

Connecting with Society | *Our Learning Journey*



Ford Motor Company

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About This Report

As part of our CERES commitment, Ford Motor Company publishes an annual corporate citizenship report. In it, we discuss our evolving view of corporate citizenship (sustainability) and provide a candid assessment of our social, economic and environmental performance during the previous year. We support the Global Reporting Initiative (GRI) and used the GRI guidelines in preparing this report. More information on GRI is available at www.globalreporting.org. This is our third corporate citizenship report, covering calendar year 2001. Some events of early 2002 also are discussed. The data in this report covers all of Ford's wholly and majority owned automotive operations and, where applicable, Ford Financial Services and the Hertz Corporation, unless otherwise noted. Data in this report is subject to internal quality controls, but none has been independently verified.

An Incomplete Work of Industrial Art...



Artanga Photo

On last year's cover, it was the
Golden Gate Bridge under construction.
This year, it is the St. Louis Arch.

Beautiful works
at a point when they were not yet complete,
but when the end goal was clear,
when the vision embodied in the design
and the work was finally obvious.

When the artistry was so bold
as to provoke an endless series of questions.

That is the state
of corporate citizenship today
— an unformed work,
many years in the making,
with still more years required
before the form and function
are visible to all.

It also is the state
of Ford Motor Company today —
a century old, yet still a work in progress.

As with great art of any kind, it leads
to questions. Fundamental questions.

How many more years
will it take before the shape of
our future is clear to all?

Who are the designers?

Who are the artisans?

What meaning lies
in such graceful works?

About Our Web Site

Throughout this report, you will find the  symbol that indicates additional information can be found on www.ford.com. You also may wish to view our 2000 and 1999 reports on our Web site.

Credits

Design by The Quintek Group. Photographic assistance provided by Studio 22 and Ford Photographic. Contributing editors: Leah Haygood, Rebecca Calahan Klein and Kevin Sweeney. Copy editor: Suzanne Fleming. Managing editor: Brad Simmons.

Citizenship is at the Core of Our Rebuilding Efforts

In the 20th century, no company had a greater impact on the lives of people around the world than Ford Motor Company.

My great-grandfather, Henry Ford, put the world on wheels by mass-producing simple, reliable automobiles that those who built could afford. He also was a pioneering environmentalist who advocated recycling and renewable energy sources, and a social activist whose \$5 a day wage changed the way companies viewed their employees.

His remarkable legacy teaches and inspires us.

Here at the start of the 21st century, as we approach our 100th anniversary as a company, our goal is to have an even greater impact on people's lives in the next 100 years. We want to continue to provide the world with mobility by making it affordable in every sense of the word — economically, environmentally and socially. This report outlines our progress in those three areas, which are the keys to making the personal mobility business sustainable.

Economically, 2001 was a difficult year for us. On January 11, 2002, we announced a plan to dramatically improve the products, profitability and shareholder value of the Company.



"The foundations of society are the men and means to grow things, to make things, and to carry things. As long as agriculture, manufacture, and transportation survive, the world can survive any economic or social change."

My Life and Work
by Henry Ford
1924

This plan focuses on three key elements: products, cost reduction and aligning our manufacturing capacity with worldwide demand. It lets us get back to the basics of building great products, and doing so profitably.

A legitimate question to ask is whether our intense focus on the economic side of our business will distract us from our environmental

corporate citizenship. But that doesn't mean we will abandon our goals or change our direction.

Our revitalization plan is working. Although it includes many short-term actions, the plan gains momentum over the next several years as we launch new products. By mid-decade, we will generate billions of dollars of improved profitability.

And we are proceeding on schedule with the development of the Ford Rouge Center, which will transform our historic Rouge manufacturing complex in Dearborn, Michigan, into a global model of lean and sustainable manufacturing.

Socially, we continue to have a major impact as a large company with a worldwide presence. In 2001, for example, our total charitable giving reached an all-time high of \$139 million for projects focused on education, the environment and community development.

Unfortunately, our efforts to strengthen our business economically will have an adverse effect on some employees and communities. We expect to reduce our workforce by 35,000 people worldwide, on a base of 350,000, when all our actions are completed — including closing five plants in North America by mid-decade. We will make every effort to make the changes as non-disruptive and mutually beneficial as possible.

We realize that some of the things that must be done will be painful and will impact people's lives in difficult ways. But I sincerely believe that these actions will do the most good for the most people in the long term.

Difficult business conditions make it harder to achieve the goals we set for ourselves in many areas, including corporate citizenship. But that doesn't mean we will abandon our goals or change our direction.

and social efforts. As we said in last year's report, corporate citizenship can only be achieved in the context of a strong and profitable business. But it's also true that businesses can only be as successful as the communities, and the world, that they exist in. That makes ongoing corporate citizenship efforts essential.

Difficult business conditions make it harder to achieve the goals we set for ourselves in many areas, including

Our environmental efforts also build momentum as we introduce new products. In the United States, we are committed to continuous improvement in the fuel economy of all of our vehicles. In Europe, we have agreed, along with others, to reduce the average CO₂ emissions of the vehicles we sell there.

The Company also has set a global target to reduce energy use at its facilities on a production-normalized basis.

Citizenship at the Core... *Continued*



Bill Ford, left, presents the keys to the first production 2002 Thunderbird to Steve Hamp, president of Henry Ford Museum and Greenfield Village, outside Ford World Headquarters.



Left to right: Nick Scheele, Bill Ford and Carl Reichardt at the October 30, 2001, press briefing that announced new Company leadership.

That philosophy – doing the most good for the most people over time – is what drives our efforts. Not everyone will be satisfied with our plans or our progress in every area. Reasonable people, who agree on what the problems are, can have legitimate disagreements about the most effective way to solve those problems.

ment, with new revelations about corporate misconduct seeming to make news almost daily, the commitment to transparency and accountability has never been more important.

Our 100th anniversary next year gives us an opportunity not only to celebrate our heritage, but also to

That philosophy – doing the most good for the most people over time – is what drives our efforts.

