurus sedan in Atlanta and the Ford Freestar and Mercury Monterey minivans in Oakville, Ontario. In addition, we expect growth in sales volumes outside the United States.
- Cumulative reduction in annual operating costs for our Ford North America segment of about \$5
  billion by the end of 2008 compared with 2005, largely reflecting the personnel and capacity
  reductions discussed above, and continuing cost improvements in 2009.

- Ford.com
- Company Reports

Print this report

Send feedback

Download resources

OVERVIEW > OUR IMPACTS > FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 VOICES > QUALITY OF RELATIONSHIPS FINANCIAL HEALTH ENVIRONMENT COMMUNITY Performance FINANCIAL HEALTH · Progress Key topic: Sustaining Ford . Context We are keenly aware of the interconnections between our Company and its employees, business partners and the communities in which we operate. Management Key topic: Legacy Health Care Costs Performance We provide health care coverage to about 570,000 employees or retirees and their dependents in the Key topic: Sustaining Ford United States alone o Key topic: Legacy Health Care 2006 Performance: Accelerated Way Forward Plan o 2006 Performance: Accelerated During 2006, Ford developed and implemented elements of our Accelerated Way Forward plan to return North America to profitability in 2009. Way Forward Plan Investor Ratings and Feedback Investor Ratings and Feedback Data We see increasing recognition on the part of socially responsible and mainstream investors and analysts that strong performance on sustainability issues can deliver improved financial results in the long term · Case Studies and provides a proxy for the overall quality of a firm's management.

OVERVIEW >

OUR IMPACTS >

VOICES :

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- Progress
- . Context
- Management
- Performance
- Separation Packages Offered to
   Ford Hourly Employees
- Key topic: Legacy Health Care
   Costs
- 2006 Performance: Accelerated
   Way Forward Plan
- Investor Ratings and Feedback
- Data
- · Case Studies

Print this report

☐ Download resources

Send feedback

## Key topic: Sustaining Ford

We are keenly aware of the interconnections between our Company and its employees, business partners and the communities in which we operate. Our investment in manufacturing facilities and our employment of hundreds of thousands of people has helped to build and sustain vibrant, stable communities. We value this contribution, so it is painful to restructure our North American operations. Because of our commitment to our employees and communities, it is critical that we handle the downsizing in a responsible way. Some of the steps we have taken to do this are detailed below.

#### **Workforce Reductions**

#### Hourly Employees

During 2006, all of our UAW-represented hourly employees were offered the opportunity to leave the Company. As an incentive, we offered these employees eight different voluntary packages to select from, including four traditional offers (such as early retirement) and four innovative programs designed to help employees transition to new jobs requiring new skills.

For example, Ford is offering specialized support to employees who elect to separate from the Company to attend college. Pursuant to our Educational Opportunity Program, hourly U.S. employees with at least one year of service were eligible for up to \$15,000 in tuition reimbursement per year for up to four years, paid directly to an approved college or vocational school. The program also offered an annual stipend worth about 50 percent of the employee's annualized straight-time wage rate and continued health insurance and other benefits while the employee was enrolled in the program. (Further details of this plan and the full list of offers to hourly employees are available here).

At each plant, we invited employees, schools and prospective employers to an "Opportunity Fair" as a way to match employees who were making decisions about leaving the Company with educational opportunities and prospective employers. We also offered training to employees in searching for jobs, relocating and weighing their options, such as further education.

Our approach was to communicate extensively – to employees directly, to plant management, to the national and local UAW leadership, who represent our hourly employees, and to the affected communities

Ford began the year with about 83,000 UAW-represented employees, not including ACH employees. Through year-end 2006, about 37,000 of our UAW-represented hourly workers had accepted (and not rescinded) package offerings for voluntary separations from the Company. The vast majority of these employees are expected to separate from the Company by September 2007, though many of the offers include an opportunity for the employee to rescind acceptance until the time of separation. This figure includes the buyout offers preliminarily accepted during the open enrollment period and about 8,000 acceptances received earlier in 2006 during targeted plant-by-plant buyout offerings to Ford and ACH employees. Of the acceptances, approximately 6,000 were by hourly employees at ACH.

