

**Blueprint for Sustainability** 



Welcome to Ford Motor Company's 2007/8 Sustainability Report. This is the ninth formal nonfinancial report published by Ford Motor Company, and the fourth specifically focused on sustainability. Each of these reports serves as a review of our continually evolving efforts to make our Company more sustainable environmentally, socially and economically.

This year's print report highlights the most material issues from our full Web-based report. These issues include climate change, mobility, human rights, vehicle safety and sustaining Ford. We have also added a section on governance, as this underpins our efforts on all of the material issues. A data overview is included at the end of the report.

We hope you find this report useful in illuminating our Company's progress in our journey toward sustainability.

The full report shown below is online at www.ford.com/go/sustainability



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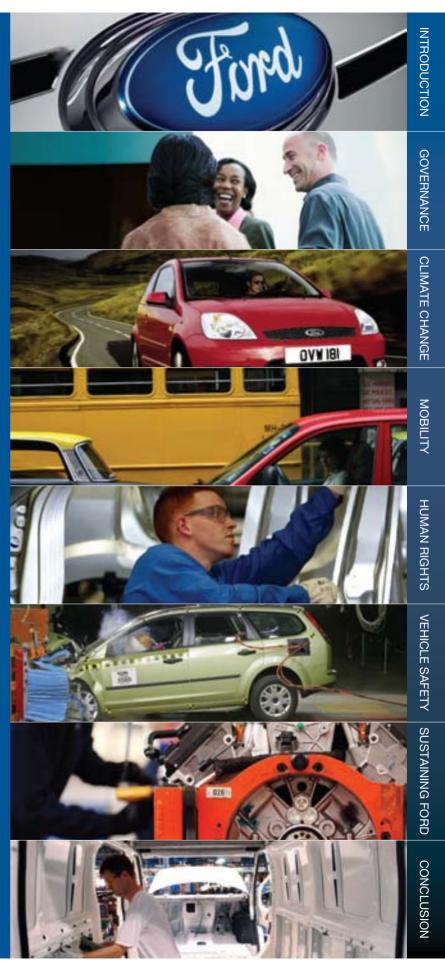
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"After 100 years of evolution, the automobile industry is on the edge of a revolution, responding to the increasingly urgent need for new mobility solutions that have dramatically lower environmental impacts."

## William Clay Ford Jr.

Executive Chairman and Chairman of the Board

I have long believed that environmental sustainability is the most important issue facing businesses in the 21st century. Fortunately, unlike 20 years ago, or even five years ago, a growing number of people in our industry now agree, and we are doing something about it.

## **NEW DIRECTIONS IN TECHNOLOGY**

After 100 years of evolution, the automobile industry is on the edge of a revolution, responding to the increasingly urgent need for new mobility solutions that have dramatically lower environmental impacts.

In the auto industry, the company that can take the lead in addressing environmental concerns will have a real competitive edge. That is why Ford is investing so heavily in this area. We want to transform ourselves into a leading-edge provider of sustainable personal transportation.

Over the last three years, we have spent nearly \$23 billion on research and development. Right now, we are working on hybrids, plug-in hybrids, hydrogen fuel cells, hydrogen internal-combustion engines and flexible fuel vehicles in laboratories and test fleets around the world. But even revolutionary technologies will build on evolutionary steps, including improvements in transmissions, aerodynamics, weight reduction, energy storage, lubrication and others. We are also investing in these areas.

## **GLOBAL MOBILITY NEEDS**

Other factors are transforming our company as well. The industry is now truly global, with our customers, business partners and competitors located in all regions of the world. We believe that operating globally means more than participating in markets. It means participating in communities – acting responsibly as an employer, business partner and agent of economic development; promoting human rights in our facilities

and those of our suppliers; and identifying and responding to community needs, including needs for new models of mobility.

No one knows what the auto industry will look like 20 or 50 years from now. Some technological pathways will achieve breakthroughs; others will be dead ends. Some solutions will be mobility services rather than products and will emerge from a deep knowledge of the communities in which we operate.

## TRANSFORMING FORD

The possibilities multiply the further out you go in time, but it is certain that the future will not look like the present. To help us explore what the future might look like and plan innovative responses, we have asked a group of sustainability thought leaders to come together several times a year with our own experts to form a Transformation Advisory Council. This group, which had its first meeting in February 2008, will help Ford scan the horizon to understand the future context for our leadership in sustainability.

As I look back at the year, I am proud of the work that Ford people have done to address sustainability issues under challenging circumstances. I am particularly impressed with the leadership of Alan Mulally and Sue Cischke in developing our blueprint for sustainability, which aligns our products with the reality of a carbon-constrained world and the coming revolution in automotive technology. I hope you find this report to be as useful and candid an account of our performance and challenges as I did.

William Clay Ford Jr.

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Executive Chairman and Chairman of the Board



As I reflect on my first full year at Ford, I see a company – and a world – that have changed dramatically.

In retrospect, 2007 may be seen as the year that sustainability, and in particular the climate change issue, reached a tipping point in public consciousness. The Nobel Peace Prize was awarded for climate change work. The Intergovernmental Panel on Climate Change issued a new and more adamant assessment of the likelihood and risks of climate change. The U.S. Supreme Court issued a major decision on the treatment of climate change issues under the Clean Air Act, while the U.S. Congress passed an energy bill and pondered climate change legislation. Oil prices passed the \$100 per barrel mark in early 2008. Along with concerns over climate change and energy security, the cost of fuel drove strong consumer interest in more fuel-efficient vehicles.

Ford also is changing. It is becoming smaller, leaner, more globally integrated and more focused on meeting our customers' needs and wants. It is also a company with sustainability at the heart of its business. Our vision for the 21st century is to provide sustainable transportation that is affordable in every sense of the word: socially, environmentally and economically.

Over the past year, this vision drove the development of our product  $CO_2$  strategy, which targets a 30 percent reduction in  $CO_2$  emissions from our vehicles in the U.S. and EU by 2020.



targeted reduction in CO<sub>2</sub> emissions from new U.S. and EU vehicles by 2020





I am convinced that our vision makes sense from a business point of view as well as an ethical one. Climate change may be the first sustainability issue to fundamentally reshape our business, but it will not be the last. How we anticipate and respond to issues like human rights, the mobility divide, resource scarcity and poverty will determine our future success.

For example, urbanization, congestion, high fuel prices and other trends are putting safe, affordable transportation out of reach for many people around the world. We view this as an enormous opportunity and are leading the implementation of a prototype program to provide smart, innovative urban mobility solutions.

Our progress in addressing climate change, mobility and our other material sustainability issues is summarized below. I believe that our approach to sustainability will be one of the most important factors in both our short-term financial recovery and our long-term success. I hope that what you read in this report demonstrates that we are on the right track.

## **CLIMATE CHANGE**

During 2007, we analyzed the product actions we need to take to contribute to stabilizing atmospheric  $CO_2$  levels in the range generally accepted to minimize environmental impacts. The result was our blueprint for sustainability – a  $CO_2$  strategy for our products.

We also joined the U.S. Climate Action Partnership (USCAP) to advocate for effective climate change policy in the United States. As a member of USCAP, we support the call for short-, midand long-term targets, including an emission target zone aimed at reducing emissions by 60 to 80 percent from current levels by 2050.

An important feature of our approach is our focus on sustainable technology solutions that can be used not for hundreds or thousands of cars – but for millions of cars. The democratization of fuel-efficient technology is how Ford can truly make a difference.

Ford has not always been a leader in fuel economy, particularly in North America, but we believe that the steps we have laid out will bring our product plans in line with our commitment to leadership in addressing the climate change issue and our goal to provide customers with vehicles that are fully competitive in every way, including fuel economy.

This product strategy complements our operational energy management programs, which have resulted in a 31 percent reduction in our CO<sub>2</sub> emissions since 2000.

# Our product CO<sub>2</sub> strategy is discussed in detail in this report. Some of its key features include:

## **NEAR TERM**

We will introduce a new generation of smaller-displacement turbocharged gasoline engines with advanced fuelsaving direct-injection technologies that will provide customers with fuel savings of between 10 and 20 percent without compromising performance.

We will also improve fuel economy by cutting energy wasted in vehicle systems, minimizing wind drag and optimizing new six-speed transmissions. We will introduce more hybrid and diesel vehicles and make a large percentage of our fleet capable of using high levels of biofuels.

## MID TERM (2012 to 2020)

We will cut the weight of our vehicles, which then allows us to use smaller engines to achieve the same performance. We will continue to roll out known fuel-saving technologies and increase our number of hybrid models, including the introduction of plug-in hybrids. And second-generation biofuels such as cellulosic ethanol should become available and begin to play a role.

## LONG TERM (2020 to 2030)

We are investing in a range of technologies, including hydrogen internal combustion and fuel cell vehicles, so we will be ready to introduce the options that prove most viable. We also expect the use of renewable fuels to grow.

#### **MOBILITY**

There are currently 900 million vehicles in the world, and that number is increasing rapidly as individuals in developing markets reach new levels of prosperity. It could reach two billion vehicles by the middle of this century.

While that sounds like good news for an automaker, issues like congestion, air quality and the explosive growth of mega-cities could put the brakes on that growth. We need better and smarter mobility solutions that integrate various forms of public and private transport to help people gain the benefits of mobility while minimizing environmental and social impacts.

For several years, we have developed innovative concepts for a mega-city mobility business that would provide integrated urban mobility services to underserved populations. During 2007, we engaged with local stakeholders and developed partnerships in a number of global locations. In 2008, we will lead the launch of the first mega-city mobility program in Cape Town, South Africa.

#### **HUMAN RIGHTS**

We recognized early on that the globalization of our industry makes human rights an increasingly important issue in our operations, partnerships and supply chain. In April of 2008, we joined the United Nations Global Compact, reinforcing our commitment to human rights and other important responsibilities of global companies.

In 2007, we further strengthened our Code of Basic Working Conditions, which applies to our operations and those of our partners and suppliers, by expanding its scope and formally adopting it as a Policy Letter. To reach more deeply into our supply chain, we are working with our most important suppliers to encourage them to promote sound working conditions with their own suppliers. We also have led an effort through the Automotive Industry Action Group to bring together the major automakers to adopt a strong, consistent approach to protecting human rights in the automotive supply chain.

## **VEHICLE SAFETY**

We are bringing a range of safety innovations to our vehicles worldwide. For example, together with Volvo, Ford has been developing a suite of accident avoidance features that use forward-looking radar and vision sensors. These features 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 selected vehicles across the Ford and Volvo range.

This is part of our commitment to make the products our customers want and expect – vehicles that save fuel, perform well, look great and provide ever-higher levels of safety.

#### **RECOVERING OUR FINANCIAL FOOTING**

To contribute to long-term solutions to global problems, we must operate at a profit. During 2007, we made important progress in restoring our company to profitability. We reached an innovative agreement with the United Auto Workers union that allows management and our U.S. union-represented workforce to focus on critical actions to secure our future.

We also cut our workforce substantially and closed plants. These actions, which were difficult but necessary, directly affected our shareholders, employees, suppliers, dealers and the communities in which we operate. Indirectly, they affected local and regional economies. In most cases, employees were able to choose whether to leave the company. We believe we have handled the separations responsibly by offering a range of traditional and nontraditional separation packages to help employees transition to retirement, education or other employment.

We also continued to accelerate our development of new products, while reducing the complexity of our manufacturing processes. These actions support our restructuring to be profitable at lower volumes and with a changed vehicle mix.

This report provides an account of our global sustainability performance. We have seen steady improvements in many areas, including product quality and our use of energy and water in manufacturing. We also experienced significant challenges. Foremost among these: nine of our employees and contractors lost their lives on the job. We deeply regret these deaths, and we have taken steps to preclude similar accidents from happening in the future.

We accomplished a lot in 2007, but much more remains to be done. We need to complete the job of restoring the financial health of the company and focus on improving performance in areas where we lag. At the same time, we need to keep abreast of the constantly changing global environment for business and sustainability. We will need to move faster and do more to continue to be a leader in providing sustainability solutions to ever-more-difficult challenges.

Olan Mulally

**Alan R. Mulally**President and Chief Executive Officer

# 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 this print report. Our full report on the Web covers additional issues, including elements and indicators identified by the Global Reporting Initiative.

To identify and prioritize material issues, we conducted materiality analyses for our 2004/5 and 2006/7 reports. Since our most significant issues are fairly consistent year-to-year, the 2006/7 analysis was used to plan the content of this report. The analysis will be updated for our 2008/9 report.

The materiality analysis followed a three-step process.

#### ▶ Identification of material business issues

We developed a list of more than 500 issues, grouped into 15 topics. The issues were identified 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. For each issue, the ratings were averaged separately for Ford and stakeholders (with extra weight assigned to investors and multi-stakeholder inputs, as they are key audiences of our reporting). The issues and their ratings were then plotted on a "materiality matrix," shown on the facing page. 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.

#### **USE OF THE ANALYSIS**

We have used this analysis to identify issues to cover in our print and full Web reports, and as an input to our sustainability strategy development.

This analysis, and the methods for conducting materiality analyses generally, are works in progress. We improved this 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.

# 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.

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# Materiality matrix

Ratings of control or influence reflect Ford's contribution to an issue through its operations and product offerings. Factors that can reduce Ford's control or influence include, among other things, technology limitations, costs and consumer demand.

INCREASING CONCERN TO STAKEHOLDERS

Setting the agenda for the rest of the report at **www.ford.com/go/sustainability** 

COMMAND engagement
Community engagement
Community engagement
COMMATC CHARGE
Physical risks

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## CLIMATE CHANGE

Low-carbon strategy
Vehicle GHG emissions
Fuel economy
Advanced cleaner technologies

Clean/alternative fuels
Public policy: GHG/fuel economy regulation

Energy security

MOBILITY AND EMERGING MARKETS

Products and services strategy Role in emerging markets

#### **HUMAN RIGHTS**

Supply chain practices Other issues

#### **SAFETY**

Vehicle safety

#### FORD FINANCIAL VIABILITY

Managing downsizing Profitability level and timing Legacy and health care costs Other costs Competitive factors

#### **PRODUCT**

Competitiveness Risks Quality

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The materiality matrix is discussed in more detail in our Web report. www.ford.com/go/sustainability

INCREASING CURRENT OR POTENTIAL IMPACT ON COMPANY



## ▶ SINCE OUR LAST REPORT

- ▶ Further integrated sustainability into our management systems
- Created a new position of Senior Vice President, Sustainability, Environment and Safety Engineering, which was upgraded to Group Vice President in April 2008
- ► Published an updated Code of Conduct Handbook in multiple languages

## IN THIS SECTION

- ▶ Integrating sustainability governance and management
- ▶ Reinforcing our commitment to ethical business practices
- Our sustainability governance and management structures

Sound governance and management systems enable a company to operate in a transparent and accountable way. They provide effective oversight and help a company translate its aspirations into action while operating to high ethical standards.

During 2007, Ford strengthened its sustainability governance, further integrated sustainability into key business processes and undertook initiatives that reinforce our commitment to conducting business ethically and with integrity. These efforts included the publication and dissemination of our new Code of Conduct Handbook in multiple languages.