We believe that open and candid communication is a tool for resolving these disagreements and finding solutions. By providing a common ground of information, we hope this report will help build understanding and support dialogue that leads us toward consensus. We want all of our stakeholders to be our partners as we move forward. And in the current environ-

prepare for the challenges ahead of us. By working to create sustainable personal mobility for everyone, we will honor our past and secure our future.

Walter Clay Ford, Jr.

Operating Highlights

Ford Motor Company (in this report, "Ford" or "the Company"), headquartered in Dearborn, Michigan, is the world's second-largest automotive company. Ford is publicly owned and listed on the New York, Pacific Coast and several European stock exchanges (NYSE: F).

Significant events in 2001

- Incurred first quarterly loss in 10 years (2nd quarter)
- Announced Tire Replacement Program for 13 million Firestone tires (2nd quarter)
- Purchased remaining outstanding shares of The Hertz Corporation (2nd quarter)
- Reduced common stock dividend (3rd quarter)
- Completed purchase of Volvo finance subsidiary (3rd quarter)
- Named William Clay Ford, Jr. CEO; Nick Scheele, COO; and Carl Reichardt, Vice Chairman (4th quarter)

Significant events in early 2002

- Announced restructuring plan focusing on product-led revitalization and affecting 35,000 employees worldwide (including those affected in 2001); reduction of North American plant manufacturing operating capacity by about one million units by mid-decade and discontinuation of four low-margin models
- Divested some non-core assets and businesses
- Reduced annual common and Class B stock dividends from 60 cents a share to 40 cents

FORD MOTOR COMPANY 2001

Revenues	\$162.4 billion
Ford Automotive Operations	\$131.5 billion
Ford Financial Services*	\$30.9 billion

* Includes Ford Credit and The Hertz Corporation

PERFORMANCE HIGHLIGHTS 2001

PRODUCT	2001 Model Year Fuel Economy	2001 Model Year CO ₂ Emissions	Better/(Worse) Than 2000
VEHICLES (Cars and light trucks)			
Ford U.S. ¹	23.1 mpg (10.2 L/100km)	238 g/km	unchanged
Ford U.K.	33.4 mpg ² (7.0 L/100km)	170 g/km	3%
Jaguar U.K.	21.4 mpg ² (10.8 L/100km)	263 g/km	11%

¹ Includes Ford Motor Company brands sold in the United States, consistent with U.S. reporting requirements. U.S. and European fuel consumption figures quoted according to respective test cycles. Per European CO₂ reduction agreement, we are providing illustrative data for countries rather than the EU as a whole. See pages 45-46 for more information.

² Using U.S. gallons

MANUFACTURING	2001 Total	2001 Per Vehicle	Better/(Worse) Than 2000 Per Vehicle
Energy Use ¹	83.1 trillion BTUs	13.6 million BTUs	(2.2)%
Water Use	42.2 million cubic meters	6.54 cubic meters	2.8%
CO ₂ Emissions ¹	8.5 million metric tonnes	1.4 metric tonnes	(1.4)%

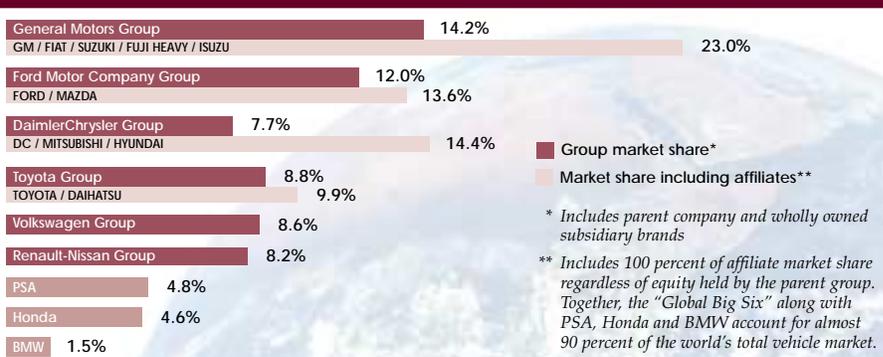
STAKEHOLDERS	2001	Over/(Under) 2000
Vehicles Sold (Thousands)	6,991	(5.8)%
(Loss) from Continuing Operations (Billions)	\$(5.5)	\$(10.9)
Shareholder Return	(31)%	N/A ²
R&D Investment (Billions)	\$7.4	7.9%
Employment (Average Year)	354,431	1.2%
Employee Satisfaction Index	64%	unchanged
Employee Lost Time Case Rate	2.65	(31)%
Employee Training and Development Investment ³	2.5% of payroll	unchanged
Purchases from U.S.-Based Minority Suppliers (Billions)	\$3.1	unchanged
Philanthropic Contributions (Millions)	\$139	\$29

¹ Excludes Volvo, Land Rover and Aston Martin. Energy use and CO₂ emissions declined 7.6% and 8.6%, respectively, in 2001 compared to 2000.

² Not applicable; shareholder return in 2000 was (16%)

³ North America

A LOOK AT THE GLOBAL AUTO MARKET



Source: Standard & Poor's DRI 2001 Calendar Year Market Share

STRATEGIC ISSUES UPDATE

"Our great pioneering has not been in covered wagons but in laboratories and workshops and in better ways of living together as a human society."

The Saturday Evening Post
*The Only Real Security:
An Interview with Henry Ford
by Samuel Crowther
February 1936*



Introduction

2001 was a year of great change for the Company and the world.

During this challenging time, we remained committed to our corporate citizenship cause – making progress in some areas and moving more slowly than we and others would have liked in other areas.

We've also found, however, that our best work may come in rising above the day to day and singling out a very small number of grand ambitions. Attempting to place all or most of our work in the context set by these higher goals does not limit our ability to achieve a broad range of

We focus on the fundamentals so our work won't be lost in the details. As important as the details are – and they are essential – we must also retain our sense of direction.