Just over half of the buyouts accepted during the open enrollment period were by employees who accepted one of the nontraditional packages, which provided options such as pre-tax lump sum payments, tuition reimbursements or scholarship funds for family members.

The acceptances are preliminary, as all buyout offers are voluntary and include an employee's opportunity to rescind acceptance up until the time of their separation from the Company.

#### Salaried Employees

We continued to offer separation packages to salaried employees in 2006. Salaried employees who received offers for voluntary separation or early retirement were also given information about what their separation package would be if the Company did not receive enough volunteers and had to move to involuntary separations.

Most of the employees accepting a voluntary package left the Company by the end of the first quarter of 2007, though some departures will be later in the year due to critical business needs. We tried to maintain open communication throughout the process and accommodate employee needs during this difficult time. For example, in response to the requests by a number of departing employees to stay connected and continue supporting the Company's turnaround, the Ford Employee Network is being made available to all employees leaving pursuant to the U.S. Salaried Separation Programs. Employees who have left will continue to have access to the Web site for Company news and activities, and links to the employee purchase plan Web sites.

All managers were informed of the company's knowledge retention tools to ensure continuity and avoid the loss of critical knowledge and experience from exiting employees.



#### **Health and Safety Challenges**

As our manufacturing facilities lose full-time employees, we may use temporary employees to fill in as

To prevent safety-related incidents and maintain high levels of product quality, we worked with the UAW joint committees on safety and quality to develop a week-long, standardized training for temporary employees before they begin work. Through the first quarter of 2007, facilities using temporary employees have experienced unchanged or improved safety records.

#### **Facility Closures**

Closing a facility – whether a manufacturing plant or an office building – presents a set of challenges that must be handled responsibly, from working with the host community to ensure a smooth transition to a new use for the property, to handling any needed environmental remediation and disposing of surplus fixtures and furniture.

#### Communicating with the Community

When the decision is made to close a facility, environmental professionals assess the facility and surrounding land. This assessment reveals the environmental condition of the site and the actions needed to ensure that future use of the site will not pose any risk to human health or the environment.

Ford consults with real estate partners and representatives of the local community about potential uses for the property. In some cases, Ford redevelops the property itself: more often it seeks a well-qualified developer to buy and convert it. Some properties remain in industrial use. In other cases, the surrounding communities have changed since the plant opened, and new uses, such as retail, commercial or residential, are possible and desirable. The use of the property is selected with regard to Ford's goal to maximize returns from the sale of the property, the existing environmental footprint of the property and the community's needs and concerns, which often include appropriate development and tax revenues.

For example, Ford's Twin Cities Assembly Plant in Saint Paul, Minnesota, will be idled in 2008. The 143.6-acre site, located near the Minneapolis/Saint Paul International airport, overlooks the Mississippi River, and is surrounded by desirable neighborhoods.

The city has convened a task force that includes community and Ford representatives and is facilitated by consultants experienced in community "visioning" projects. The task force's mission is to develop three to five redevelopment options for the city to weigh as it decides on new zoning for the property. The goal is to have a plan in place before the plant's scheduled shutdown. Many developers are interested in the site, and one possible scenario involves developing it as a "green" community complete with its own renewable energy source.

#### **Environmental Assessment**

We assess the condition of each facility to be closed to determine the need for environmental remediation and inform decisions about redevelopment options. All properties are cleaned up to the standard appropriate for its future use, whether industrial, commercial or residential. In some cases, Ford conducts any needed cleanup; in others, the purchaser of the property will perform the remediation. In certain instances, environmental monitoring of the property will take place even after redevelopment.