# INTEGRATING SUSTAINABILITY GOVERNANCE AND MANAGEMENT

The Ford Board of Directors' Committee on Environmental and Public Policy oversees sustainability issues for the company. At the executive level, in April 2007, Sue Cischke was appointed to a newly created position of Senior Vice President, Sustainability, Environment and Safety Engineering, reporting directly to Ford's CEO. In April 2008, she was promoted to Group Vice President. Ms. Cischke oversees several important functions (see Figure 1 opposite) and participates in the regular Business Plan and Special Attention Review meetings of Ford's most senior executives, helping to keep sustainability at the top of the agenda.

During 2007, top executives reviewed several key sustainability issues, including Ford's approach to human rights, the product fuel economy and CO<sub>2</sub> strategy, the corporate sustainability strategy and the 2006/7 Sustainability Report. Ford's Sustainable Mobility Group, a cross-functional team based in Global Product

Development, led the development of the fuel economy and CO<sub>2</sub> strategy. Executive compensation is affected by the company's performance in a range of areas, including sustainability.

Beginning in 2008, our Board and top management will have access to some of the preeminent thought leaders in sustainability through Ford's Transformation Advisory Council. These leaders will come together several times a year with Ford experts to help shape our thinking about future technologies and global trends. They will bring a unique blend of skill and perspective aimed at making Ford the leader in sustainability. They will also help us develop ideas to solve the challenge of energy independence and the threat of climate change.

This system of governance and management, together with the structures, processes and management systems discussed in our Web report, integrates sustainability strategy into Ford's business in an unprecedented way.

# REINFORCING OUR COMMITMENT TO ETHICAL BUSINESS PRACTICES

Our Corporate Compliance Office has a comprehensive program in place to guide compliance with Ford Policies and Directives and key legal requirements, and to provide training and education on those requirements, as well as monitoring and auditing of compliance. The Corporate Compliance Office is part of Ford's Office of the General Counsel, and our corporate compliance program is overseen by a senior management compliance committee and the Audit Committee of the Board of Directors.

Ford took a number of initiatives in 2007 to increase awareness of and adherence to ethical business practices. We rolled out mandatory online courses for employees on several key ethical topics, enhanced our Policies and Directives pertaining to anti-bribery issues, and provided in-person anti-bribery training. One high-impact initiative in 2007 was the completion of a major revision of our ethical guidance document, now called the Code of Conduct Handbook. The document was restructured and revised to make it easier to understand and use as a reference manual. In its new incarnation, the Code of Conduct Handbook is a compilation of the most important and relevant Policies, Directives and standards for Ford employees. It is now more global in content and is available in 13 languages. The online version available to personnel includes active links to the original source documents, thus providing a single source for the relevant information.

The revised Handbook outlines employee behavior requirements and provides background resources for a wide range of business-related situations, including gifts, favors and conflicts of interest; political activities; and competition and antitrust laws. While Ford has had well-developed Policies and Directives for many years, the new Handbook ensures that Ford employees everywhere in the world receive consistent information and the tools they need to respond appropriately when ethical issues arise.

Virtually all salaried employees around the world are required to certify that they have reviewed the new Handbook. In 2008, contract personnel will also be required to make the certification. Employees also take mandatory online training on key ethical topics, including anti-bribery; gifts, favors, and conflicts of interest; internal controls; fair competition; and mutual respect.

We assess compliance with our Code of Conduct Handbook, encourage employees to report potential ethical issues and provide a variety of means for them to do so.

**GOVERNANCE AND MANAGEMENT STRUCTURES** BOARD-LEVEL GOVERNANCE **BOARD OF DIRECTORS BOARD COMMITTEES** POLICY DOCUMENTS Alan R. Mulally Corporate Governance William Clav Ford Jr. Audit **Principles Executive Chairman President and CEO** Compensation **Committee Charters** John R.H. Bond\* Homer A. Neal\* Nominating and Governance Code of Ethics for Stephen G. Butler\* .lorma Ollila\* **Board of Directors** Gerald L. Shaheen\* Kimberly A. Casiano\* **Environmental and Public Policy** John L. Thornton\* Edsel B. Ford II Irvine O. Hockaday Jr.\* Finance William Clay Ford Sr. Richard A. Manoogian\* **Director Emeritus** Ellen R. Marram\* \* Independent Director SUSTAINABILITY MANAGEMENT Group VP, Sustainability, Group VP, Group VP, Group VP, Group VP, POLICY DOCUMENTS **Environment and** Global Global Product Global Global Safety Engineering Manufacturing Development Purchasing Marketing Code of Conduct Handbook Code of Ethics for Senior Financial Personnel Sustainable Mobility Governance Policy Letters and Directives KEY BUSINESS PROCESSES **Business Plan Review** Special Attention Review ISO 14001 Certification Global Product Development System Ford Production System Order-to-Delivery



## ▶ SINCE OUR LAST REPORT

- Used computer modeling and scenario planning to analyze the required contribution of the light-duty transportation sector to climate stabilization
- ▶ Developed a blueprint for sustainability a plan to reduce the CO<sub>2</sub> emissions of our products, targeting a 30 percent reduction in CO<sub>2</sub> emissions from our U.S. and EU new products by 2020
- ▶ Joined the U.S. Climate Action Partnership

## IN THIS SECTION

- ► Climate change risks and opportunities
- ► The emission reduction equation vehicle + fuel + driver and our actions in each category
- ► Climate change public policy
- Sustainable technology and alternative fuels plan

We at Ford believe that climate change poses a range of risks and opportunities for our company, the environment and the global community. Stabilizing greenhouse gas (GHG) concentrations in the atmosphere at levels generally accepted to minimize the effects of climate change¹ will not be achieved by holding current emission levels steady. It can only be achieved by significantly and continuously reducing GHG emissions over a period of decades. Reducing emissions by the amount required calls for an integrated approach – a partnership of all stakeholders, including the automotive industry, the fuel industry, government and consumers.

We are committed to doing our part to achieve climate stabilization. This will require significant increases in vehicle fuel economy globally, as well as the development of lowercarbon fuels.

Ford has spent more than three years creating a CO₂ reduction model and studying a range of potential scenarios addressing how light-duty transport could contribute to meeting 450 ppm to 550 ppm stabilization pathways. The model was created to look at boundary conditions, including costs, and explore assumption sensitivities around vehicle technologies, baseline fuels, biofuels and consumers. The model is not intended to provide "the answer," but rather information on a range of possible solutions.

¹ Currently, the generally accepted range of atmospheric CO₂ concentration required to avoid the most serious effects of climate change is 450 to 550 parts per million (ppm) (see Figure 1, page 13). We then queried the model under a number of different scenarios – such as what might happen under another 9/11-type attack or Hurricane Katrina petroleum supply disruption – to understand the robustness of various vehicle and fuel technology solutions.

Based on this analysis, Ford is targeting a 30 percent reduction in U.S. and EU new vehicle  $CO_2$  emissions, relative to the 2006 model year baseline, by 2020. This target is aligned with a 500 ppm stabilization pathway. If fuel providers, consumers and governments deliver their contributions, reaching a 450 ppm stabilization pathway for the light-duty transportation sector is possible. The 30 percent reduction target is also aligned with the new U.S. Corporate Average Fuel Economy legislation and represents an equitable contribution toward reducing  $CO_2$  emissions. (In fact, no other industry is being asked to achieve this level of reduction.) We recognize that future developments in technologies, markets, political expectations and even the natural manifestations of climate change are all uncertain. Accordingly, we will continue to monitor and adjust the target based on changing conditions.

Also in 2007, we mapped out a blueprint for sustainability – a plan of actions through the year 2030 designed to meet the target. We continued to reduce CO₂ emissions from our operations. And, we joined the U.S. Climate Action Partnership (USCAP), a multi-stakeholder group that is advocating for comprehensive U.S. legislation aimed at achieving significant economy-wide cuts in greenhouse gas emissions. As a member of USCAP, we support the prompt enactment of national legislation to achieve short-, mid- and long-term targets, including an emission target zone aimed at reducing emissions by 60 to 80 percent from current levels by 2050.

INTRODUCTION

The USCAP target zone is consistent with stabilizing GHG concentrations at a level between 450 ppm and 550 ppm as well as the  $CO_2$  reduction modeling that we have conducted.

This section of our report discusses the risks and opportunities that climate change poses for our company, our product CO<sub>2</sub> strategy in the context of our broader approach to climate change and our participation in climate change public policy development.

#### **CLIMATE CHANGE RISKS AND OPPORTUNITIES**

The past year has seen a seismic shift in the significance of the climate change issue in public awareness, political debate and government action, magnifying the risks and opportunities to Ford posed by the issue. These risks and opportunities include the following:

Markets: Worldwide, record oil prices continue to drive buyers to shift from larger vehicles and light trucks to smaller vehicles, cars, crossovers and diesel-powered vehicles. Energy security is also a major concern in several markets in which we operate. In emerging markets, continued rapid growth in vehicle sales is raising concerns about emissions and congestion. In North America, the shift away from SUVs and light trucks continues to affect our profitability and market share. In other regions of the world, where our profitability is less dependent on large vehicles, our sales and market share have grown. These market shifts are very significant to our company. Everywhere we operate, the future financial health of our company depends on our ability to predict market shifts of all kinds and to be ready with the products and services our customers demand.

**Regulations:** The regulation of GHG emissions affects many areas of our business, including our manufacturing facilities and the emissions from our vehicles. For example, 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 nine Ford and Volvo facilities in the UK, Belgium, Sweden, Spain and Germany. Ford anticipated the start of this trading scheme and established internal business plans and objectives to maintain compliance with the new regulatory requirements.

Japan, South Korea and Taiwan have adopted fuel-efficiency targets. The Chinese government has introduced weight-based fuel consumption standards for passenger cars and light-duty commercial vehicles. Ford's product offerings comply with the standards in all of these markets. We have established global roles, responsibilities, policies and procedures to help ensure compliance with emissions requirements and participate in trading initiatives worldwide. We are also participating in the development of policies affecting our facilities and products, as discussed on pages 17 to 19.

Investment Community: Both mainstream investment analysts and those who practice socially responsible investing are assessing companies in the auto sector for their exposure to climate risks and their positioning to take advantage of opportunities created by the issue. 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.

Physical Risks: Extreme weather 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. Higher utility rates have prompted Ford to revisit and implement energy-efficiency actions that previously did not meet our internal rate of return.

## NANCY L. GIOIA

A lot needs to happen to make plug-in hybrid electric vehicles a reality. We are focused on finding an affordable solution to make a significant difference for many customers and our environment. Great customer value and a sustainable business model are required to achieve this long-term goal. We're not waiting for someone else to lead the collaboration. We're pulling other industries in and bringing forward the data and dialogue to shape the new business model.



Nancy L. Gioia
Director, Sustainable Mobility Technologies and
Hybrid Vehicle Programs, Ford Motor Company

#### FORD'S CLIMATE CHANGE STRATEGY

To respond to the risks and opportunities posed by the climate change 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-emission 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

#### **Sustainable Mobility Governance**

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 committee, made up of vice president and executive stakeholders, who guide the development of the vision, policy and business goals. (See Figure 1 on page 9.)

Related executive planning teams are 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 help 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. We have also developed strategic principles to guide our approach.

In 2007. Ford's top executives reviewed and approved the product CO<sub>2</sub> strategy developed and proposed by these teams. Also during 2007, the Environmental and Public Policy Committee (EPPC) of the Board of Directors reviewed the company's climate change strategy, and the Chair of the EPPC briefed the full Board of Directors on the strategy. The EPPC reviews progress on elements of the strategy each time it meets.

		Table 1		
CLIMATE CHANGE-RELATED COMMITMENTS AND PROGRESS				
Commitment - Products	Target			
European Automobile Manufacturers Association CO <sub>2</sub> commitment (industry)	Voluntary target to achieve EU new car fleet average of 140 grams of CO <sub>2</sub> per km by 2008; equivalent to 25% average CO <sub>2</sub> reduction compared with 1995 <sup>2</sup>	8		
Australian Industry-wide National Average CO <sub>2</sub> Emissions (NACE). Previously known as National Average Fuel Consumption (NAFC) (industry)	Voluntary target to achieve national average $CO_2$ emissions of 222 g/km for light vehicles under 3.5 tonnes gross vehicle mass by 2010. Requires an overall reduction in average $CO_2$ emissions of 12% between 2002 and 2010			
Canadian Greenhouse Gas Memorandum of Understanding (industry)	Industry-wide voluntary agreement to reduce GHGs from the Canadian car and truck fleet by 5.3 megatonnes by 2010 compared to projected emissions	0		
Commitment – Operations	Target			
Global manufacturing energy efficiency (Ford)	Improve energy efficiency by 6% between 2006 and 2008, following an improvement of 22% from 2000 to 2006	•		
UK Emissions Trading Scheme (Ford)	UK operations to achieve a 5% absolute reduction target over the 2002–2006 timeframe based on an average 1998–2000 baseline. Program concluded in 2007	•		
Chicago Climate Exchange (Ford)	Reduce North American facility emissions by 6% between 2000 and 2010	0		
Greener Miles/Hybrid Offset (Ford)	Voluntarily offset CO₂ emissions from manufacturing MY2007 and MY2008 hybrid electric vehicles. Offer customers the opportunity to offset CO₂ from driving	•		
Alliance of Automotive Manufacturers (industry)	Reduce U.S. facility emissions by 10% per vehicle produced between 2002 and 2012	0		
Voluntary GHG Reporting (Ford)	Voluntarily report facility $CO_2$ emissions to national emissions registries in Australia, Canada, Mexico, the Philippines and the United States	<b>Ø</b>		





**ACHIEVED** 



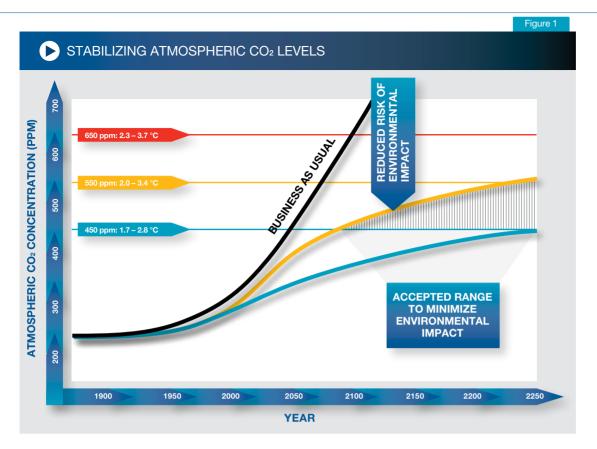
ON TRACK



MISSED TARGET – Under review by EU Commission

economically. Despite increasingly adverse market conditions, Ford and the industry continue to work hard to move toward the 2008 calendar year target. The focus is now on developing appropriate 2012 calendar year targets. The performance of Ford brands in Europe against the 1995 baseline is shown on the data overview, page 47.