Much of this report focuses on our continued work on social, environmental and economic issues that are the building blocks of corporate citizenship – the many steps that constitute a long journey. These details are essential in reporting, to help people outside the Company judge our progress or the lack of it.

successes; it may, in fact, increase our chances. For Ford, these are fundamental issues.

■ **Climate change** remains the most pressing environmental issue facing our industry and our Company. It represents both a very serious threat to our business – and perhaps our greatest opportunity as well.

■ **Human rights** issues also are important. Although they are not a “front burner” issue for the automotive industry today, we believe they will increase in significance.

■ Our focus on developing **business principles** is key to addressing these two major issues. It recognizes that an issue-based approach is more likely to succeed if it follows a process of developing better and stronger relationships.

■ Gaining a better understanding of **sustainable mobility** ties together all of these issues and approaches. And it will play an essential role if Ford is to survive its second century.

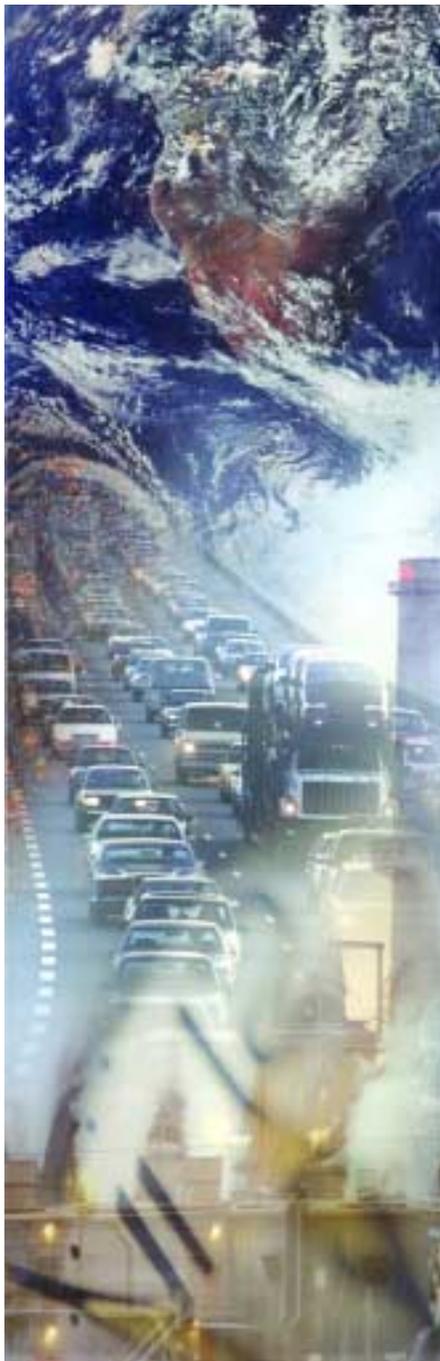
We highlight each of these fundamental issues at the outset in the hopes that they not be buried in the account of our progress on a broad range of issues. In the midst of a tumultuous year, we're proud to have held to that clear sense of direction.

Opposite Page

Background: Henry Ford and son, Edsel, examine the original model of the Rouge Plant in 1937.

Foreground: Henry's great-grandson, Bill Ford, and members of the Rouge Heritage Project discuss the latest plans for the Rouge.

Climate Change Remains a Challenge



In our 2000 Corporate Citizenship Report, we identified climate change as a key strategic environmental and business issue for the Company. We pledged to develop a comprehensive strategy that would:

- Establish a climate change inventory and baseline
- Consider a range of possible measures for reducing greenhouse gas contributions
- Develop a broad set of short- and long-term strategic options

- Ford has set a global target to reduce facility energy use by 14 percent from 2000 on a production-normalized basis by calendar year 2005, further cutting greenhouse gas emissions.

- We joined the U.S. Environmental Protection Agency's Green Power Partnership Program as a founding partner, pledging to secure 2 percent of our power from renewable sources.

We made good progress toward all of these targets; see the performance section of this report for details.

We've taken a number of small but significant steps. We need to continue to work on a comprehensive and strategic response to climate change.

We had important elements of a strategy in place and added to them during 2001.

- In Europe, Ford was a leader in forging and implementing an agreement with the rest of the auto industry to reduce the average CO₂ emissions of vehicles sold there by 25 percent by 2008. Our European operations also provide an example of a climate change strategy supported by manufacturing, product, public policy and partnership initiatives.
- In the United States, Ford has pledged to improve by 25 percent the average fleet fuel economy of its SUVs by 2005. The introduction of a hybrid electric version of our popular Escape SUV in late 2003 will help us meet this goal and gain experience with the market for hybrid vehicles.

The challenge of building on these pieces to develop a comprehensive strategy rests with our Policy and Strategy Committee (P&SC), now chaired by COO Nick Scheele and including Ford's most senior management.

Throughout 2001 the P&SC devoted considerable time to analyzing potential targets and scenarios for achieving greenhouse gas (GHG) reductions. Assessments were performed on different technical options for reducing vehicle greenhouse gas emissions, essentially the same as improving fuel economy, with estimates made of the related costs and benefits. We refined our estimates of stationary source emissions using the protocol developed by the World Resources Institute and the World Business Council for Sustainable Development. 🌱

Ford's products will be the major focus of our approach toward GHG

reduction, but our strategy must consider a full range of options for decreasing emissions. These include reducing manufacturing emissions, looking for opportunities in the supply chain, examining new public policy mechanisms and investigating the role of carbon offsets. 🌱

Through our stakeholder engagement efforts, we know that acting in partnership with nongovernmental organizations (NGOs) and government agencies will be an effective means to help define and build the markets for the products we want to

Despite this progress, we recognize that we have much more to do.

In the course of the year, we wrestled with some vexing questions that underscore the complexities of this issue — some of which may be unique to Ford.

- Although a “stretch” target (one beyond what we currently know how to achieve) may inspire breakthrough innovation, can we set a challenging, voluntary target without seeing it translated into a regulatory requirement with little flexibility or room for innovation?

- To what extent should we focus on factors that influence emissions from our products but are not under our direct control?