### **Consolidating Operations**

With fewer employees, we have the opportunity to consolidate functions that now stretch across multiple buildings into fewer locations, which also improves communication and collaboration. A project to consolidate Ford's Product Development functions in Dearborn, for example, involves moving 8,000 to 10,000 employees into different office spaces to reduce facilities costs. When the project is completed, Ford's Product Development teams will be housed in far fewer buildings. The Powertrain group alone has been consolidated from 19 buildings to just five. In this case, the benefits of relocating go beyond the dollar savings. The moves have allowed Product Development to better locate related functions to increase opportunities for interaction, sharing of knowledge and efficient collaboration.

Many facilities to be closed contain valuable property, whether industrial equipment or office desks and chairs. We have developed an information system to inventory and manage the surplus by reusing it at other Ford facilities or providing it to a broker to sell.

Computer equipment is returned to Ford's Information Technology function for reuse or recycling.

OVERVIEW >

OUR IMPACTS >

VOICES >

FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

#### FINANCIAL

- **HEALTH**
- Progress
- · Context
- Management
- · Performance
- Key topic: Sustaining Ford
- Separation Packages
   Offered to Ford Hourly
   Employees
- Key topic: Legacy Health Care
   Costs
- 2006 Performance: Accelerated
   Way Forward Plan
- Investor Ratings and Feedback
- Data
- · Case Studies



Download resources

Send feedback

## Separation Packages Offered to Ford Hourly Employees

The following is a summary of the eight separation packages offered to Ford hourly employees during 2006.

- Special Retirement Incentive For employees with 30 years of service or more and who are at least 55 years old, or who are at least 65 with one or more years of service. Financial incentive of \$35,000 pre-tax check.
- Special Early Retirement For employees who have reached age 55, but not normal
  retirement age, and who have 10 or more years of credited service under the Ford-UAW retirement
  plan. Provides unreduced life income benefits for the life of the retiree, and temporary benefits
  payable until age 62 and one month.
- 3. Pre-Retirement Leave Program For employees with at least 28, but less than 30 years of credited service. Ends with retirement when the employee reaches 30 years of service. Employees will receive 85 percent of straight-time pay. After they reach 30 years of service, they would receive their regular retirement.
- Special Termination of Employment Program Employees with at least one year of service receive a gross lump sum payment of \$100,000. Retirement eligible employees must wait 23 months before retiring.
- 5. Educational Opportunity Program For employees with at least one year of service, includes tuition reimbursement for up to \$15,000 per year for up to four years paid directly to the approved college or vocational school, and an annual stipend worth 50 percent of the employee's annualized straight-time wage rate. Health insurance and other benefits continue during this four-year period, but participants must enroll in school full time (at least 12 credit hours per semester) and maintain a "C" average to remain eligible. Benefits and the living expense stipend end after four years, or when the employee receives their degree/certification/license.
- 6. Enhanced Special Termination of Employment Program Under this program, UAW-Ford employees with at least 30 years of credited service under the Ford-UAW Retirement Plan or who are at least 55 years old with at least 10 years of credited service will receive a lump sum pre-tax payment of \$140,000. Retirement may take place immediately, and workers electing this option will receive any pension benefits for which they are eligible at that time, based on length of service. They also will be provided with basic health care coverage for a period of six months, but will be ineligible for post-retirement health care and life insurance benefits.
- Focused Education Opportunity Program Similar to the Educational Opportunity
  Program described above, except that employees selecting this option will receive two years of
  tuition payment, up to \$15,000 per year and 70 percent of wages, instead of 50 percent.
- 8. Family Scholarship Program Employees electing this program agree to terminate their employment at Ford, and will receive a Scholarship Fund totaling \$100,000, which can be used for approved educational expenses for their children, spouses and grandchildren. Funds will be taxed upon withdrawal. Funds will be available for a 10-year period from the employee's date of termination, and if the funds are not used within the time period, they will be forfeited.