<sup>&</sup>lt;sup>2</sup> Auto industry progress to date toward meeting the voluntary targets has made a very significant contribution toward the EU's overall efforts to address climate change. The industry has consistently pointed out that the agreement constitutes one of the most challenging CO<sub>2</sub> reduction initiatives within the EU and that it is extremely ambitious, both technically and



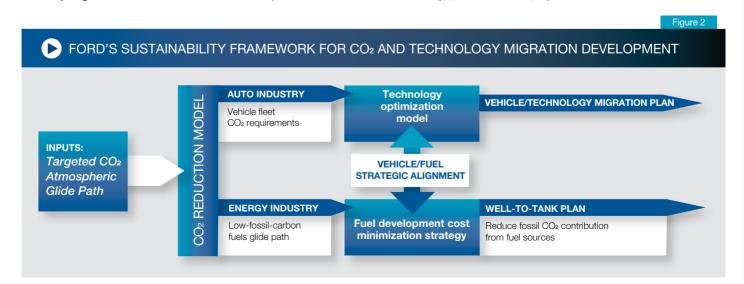
## **Blueprint for Sustainability**

During 2007, we mapped a blueprint for sustainability, our product CO₂ strategy through the year 2030. We also began implementing the actions identified. These include incorporating fuel-saving technologies into our product cycle plan and continuing research on and development of longer-term technologies. The product strategy builds on a series of commitments the company has made, or participated in, to reduce the greenhouse gas emissions from our products and operations over the course of several years. (See Table 1 opposite.)

To develop the product strategy, we analyzed the reduction in current greenhouse gas emissions that would be required to achieve the goal of climate stabilization. The analysis showed that very large reductions in emissions will be required to

achieve the  $CO_2$  concentration accepted to minimize environmental impacts. (See Figure 1.) Next, we analyzed the current and projected contribution of light-duty cars and trucks to global greenhouse gas emissions (currently about 20 percent of  $CO_2$  emissions in the U.S and about 11 percent globally) and the reduction needed to contribute to stabilization.

We used these assumptions in a model that considers both vehicle technology and fuel options. (See Figure 2.) The purpose of the model was to determine the best combination of options that will yield the required emissions reductions at the most affordable cost. We then developed scenarios to assess how the vehicle and energy sectors can work together, each developing its own optimal but coordinated strategies on fuels and vehicle technologies. The output of this analysis is the technology plan shown on pages 20 to 21.





Our strategy development in 2007 and early 2008 has focused on the CO<sub>2</sub> emissions of our products, because they account for the greatest part of GHG emissions associated with our activities. Our current and planned efforts to implement the product strategy are outlined below. However, we recognize that emissions from our facilities are also important. These are discussed briefly below and in more detail in our Web report. The Web report also addresses the lifecycle emissions of the materials and processes used to make our products.

## Operations

Since 2000, we have reduced our global operational energy use by 30 percent and  $CO_2$  emissions from our facilities by 39 percent. The U.S. Environmental Protection Agency has recognized our energy conservation efforts three years in a row (a first for an automaker), most recently with the 2008 Energy Star Sustained Excellence Award.

#### **Products**

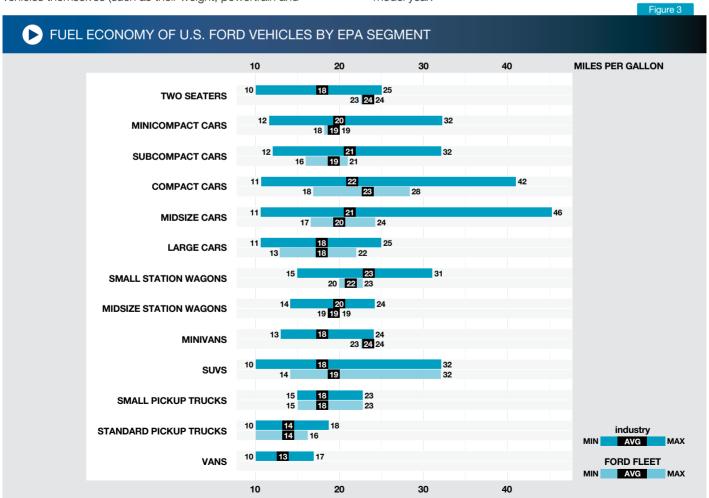
The amount of CO<sub>2</sub> generated by the light-duty vehicle sector is dependent on three major factors: 1) the fuel economy of the vehicles, which in turn depends on many characteristics of the vehicles themselves (such as their weight, powertrain and

aerodynamics); 2) the well-to-wheels<sup>3</sup> greenhouse gas profile of the fuels used in the vehicles; and 3) how the vehicles are used and maintained by their drivers. Our shorthand for this, and the organizing framework for the discussion that follows, 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.

#### Vehicle

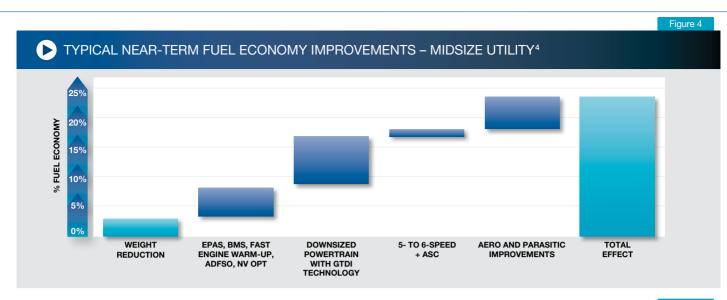
Actions to improve the fuel economy of the vehicles we offer are the most important element of our strategy for contributing to a goal of climate stabilization. We have made progress in improving the fuel economy of our vehicles, and these improvements will accelerate as we implement our blueprint for sustainability.

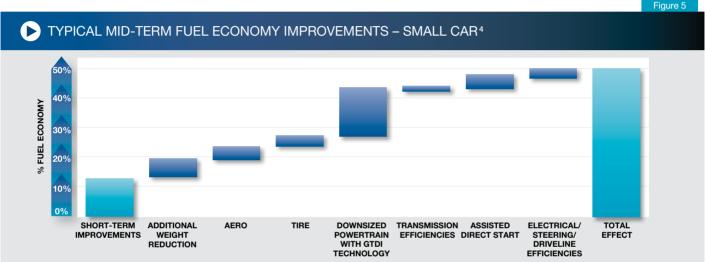
In the United States, the Corporate Average Fuel Economy (CAFE) of our cars and trucks has improved. It increased 5.9 percent for the 2007 model year, compared to the 2006 model year.



<sup>&</sup>lt;sup>3</sup> Emissions resulting from making, distributing and using the fuel.

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Preliminary data for the 2008 model year shows a 0.7 percent improvement in CAFE compared to 2007, with a 1.3 percent improvement for cars and a 4.0 percent improvement for trucks.<sup>5</sup> As seen in Figure 3, our U.S. vehicles are generally competitive with others in the industry in fuel economy, ranking better than average in four of 12 categories, worse in five and the same in three.

Our 2008 North American lineup of fuel-efficient vehicles includes the 2008 Ford Escape Hybrid, Mercury Mariner Hybrid and Mazda Tribute Hybrid, which have the highest fuel economy in the SUV class, and the Ford Ranger and Mazda B2300, which are leaders in the small pickup truck class. The Ford Taurus and Mercury Sable have the highest fuel economy for an all-wheel-drive large car, according to the Environmental Protection Agency's Green Vehicle Guide. The fuel economy of the Ford Taurus is 10 percent better than its predecessor model, the Ford Five Hundred, and the 2008 North American Ford Focus gets up to 35 miles per gallon on the highway. For the 2009 model year, we will introduce hybrid versions of the Ford Fusion and Mercury Milan sedans, bringing the number of hybrid vehicles we offer in North America to five.

In Europe, we have reduced the average CO<sub>2</sub> emissions of the vehicles we sell by 14 to 33 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 use of lightweight materials.

Several advanced technologies come together in a new series of vehicles launched in Europe beginning in early 2008. The new Ford Focus ECOnetic model, for example, uses Ford's 1.6-liter Duratorq TDCi diesel engine with 109 horsepower and standard Diesel Particulate Filter to achieve class-leading CO<sub>2</sub> emission levels of just 115 g/km. The Ford ECOnetic vehicle portfolio will be extended in 2008 to include other Ford volume sellers: first a sub-140 g/km CO<sub>2</sub> Mondeo ECOnetic, and then a sub-100 g/km CO<sub>2</sub> model in Ford's all-new Fiesta range.

Improvements in the fuel economy of our vehicles will accelerate as we implement our technology plan, which includes short-, medium- and long-term actions described on pages 20 to 21. The short-term actions have been incorporated into our cycle plan, which specifies the vehicles we will build in the next five years. We are actively researching and developing the technologies to be used in the mid to long term, including diesel hybrids and other clean diesel technologies; plug-in hybrids; biofueled vehicles; hydrogen internal-combustion engines; hydrogen fuel cell powertrains; and various combinations of these technologies, plus weight reductions.

Figures 4 and 5 show how we will leverage complementary technologies to cut CO<sub>2</sub> emissions significantly.

is projected to increase from 2007 to 2008. Also, the CAFE figure is calculated based on volume of vehicles manufactured as well as the fuel economy of each individual vehicle.

 $<sup>^{\</sup>rm 4}\mbox{For an explanation}$  of the terms used in these figures, see the glossary on page 20.

<sup>&</sup>lt;sup>5</sup> The percentage improvement in CAFE for cars and trucks combined is lower than the respective percentages for both cars and trucks primarily because the ratio of trucks to cars manufactured

#### Fuel

The use of renewable fuels can reduce GHG emissions attributable to vehicle use, provided that expanded land use for energy crops does not lead to excessive CO₂ emissions from the replacement of native ecosystems. While current corn-based bio-ethanol production in the United States can provide a modest (approximately 20 to 30 percent) reduction in vehicle GHG emissions on a well-to-wheels basis, next-generation biofuels such as ligno-cellulosic bio-ethanol can offer up to a 90 percent GHG reduction benefit.<sup>6</sup> Thus, building a substantial fleet of Flexifuel vehicles (FFVs) is a bridge to the widespread use of lower-carbon biofuels in the future.

We have been a leader in developing and deploying affordable technology that allows vehicles to use renewable fuels. In Brazil, we have produced 1.5 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 currently on sale in 17 European markets. Building on 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. In addition, Volvo currently markets five FFV vehicles (the C30, S40, V50, V70 and S80).

Through Ford's range of alternative fuel vehicle technologies, as well as its low- $CO_2$  conventional vehicle technologies (such as high-tech, clean-diesel technologies with among-best-in-class  $CO_2$  performance), our company is offering one of the broadest low- $CO_2$  vehicle portfolios in Europe today.

Alternative fuels pose a classic chicken-and-egg problem, however: 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 and retailers to encourage the development of E85 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 the potential competition between food and fuel crops.

#### Drive

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 2007, the program trained approximately 3,500 drivers.

During 2006, we built on this experience and rolled out a Webbased eco-driving program to all U.S. salaried employees. The eco-driving approach has also been incorporated into Driving Skills for Life, our teen driver education program. Eco-driving tips are available to the public via the Ford Web site. Nearly 2,500 people have taken the training, most of them following the program launch in 2006.

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 CO<sub>2</sub> 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 then 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.

Together with offsets purchased by Ford to cover the manufacture of its MY2007 and 2008 hybrid vehicles, more than 70,000 metric tons of GHG have been avoided.

<sup>&</sup>lt;sup>6</sup> Ethanol: The Complete Lifecycle Picture, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, March 2007.

## **⚠** HYBRIDS: TIME TO PLUG IN?

Using both an electric and a gas-powered engine, plug-in hybrid electric vehicles (PHEVs) allow drivers to travel some distance on batteries alone by using a battery pack to store energy from the electric grid.

In July 2007, Ford and Southern California Edison (SCE) announced a multi-million-dollar, multi-year evaluation and demonstration program. Ford will provide SCE with a demonstration fleet of 20 2008 Ford Escape Hybrid SUVs that will be benchmarked for performance characteristics. The Escape Hybrid platform will then be engineered by the Ford product development team, with a battery company partner yet to be named, to be fully PHEV capable.

Some of the vehicles will be evaluated in typical customer settings in order to understand how PHEVs will interface with the electric grid and to develop a business model for Southern California.

In early 2008, we announced a partnership with the Electric Power Research Institute to test the integration of PHEVs with utilities in the New York/New Jersey area.

These projects and the technical challenges associated with PHEVs are both discussed in more detail in our Web report. www.ford.com/go/sustainability



## MARKET. POLICY AND TECHNOLOGICAL FRAMEWORK

At Ford, we accept that simply "not getting worse" is not good enough. The auto industry, along with suppliers, government, the fuel industry and consumers, need to work together to reduce CO<sub>2</sub> levels from transportation so we can help bring down atmospheric CO<sub>2</sub> concentrations. To achieve real and lasting results, all global stakeholders must make long-term commitments for a sustainable future.

It's important to note, though, that the auto industry is only one part of the problem and can be only one part of the solution. 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, other industries and enterprises, 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, NGOs and other companies to improve our understanding of climate change. For example, Ford is:

- ▶ A member of 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, as discussed later in this section.
- ▶ Working closely with BP to explore vehicle and low-carbon fuel technologies.
- Working with the World Resources Institute on the EMBARQ Istanbul project to reduce vehicle emissions and traffic congestion in that city.
- ▶ A founding member of the Carbon Mitigation Initiative at Princeton University to study the fundamental scientific, environmental and technical issues related to carbon management.
- ▶ A charter member of the Sustainable Transportation Energy Pathways Program at the University of California-Davis Institute of Transportation Studies, which aims to compare the societal and technical benefits of alternative sustainable fuel pathways.
- ▶ A member of the Massachusetts Institute of Technology Joint Program on the Science and Policy of Global Climate Change.

Our participation in these and other partnerships helps us 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. 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**

Federal: In the United States, CO2 emissions from vehicles have been regulated through Corporate Average Fuel Economy requirements for more than 30 years. In December 2007, Congress enacted new energy legislation restructuring the CAFE program and requiring the National Highway Transportation Safety Administration (NHTSA) to set new CAFE standards beginning with the 2011 model year. The law requires NHTSA to set car and truck standards such that the combined fleet of cars and trucks in the U.S. achieves a 35-mile-per-gallon fleet average by MY2020. In early 2008, NHTSA is expected to issue a proposed rule setting light truck CAFE standards for MY2012 and beyond, based on the provisions of the new law. A proposed rule setting new car CAFE standards is expected to follow. Ford participated actively in the development of the legislation and supported its final passage. The new regulations will be very challenging, but our product CO2 strategy is designed to help us meet the anticipated standards.

In 2007, Ford Motor Company joined USCAP, a group of 33 companies and NGOs that recommends the prompt enactment of national legislation in the United States to slow, stop and reverse the growth of greenhouse gas emissions over the shortest period of time reasonably achievable. Ford supports the USCAP call for U.S. legislation to achieve the goal of limiting global atmospheric GHG concentrations to a level that minimizes large-scale adverse climate change impacts to human populations and the natural environment, which will require global GHG concentrations to be stabilized over the long term at a carbon dioxide equivalent level of 450–550 ppm.

Specifically, Ford supports the call for short-, mid- and long-term targets of between 100 and 105 percent of today's levels within five years; between 90 and 100 percent of today's levels within 10 years; between 70 and 90 percent of today's levels within 15 years; and an emission target zone aimed at reducing emissions by 60 to 80 percent from current levels by 2050. Ford supports the prompt enactment of legislation and regulations to facilitate the achievement of these goals. Ford also supports the USCAP recommendation of a cap-and-trade program complemented with U.S. energy policies that result in

diverse and adequate supplies of low-GHG energy. Finally, Ford concurs that climate protection legislation must achieve substantial GHG emission reductions from all major emitting sectors of the economy, including the transportation sector, and supports the recommendation that Congress enact policies to reduce GHG emissions in the transportation sector.