- How can we account for regional differences? For example, diesel passenger vehicles helped improve fuel economy in Europe, but concerns about diesel emissions and more stringent regulations as well as the availability of appropriate diesel fuel limit their use in North America.

We remain committed to developing a comprehensive, integrated strategy to address the challenges and opportunities that the climate change issue poses for us. The strategy will build on our work in introducing new products such as the hybrid Escape, in developing models of sustainable manufacturing, and in forming partnerships with diverse organizations. It also will be tempered by our near-term business realities.

The work and analysis of the past year have put us in a position to integrate climate change considerations into the Company’s revitalization strategy. Actually doing that — integrating a business strategy and a climate strategy — may be our biggest challenge in the coming years.

Ford’s products will be the major focus of our approach toward GHG reduction, but our strategy must consider a full range of options for decreasing emissions.

offer. Given that reality, our strategy development also has considered opportunities for partnership and explored ways in which we can align our commitment to addressing climate change with public policy.

- The costs of reducing greenhouse gases are easier to quantify than the benefits from sales of more fuel-efficient products. Are consumers, especially in North America, truly interested in and willing to pay for new technology?

Learning about Greenhouse Gas Reduction through Pilot Projects

Ford Britain is participating in a U.K. government greenhouse gas emissions trading program, the first of its kind in the world. Ford committed to cut the CO₂ emissions from its U.K. plants through energy-efficient technologies and, perhaps, the purchase or sale of CO₂ credits. Ford’s baseline inventory was audited by Lloyd’s Register Quality Assurance before our acceptance into the program. 🌱 🌱

Ford Werke A.G. in Germany is offering an “Eco-Driving” course that helps most drivers cut their fuel use by an average of 25 percent through practicing a safe and efficient driving style. Ford also has joined the United Nations Environment Programme in promoting this kind of program worldwide.

Ford has developed a 10-year partnership with Princeton University and BP to study a variety of scientific and policy alternatives for removing carbon to offset buildups of CO₂ in the atmosphere.

Acting on Our Commitment to Human Rights

In August 2000, when Ford senior executives met with leaders of environmental and social organizations, we committed to learn more about the issue of human rights and to develop a strategy that encompassed not just our Company, but also the many companies in our value chain.

Human Rights Strategy Development



As we follow through on this commitment, we've come to understand more about the subtleties and complexities of the issue.

We've learned that although human rights issues may not be visibly associated with our industry today, there are risks to any company as large as ours when one begins to consider activities in the value chain two and three steps removed from the original equipment manufacturer. If poor treatment of workers is discovered within the value chain, consumers may judge us harshly, even though we don't own or operate the facility.

Our human rights work is an expression of our deep commitment to

Understanding the value of dialogue

Through our discussions, we've learned the value of constructive dialogue.

Our human rights strategy development team, which has hosted this dialogue, includes a broad cross section of Ford Motor Company leaders from Manufacturing, Human Resources, Purchasing, Marketing and Sales, Emerging Markets and our Office of the General Counsel. It also includes representatives from leading external organizations such as Business for Social Responsibility, Lawyers Committee on Human Rights and the Interfaith Center on Corporate

While human rights are universal, we've learned that a one-size-fits-all approach may not work. The diversity of cultures around the globe requires that we develop effective, but flexible, approaches to monitoring human rights practices.

people around the world. As more consumers attempt to bring their values to the point of purchase, this commitment becomes a point which differentiates us from the competition. And that is an important advantage in today's challenging marketplace.

We've learned more about the value of diversity and that the great diversity of cultures may require corresponding diversity in our approach.

Responsibility. This is one of the first instances when the Company invited organizations outside the Ford value chain to fully participate from the outset in the development of policy.

Throughout 2001 we reviewed the work done by other companies in this area, conducted in-depth analyses of the risks and opportunities facing the Company and evaluated the costs and benefits of different options.

Understanding and Measuring Our Impacts in the Developing World – Ford India Limited Pilot Project

As part of its business planning efforts and commitment to corporate citizenship, Ford India Limited (FIL) conducted an assessment in 2001 that solicited the viewpoints of a select group of stakeholder representatives and began to measure its environmental, social and economic impacts. The assessment offered insight into the expectations of stakeholders in an emerging market context and was a first step toward measuring and reporting corporate citizenship performance at the country level. FIL reported its performance publicly in "Moving Forward," its first-ever corporate citizenship report. 🌱



Headquartered in Maraimalai Nagar, near Chennai, Ford India manufactures the Ford IKON at its modern integrated manufacturing facility. The all-new plants set global standards in automobile manufacturing through world-leading technology, practices and processes. At Ford India, protection of the environment and health is a priority and is reflected through its products and the Company's corporate citizenship initiatives.

We explored human rights issues with a dozen first-tier suppliers and structured supplier sessions to help our business partners learn more about human rights issues and help Ford learn more about the complexity of dealing with these issues given the size and depth of our value chain. This dialogue will continue in 2002.

Developing a Human Rights Policy

The fruit of these discussions, a Company policy addressing important human rights issues, is being developed. We have considered several topics that are commonly identified by leading experts as the foremost areas of concern facing corporations worldwide, including:

- Child, forced and prison labor 🌱 🌱
- Health and safety
- Compensation
- Freedom of association
- Harassment and discrimination

Over the years, Ford has developed policies and programs addressing these issues. The draft human rights policy builds on this by examining the value chain context, addressing gaps and putting the existing policies into a strategic framework.

Although we are committed to a strategy linking our entire value chain, the issue of how such a strategy can be implemented is still a challenging one. It leads us in the direction of

policies that affirm universal values but allow for cultural and national differences and for a recognition of different approaches used in different industries.

In 2002 we will continue testing our policy proposal in several Ford and supplier facilities. We will take the next steps in developing our performance metrics, audit process and monitoring procedures. By the end of the year, we expect to adopt a strategy and identify a clearly defined, robust policy and management systems, with implementation beginning in 2003.