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS ANI CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

### FINANCIAL

- . HEALTH
- Progress
- Context
- Management
- Performance
- Key topic: Sustaining Ford
- Rey topic: Legacy Health
   Care Costs
- 2006 Performance: Accelerated
   Way Forward Plan
- Investor Ratings and Feedback
- Data
- Case Studies



Download resources

Send feedback

## Key topic: Legacy Health Care Costs

We provide health care coverage to about 570,000 employees or retirees and their dependents in the United States alone. In 2006, our health care expenses for U.S. employees, retirees and their dependents were \$3.1 billion, with about \$1.8 billion for post-retirement health care and the balance for active employee health care and other retiree expenses.

We are proud of our role in providing these benefits to individuals and families. However, the rising cost of health care coverage and our high proportion of retirees compared to more recent entrants to U.S. markets puts us at a competitive disadvantage. It is estimated that Ford's health care costs add about \$1,200 to the cost of each vehicle built in the United States.

During 2005 and 2006, we took steps to have employees and retirees bear a higher portion of the costs of their health care benefits. Active salaried employees were asked to increase their health care contributions in both years. Salaried retirees have Company contributions capped at 2006 levels if they are under 65, while the Company contribution for salaried retirees age 65 and over is capped at \$1,800 per member per year (effective January 1, 2008).

For hourly employees, we successfully reached agreement with the UAW to reduce health care costs in 2006, primarily through modifications to the Company's hourly retiree health care plan. While these actions did result in substantial savings, we still expect our total health care costs to continue to increase. For 2007, our trend assumptions for U.S. health care costs include an initial trend rate of six percent, gradually declining to a steady-state trend rate of five percent reached in 2011. These assumptions include the effect of actions we are taking and expect to take to offset health care inflation, including eligibility management, employee education and wellness programs, competitive sourcing and appropriate employee cost sharing.

To promote the health of employees and the Company's financial health, we are focusing on creating a culture of health and wellness for our employees and their families. We are providing resources and tools to help them make sound choices about health care services and coverage and help them understand the benefits of being a better health care consumer. Our efforts include:

- The introduction of an internal wellness campaign, with the tagline of "Good Health Isn't Automatic, It's Manual". We are encouraging and motivating employees to take control of their health by:
  - Providing the skills that will help them understand their risks, and improve their health habits
  - $_{\odot}\,$  Encouraging them to be better health care consumers by using health care quality information
- The implementation of an employee health improvement program, called "Healthy Highway," to prevent and manage illness, which includes:
  - Disease management
  - Individualized wellness programs
  - Health assessments
  - 24-hour phone access to nurse and on-site screening services

This is an area in which we are collaborating with communities and government agencies. For example, we are:

- Promoting and investing in the adoption of health care information technology (HIT) through local
  initiatives, with funding assistance from various levels of government. HIT will enable physicians
  and hospitals to have access to all pertinent information needed to treat their patients so that
  patients may receive the most appropriate care
- Participating in regional health care quality measurement and public reporting initiatives, with potential data sharing and funding assistance from government

We hope that over time, these actions will support the health of our current and retired employees and reduce our competitive disadvantage related to health care costs.

- In This Report
- Health as a Strategic Advantage

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## FINANCIAL

- . HEALTH
- Progress
- Context
- Management
- · Performance
- Key topic: Sustaining Ford
- Key topic: Legacy Health Care

## Accelerated Way Forward

- Investor Ratings and Feedback
- Data
- · Case Studies



Download resources

Send feedback

## 2006 Performance: Accelerated Way Forward Plan

During 2006, Ford developed and implemented elements of our Accelerated Way Forward plan to return North America to profitability in 2009. Actions included:

- Idling of the St. Louis Assembly Plant in March and the Atlanta Assembly Plant in October, consistent with the North America restructuring plan.
- By agreement with the UAW, extending early retirement or separation packages to all UAW-represented hourly employees, including Ford employees at our Automotive Component Holdings, LLC (ACH formerly Visteon) plants. Through year-end 2006, about 37,000 hourly employees represented by the UAW had accepted (and not rescinded) an early retirement or separation offer. The vast majority of these employees are expected to separate from the Company by September 2007, though many of the offers include an opportunity for the employee to rescind acceptance until the time of separation. The accelerated plan to sell or close the majority of our ACH facilities by the end of 2008 will result in additional personnel reductions. In addition, the Company realized cost savings from the implementation of its health care agreement with the UAW.
- Efforts to reduce North America salaried-related costs by about one-third, which will reduce the salaried work force by the equivalent of about 14,000 positions. In addition, we implemented costsaving revisions to salaried benefit plans.
- We continue to work to sell or close the majority of our ACH facilities by the end of 2008, though we
  now expect that portions of one or two facilities may remain open beyond 2008 to provide for an
  orderly re-sourcing of business to the supply base.
- Plans to sell Automobile Protection Corporation (APCO), a subsidiary that offers vehicle service
  contracts to dealers of all makes and models, and all or part of Aston Martin. The APCO sale was
  completed in April 2007; the Aston Martin sale was completed in May 2007.
- Launching new products that are receiving positive feedback, including the Ford Edge, Lincoln MKX, Ford Expedition and Lincoln Navigator, all in North America; the Ford S-MAX, Ford Galaxy and Ford Transit in Europe; and the Jaguar XK, Land Rover LR2, Volvo S80 and C30, and Mazda CV0
- A corporate realignment in December 2006 that streamlined the organization and formed a Global Product Development team, to better integrate and leverage global resources across the automotive business units.
- Obtaining \$23.5 billion of new liquidity in December, including a convertible debt offering of \$4.95 billion, a secured term loan of \$7 billion and a secured revolving credit facility of \$11.5 billion. This resulted in total automotive liquidity of about \$46 billion at year-end 2006.

- Ford.com
- Investor information

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN CUSTOMERS ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- · Progress
- Context
- Management
- Performance
- Key topic: Sustaining Ford
- Key topic: Legacy Health Care
- 2006 Performance: Accelerated
   Way Forward Plan
- hvestor Ratings and
   Feedback
- Data
- · Case Studies



Download resources

Send feedback

## Investor Ratings and Feedback

We see increasing recognition on the part of socially responsible and mainstream investors and analysts that strong performance on sustainability issues can deliver improved financial results in the long term and provide a proxy for the overall quality of a firm's management.

We cooperate with many of the sustainability ranking organizations. Their rankings and the evaluations behind them are important for understanding our own position relative to the rest of the industry and better understanding our strengths and weaknesses.

In 2006, we were included in the <u>Dow Jones Sustainability Index</u> North America and the FTSE4Good Index, based on favorable evaluations of our sustainability programs and performance.

The UK's Business in the Community, in its Corporate Responsibility Index, ranked Ford first in the Automobiles and Parts sector and in the top 100 companies in 2006. Ford's performance was rated in the "silver" or next-to-highest band overall, and above the sector average in every aspect except environmental impact. Business in the Community provided specific feedback on Ford's performance, which can be viewed <a href="here">here</a>.

Ford also earned "best in class" status for its leading environmental and social performance from Storebrand, a leading Scandinavian financial services company, which has approximately €25 billion in assets under management, all of which are subject to an extensive Group SRI Policy. Only those companies ranking in the top 30th percentile of Storebrand's CSR performance analyses are considered "best in class." These companies also qualify for participation in Storebrand's investment universe.

#### RELATED LINKS

- **External Web Sites**
- Business in the Community
- Storebrand

#### DOWNLOADS









OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND

ENVIRONMENT

COMMUNITY

SAFET!