**State:** The issue of state regulation of vehicle greenhouse gas emissions continues to be a controversial one, and there were a number of new developments in 2007 and early 2008.

In 2002, the California legislature passed a law directing the California Air Resources Board (CARB) to promulgate rules limiting GHG emissions from motor vehicles. In 2004, CARB voted to adopt a set of fleet average standards expressed in grams per mile of CO<sub>2</sub>. Final rules incorporating these standards were adopted in 2005. The standards are set to take effect beginning with the 2009 model year, and they become increasingly stringent through the 2016 model year. Several other states, including New York, Connecticut, Massachusetts, Vermont, New Jersey, Pennsylvania, Rhode Island, Oregon, Washington, Maryland, New Mexico and Florida, have either adopted parallel regulations or are in the process of doing so.

Under the federal Clean Air Act, states must receive a waiver from the Environmental Protection Agency (EPA) before they can enforce state-specific rules related to vehicle emissions. On March 6, 2008, the EPA issued a final denial of California's waiver request, and in early 2008, California initiated litigation challenging the waiver denial. It is expected that this litigation will continue throughout most of 2008, if not beyond. In addition to the waiver litigation, virtually the entire automobile industry is engaged in litigation seeking to overturn the state GHG rules on the grounds that they are preempted by the federal Corporate Average Fuel Economy law. It may be some time before the appeals in these cases are completed and the issue of federal preemption is finally resolved.

Ford supports the reduction of vehicle GHG emissions and is working aggressively toward the development and implementation of products that emit less CO₂ on a per-mile basis. But Ford believes that a single set of national GHG/fuel



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economy standards is in the best interest of consumers, dealers, automotive suppliers and vehicle manufacturers alike.

The state GHG rules would impose fuel economy standards whose rapid rate of increase and extreme stringency are not workable within our business limitations. If the state GHG rules took effect, we would be forced to implement severe product restrictions in those states within two or three model years, and we would not be the only manufacturer in that situation. This, in turn, would lead to at least three adverse consequences. First, consumers in those states with the GHG rules would have fewer vehicles to choose from than consumers in neighboring states without the GHG rules. Second, states with the GHG regulations would experience a sharp decline in vehicle sales, affecting employment in those states dependent on automobile sales, most notably at dealerships. Third, to the extent they can, consumers in states with the GHG rules would go to other states to get vehicles they cannot buy at home.

We believe that Congress intended to prevent the adverse effects of state-specific standards when it included language in the CAFE law preempting state regulations "related to" fuel economy standards. We will continue advocating for the principle that the fuel economy standards in the U.S. should be set exclusively on a nationwide basis, as they have been since the CAFE law was passed in 1975. We supported passage of the 2007 Energy Bill, which significantly raises the fuel economy standard our vehicles must meet. National standards can achieve all of the environmental benefits of state standards, without the economic disruption and unintended local and regional effects of state standards.

## **Europe**

The EU is a party to the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and has agreed to reduce greenhouse gas emissions by 8 percent below 1990 levels during the 2008-2012 period. In 1998, the EU agreed to support an environmental agreement with ACEA (the European Automobile Manufacturers' Association, of which Ford is a member) on carbon dioxide emission reductions from new passenger cars. The ACEA Agreement established an emissions target of 140 grams of carbon dioxide per kilometer ("g/km") for the average of new cars sold in the EU by the ACEA's members in 2008. This corresponds to a 25 percent reduction in average carbon dioxide emissions compared to 1995. To date, the industry has made good progress, meeting an interim target for 2003 (165-170 g/km); however, it is now apparent that the industry will not achieve the 140 g/km target for the 2008 model year due to a number of factors, including consumer demand and the challenges associated with implementing various fuelsaving technologies.

In 2005, ACEA and the European Commission reviewed the potential for additional carbon dioxide reductions, with the goal of achieving the EU's objective of 120 g/km by 2012. The discussions have advanced the concept of an integrated approach to further reductions, involving the oil industry and



other sectors. In 2007, the discussions suggested a 120 g/km overall target, with a vehicle target of 130 g/km and complementary measures making up the other 10 g/km in emissions reductions. In December 2007, the European Commission issued a proposal to regulate vehicle carbon dioxide beginning in 2012 at a fleet average of 130 g/km, using a sliding scale based on vehicle weight. This provides different targets for each manufacturer based on their respective fleets of vehicles, weight and carbon dioxide output. The proposal also establishes a penalty system as a provision for pooling agreements to share or minimize the burden. This proposal is likely to be finalized by the European Parliament in 2008 or 2009.

Ford will play its part in achieving the required mandatory objective for vehicle CO<sub>2</sub> emissions that will eventually be set by the EU. However, while the European auto industry is fully committed to continue reducing CO2 emissions from cars and supports the (overall) EU objective of reaching a level of 120 g/km, the industry believes that the EU Commission's proposal does not offer the proclaimed balanced framework to cut CO<sub>2</sub> emissions in the most effective way and to safeguard competitiveness and growth. Only a truly broad and integrated approach involving all stakeholders - transport industries, fuel suppliers, infrastructure providers, consumers and government – can result in larger and more cost-effective CO₂ emission reductions from road transport compared to focusing almost exclusively on vehicle technology. The industry will continue to communicate and clarify this message and trusts that the Council and the European Parliament will fully engage in an open debate and reconsider the Commission's strategy.

# C

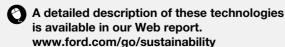
## SUSTAINABLE TECHNOLOGIES AND ALTERNATIVE FUELS PLAN

This section lays out our blueprint for sustainability, a plan for achieving our target to reduce our vehicle CO<sub>2</sub> emissions by 30 percent by 2020.

The analysis underlying the blueprint, described in more detail on page 13, considers both vehicle technology and fuel pathways, since the two must work together, along with actions on the part of drivers, to contribute to climate stabilization. No single technology, especially in the near to mid term, is the solution. It's by deploying multiple technologies that we get synergistic improvements of the order of magnitude necessary to achieve our goal. This approach is also important because different engine and fuel technologies will be appropriate for different regions and operating conditions.

Many of these technologies are already deployed or under development. For example:

- ▶ Advanced Gas and Diesel We offer a range of advanced diesel vehicles in Europe. In addition, beginning in 2009 we will be offering EcoBoost, an engine technology that uses direct injection and turbocharging to improve the vehicle fuel economy of gasoline engines.
- ▶ Advanced Transmission We are implementing a dualclutch transmission technology that improves fuel economy by approximately 10 percent compared to traditional automatic transmissions.
- ▶ Hybrids and Future Powertrains We now offer three hybrid vehicles and will start production on two more in 2008. We are working with Southern California Edison to test a fleet of 20 PHEVs to understand critical implementation issues surrounding plug-in vehicles. In addition, we are testing 30 H₂ICEs and 40 hydrogen FCVs in real-world conditions.
- ▶ Vehicle Systems Efficiencies We are working to make every vehicle system more efficient to improve fuel economy. For example, we are applying EPAS across many of our vehicles, which improves fuel economy by improving power steering efficiency.
- ➤ Weight Reductions and Aerodynamics We have improved fuel economy through weight reductions by using unibody vehicle designs. Examples include the Ford Edge, Lincoln MKX and Europe's Ford Focus ECOnetic.







**GLOSSARY** 

5- to 6-speed 5- to 6-speed advanced series compensated

+ ASC transmission

ADFSO Aggressive Deceleration Fuel Shut Off

Aero Aerodynamics

**BEV** Battery Electric Vehicle

**BMS** Battery Management Systems

**EcoBoost GTDI** Fuel-efficiency-boosting Gasoline Turbocharged

Direct Injection

**EPAS** Electric Power Assisted Steering

FCV Fuel Cell Vehicle
HEV Hybrid Electric Vehicle

H₂ICE Hydrogen Internal Combustion EngineNV opt Optimization of the engine speed (N) and

vehicle speed (v) ratio

PHEV Plug-in Hybrid Electric Vehicle

Tire Optimized tire rolling resistance and pressure

INTRODUCTION

## SUSTAINABLE TECHNOLOGIES MIGRATION PLAN

2007	2012	2020 2030	
NEAR TERM Begin migration to advanced technology	MID TERM Full implementation of known technology	LONG TERM Volume rollout of stretch technologies and alternative energy sources	
ADVANCED GAS AND DIESEL			
High-volume implementation of EcoBoost GTDI engines and improved diesel engines	EcoBoost GTDI available in nearly all vehicles	Volumes begin to be displaced by alternative powertrains	
ADVANCED TRANSMISSION			
High-volume implementation of efficient dual clutch and migration from 4- and 5- speed to 6-speed transmissions	Expand implementation of efficient transmissions	Continued transmission improvements	
HYBRID AND FUTURE POWER	TRAINS		
Increased hybrid applications	Continued pilot testing of PHEVs and hydrogen vehicles	Volume introduction of PHEV, BEV, H <sub>2</sub> ICE, and/or fuel cell vehicles	
VEHICLE SYSTEMS EFFICIENC	DIES		
High-volume implementation of EPAS and BMS Begin implementation of ADFSO and Assisted Start	EPAS, BMS, ADFSO and Assisted Start on nearly all light-duty vehicles	Continued improvements in vehicle system efficiencies	
WEIGHT REDUCTIONS			
Weight reductions through increased unibody applications, smaller vehicle options and lightweight materials	Continued weight reductions enabling use of smaller, more fuel-efficient engines	Continued weight reductions	
AERODYNAMICS			
Aerodynamics improvements resulting in increase in fuel economy	Additional aerodynamics improvements	Continued aerodynamic improvements	

## **○** ALTERNATIVE FUELS MIGRATION PLAN

2007	2012	2020 2030
NEAR TERM  Begin migration to advanced technology  Ford Focus ECOnetic	MID TERM Full implementation of known technology Explorer America	LONG TERM  Volume rollout of stretch technologies and alternative energy sources
GAS Improve fuel economy	Increase clean diesel applications	Fossil fuels ramp down
BIOFUELS Increase 1st generation applications	Ford F-150 Sport  2nd generation applications begin	2nd generation applications at high volume
Mercury Mariner		Ford Edge
ELECTRICITY HEVs reach higher volume	PHEVs enter market	PHEVs reach high volume
		Fuel Cell Vehicle  HYDROGEN  H2ICEs and FCVs enter market



## SINCE OUR LAST REPORT

- ▶ Engaged stakeholders and established partnerships for mega-city mobility in several global cities
- Launched a prototype mega-city mobility project in Cape Town,
- ▶ Established mobility business unit

## IN THIS SECTION

- Mobility challenges and opportunities
- New approaches to mega-city mobility
- Partnerships for learning and action

From Los Angeles to Bangkok and almost everywhere in between, traffic increasingly moves at a crawl, compounding pollution and depleting ever-more scarce and costly resources. Cars, trucks, buses, trains, motorcycles, bicycles and pedestrians share overtaxed infrastructure. making a simple trip to work or shop an arduous and risky experience. These trends suggest that a mobility model based on an endless increase in privately owned automobiles may be headed for a dead end.

Despite this gloomy outlook, we believe that creative collaboration and innovative technologies and services can yield new solutions, and that these solutions can harness the benefits of mobility while reducing its environmental and social impacts. These solutions will also benefit the companies that offer them.

Ford is experimenting with new kinds of mobility products, services and technologies and reaching out to new kinds of customers. In June 2008, we established a new business unit to develop and provide innovative, integrated urban mobility solutions. By engaging local communities and taking a whole-systems approach, we are building capabilities and partnerships and launching prototype urban mobility projects in several global locations.

This section describes the actions Ford is taking to deepen our understanding of the future of mobility and to develop and test sustainable mobility solutions for all of our global customers.



**O** 35

mega-cities will have a population of more than 10 million by 2015

## **MOBILITY CHALLENGES AND OPPORTUNITIES**

Mobility is a basic human need. Developed and emerging economies alike require transportation systems to get goods to market and people to the places where they work, shop, dine, gather and have fun.

Automobiles have provided personal mobility for more than 100 years. There are currently 900 million vehicles in the world, and that number is increasing rapidly as individuals in developing markets reach new levels of prosperity; it could reach two billion by the middle of this century.

This sounds like good news for an automotive company, and to some extent, it is. Our most rapid sales growth is taking place in emerging markets. But a business model built on private ownership of automobiles comes with inherent challenges, which are related directly to the following current and emerging mega-trends:

**Urbanization:** By 2015, it is projected that at least 35 mega-cities will have a population of more than 10 million. The migration of rural populations to urban areas often outpaces infrastructure development, leading to overcrowded, substandard living conditions and inconvenient, congested transportation systems.

**Congestion:** Each year, traffic congestion is estimated to cost the United States \$67.6 billion, and the average metropolitan driver endures 27 hours of traffic delays. In many places, especially developing countries, traffic delays are considerably worse, and are increasing at an alarming pace. As more vehicles crowd limited road networks, congestion increases. This, in turn, creates pollution, reduces fuel efficiency and wastes travelers' time.

**Climate change:** The transportation of people and goods accounts for about a third of global human-caused greenhouse gas emissions. Stabilizing greenhouse gas emissions in the atmosphere will require a concerted effort on the part of the private and public sectors to achieve significant cuts in transport-related emissions, at a time when rapid growth in the transportation sector is anticipated.

Shifting demographics: Different regions of the world are experiencing opposing population trends. Among the more-developed countries, only the U.S. is growing in population; Europe, Russia and Japan are all shrinking. Regions of Africa and Asia are growing in population and will have large numbers of young people. But by the middle of this century, most of the world will be much older on average. With most people living in urban areas, more and different forms of mobility will be needed to support independent living for seniors, the disabled and young people.

**Social inequality:** The growing gap between rich and poor creates enormous needs for innovative, affordable mobility solutions that meet human needs and help people build a better way of life.

Taken together, these trends point to increasingly diverse and fragmented markets for traditional automobile sales. They also point to significant opportunities for companies that are able to provide mobility and accessibility in new ways.

Given our knowledge and experience, we believe this is an area in which Ford may be able to have particularly positive impact – and to develop a profitable new line of business in doing so.



hours of traffic delays endured by the average metropolitan driver each year

## **○** WHAT IS NEW MOBILITY?

As we reach the limits of conventional models of mobility, "new mobility" offers a practical route forward. New mobility approaches transportation needs and options from a systems perspective. It relies on collaborative partnerships and information technology to bring existing services, products, technologies, infrastructure and design together into something that is greater than the sum of its parts – smarter, more sustainable, more convenient, more equitable, and better-connected.

Examples of new mobility systems already exist, notably Hong Kong's "Octopus" system, which uses a "smart card" to provide travelers with access to multiple transit services as well as ferries, parking and retail outlets. Other examples exist in Bremen, Germany; Bogotá, Colombia; Paris, France; Curitiba, Brazil; Portland, Oregon; and more. Key features of new mobility systems include the innovative use of technology to link diverse transportation systems such as rail, bus and subway with car sharing, bike sharing and other options, to provide flexible, seamless, door-to-door trips. Technologies can also enable distance working, learning, medicine and shopping, thereby reducing the need for some trips altogether. And still other information technologies support the sustainable and efficient movement of goods in urban regions, a growing area of concern and opportunity for innovation.