🌱 www.india.ford.com

🌱 🌱 www.ford.com/go/corpcit/werke

Finding Our Way, with a Compass Made of Principles



In our 2000 Corporate Citizenship Report, we committed to testing a draft set of business principles with the hope of introducing them to the entire Company during 2001.

Stating our principles helps us more thoughtfully align our corporate decisions with our corporate values.

people throughout the Company and explore their implications before they are adopted.

In mid-2000 we began testing the draft set of business principles. It seemed a good articulation of the Company's values and a useful tool in decision making.

Listening to feedback and starting over proved that we could do more than simply describe our values – we could reaffirm them.

It allows us to develop greater consistency of communications and actions, a particularly challenging task at a company of our size. It empowers staff to develop positions and responses on the most difficult issues facing our Company.

There were two paths we might have taken to adopt a set of business principles. One would be to develop a draft, get senior management buy-in, adopt them and then work through the system to ensure that they are followed. We consciously chose a second approach that we believe ultimately will be more effective, though slower. We developed a structured process for internal engagement to test draft business principles with

Then, in September 2001, we got some important feedback from more than 4,000 Ford employees who reviewed a draft and felt that further clarification was needed as to how to operationalize the principles.

The Company's senior management reviewed the feedback and agreed that further exploration was needed to make the principles credible and usable when adopted.

While this decision slowed the process, it was the right move. We believe that the process of reflection was in itself an act of living up to our principles. If we believe in quality relationships, we must listen to our employees and other stakeholders and embrace their feedback.

Our current draft—and it is still just that—lists a set of principles in the following areas, presented in no particular order.

■ **Financial Health.** We run a business, and if we don't operate on sound financial footing, it doesn't much matter what our principles are—we will no longer be viable. Our financial health is essential, but so are other values—it's in the mix.

the cultures in the communities in which we operate. It is recognition of the immense impact we can have on communities around the world.

■ **Environment.** While a respect for the world around us always has been a part of Ford, this value often did not receive the attention it deserved. The notion that environmental protection must be central to

And these five principles lead to the sixth.

■ **Quality Relationships.** If we're to have genuine balance among the many values listed above, we'll need vigorous and open debate with people inside and outside Ford. And that, of course, only can happen if we have healthy relationships—with employees, suppliers, dealers, customers, governments, communities and others.

In the last year, we've seen the need for improved relationships, for a rekindling of trust, for greater consistency in our actions. It gives us urgency as we develop these business principles.

Our principles—particularly our focus on quality relationships—will help us understand how we are doing and if we are making progress. Our commitment to these principles will play an important role in rebuilding Ford Motor Company.

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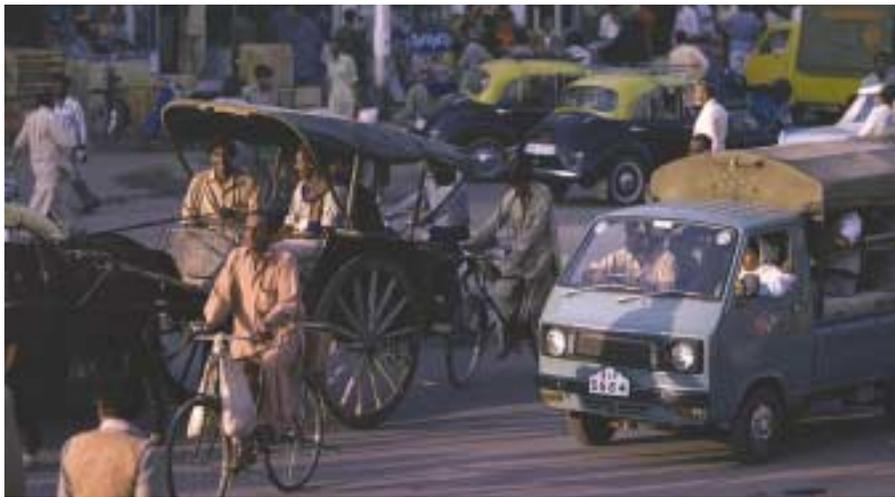
■ **Products and Customers.** The focus here is on quality. For decades, we've prided ourselves on making the world's best cars and trucks. When we stray from this position, it's an obvious break from our traditions and values.

■ **Community.** We must continue to be sensitive to, and respectful of,

who we are as a company is a value held at all levels of the Company.

■ **Accountability.** Honesty and transparency are key components of living by one's principles. Giving our stakeholders the information and the tools to hold us accountable should be an automatic part of how we do business.

Focusing on Sustainable Mobility



Various modes of transportation in Rawalpindi, Pakistan.

half century? We cannot live without mobility, but how do we manage its consequences?

How our societies choose to move people and freight will be an increasingly complex – and important – set of issues. At Ford, we're engaging more directly on the issue through research, policy development and demonstration projects.

For example, in partnership with auto companies, energy firms and the World Business Council for Sustainable Development (WBCSD), and in dialogue with stakeholders around the world, Ford has sponsored an extensive inquiry into sustainable mobility challenges. The first publication of this project, *Mobility 2001*, identified "grand challenges" of sustain-

As a business, we're rooted in the practical. Theories and concepts of the future may be interesting to many, but our customers and shareholders generally seek something more tangible. They want results, today.

Reviewing sustainable mobility in this context can be a challenge. It requires discussion of an endless stream of technological and cultural leaps if the term is to become a reality.

But the fact is, a dramatic shift toward sustainable mobility is the future of our business.