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- Progress
- Context
- Management
- Performance

### Data

· Case Studies



Download resources



### Data

#### **Charts on This Page**

- A <u>Gumulative Shareholder Return</u>
- B <u>Selected Financial Performance Indicators</u>
- C Profile of Ford Investors
- D Worldwide Taxes Paid

#### Α

### **Cumulative Shareholder Return**

150



0

	Base 2001	2002	2003	2004	2005	2006
S&P 500	100	78	100	111	117	135
Ford	100	61	109	103	56	57



## B Selected Financial Performance Indicators

Indicator	2002	2003	2004	2005	2006
Sales and revenue (\$ billion)	167.0	166.1	172.3	176.9	160.1
Income/(loss) from continuing operations (\$ billion)1	2.2	0.6	3.2	1.6	(12.6)
Net income/(loss) (\$ billion)	0.9	0.2	3.0	1.4	(12.6)
Stock price range (per share) (\$)	6.90-18.23	6.58-17.33	12.61-17.34	7.57-14.75	6.06-9.48
Diluted per share amount of income/(loss) from continuing operations (\$)	1.14	0.35	1.59	0.87	(6.72)
Diluted per share amount of net income/(loss) (\$)	0.51	0.13	1.52	0.77	(6.72)
Cash dividends per share (\$)	0.40	0.40	0.40	0.40	0.25
Automotive gross cash (\$ billion)1	25.3	25.9	23.6	25.1	33.9
Shareholder return – Bloomberg Total Return Analysis (percent)2	(39)	79	(6)	(45)	1

See notes to the data

top

#### С

## **Profile of Ford Investors**

Percent

la constant	2002	2002	2004	2005	2007
Investor	2002	2003	2004	2005	2006
Institutional investors:	38	37	41	46	54
Top 15	15	17	22	27	34
Others	23	20	19	19	20
Employees and Management	21	22	21	19	19
Individuals3	41	41	38	35	27

top

	2002	2003	2004	2005	2006
U.S. (Federal, State and Local)	1,383	834	1,268	1,317	1,121
Non U.S.	1,389	2,395	3,008	3,185	3,429
Total	2,772	3,229	4,276	4,502	4,550

top

#### NOTES TO THE DATA

#### Chart P

- 1 Automotive gross cash includes cash and cash equivalents, net marketable and loaned securities and assets contained in a short-term Voluntary Employee Beneficiary Association (VEBA) trust.
- <sup>2</sup> Total Shareholder Return is from Bloomberg Total Return Analysis assuming dividends reinvested in Ford stock

#### Chart C

The ownership by individuals includes shares owned by the Ford family and by Ford employees and management outside of the Company savings plans.

#### Chart D

Data for 2004 through 2006 excludes Federal refunds. Prior year tax has been restated in order to include certain types of duty that were not included in the reports for prior years.

OVERVIEW > OUR IMPACTS > VOICES ≫ FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7 PRODUCTS AND CUSTOMERS FINANCIAL HEALTH QUALITY OF RELATIONSHIPS ENVIRONMENT COMMUNITY Case Studies FINANCIAL . HEALTH • Progress **Economic Impact of the Automotive Industry** • Context The auto industry is a major contributor to national and global economies. In the United States, total spending on new vehicles represents 4 percent of GDP - or over \$500 billion. • Management • Performance • Data Case Studies Economic Impact of the Automotive Industry Print this report Download resources Send feedback

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AN

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

#### FINANCIAL

- . HEALTH
- Progress
- . Context
- · Management
- · Performance
- . Data
- · Case Studies
- Economic Impact of the
   Automotive Industry

Print this report

Download resources

Send feedback

## **Economic Impact of the Automotive Industry**

The auto industry is a major contributor to national and global economies. In the United States, total spending on new vehicles represents 4 percent of GDP – or over \$500 billion. The industry employs millions of people in relatively well-paying jobs. In the United States, for example, the compensation of automakers' employees is 73 percent higher than the average for private hourly production.

In the United States in 2006, approximately 1.1 million people worked directly for automakers and parts suppliers. Direct auto manufacturer, dealer and supplier employment totals about 2 percent of U.S. employment. No other single industry is more linked to U.S. manufacturing or generates more retail business and employment. Indirectly, the auto industry supports jobs and economic benefits through related employment at dealers, suppliers and service shops and through the expenditures of people employed by those industries, accounting for 7.5 jobs for each job at an automaker. Similarly, in India, the "multiplier effect" of the auto industry has been estimated at 12 to 35 jobs in backward and forward linkages for each person employed directly in the auto industry.