New mobility also depends on something more old-fashioned: collaboration and partnership. Technology can "connect the dots," but only humans can get the varied institutions and interests involved in urban mobility to work toward a common end. Thus, new mobility projects like those described in this section require extensive stakeholder engagement and establishment of trust between the many partners with a role to play.



# MEGA-CITIES: THE ICON OF PERSONAL MOBILITY CHALLENGES

Mega-cities are urban areas with more than 10 million residents. At least 25 mega-cities already exist 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 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, and engender 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. To develop 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 MEGA-CITY MOBILITY**

As we continue to compete for a share of automobile sales in both mature and rapidly growing markets, we are simultaneously developing a new business model – called mega-city mobility – based on providing innovative, integrated urban mobility products, services and technologies. We have spent several years developing the mega-city mobility concept and process. Because we believe that mobility solutions must be tailored to local economic, cultural and infrastructure characteristics, the process begins with building a network of committed private-sector and public-sector partners. It also includes extensive stakeholder engagement to identify critical problems and promising solutions.

During 2007 and early 2008, we moved forward with building networks to support a mega-city mobility pilot project in Cape Town, South Africa, and explore potential projects in other locations around the world. We have also begun planning for projects in Chicago, Washington DC, Los Angeles, Detroit and Atlanta, and we are participating, with the World Resources Institute's EMBARQ project, in a mobility program in Istanbul, Turkey. We have a business presence in all of these locations and have worked over the years to build trust with potential partners and stakeholders through our commitment to sustainability reporting, support for human rights and engagement with local communities. These locations also have major unmet mobility needs.

We have found that public and private entities in these cities are concerned about mobility problems and are receptive to potential solutions. During 2008, we will launch the Cape Town project, described on the following page, as a prototype. Our goal for the year is to complete the design of 10 to 12 hub/network sites to link transportation modes.

The environmental and social case for mega-city mobility is compelling. We believe the business case for Ford's involvement is equally compelling. We are moving ahead with these prototype projects, which will help us understand the practicalities of providing integrated urban mobility services. By partnering with diverse organizations and providing real solutions for challenging problems, we're learning valuable lessons about how we can meet customer needs well into 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 a range of private-sector partners representing transportation, energy, telecommunications, real estate, logistics and more, as well as government and consumer partners. That is why the following partnerships have been a key element of Ford's sustainable mobility strategy.

## Sustainable Mobility and Accessibility Research and Transformation

SMART – an interdisciplinary initiative at the University of Michigan in Ann Arbor – takes a collaborative, systems approach to developing innovative, sustainable and connected mobility and accessibility solutions in global urban regions. SMART is a key partner in Ford's mega-city mobility projects, providing the conceptual foundations and co-developing the partnerships and pilot projects. We are convinced that our partnership with SMART will produce a new systems approach for addressing the increasingly complex challenges to achieving sustainable mobility and accessibility globally, while at the same time transforming the transportation industry into a more sustainable and equitable new mobility industry.

### ▶ Georgia Tech

Ford and Georgia Tech have a strong cooperative relationship, focused particularly on sustainability. At present, Georgia Tech is assisting Ford by:

- ▶ developing the business case for mega-city mobility, especially pertaining to finance, information technology and vehicles (including fuels, design, carbon and powertrains)
- ▶ building on the results of Ford's prototype projects, particularly with regard to software device connections.

## ▶ The Prince of Wales Forum

Ford has taken part in The Prince of Wales' International Business Leaders Forum for seven years. The Forum's 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 the Forum's Business and Environment and Business and Poverty programs. Through these venues, 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. Also, the Prince of Wales' Cape Town leadership team joined with SMART and Ford to convene, lead and manage the Cape Town project.

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## NEW MOBILITY SOLUTIONS FOR CAPE TOWN, SOUTH AFRICA

Cape Town, South Africa, sits near the southern tip of the African Continent. With a metropolitan population of more than 3 million, Cape Town is the capital of the Western Cape Province. It is also the legislative capital of South Africa, playing host to the National Parliament and many other government offices. With a spectacular setting between the sea and the mountains, Cape Town is a popular tourist destination and will be a host of the World Cup in 2010.

To prepare for the tournament, local officials are seeking to upgrade the city's transportation systems, from its aging taxi fleet to its bus and rail systems. The city also wants to build on the legacy created by the World Cup to provide solutions to persistent problems of congestion and access to mobility for the poor. Because of congestion and air-quality concerns, there is talk of policies that would restrict private transportation into the city by the end of the decade. Ford has acted as a catalyst to engage a wide range of public and private interests in planning an innovative, integrated mobility system to serve both local residents and World Cup visitors.

#### **Innovation and Collaboration**

Ford and the University of Michigan's Sustainable Mobility and Accessibility Research and Transformation (SMART) program have been working since January 2007 to develop a new mobility project in Cape Town. In January and July of 2007, Ford and its partners convened stakeholder engagement meetings. Participants included private-sector leaders, local thought leaders and government and transportation officials,

as well as taxi, minibus and bike entrepreneurs. A follow-up meeting in late January 2008 confirmed plans to establish at least two "mobility hubs" in the fall of 2008, followed by eight more in time for the World Cup.

A mobility hub is a transfer point where multiple mobility options and services come together. It represents one point in a "new mobility hub network," an integrated system of hubs throughout a city that connect to provide seamless, convenient, sustainable, safe and affordable door-to-door trips for everyone – rich and poor. Hubs can be simple places where two modes of transport meet. Or they can be more elaborate and beautifully designed, connecting many transport modes and services and offering information, community services, commerce, recreation, refreshment and culture. The integrated mobility provided by hubs can be enhanced by information technology that provides real-time travel and schedule information, either at kiosks or through mobile phones.

In Cape Town, the hubs will link multiple mobility services, including buses and metro trains, minibuses, taxis, car-share vehicles and bike-share vehicles. They will also include restaurants and shops. Travelers will eventually be able to use a software device, connected through a cell phone or information kiosk, to access integrated, multi-modal, real-time travel information. To date, resources to move this project along have been provided by Ford's corporate office, Ford of South Africa and SMART (University of Michigan).



INTRODUCTION

▶ The World Resources Institute/EMBARQ Project

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. Our first joint effort, begun in July 2006, is designed to reduce vehicle emissions and traffic congestion in Istanbul, Turkey, by understanding mobility patterns, needs and opportunities. The Istanbul project is supported by EMBARQ's global strategic partners, the Shell Foundation and Caterpillar Foundation, with additional project support from Ford, BP and Shell.

Thus far, EMBARQ has helped to introduce the Bus Rapid Transit (BRT) concept to Istanbul city leaders. In 2007, Istanbul's first BRT corridor began operations, and the city has announced plans to open six more corridors. Another part of the EMBARQ Istanbul effort is the Clean Fuels Clean Vehicles project, which seeks to develop an inventory of existing transport-based emissions, identify the key pollutants and run pilot projects to test various powertrain and fuel combinations to help reduce those pollutants.

## Sustainable Mobility Project of the World Business Council for Sustainable Development

In 2000, Ford joined with auto companies DaimlerChrysler, General Motors, 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 2004, the WBCSD released a report entitled *Mobility 2030: Meeting the Challenges of Sustainability.* This groundbreaking report examines future trends in mobility globally and identifies strategies that might make transport more sustainable.

Since the release of the report, Ford has continued to work with the WBCSD 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. The findings of this project, and the comments about its strengths and weaknesses (as analyzed by Professor Tom Gladwin of the University of Michigan), were important catalysts of Ford's mega-city mobility project.

## ▶ The Global Road Safety Initiative

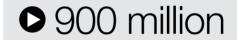
Several companies that participated in the WBCSD project – including Ford, GM, Honda, Michelin, Renault, Shell and Toyota – launched the Global Road Safety Initiative in 2004. The purpose of the initiative is to transfer best practices, with the objective of reducing accidents and building capacity in 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.

## DAVID BERDISH

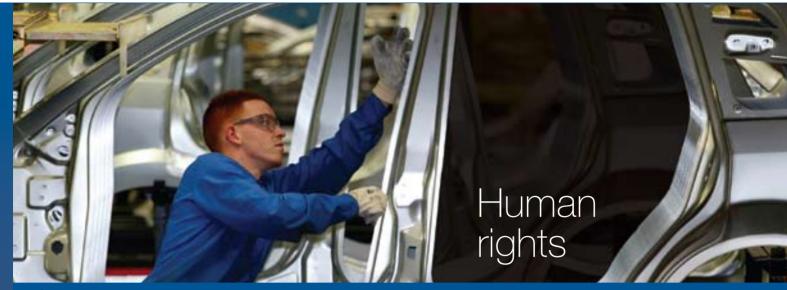
Clearly, the answer to mobility problems is not selling 1.8 cars and trucks to every household in the world. Together with our stakeholders, we must develop new transportation solutions. We must integrate trains, buses and taxis with car shares, rickshaws and bicycles, in ways that are safe, easy to use and easy to access. We want Ford to be at the forefront of these new modes of transportation.



David Berdish
Manager of Sustainable Business Development
Ford Motor Company



vehicles currently on the road globally



## SINCE OUR LAST REPORT

- ▶ Joined the United Nations Global Compact
- ▶ Revised our Code of Basic Working Conditions and adopted it as a Policy Letter
- ▶ Continued to work with suppliers to promote sound working conditions
- ► Led an industry-wide effort to address working conditions across the global supply chain

## IN THIS SECTION

- ▶ Human rights challenges and opportunities
- Working conditions at Ford plants
- ► Working conditions in our supply chain
- Taking action as an industry

Ford has been a leader in addressing human rights and working conditions in the auto industry. Since we committed to address human rights as a strategic business issue in 2000, our approach has evolved.

While our initial focus was on potential risks in our own operations and those of our suppliers, we are now leading an effort to bring automakers together to apply a common approach to the global supply chain. We have also moved beyond assessing individual suppliers' compliance to building capability throughout the supply chain to manage working conditions effectively. And we have expanded the scope of our effort to make community engagement and environmental protection integral parts.

## **HUMAN RIGHTS CHALLENGES AND OPPORTUNITIES**

Ford is committed to respecting human rights everywhere we operate. The case for protecting human rights in our own facilities and throughout our value chain is compelling. People are most likely to excel in an environment that aims for excellence. A safe workplace in which people are treated with respect promotes increased quality, productivity, employee retention and morale. It can also decrease quality problems and health care costs. We have also found that a supplier company's efforts to address working conditions, environmental challenges and other sustainability issues are good indicators of its management's leadership capabilities.

Like other automakers, we are expanding our presence in emerging markets, where most of the growth in automobile sales is expected to occur. We view respect for human rights

as not only a core operational issue, but also a key to maintaining the trust and respect of local communities around our facilities. That trust is critical to our ability to operate and sell our products in an intensely competitive global marketplace.

To serve global markets efficiently and affordably, we must build local and regional supply bases. The result is an increasingly complex and dispersed supply chain. Many of our suppliers routinely provide outstanding working conditions. And we believe that, ultimately, this is the suppliers' responsibility. We would also like governments to play the lead role in enforcing compliance with laws. In reality, however, the legal structures governing working conditions, and the level of enforcement, vary widely across the countries in which we operate. Thus in some places we need to help suppliers build capability and assess compliance in order to have confidence that the suppliers meet our standards. As others in the industry begin to take similar steps, we believe that automakers and suppliers alike will be best served by a cooperative approach to working conditions in the automotive supply chain.

Our human rights efforts described opposite are designed to help us address these and other challenges.

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.

INTRODUCTION



**Working conditions** refers to aspects of human rights in the workplace, as governed by local laws and affected by international standards pertaining to workplace issues such as child labor, harassment and discrimination, health and safety, wages and benefits, freedom of association, working hours and forced labor.

## **HUMAN RIGHTS AT FORD**

Ford's Code of Basic Working Conditions (CBWC) articulates our commitments on key human and labor rights issues. In effect since 2003, it was formally adopted as a Policy Letter in 2007.

In early 2008, Ford joined the United Nations Global Compact, a framework for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labor, the environment and anti-corruption. This action reinforces our commitment to outstanding performance and transparency in these areas.

Since 2003, we have developed a range of processes to ensure that our own operations and those of our business partners and suppliers are adhering to the CBWC in practice. This section describes key actions we have taken to continue to integrate human rights into our operations.

## The 10 principles of the UN Global Compact

#### Human Rights

- ▶ Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- ▶ Principle 2: make sure that they are not complicit in human rights abuses.

### Labor Standards

- ▶ Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- ▶ Principle 4: the elimination of all forms of forced and compulsory labor;
- ▶ Principle 5: the effective abolition of child labor; and
- ▶ Principle 6: the elimination of discrimination in respect of employment and occupation.

#### Environment

- ▶ Principle 7: Businesses should support a precautionary approach to environmental challenges;
- ▶ Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

## Anti-Corruption

▶ Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

## **Adoption of Revised Code of Basic Working Conditions**

In 2006, we revised our CBWC to add provisions that we felt were important to strengthen our efforts in this area, based on our experience implementing and assessing compliance with the CBWC. Reflecting our increasingly integrated approach to managing human rights and community issues, the revisions articulated our commitments on several key issues that extend beyond the fenceline of our facilities and those of our suppliers to include our impacts on the communities in which we operate. 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 CBWC was approved and formally rolled out to employees and suppliers as Policy Letter #24 in 2007.

## **Working Conditions in Ford Plants**

Since 2004, we have conducted 11 formal assessments of Ford facilities, four of which were joint-venture facilities.

## Ford Facility Assessments in 2007

During 2007, we conducted assessments at our Camaçari facility in Bahia, Brazil, at our two South African facilities (one a 90-percent Ford-owned joint venture), and at our sole facility in Russia. These four sites were selected by Ford's Sustainable Business Strategies and Purchasing Strategy functions based on the sites' impact on our supply chain, emerging issues and the views of thought leaders, NGOs and human rights activists.

The findings of the assessments were generally consistent with those of previous assessments. That is, they confirmed that Ford's wholly and majority-owned facilities are operating in compliance with our CBWC. Reflecting the expanded scope of the CBWC, the assessments also discuss and document



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community engagement efforts, effects on indigenous populations and environmental initiatives. 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 we and our stakeholders have confidence in our systems, we nonetheless believe it is important to continue conducting the assessments given that conditions can change and new issues emerge.

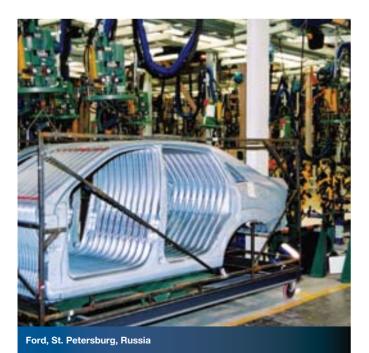
#### Next Steps - Ford Facilities

In 2008, we plan to conduct assessments in select Ford facilities in Chicago (USA), Hai Duong (Vietnam) and Santa Rosa (Philippines).

#### **Working Conditions in Our Supply Chain**

Beyond our own facilities, we aim to ensure that everything used to make our vehicles is produced consistent with local law and our CBWC. This is a major undertaking, as Ford has several thousand supplier facilities globally. (See supply chain profile.) It is also a critical undertaking, as we have less control in suppliers' facilities than in our own, particularly at the sub-tier level.