Increased mobility has yielded tremendous economic and social benefits for many, but the cumulative impact of various transportation forms on human life and the natural world has included major negative consequences. Cities are crowded with people and with personal and

A fundamental question for our industry and our Company is whether mobility can be made sustainable. Most discussions of sustainable mobility focus almost exclusively on technology. History suggests something more mundane will determine the pace and direction of change. That "something" is institutional capability.

commercial vehicles. Is that a trend we can afford to let continue? Urban sprawl is a consequence of such things as population pressure, growth in the economy, easy access to personal transit and land use planning. What's left when the world's population reaches seven, eight and nine billion people, as will likely happen in this

able mobility for the developed and developing world. The project now shifts to an exploration of strategies to address the challenges. 🎯

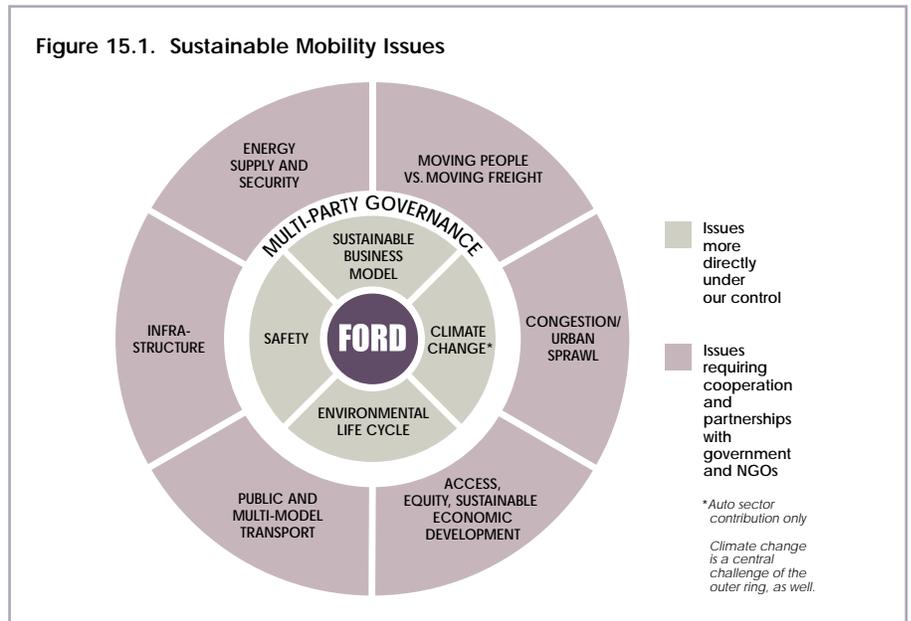
As a company, we are distinguishing between those issues over which we have a great deal of control (the inner ring of issues in Figure 15.1) and those over which our influence is much

less direct (outer ring). Many issues, of course, overlap: fuel cell vehicles require innovations by Ford, but also require a societal commitment to build the infrastructure necessary to produce, distribute and sell renewable-sourced hydrogen fuel.

The number and quality of the partnerships that will be required can be staggering. But it also can be inspiring, and some of the work of partnerships already has begun.

In consultation with Friends of the Earth and the U.K. government, Ford developed “TH!NK@bout London,” a program putting 15 TH!NK city vehicles in the hands of leading businesses to demonstrate their practical application and social and environmental benefits in an urban setting. Companies such as British Telecom,

Figure 15.1. Sustainable Mobility Issues



Sustainable mobility is the one concept that ties together all of our citizenship efforts.

Sainsbury’s, the Body Shop and BBC were awarded low-cost leases to use the vehicles for deliveries and employee transportation. Power generated from renewable energy sources is used to charge the vehicles, which also will benefit from free parking and exemption from the London congestion charge. Hertz is supporting the leasing and use of the vehicles during the three-year pilot project. 🌱

Ford, the University of California (Riverside) and Harvard, together

with government, industry, academic and other stakeholder groups in India, initiated the Ford India Environmental and Mobility Study. The objective of the long-term study is to identify promising strategies and policies for reducing transportation-related air pollution and congestion in emerging mega-cities such as New Delhi. Researchers are developing the computer models to support a systems approach to integrating information on traffic flows, air quality, social issues, urban planning, energy use and mobility.

Additional partnership efforts are described in the following section.

At Ford, although the goal is a distant one, our emerging notions of sustainable mobility can be useful in the short term. It is useful as a motivating threat: We clearly see that companies leading the way on this issue will be the most successful. It also is useful in a more positive, visionary sense. We move fastest and best when we move in a straight line – and doing that requires a goal understood by all. Sustainable mobility is the one concept that ties together all of our citizenship efforts – on climate change, human rights, safety and other priorities. It is the one concept, identifiable today, that can unite all of our customers worldwide. It is indeed the goal.

Seeking New Solutions through Partnerships



With the support of Ford Motor Company, Commercial Lending Services (CLS)—a subsidiary of Ford Credit—designed GreenLease™, a commercial lease to suit the needs of alternative fuel vehicle (AFV) customers. CLS is committed to protecting the environment and serving the needs of fleet, commercial, and municipal customers. With GreenLease™, customers enjoy potential tax incentives, customized and flexible terms, and more.

Addressing climate change and sustainable mobility issues requires excellent technology, smartly deployed. It also requires innovative partnerships with a range of governmental and civil society institutions to address complex issues.

Developing new vehicles and new fuels

Ford has been working on a range of new vehicle technologies with reduced environmental impacts (see page 17).

We are part of two projects exploring use of hydrogen fuels. One, the California Fuel Cell Partnership, was formed to demonstrate fuel cell vehicles under real day-to-day driving conditions. For more information go to www.fuelcellpartnership.org. The project will place more than 70 fuel cell passenger cars (including fuel cell versions of the Ford Focus) and fuel cell buses on the road by 2003.

The second, the U.S. government's "Freedom Car" project, focuses on long-term alternatives to imported oil. A significant portion of the research will focus on fuel cell vehicles and development of the necessary hydrogen refueling infrastructure. For more information go to www.carttech.doe.gov.

For emerging markets in the Asia-Pacific region, we are working on an affordable, fuel-efficient, low-emission vehicle. We also have initiated a joint project between the U.S. National Academy of Engineering and its Chinese counterpart focused on developing recommendations for personal use vehicles for emerging markets in the 21st century.