Motor vehicles and auto parts represent the single largest export sector in the United States, with \$96.7 billion worth exported in 2006. The auto industry also leads U.S. manufacturing industries in the level of research and development investment, spending more than \$17 billion in the United States in 2005.

- In This Report
- Voices: Sean McAlinden Center for Automotive Research

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . DOWNLOADS

#### Print this report

- · Download resources
- Previous reports

Send feedback

## Print this report

Ford's 2006/7 Sustainability Report is available in full online and as a printed report covering the most material issues. These issues include mobility, climate change, human rights, vehicle safety and sustaining Ford, as well as our overall vision, strategy, challenges and opportunities.

Contact us at <a href="mailto:sustaina@ford.com">sustaina@ford.com</a> for a bound copy of the print report.

Alternatively you can print out your own copy. To print the report download and open this Acrobat PDF

### **Print Report**



Ford Sustainability Report 2006/7
PDF format, 2.63 Mb



Where this icon appears in the printed report, see Additional content for specific links to relevant additional content contained in this Web report.







Get Adobe® Reader®

RELATED LINKS

Get Adobe® Reader®

Get ADOBE® READER®

# Ford Motor Company

OVERVIEW >

OUR IMPACTS >

VOICES >

### FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL **HEALTH** 

## . DOWNLOADS

· Print this report

#### Download resources

· Previous reports

Send feedback

## Download resources

#### **Brand and Country-Level Reports**



Mazda Social and Environmental Report
HTML format plus PDF downloads

Volvo Corporate Citizenship Report
HTML format

#### **Past Reports**



Ford Motor China Report 2003-2005
PDF format, 2.99 Mb



Ford India Ltd 2002 Report

PDF format, 1.69 Mb



Ford Malaysia Public Environment Report 2002

PDF format, 2.93 Mb



Ford Rouge Center Environmental Report 2002

PDF format, 1,78 Mb



Jaguar Environmental and Social Report

HTML format plus PDF of printed summary report



Ford Mexico Greenhouse Gas Report

English version - PDF format, 302 Kb Spanish version – PDF format, 363 Kb



Ford Australia Environment Reports

Geelong Public Environment Report 2002/2003 Broadmeadows Public Environment Report 2002/2003



Ford Otosan Kocaeli Plant Environmental Report 2003-2004

PDF format, 5.36 Mb



Ford Lio Ho Motor Company Ltd Corporate Environmental Report 2002

PDF format, 4.49 Mb



Ford Thailand Corporate Citizenship Report 2003

PDF format, 7.84 Mb

### Ford Sustainability Report 2005/6 Feedback



Feedback from SAM research PDF format, 63 Kb

SustainAbility Benchmark Feedback

PDF format, 121 Kb



Ford Response to Carbon Disclosure Project

PDF downloads



BITC Report on Ford Motor Company
PDF format, 190 Kb

#### **Financial Reports**



Annual Report 2006

PDF downloads - complete report plus individual sections



Form 10-K PDF format, 933 Kb



Notice of 2006 Annual Meeting of Shareholders and Proxy Statement PDF downloads

### **Human Rights**



Michigan Truck Human Rights Assessment PDF format, 105 Kb

Broad Meadows Human Rights Assessment PDF format, 132 Kb

Lio Ho Human Rights Assessment PDF format, 102 Kb

Pacheco Human Rights Assessment

PDF format, 1.43 Mb

Changan Human Rights Assessment
PDF format, 56 Kb

India Human Rights Assessment
PDF format, 41 Kb

Otosan Human Rights Assessment
PDF format, 63 Kb

Code of Basic Working Conditions
PDF format, 14 Kb

#### Miscellaneous

Product Sustainability Index
PDF format, 507 Kb

Ford Mondeo Product Sustainability Index Fact Sheet

DDE format, 105 Kb PDF format, 105 Kb

Global Reporting Initiative – HIV / AIDS Program PDF format, 86 Kb

Supporting Employees and Customers with Disabilities

DDE formed 4/0 Mb PDF format, 169 Kb

Ford Motor Company Business Principles

PDF format 0.4 M

PDF format, 84 Kb

1998-2005 Greenhouse Gas Emissions – U.S. Department of Energy 1605b Report PDF format, 1.12 Mb