Our long-term vision is for our industry as a whole to converge on a set of common expectations for the global automotive supply chain and then work together with suppliers to ensure that these expectations are met. We have taken a series of steps in that direction, beginning with defining our own expectations for suppliers.



60+

**Supply Chain Profile** 

Countries in which suppliers are located

38

Emerging markets in which suppliers are located

PRODUCTION (Anything that is part of the vehicle)

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.

105

Ford manufacturing sites

2,000+ Supplier companies

5,500+ 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

600 +

**Nonproduction commodities** 

**TOTAL GLOBAL BUY** 

\$90+ billion

<sup>7</sup> As of year end 2007.

**HUMAN RIGHTS** 

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## Setting Expectations for Our Suppliers

Ford's Global Terms and Conditions – our core contract covering all suppliers – reflect our 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.

## **Building Supplier Capability**

The primary focus of our work on human rights in our supply chain is building capability among our suppliers to responsibly manage working conditions. This includes meeting legal requirements and Ford's expectations and promoting sound working conditions in their own supply chains. We have developed and delivered tailored training programs for Ford suppliers in select countries in cooperation with the Automotive Industry Action Group, a North American member-based, nonprofit industry group specializing in supply chain issues.

The training workshops emphasize the interpretation and application of legal standards and international best practice. By interacting with managers from the Human Resources, Health and Safety, Labor Affairs and Legal departments of participating companies, the workshops provide for a two-way learning experience touching on the areas of interest for each company.

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 in which participants 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.

During 2007, we held training workshops in Brazil, China, Colombia, Mexico, South Africa, Thailand, Turkey and Venezuela. Some 1,528 managers from 1,225 different supplier companies have completed a full day of training since the inception of the program in 2004. These suppliers have now moved on to the process of self-assessing their facilities for compliance with local law and Ford expectations, and completing the final stage of the program, which is communication to both personnel and their own suppliers on the topic of working conditions expectations.

We continue to focus on the 17 countries we had previously identified as having higher risks of substandard working conditions. (See Figure 1, page 32.) 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.

## Assessing Suppliers

Since 2003, we have conducted more than 400 assessments of existing and prospective suppliers in 16 countries. The assessments provide feedback to Ford and suppliers about how well they are meeting legal requirements and Ford's expectations. They also provide insight into the effectiveness of our training programs. Assessments consist of a detailed questionnaire, a document review, factory visits, and management and employee interviews, and are conducted with the assistance of external auditors.

In 2007, we conducted assessments in Brazil, China, Colombia, India, Malaysia, Mexico, Romania, Russia, South Africa, Taiwan, Thailand, Turkey and Venezuela. The findings from the assessments in 2007 were generally consistent with those we had previously conducted. 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 2007 supplier assessments included:

- ▶ No evidence of forced labor or physical disciplinary abuse
- A 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
- ► Limited cases of restricted workers doing hazardous work
- ▶ In some cases, limited or restricted access to appropriate documentation regarding subcontracted labor and privacy policies
- ▶ In some cases, nonpayment of company contributions to government-mandated social programs

In addition, freedom of association has been difficult to verify. While all assessed suppliers have either union representatives or a grievance process, there may be issues we have not been able to identify through our assessment process.

We continue to engage with our 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.

#### Measuring Performance

We recognize the need to communicate performance results and strive to do so in a meaningful way. 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 and within our suppliers' businesses. 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 Table 1, page 32.)



Next Steps – Assessment and Capability Building
In 2008, we plan to launch supplier assessments
and training programs in Argentina, South Korea,
the Philippines, South Africa, Taiwan and Vietnam. In
addition, as part of the working conditions efforts under

addition, as part of the working conditions efforts unde the Aligned Business Framework, we are assisting our Global Strategic Suppliers in developing their own codes and/or expanding their programs or processes, where needed, to ensure they meet Ford's working conditions expectations.

**©** 81,963

individuals in Ford's supply chain received working conditions training

WORKING CONDITIONS ASSESSMENTS (as of 12/31/07)	AMERICAS	ASIA AND AFRICA	EUROPE	GLOBAL TOTAL
Average violations per assessment	11.4	11.1	13.5	11.4
Assessments completed to date	97	284	37	418
Follow-up assessments completed to date (third party and/or internal)	36	130	1	167
WORKING CONDITIONS TRAINING (as of 12/31/07)	AMERICAS	ASIA AND AFRICA	EUROPE	GLOBAL TOTAL
Training sessions completed to date	20	15	7	42
Total number of attending companies	583	471	171	1,225
Total number of trained managers	758	548	222	1,528
SCOPE OF IMPACT: SUPPLIER-SUBMITTED DATA				GLOBAL TOTAL
Training cascade to management, individuals trained				
Training bassage to management, marriadals train	Training cascade to workforce, individuals trained			
The state of the s				81,963

Americas: Brazil, Colombia, Mexico, Venezuela and Central America (Dominican Republic, Honduras, Nicaragua)

Asia and Africa: China, India, Malaysia, South Africa, Taiwan, Thailand

Europe: Romania, Russia, Turkey

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#### ALIGNING OUR APPROACH WITH OUR STRATEGIC SUPPLIERS

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.

This strategic supplier strategy, which we call the Aligned Business Framework (ABF), 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 has approved a total of 64 ABF suppliers, 10 of which are owned by minorities or women.

Ford's Code of Basic Working Conditions is an integral part of the new ABF, on par with other fundamental production requirements such as managing financial data and product quality. As previously, Ford's Global Strategic Suppliers are also required to adhere to our Global Terms and Conditions.

In addition, we expect ABF 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 supporting their code, and
- ► Training and compliance processes for their sub-tier suppliers

While the majority of ABF suppliers may have multiple policies or programs in place to manage some or all elements contained in Ford's Code of Basic Working Conditions, only a few have a concise, stand-alone code

with consolidated supporting processes to efficiently communicate and manage working conditions, either within their own operations or 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 in-depth 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.

During the fourth quarter of 2007, we held three working conditions summit meetings – in Dearborn, Amsterdam, and Hong Kong – that were attended by senior management from Ford and our ABF suppliers. These meetings further outlined our ABF strategy and the ways in which Ford will support and work collaboratively with our strategic suppliers on these commitments going forward.

We are particularly excited about this new phase, which furthers our efforts in managing human rights issues in our supply chain in a more collaborative, in-depth manner. In our view, it will help embed ownership for working conditions issues throughout our value chain, and lead to the development of more robust, sustainable management systems to support responsible working conditions across the automotive supply chain.

## URSULA WYNHOVEN

Much of the world's attention these days is focused on the issue of climate change. But that does not mean human rights can be forgotten.
Unfortunately, human rights abuses continue to occur with regularity worldwide, and we want to make sure that the topic remains in the public eye, particularly as we mark the 60th anniversary of the UN's Universal Declaration of Human Rights in December.



Ursula Wynhoven
Head, Policy & Legal and Special Assistant to the Executive Director
United Nations Global Compact Office

## MANFRED MUELLER

We are extremely proud that we were named among the first suppliers in Ford's Aligned Business Framework. The continued collaborations within this ABF network should help Ford and the industry as a whole advance human rights, promote better working conditions and align industry standards and practices across the supply base.



Manfred Mueller
Executive Vice President, Original Equipment Sales
Robert Bosch LLC

## **Taking Action as an Industry**

The long-term sustainability of efforts to protect human rights in the automotive supply chain depends on the active participation of all parties – 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 will lead to better results than if individual companies take steps in isolation.

## Automotive Industry Action Group (AIAG) Initiative

Since 2004, Ford has worked with the AIAG to implement its capability-building program with our suppliers, always with an eye toward leveraging that work with other automakers. Ford has approached the industry work – from the beginning – with an "open book" position. Materials developed within Ford to promote responsible working conditions have been offered to the group as a platform for use and development. In 2005, General Motors and then-DaimlerChrysler joined Ford and the AIAG in exploring a cooperative industry approach to promoting decent working conditions in the supply chain.

With support from a \$185,000 grant from the U.S. State Department to Business for Social Responsibility, a nonprofit group that works with companies to advance responsible business practices, the AIAG launched a collaborative, industry-wide project in 2006. Ford has contributed an "executive on loan" – the global manager of our supply chain sustainability group – to the AIAG to support the project and facilitate sharing what we have learned based on our experience working on these issues within our own operations. Honda North America and Toyota North America have since joined the effort.

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.

## First Workshops

In July 2007, the project launched the first joint workshop, held in Shanghai, China, for suppliers to Ford, GM and Chrysler, followed by eight additional sessions in China throughout the year. All training materials were based on Ford-developed training. With the support of the AIAG and the China Association of Automobile Manufacturers, the mandatory training reached

250 suppliers, including 178 suppliers to Ford's joint ventures in China. In November and December 2007, four training sessions were held in Mexico, with a total of 183 suppliers participating, including 20 suppliers to Ford. Additional sessions will be held in 2008 in China and Mexico.

#### Next Steps - Industry Cooperation

The cooperative project continues to work on several fronts:

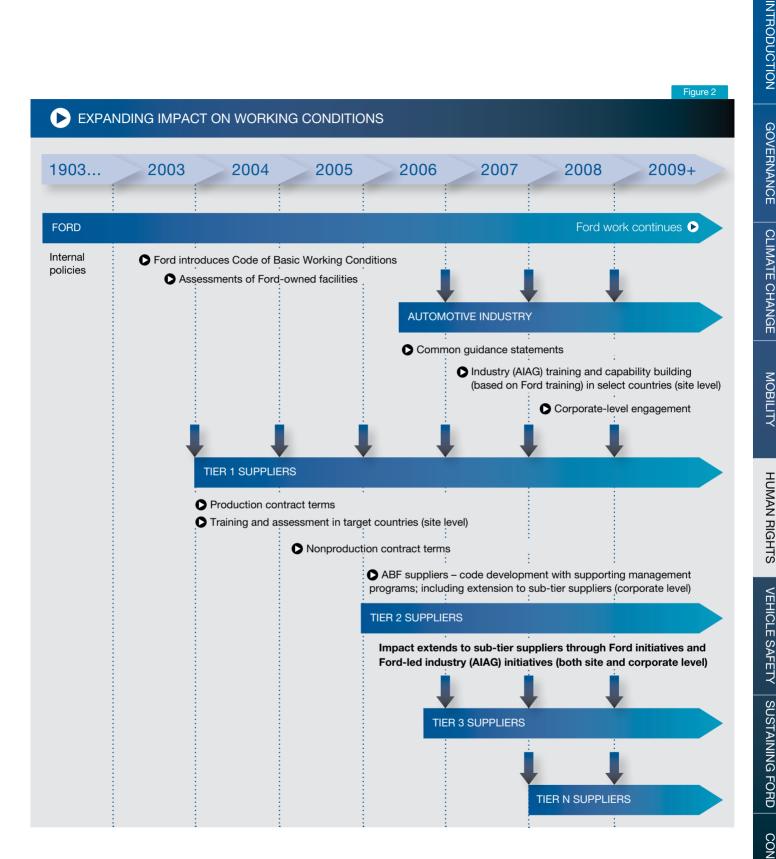
- ▶ Actively reaching out to others in the automotive supply chain, including European, Japanese and Korean automakers; industry associations in Europe and Japan; and major automotive suppliers. Broader participation will be needed to achieve the vision of an industry-wide approach to promoting decent working conditions in the supply chain.
- Expanding the training program to other countries and additional audiences, including the executive leadership of supplier organizations.
- Development of additional resources and networks that will ensure the successful communication of working conditions expectations throughout the automotive supply chain.

## **Continued Evolution**

Our approach to working conditions in the supply chain will continue to evolve. As the work at the AIAG continues to develop and mature, Ford will maintain a leadership position in our work with the supply chain. We will continue to conduct our own training and assessment programs in countries not covered by AIAG programs. In addition, we constantly monitor approaches developed by other organizations and industries in order to incorporate what they have learned into our approach. We will continue to pursue partnerships with direct suppliers that create ownership of working conditions within those supplier organizations. Clear, consistent communication and further business integration of processes that support responsible working conditions throughout the supply chain will be a key component of our continued work. (See Figure 2, opposite.)



suppliers in China received working conditions training in 2007 through the AIAG





### SINCE OUR LAST REPORT

- ▶ Once again, earned high marks for vehicle safety test performance
- ► Launched Ford SYNC<sup>TM</sup>, which allows for hands-free use of multimedia devices
- Introduced a suite of accident avoidance features that use forward-looking radar and vision sensors

## ▶ IN THIS SECTION

- ▶ Vehicle safety challenges and opportunities
- ► Ford's efforts to promote safer driving, build ever-safer vehicles and ensure safer roadways
- Collaborative endeavors to improve safety

We are continuously enhancing the safety of our vehicles and sharing research and technologies across all of our brands. Others have recognized the results of our efforts.

In 2007, we again earned high marks for safety test performance 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):

- ▶ Ford holds the most IIHS Top Safety Picks of any automobile manufacturer. Eight Ford vehicles earned this honor in 2007, including the 2008 Ford Taurus, Ford Taurus X, Ford Edge, Mercury Sable, Lincoln MKX and Volvo S80, C70 and XC90.
- ► Fifteen 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 Ford Taurus is rated the safest vehicle in America, with five-star NCAP crash ratings for frontal and side impact and "good" IIHS ratings in offset frontal impact, side impact and rear impact evaluations.
- ► The IIHS awarded 21 Ford vehicles with "good" ratings for frontal offset performance.
- ▶ Recent EuroNCAP assessments of the Ford S-MAX, Galaxy and Mondeo resulted in best-in-class ratings for adult and child occupant protection. The Galaxy achieved the highest score for a right-hand-drive vehicle.
- ▶ In 2007, the Land Rover Freelander 2 received the EuroNCAP best-in-class rating for a small off-road vehicle for adult occupant protection.
- ► The Mustang Convertible earned five-star ratings in all categories of NHTSA NCAP.









Ford Taurus X Ford Edge

Mercury Sable

Volvo S80

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#### **VEHICLE SAFETY CHALLENGES AND OPPORTUNITIES**

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. Many of the traffic deaths in developing nations involve pedestrians and/or motorcycles. As mobility increases in developing markets, people initially use two-wheeled motor vehicles, and the incidence of traffic accidents rises. As people migrate to automobiles, traffic accidents and injury levels generally then decrease.

During this transition, holistic solutions are required, including infrastructure improvements, the modification of road user behavior and the enforcement of traffic laws. One critical task is to educate drivers regarding the most important primary safety feature - safety belts. Continued improvements in vehicle safety are also important, and we at Ford continue to take seriously our responsibility to build safe vehicles. Increasingly, we have also become more involved in encouraging new and innovative ways to modify road user behavior (for example, through new technologies and driver education efforts) and encouraging infrastructure and enforcement improvements in the communities in which we operate. This vehicle safety section details our latest efforts and achievements in all of these areas.

#### **GUIDELINES AND STANDARDS**

Here at Ford, our objective is to design and manufacture 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 Design Guidelines, which are Ford's stringent internal engineering design targets that exceed regulatory requirements.

Ford utilizes engineering analysis, extensive computer modeling. and crash and sled testing to evaluate the performance of vehicles and individual components. These rigorous evaluations help to confirm that our vehicles meet or exceed regulatory requirements and our even more stringent internal guidelines.