Ford, the Thailand government and several other partners are collaborating on a major project currently testing renewable fuels. Life cycle analysis has shown that "diesohol" (a 10-15 percent mixture of bio-ethanol and diesel fuels) could reduce emissions of greenhouse gases, diesel particulates and carbon monoxide. Volvo Cars also is working with partners to promote use of locally produced biogas in Gothenburg, Sweden. 🌱 🌱

Easing congestion with new technology

Ford's Aachen Research Lab, near Cologne, Germany, is participating in "stadtinfokoln," which aims to improve the efficiency of transportation, reduce its environmental impact and enhance the regional economy. Using a variety of interactive media, it will give consumers access to all traffic-relevant information—travel time and conditions, parking availability, weather, costs, etc., and the ability to

choose the cheapest and most efficient means of making a specific trip.

Exploring mega-cities mobility issues

Chongqing, China, is the world's largest city with 32 million inhabitants. In partnership with several Chinese ministries, institutes and universities, Ford has conducted "triple e" (economic, energy and environmental) life cycle modeling studies on how the Chongqing region can best utilize its energy resources for transportation.

The study analyzed five fuels to identify scenarios that provide the lowest cost fuel while minimizing environmental impact and optimizing energy efficiency. We found that using the region's abundant natural gas resources such as CNG-derived diesel fuel (compressed natural gas) or diesel fuel could reduce emissions compared to fuels currently in use. Ford now is working with an oil industry partner to coordinate development of the fuel and vehicles that will use it.

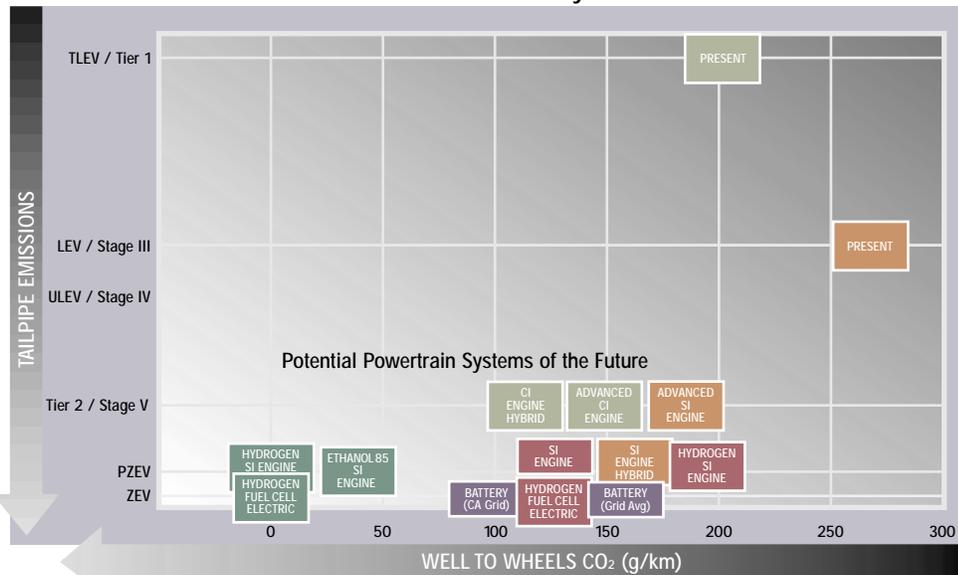
Involving stakeholders in air quality and safety issues

In early 2001, Ford and the World Bank established a partnership that brought together leaders of 50 organizations in the public and private sectors, NGOs, research and academic institutions, government agencies and international agencies. The project focused on improving air quality in East Asian cities by developing technologies, policies and support infrastructure. Ford also is participating in the Global Road Safety Partnership, a World Bank project engaging similar stakeholders to improve road safety through education and training. 🌱 🌱 🌱

...and Technology

New Technologies for Cleaner Transportation

Environmental Attributes of Potential Powertrain Systems¹



These charts provide a snapshot of the potential environmental benefits and development challenges associated with advanced technologies that use various combinations of powertrains and fuels. The first chart compares the technologies according to their potential to reduce CO₂ and tailpipe emissions; the second chart summarizes development issues for those technologies.

¹ Charts based on engineering judgment and analysis by Ford Research Laboratory of life cycle emissions and energy use associated with fuel production, vehicle manufacturing and use.

Key

- Gasoline
- Diesel
- Electric
- Renewable
- Natural Gas
- CI=COMPRESSION IGNITION
- SI=SPARK IGNITION

Current Challenges Facing Powertrain Systems of the Future¹

	RENEWABLE	RENEWABLE		NATURAL GAS	ELECTRIC	DIESEL		GASOLINE	
		NATURAL GAS	NATURAL GAS			SI Engine	Battery	CI Engine Hybrid	Advanced CI Engine
Development	Technical								
	Fuel Infrastructure								
	Additional Cost								
Performance	Top Speed								
	Range								
	Luggage Space								

Legend

Moderate	Significant	Extensive
Exists	Available, Not Deployed	Not Available on Large Scale
\$0-500	\$500-2500	> \$2500
No Loss	15% Loss	20+% Loss
350+ miles/tank	150-300 miles/tank	< 100 miles/charge
100% of Present	~75% of Present	< 50% of Present

Ford Development Status

Advanced Spark Injection Vehicles:

- Hydrogen – prototype developed 2001
- Natural Gas – Ford is the leading producer of natural gas and bi-fuel vehicles – 90 percent of market

Hybrid Electric Vehicles:

- Gasoline – Hybrid Ford Escape/Maverick to be introduced late 2003 (see www.hybridford.com)
- Diesel – in R&D
- Hydraulic hybrid – Research and development partnership with U.S. Environmental Protection

Agency to study hydraulic energy storage and propulsion

Fuel Cell Electric Vehicles:

- Hydrogen – Demonstration units in testing in California
- New design of Focus FCV incorporating hybrid and fuel cell technology introduced in early 2002; limited numbers will be produced for fleet testing 2004

Battery Electric Vehicles:

- TH!NK city commercially available in Denmark, Norway, California; next generation available late 2002 in U.S. and early 2003 in U.K.; demonstration projects in London, U.K.; San Francisco, CA; New York, NY; Atlanta, GA
- TH!NK neighbor low speed vehicle introduced 2001

PERFORMANCE

*"Progress consists in a number
of related things changing
together for the better."*

*Henry Ford
Ford News
May 1923*



*Background: Assembly workers mounting
a car body on a chassis at the Ford-Werke
Plant in Cologne, Germany, 1931.*

*Foreground: Employees at the Cologne
Plant inspect a Ford Fiesta as it comes
off the assembly line in 2001.*

Making Steady Progress in 2001

We make decisions every day that have an impact on our business, our stakeholders and the environment.