More on Model U PDF format, 2.37 Mb

Ford Rouge Center Brochure PDF format, 199 Kb

Auto Alliance Corporate Citizenship Report – Connecting with Downriver PDF format, 1.99 Mb

Chicago Climate Exchange certificate PDF format, 150 Kb

Technology and Innovation report

PDF downloads - complete report plus individual sections

OVERVIEW >

OUR IMPACTS >

VOICES >

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ENVIRONMENT

COMMUNITY

QUALITY OF RELATIONSHIPS

FINANCIAL HEALTH

## . DOWNLOADS

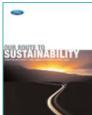
- · Print this report
- Download resources

### Previous reports

Send feedback

## Previous reports

To see information from Ford's previous seven reports, click on the links below.





2005/6 Report







2003/4 Report



2002 Report







2000 Report



OVERVIEW >

OUR IMPACTS >

VOICES :

## FORD MOTOR COMPANY SUSTAINABILITY REPORT 2006/7

ACCOUNTABILITY

PRODUCTS AND CUSTOMERS

ENVIRONMENT

COMMUNITY

SAFETY

QUALITY OF RELATIONSHIPS FINANCIAL HEALTH

## Additional content



Where this icon appears in the printed report, see the table below for specific links to relevant additional content contained in this Web report.



## Mobility

Page nu	mber and section in printed report	Links to additional content in Web report
8	Expanding Our Product Offerings in Developing Countries and Revitalizing Economies	Global Product Guide
		Ford Motor China's Corporate Social Responsibility Programs Recognized
9	New Approaches to Developing Markets	Taking a New Approach to Personal Mobility in Developing Countries
10	Partnerships as Avenues for Learning and Action	Partnerships as Avenues for Learning and Action
11	Advanced Clean Technologies	Sustainable Mobility Technologies
		New Products with Better Fuel Efficiency
		Advanced Clean Technologies

## Climate Change

Page n	umber and section in printed report	Links to additional content in Web report
15	Climate Change Risks and Opportunities	Climate Change Emissions and Stabilization
15	Markets	Distribution of CO <sub>2</sub> Emissions
16	Investment Community	Investor Ratings and Feedback
		Ford Response to Carbon Disclosure Project
17	Ford Response to the Risks and Opportunities of Climate Change	Climate Change Emissions and Stabilization
		Structures for Managing Sustainability
18	Vehicle	GHG Emissions Equation: Vehicle
19	Vehicle	GHG Emissions Equation: Vehicle
20	Driver	GHG Emissions Equation: Driver

## **Human Rights**

Page n	number and section in printed report	Links to additional content in Web report
23	Revising Our Code	Code of Basic Working Conditions
23	Working Conditions in Ford Plants	Working Conditions in Ford Plants
23	Ford Facility Assessment Process	Working Conditions in Ford Plants
24	Setting Expectations for Our Suppliers	Supply Chain Overview
24	Supplier Assessment and Training Program	Supply Chain Overview

## Vehicle Safety

Page nu	umber and section in printed report	Links to additional content in Web report
29	Context	Vehicle Safety Context
32	Pre-Crash/Accident Avoidance	Vehicle Safety
32	Crash/Occupant Protection	Vehicle Safety
33	Forward-Looking Radar and Vision Sensor Technologies	Forward-Looking Radar and Vision Sensor Technologies