#### **PERFORMANCE**

Vehicle safety is the product of complex interactions between 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.

## HADDON SAFETY MATRIX



## **VEHICLE SAFETY**



#### **ENVIRONMENT**



PRE-CRASH (ACCIDENT AVOIDANCE)

**CRASH** (OCCUPANT PROTECTION)

POST-CRASH (INJURY MITIGATION)

**EXAMPLES OF** FORD ACTIONS (DETAILED IN THIS SECTION)

Research
Education
Advocacy

**Telematics** 

Technology and proper use

Crashworthiness

Crash avoidance

Security

Traffic control Road design for

injury mitigation

Research

Road design for

accident avoidance

Post-crash notification

**Emergency medical** services

SYNC™ technology **Driving Skills for Life** See Me Safe

Roll Stability Control™ Personal Safety System™ Accident avoidance features Post-crash notification

Global Road Safety Initiative Accident research



#### **Safer Driving**

The U.S. Department of Transportation reports that human factors cause or contribute to more than 90 percent of serious crashes. Ford Motor Company provides information, educational programs and advanced technologies to assist in promoting safe driving practices.

For example, numerous studies show that hands-free multimedia devices offer safety benefits compared to hand-held devices. The benefits are seen in driving performance as well as object and event detection. Ford's new SYNC<sup>TM</sup> system, powered by Microsoft, provides a way for drivers to use cell phones and MP3 players more safely, because they can do so while keeping their eyes on the road and their hands on the wheel. Also, SYNC will be offered with all-new occupant safety and vehicle diagnostic communications capabilities when it appears on MY2009 products in late 2008. SYNC is described in depth in a case study in our Web report.

Driving Skills for Life, Ford's U.S.-based national education program for teens, demonstrates our continued commitment to educating young drivers about safer driving. 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 Web site (www.drivingskillsforlife.com), to help young drivers improve their ability behind the wheel.

Most recently, Ford partnered with the state of Illinois to launch a statewide effort – modeled on Driving Skills for Life – designed to reduce teen crashes and fatalities. Called Operation Teen Safe Driving, this campaign is the first of its kind and gets high school students directly involved by engaging them in a competition to design community-based driving safety programs targeted at their peers. More than 200 high schools in Illinois have signed up to participate in the program.

# • 4 million

Ford Motor Company vehicles built globally with electronic stability control systems

In another effort to promote safe practices, Ford has created – in partnership with Meharry Medical College – See Me Safe, a child passenger safety seat initiative aimed at reducing child injury, disability and death due to traffic accidents. See Me Safe is working to establish a supportive network of physicians, nurses, medical interns and pediatric trauma response teams, through which parents can learn about the proper use of safety restraints for their children.

In Brazil, Ford sponsored a Children's Day in October 2007 at Ford dealerships across the country. As part of this event, the dealerships distributed 63,000 copies of our new vehicle and traffic education DVD for children. The DVD features information on driver licensing, the use of safety belts, the benefits of speed limits, and so forth.





copies of Ford's traffic education DVD for kids distributed in Brazil

#### **Safer Vehicles**

#### Accident Avoidance Technologies

A variety of technologies, in addition to a vehicle's basic handling and braking capabilities, can help drivers avoid accidents. These technologies are generally not necessary for attentive drivers in most road conditions, but may provide added benefits for drivers who become distracted or experience challenging road conditions.

Our industry-leading innovation known as Roll Stability Control™ (RSC) continues to give drivers more confidence in emergency situations. Ford and its global brands have built more than 4 million vehicles globally with electronic stability control systems. To date, more than 1 million of those vehicles feature AdvanceTrac® with Roll Stability Control, which actively measures and helps control both yaw and roll movements.

RSC 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 with the 5.4L engine. It is also standard on the Mercury Mountaineer, the new 2008 Mariner, Lincoln Navigator and Lincoln MKX. Ford is developing a next-generation regenerative braking system for the 2009 Escape Hybrid and Mariner Hybrid to be compatible with RSC.

Another Ford safety 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.

## FLAURA KOPLIN-WINSTON DENNIS DURBIN

Children are not small adults. We can't take what we learn from adult injury prevention and transfer it to children and teens without making adaptations that suit their needs. Because children are the primary occupants of the second and third rows in vehicles, automakers need to optimize restraints for them. Auto companies should also find ways to promote safe and responsible teen driving.





**FLAURA KOPLIN-WINSTON** Co-Scientific Director and Founder. **DENNIS DURBIN** Co-Scientific Director. Both of Center for Injury Research and Prevention, The Children's Hospital of Philadelphia

Ford is also developing a suite of accident avoidance features that use forward-looking radar and vision sensors. Adaptive Cruise Control (ACC), for example, helps drivers maintain a safe distance from the vehicle in front of them. It is one of the innovations available on the Volvo S80, XC70 and V70, as well as the Ford Mondeo, S-MAX and Galaxy. While primarily a comfort and convenience feature, ACC also contributes to more controlled driving when traffic flow is uneven. The ACC module is mounted at the front of the vehicle and uses radar to measure the gap and closing speed to the vehicle ahead. The system automatically adjusts the speed of the car to help maintain a pre-set distance from the vehicle in front.

Forward Collision Warning (FCW) with Auto Brake comes as part of the ACC package and uses radar technology to help avoid or mitigate the effects of rear-end collisions. If the FCW-equipped vehicle approaches another moving vehicle from behind and the driver does not react, a bank of red LED warning indicators flashes on the windscreen and an audible warning signal is activated. Forward Collision Warning is designed to provide sufficient time for the driver to react and avoid the hazard. If the risk of collision increases despite the warning, Auto Brake is activated. The Auto Brake system supports driver-initiated braking by pre-charging the brakes and preparing for panic brake application.

Driver Alert Control and Lane Departure Warning are two other features recently launched on the Volvo S80, V70 and XC70. These systems, which are designed to combat driver fatigue, use 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 or the vehicle's wheels move outside the lane markings, a warning chime alerts the driver.

#### Occupant Protection Technologies

The Ford Personal Safety System<sup>™</sup> 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 Ford vehicles in the U.S.

The Ford Explorer and Mercury Mountaineer are equipped with additional features to enhance occupant protection during a side-impact event. Side-impact air bags mounted in the outboard side of each front seat enhance chest-area protection, and roof-mounted side curtains enhance head protection. Both are standard on many Ford vehicles. Door armrests and door trim also provide abdomen and lower torso cushions, and a four-inch-thick foam block inside each door helps to manage side-impact forces on occupants' hips.

Ford was the first in the industry to offer rollover-activated sidecurtain air bags, known as the Safety Canopy, beginning with the Ford Explorer and Mercury Mountaineer in 2002. Today, the Safety Canopy with rollover sensors is available on nearly all Ford SUVs, as well as on certain vans and cars. By MY2010, all Ford, Lincoln and Mercury retail SUVs, crossovers, vans and trucks are expected to have the Safety Canopy as standard equipment.

Safety belts remain the most important vehicle safety technology available, and Ford is researching advanced, next-generation safety belt technologies. 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. Early research has shown that the inflatable belt may enhance the protection of occupants in the rear seat. A number of technical challenges remain and need to be overcome before these belts can be considered for use on production vehicles.

#### Injury Reduction Technologies

One method of assisting emergency responders to reach the scene of a vehicle crash quickly is through in-vehicle emergency call systems, also called post-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.

Ford's On Call system – a GSM- and GPS-based emergency and assistance system - is currently available on Volvo vehicles and is sold in seven European countries. In the U.S., Ford SYNC™ is a new, award-winning in-car connectivity system that was introduced on selected MY2007 vehicles. Starting with the new Ford Flex and Lincoln MKS, SYNC-equipped MY2009 vehicles will come with an all-new occupant communications capability called 911 Assist. In the event of a crash, the ability to directly contact the local 911 emergency operator could be critical, for both vehicle occupants and the first responders. While any cell phone alone could be used in an emergency situation, SYNC will be ready to assist in placing a call to a local 911 emergency operator - when a phone is properly paired, turned on and connected to SYNC and where the system and cell phone remain powered and undamaged - should a crash with an air bag deployment or fuel shutoff switch activation occur.

#### Safer Roadways

Safety challenges related to the driving environment (e.g., roads, signs, traffic lights) 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 Europe, Ford has 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.



In Thailand, Volvo partnered with the Thailand Department of Highways and the Global Road Safety Partnership to establish the Thailand Accident Research Center (TARC) in 2003. 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 trained a team of investigators who have been conducting research at accident scenes in several provinces in Thailand.

In late 2004, working in partnership with General Motors, Honda, Michelin, Renault, Shell and Toyota, Ford 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. The projects are being implemented through the Global Road Safety Partnership, an existing organization founded by 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, so those organizations can build capacity and continue their work long after the projects are completed.



## COLLABORATIVE EFFORTS

Ford Motor Company is involved with a number of partners to develop future technologies and enhance the safety of the driving experience. Three examples are highlighted below.

#### **PReVENT**

Ford has been actively involved in a European partnership called PReVENT - short for Preventative and Active Safety Applications. This four-year initiative concluded in January 2008. With a budget of more than €5 million, the project has been aimed at developing new preventative and active safety applications and sophisticated driver information systems based on advanced intelligent technologies. It was co-funded by the European Commission.

Within the framework of PReVENT. Ford showed how digital data from navigation systems can be used to support future active safety systems in cars. For example, such data may allow vehicles to "recognize" potential hazard areas and react accordingly. Lane-keeping systems, in particular, will benefit from information provided by digital map data. These systems typically rely on cameras recording lane markings, but if the markings are deficient, the cameras cannot function properly. In such situations, digital data could provide the necessary information.

#### **CAMP**

In 1995, Ford and General Motors launched the Crash Avoidance Metrics Partnership (CAMP). Within CAMP, the Vehicle Safety Communications Two (VSC-2) Consortium, which includes Ford, GM, 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.

#### **VII** Initiative

Ford is participating in the Vehicle Infrastructure Integration (VII) initiative to assess the technical, economic and social/political feasibility of deploying wireless technologies to support the above vehicle communications 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, state departments of transportation and nine OEMs are evaluating the framework for a national strategy to implement vehicle-toroadway 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. Thus far, a special Dedicated Short Range Communications radio has been developed for this purpose, and the Federal Communications Commission has allocated bandwidth for its operation. In addition, the VII partners have developed appropriate on-board equipment, prototype applications and vehicle integration. The VII vehicle-based radio equipment was initially installed in a Ford Mustang. As a result of the lessons learned, the VII Consortium purchased four 2007 Ford Edge vehicles to begin building the proof-of-concept fleet. Proof-of-concept activities are scheduled to be completed by May 2008.



To read about additional collaborative efforts in the area of vehicle safety see our Web report. www.ford.com/go/sustainability



## SINCE OUR LAST REPORT

Improved our competitiveness by:

- ▶ Restructuring our North American operations to reduce our workforce and number of manufacturing facilities
- ▶ Reaching agreement with the United Auto Workers
- Agreeing on a new approach for providing post-retirement health care to employees and retirees

### IN THIS SECTION

- ► The importance of sustainability to our future
- ► Restructuring our North American operations
- A new approach to health care costs

The year 2007 was challenging for Ford and its stakeholders. We cut our workforce substantially, closed plants, and saw our sales and market share in North America continue to slide.

These changes directly affected our shareholders, employees, suppliers, dealers and the communities in which we operate. But the year also included developments that could help provide the foundation for recovery and growth. These developments included a rise in sales in Europe and several rapidly growing global markets (see Table 1, opposite), successful product introductions, the mapping of a path toward improved fuel economy globally and a major improvement in our financial results.

Another important accomplishment was the ratification of a new agreement between Ford and the United Auto Workers (UAW). The agreement enables us to make the necessary investment in global product development and flexible manufacturing, so we can bring to market the products and services that will make a difference for our customers and our company.

This past year, it also became clearer that Ford's future success will be determined in no small part by how effectively it responds to sustainability challenges. Oil prices that topped \$100 per barrel in early 2008 have fed consumer interest in automobiles that are thrifty in their use of fuel, causing a continued shift toward more fuel-efficient vehicles in most of our major markets. In rapidly growing economies, the interrelated issues of congestion, pollution and inadequate infrastructure threaten to slow the potential growth of the automotive market. Thus, offering vehicles with smaller environmental footprints, tackling the mobility challenges of rapidly growing urban centers and tailoring our products and services to increasingly diverse global

markets are not peripheral to Ford's future success – they are a prerequisite to it. The balance of this section discusses some of the actions taken in 2007 to restore Ford's profitability – another prerequisite to future success.

## NORTH AMERICAN RESTRUCTURING

During 2006 and 2007, we reduced by about 46,300 the employment levels in our Ford North America business unit. Most of these reductions were the result of offers of early retirement or separation packages to U.S. employees, including Ford employees at our Automotive Component Holding (ACH) plants.

Although we have achieved our previously announced goal to operate with 55,000 to 60,000 hourly non-ACH employees in North America by the end of 2008, we have embarked on additional personnel reduction actions, as announced on January 24, 2008, to achieve even lower hourly employment levels in North America. We also have reduced and realigned our vehicle assembly capacity to bring it more in line with demand and shifting customer preferences. As part of this reduction, we have closed or announced plans to close nine North American manufacturing facilities.

We believe we handled the separations of our workforce and manufacturing base with respect for the people and communities affected. For example, we offered UAW-represented employees a selection of eight different voluntary separation packages, including four traditional offers (such as early retirement) and four innovative programs designed to help employees' transition to new jobs requiring new skills. About half the employees who left the company in 2006 and 2007 chose a nontraditional package. Other actions we took to handle the downsizing responsibly are detailed in our full Web report.

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			Table 1
▶ 2007 SALES AND HIGHLIGHTS			
Business Unit	2007 Wholesales (in thousands)	Percent Change from 2006	Highlights
Ford North America	2,836	-7%	Sales of crossovers – the Ford Edge, Lincoln MKX, Ford Taurus X, Ford Escape, Ford Escape Hybrid, Mercury Mariner and Mercury Mariner Hybrid – increased by 62% for the year. Lincoln brand overall sales were up 9% and retail sales were up 15%, the largest gain of any luxury brand in the U.S. market.  The Ford Escape Hybrid and Mercury Mariner Hybrid both set sales records.
Ford Europe	1,918	+4%	Nearly 500,000 units of the Ford Focus were sold.  Ford introduced the new Mondeo, C-MAX Multi-Activity Vehicle Transit Sport Van and, at the end of the year, Focus.
Premier Automotive Group	774	+6%	Volvo launched the V70 and XC70 and began selling the S80 luxury sedan and XC90 SUV in India. Volvo's XC90 SUV, C70 Convertible and S80 Sedan all earned "Best Pick" designations from the Insurance Institute for Highway Safety.
Ford South America	436	+14%	The EcoSport, a compact SUV designed for the South American market, sold 78,000 units. Ford plans to invest \$1 billion in its Brazil operations in the next four years, and another \$160 million in Argentina operations.
Ford Asia Pacific and Africa	535	+3%	Ford opened a second assembly plant and a new engine plant in Nanjing, China, for total passenger car production capacity of 410,000.  In early 2008, Ford announced plans to invest an additional \$500 million in vehicle production in India and to develop a new low-cost car for that market.

#### A NEW APPROACH TO HEALTH CARE COSTS

We provide health care coverage to about 535,000 employees or retirees and their dependents in the United States alone. The rising cost of health care coverage and our high proportion of retirees compared to more recent entrants to U.S. markets put us at a competitive disadvantage. Ford's health care costs have been estimated to add about \$1,000 to the cost of each vehicle built in the United States.

In April 2008, Ford, the UAW and the class representatives of former UAW-represented Ford employees filed with the United States District Court for the Eastern District of Michigan a Settlement Agreement dated March 28, 2008. The Settlement Agreement provides that on the later of 1) December 31, 2009, 2) final court approval of the Settlement Agreement, and 3) Ford's completion of discussions with the Securities and Exchange Commission regarding satisfactory accounting treatment, a new retiree health care plan (the "New Plan"), to be funded by a new Voluntary Employee Beneficiary Association trust (the "New VEBA"), will be permanently responsible for providing retiree health care benefits to covered UAW employees. This obligation was measured at \$20.2 billion on Ford's December 31, 2007, balance sheet.

Ford will fund the New VEBA through a number of sources, including funds that are currently in existing voluntary employee beneficiary association trusts, Ford-issued convertible and term notes, and cash on hand. The parties to the Settlement Agreement have acknowledged that Ford's obligations to pay into the New VEBA are fixed and capped as provided in the Settlement Agreement and that Ford is not responsible for, and does not provide a guarantee of: 1) the payment for future benefits to plan participants, 2) the asset returns of the funds in the New VEBA, or 3) the sufficiency of assets in the New VEBA to fully pay the obligations of the New VEBA or the New Plan. The Settlement Agreement will reduce Ford's ongoing health

care costs and strengthen its balance sheet, while allowing for the continuation of health care benefits to current and former UAW-represented Ford employees.

We have also taken other steps to reduce health care costs and promote the health of employees. For example, we have implemented health and wellness programs for our employees and their families, and worked with organizations in the health care sector to improve the efficiency and effectiveness of the U.S. health care system.



More information on Ford's financial health is available in our Web report. www.ford.com/go/sustainability

# ELLEN HUGHES-CROMWICK

An estimated 30 percent of the world's GDP is now comprised of emerging markets. Over the next decade, many of these countries' economies will "emerge" and mature, as they look for ways to reduce the amount of energy and other resources needed to improve the standard of living. As we all seek these solutions, we will discover new and more sustainable ways of providing the new and more sustainable products that people will choose.

Ellen Hughes-Cromwick Chief Economist Ford Motor Company





My position – Group Vice President of Sustainability, Environment and Safety Engineering – is unique in the auto industry.

What does it mean? Symbolically, it shows that sustainability is a key part of our business strategy moving forward. As a practical matter, it means I participate in decision making at the highest levels of the company and coordinate our global response to sustainability challenges.

We define sustainability as a business model that creates value consistent with the long-term preservation and enhancement of environmental, social, and financial capital. In other words, meeting the needs of the present without compromising the future.

My responsibility is to develop and implement Ford's sustainability strategy, including defining goals and targets to help us manage our key sustainability impacts and opportunities. During 2007, most of our strategy focus was on the CO<sub>2</sub> emissions of our products.

There are two key enablers of our sustainability work at Ford: **integration** and **collaboration**.

#### **INTEGRATION**

Integration means the process of building accountability for sustainability into our governance and management structures, policies and key business processes.

At the management level, I report to our CEO, Alan Mulally, and have responsibility for several key functions, including sustainable business strategies, vehicle environmental engineering, manufacturing environmental quality and vehicle safety. In addition, I work to ensure that sustainability issues are managed systematically throughout the company.

This year our focus was to develop a product CO₂ plan across our business. We have made significant progress and are committing to a 30 percent reduction by 2020 for new vehicles in the U.S. and European Union.

#### COLLABORATION

Effective responses to sustainability challenges require action by all sectors of society – business, government and consumers. We have forged partnerships with a variety of organizations to leverage our own efforts.

In 2007, for example, we joined the United States Climate Action Partnership, a multi-stakeholder group that is committed to advocating market-based mechanisms to achieve significant greenhouse gas emissions reductions in the United States.

In several cities around the world, we're developing networks of organizations to explore and implement innovative mobility solutions to meet the needs of congested urban areas. These kinds of solutions can only succeed with the cooperation of many parties, including government agencies, entrepreneurs and nongovernmental organizations.

We have established an exciting partnership with Southern California Edison that is providing both companies with insight into how plug-in hybrids can work as part of an electric supply system, their possible benefits to consumers and technological and cost hurdles.

We are working with BP to explore the respective roles of vehicles and fuels in cutting greenhouse gas emissions and to evaluate how advanced lubricants can contribute to fuel economy gains.

In this report, you'll find other examples of how alliances are helping us move our sustainability agenda forward across our functions – from vehicle safety to procurement, logistics and research and development.

#### **MAKING AND MEASURING PROGRESS**

In 2008 and beyond, we will continue to develop our sustainability strategy. We are pleased with the progress we have made, we know we cannot do it alone, and it will be an exciting ride.

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Sue Circle

#### Sue Cischke

Group Vice President, Sustainability, Environment and Safety Engineering

## DATA OVERVIEW

This table provides three-year performance data according to a set of key indicators. Additional data are available in our full Web report.

In previous sustainability reports, we organized our data and indicators around Ford's Business Principles. This year – although most of the indicators themselves are the same as in years past – they have been organized into the broader categories of Economy, Environment and Society. This shift mirrors the organization of our Web report and represents an internal evolution in our approach to sustainability. It also aligns the report more clearly with the Global Reporting Initiative's guidelines.

This report covers the year 2007 and early 2008. The data are primarily for 2007 (for operations) and for the 2007

and 2008 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 and in the detailed data charts of our Web report.

This report is aligned with the Global Reporting Initiative's G3 Sustainability Reporting Guidelines, released in October 2006, at a self-declared application level of "A". A complete index of GRI indicators is available in our Web report.



More information on the GRI and the application levels can be found at www.globalreporting.org

#### **NOTES TO THE DATA**

#### 1. GQRS customer satisfaction/TGW

GQRS (Global Quality Research System) is a Ford-sponsored competitive research survey. GQRS is an early indicator of J.D. Power quality results. First-quarter 2008 GQRS customer satisfaction and TGW are 77 and 1,284 respectively. See Economy section in our Web report for a discussion of our efforts to improve quality.

#### 2. Sales satisfaction with dealer/retailer, Ford brand, U.S.

Note that the measure changed in 2005 from "Percent Completely Satisfied" to "Net Promoter Score." The data has been recalculated to reflect Net Promoter Scores.

#### 3. Service satisfaction with dealer/retailer, Ford brand, U.S.

Note that the measure changed in 2005 from "Percent Completely Satisfied" to "Net Promoter Score." The data has been recalculated to reflect Net Promoter Scores.

#### 4. Shareholder return

Total shareholder return is from Bloomberg Total Return Analysis assuming dividends reinvested in Ford stock.

#### 5. U.S. fuel economy

See the Climate Change and Environment (Web report) sections for a discussion of our Corporate Average Fuel Economy (CAFE) performance. For the 2007 model year the CAFE of our cars and trucks increased 5.9 percent. Preliminary data for the 2008 model year shows a 0.7 percent improvement in CAFE compared to 2007, with a 1.3 percent improvement for cars and a 4.0 percent improvement for trucks. Improvement is reflected by increasing miles per gallon. The percentage improvement in CAFE for cars and trucks combined is lower than the respective percentages for both cars and trucks primarily because the ratio of trucks to cars manufactured is projected to increase from 2007 to 2008. Also, the CAFE figure is calculated based on volume of vehicles manufactured as well as the fuel economy of each individual vehicle.

#### 6. U.S. fleet CO2 emissions

See the Climate Change section for a discussion of our  $CO_2$  emissions performance. Improvement is reflected by decreasing grams per mile.

#### 7. European CO2 performance

Official EU data. Jaguar performance did not improve compared to 2005 and 2006 due to model mix.

#### 8. Worldwide facility energy and CO2 emissions

Data have been adjusted to account for facilities that were closed, sold or new. This data does not include Automotive Component Holdings (ACH). This data has been adjusted to remove Jaguar and Land Rover (JLR) in consideration of the pending sale of these brands.

#### 9. Energy and CO<sub>2</sub> per vehicle

Energy consumption and  $CO_2$  emissions per vehicle divides energy used or  $CO_2$  emitted by the number of vehicles produced. Averaging energy and  $CO_2$  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.

This data does not include our Automotive Components Holdings (ACH) facilities. Also, the data has been adjusted to remove Jaguar and Land Rover (JLR) in consideration of the pending sale of these brands.

#### 10. North American Energy Efficiency Index

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 one percent improvement in energy efficiency. This data has been adjusted to remove Jaguar and Land Rover (JLR) in consideration of the pending sale of these brands.

#### 11. Employee satisfaction

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, provide a framework for more focused feedback and action planning, and two revised dimensions (including the revised Employee Satisfaction Index) can be benchmarked externally.

#### 12. Overall dealer attitude

The National Automobile Dealers Association (NADA) Dealer Attitude Survey measures overall dealer attitude. Scores are for the summer and winter respectively of the year noted.

#### 13. Ford Motor Company Fund and corporate contributions

See the Community section in our Web report for a description of our charitable contributions.

#### 14. Volunteer corps

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.

#### 15. Recalls

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.) Two 2007 recalls, affecting over 4.8 million vehicles, are related to older technology components introduced in vehicles more than a decade ago.

#### 16. Top Safety Picks

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 compare vehicles within the same size categories. Ratings across vehicle size categories should not be compared. IIHS first issued Top Safety Picks in the 2006 model year.

As we attempt to balance frequently changing government and non-government 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, in our full Web report.

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#### **FORD DATA 2007/8 ECONOMY** 2005 2006 2007 Initial quality study - J.D. Power and Associates (3 months in service), problems per hundred vehicles 129 131 125 GQRS things gone wrong (TGW) (3 months in service), total things gone wrong per 1,000 vehicles<sup>1</sup> 1,846 1.586 1.405 GQRS customer satisfaction (3 months in service), percent satisfied<sup>1</sup> 73 74 76 Vehicle dependability - J.D. Power and Associates (4-5 years of ownership), Ford Motor Company, U.S., 225 221 231 problems/hundred 81 82 Sales satisfaction with dealer/retailer, Ford brand, U.S., percent completely satisfied<sup>2</sup> an Sales satisfaction with dealer/retailer, Ford brand, Europe, percent completely satisfied 80 81 80 Service satisfaction with dealer/retailer, Ford brand, U.S., percent completely satisfied<sup>3</sup> 66 70 72 Service satisfaction with dealer/retailer, Ford brand, Europe, percent completely satisfied 66 67 68 Shareholder return - Bloomberg Total Return Analysis, percent<sup>4</sup> -45 1 -10.4 Net income/loss, \$ billion 1.4 -126 -2.7 Sales and revenue. \$ billion 176.8 160.1 172.5 **ENVIRONMENT** 2005 2006 2007 24.1 23.8 25.3 Ford U.S. fleet fuel economy (higher mpg reflects improvement), combined car and truck, miles per gallon<sup>5</sup> Ford U.S. fleet CO<sub>2</sub> emissions (lower grams per mile reflects improvement), combined car and truck, 368 371 352 grams per mile6 European CO<sub>2</sub> performance (lower percentage reflects improvement), percent of 1995 base (1995 base = 100 percent)7 Ford 78 78 78 Jaguar 62 66 67 Land Rover 88 89 86 Volvo 87 86 84 Worldwide facility energy consumption, trillion BTUs8 66.7 71.5 63.3 Worldwide facility energy consumption per vehicle, million BTUs9 10.7 11.8 10.7 Worldwide facility CO<sub>2</sub> emissions, million metric tonnes<sup>8</sup> 8.0 6.8 5.8 Worldwide facility CO2 emissions per vehicle, metric tonnes9 1.26 1.13 0.97 North American Energy Efficiency Index (lower percentage reflects improvement), 83.4 78.4 74.4 percent (2000 base = 100 percent)10 SOCIETY 2005 2006 2007 Employee satisfaction, Pulse survey, overall, percent satisfied11 62 62 64 Overall dealer attitude, Ford, relative ranking on a scale of 1-100 percent (summer/winter score)12 70/72 70/64 41/59 64/64 64/64 35/56 Overall dealer attitude, Lincoln Mercury, relative ranking on a scale of 1-100 percent (summer/winter score)12 Ford Motor Company Fund contributions, \$ million<sup>13</sup> 80 58 37 Corporate contributions, \$ million<sup>13</sup> 28 25 17 Volunteer corps, thousand volunteer hours 14 80 86 Lost-time case rate (per 100 employees), Ford Motor Company 1.4 1.1 0.7 Lost-time case rate by region (per 100 employees), Ford Motor Company Americas 2.1 1.5 1.2 Asia Pacific/Africa 0.2 0.1 0.1 Europe 1.0 0.9 0.7 Severity rate (per 100 employees), days lost per 200,000 hours worked 23.2 14.5 12.6 U.S. safety recalls, number per calendar year<sup>15</sup> 16 11 15 U.S. units recalled, number of million units 6.0 1.7 5.5

IIHS Top Safety Picks, number of vehicles<sup>16</sup>

INTRODUCTION



## ASSURANCE

For our 2005/6 and 2006/7 reports, and again for this current report, Ford has sought input from an external stakeholder committee convened by Ceres (see below) as a way to ensure the report's thoroughness, transparency and utility. The committee reviewing this report met twice: once to review and comment on the report outline, and once to review and comment on a nearly final draft of the report. Both meetings were held via teleconference. This report reflects our response to several suggestions of the stakeholder committee, notably the publication of our CO<sub>2</sub> reduction target and a detailed roadmap for achieving it.

Some of the data in our reports have been subject to various forms of internal and third-party verification. We have explored but not yet pursued third-party verification of all of the data in the report. We are also exploring efficient ways to expand the range of data that are subject to verification.

Ford's 2002 through 2005/6 reports were produced "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 was aligned with the G3 guidelines at an application level of A+, the "A" being the most comprehensive level of reporting and the "+" indicating that the report has received external assurance.



#### See www.globalreporting.org for more information on GRI and the application levels

Since the publication of the 2006/7 report, we have learned more about the rapidly evolving field of sustainability report assurance and GRI's expectations for assurance processes that qualify for a "+". We are not declaring the current report to be third-party assured and, based on our improved understanding, would not have done so for the 2006/7 report. We are declaring this report to be at an "A" level of reporting.



### **CERES STAKEHOLDER TEAM**

Ceres is a network of investors, environmentalists and other public interest groups that works with companies and investors to address sustainability challenges.

Ford Motor Company engaged with Ceres and a team of external stakeholders to review this 2007/8 Sustainability Report. Ford 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.



For more information on Ceres, see www.ceres.org



## Corporate profile



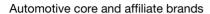
























Premier Automotive Group













Customer service

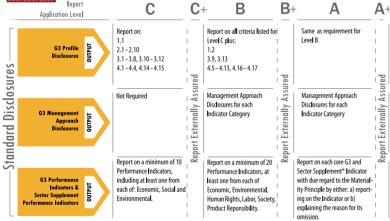


Ford Motor Credit Company

Financial service



### This report is checked to Application Level A



\*Sector supplement in final version



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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:

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