And our commitment to corporate citizenship requires that we assess whether those decisions create greater economic and social value for our stakeholders with a smaller environmental footprint.

In the pages that follow, we provide a snapshot of our corporate citizenship performance in 2001.

The stakeholder section looks at our responsibilities toward each of our stakeholders, key issues of concern and steps we are taking to enhance the quality of our stakeholder relationships.

The product, manufacturing and sustainable manufacturing sections explore our progress in reducing or eliminating our environmental impacts and enhancing vehicle safety. The policy section describes our key public policy efforts in 2001.

A table showing some of the significant economic, social and environmental impacts associated with the use of our products can be found on the Web. 

Reviewing performance in 2001

Our poor financial performance in 2001 diminished the direct economic benefits we provide to our employees, investors, suppliers, communities and governments.

Despite difficult financial times, however, we continued to make progress in key areas of social and environmental performance such as workplace safety, diversity and work-life balance and energy efficiency. (Note: In the Performance sections that follow, the numbers for data points in the charts may be viewed in the Web version of this report.)

Moving forward in 2002

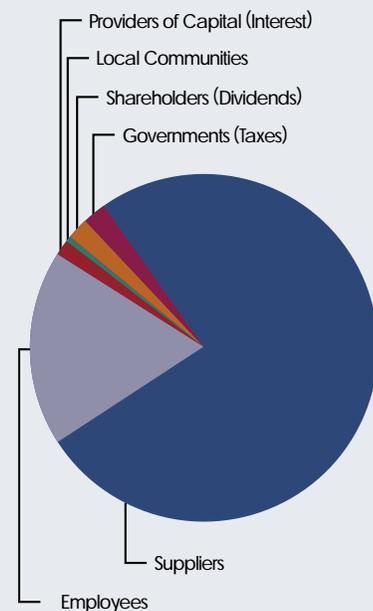
As we look toward 2002, we are committed to further refine our business principles, continue our stakeholder engagement efforts, take our climate change and human rights strategies to the next level and continue building our capacity to measure and manage our economic, social and environmental impacts.

Our Learning Journey

	PROGRESS TO DATE			FUTURE COMMITMENTS
	1999	2000	2001	2002
GOVERNANCE	<ul style="list-style-type: none"> ■ Recognize Corporate Citizenship in Ford business strategy ■ Establish Corporate Governance group ■ Commit to test GRI Guidelines ■ Commit to Global Sullivan Principles 	<ul style="list-style-type: none"> ■ Endorse CERES Principles ■ Issue first GRI-based corporate citizenship report ■ Hold GRI-based Strategic Issues Dialogue ■ Bill Ford speaks on corporate citizenship at Greenpeace International Conference ■ Withdraw from Global Climate Coalition 	<ul style="list-style-type: none"> ■ Issue second corporate citizenship report ■ Draft and test business principles 	<ul style="list-style-type: none"> ■ Further develop draft business principles and Trust index
ENVIRONMENT	<ul style="list-style-type: none"> ■ Begin implementation of voluntary CO₂ reduction in Europe (ACEA Agreement) ■ Upgrade voluntarily to Low Emission Vehicle standards for majority of U.S. light truck fleet ■ Announce development of Escape hybrid electric vehicle 	<ul style="list-style-type: none"> ■ Announce goal to improve SUV fuel economy by 25% ■ Recognize climate change as a strategic business issue and commit to develop strategy ■ Join WBCSD Sustainable Mobility Project ■ Announce ISO 14001 certification for all suppliers ■ Begin redevelopment of the Rouge Complex as sustainable manufacturing site ■ Announce BP-Princeton University Climate Partnership 	<ul style="list-style-type: none"> ■ Begin climate strategy development ■ Commit to use WRI-WBCSD climate protocol ■ Continue sustainable mobility pilots including THINK@bout London 	<ul style="list-style-type: none"> ■ Announce development of the hybrid fuel cell Focus ■ Continue climate strategy development ■ Participate in U.K. emissions trading program ■ Renew the Ford-MIT alliance for climate change research
SOCIAL/ECONOMIC		<ul style="list-style-type: none"> ■ Commitment to examine human rights strategy 	<ul style="list-style-type: none"> ■ Begin human rights review ■ Commit to India assessment 	<ul style="list-style-type: none"> ■ Test human rights policy within Ford operations and with suppliers

Building and Repairing Key Relationships

Cash Flows to Stakeholders 2001



This figure shows how Ford Motor Company revenues were distributed to stakeholders in 2001. Contributions to its various stakeholders include the purchase of goods and services from suppliers, wages paid to employees which are then reinvested in the economy, dividends to investors, interest to lenders, amounts paid to governments in the form of taxes and charitable contributions to communities.

John Donne once wrote, “No man is an island, entire of itself, every man is a piece of the continent, part of the main.” The same could be said of a global business.

We exist in a complex system of relationships with our stakeholders. When the connections between us are strong, communications are clear and high levels of trust and respect are present in our relationships, we are more likely to achieve sustained business success.

And when any part of the system breaks down, we are more likely to fail.

In 2001, it became increasingly clear that our relationships with many of our traditional stakeholders –

To help us with both of these important efforts – rebuilding our existing relationships and building new connections – we need to know where we stand with each stakeholder group.

In the following pages, you will find our assessment of our relationship with key stakeholder groups in 2001 including:

- Basic information about each group
- An articulation of our responsibilities
- How we engage with stakeholder representatives
- Whether and how we measure satisfaction with the relationship
- Discussion of key issues of concern.

“We need to mend our relationships with our employees, dealers and suppliers to enable us to be successful in the future.”

Bill Ford addressing dealers in Kansas City

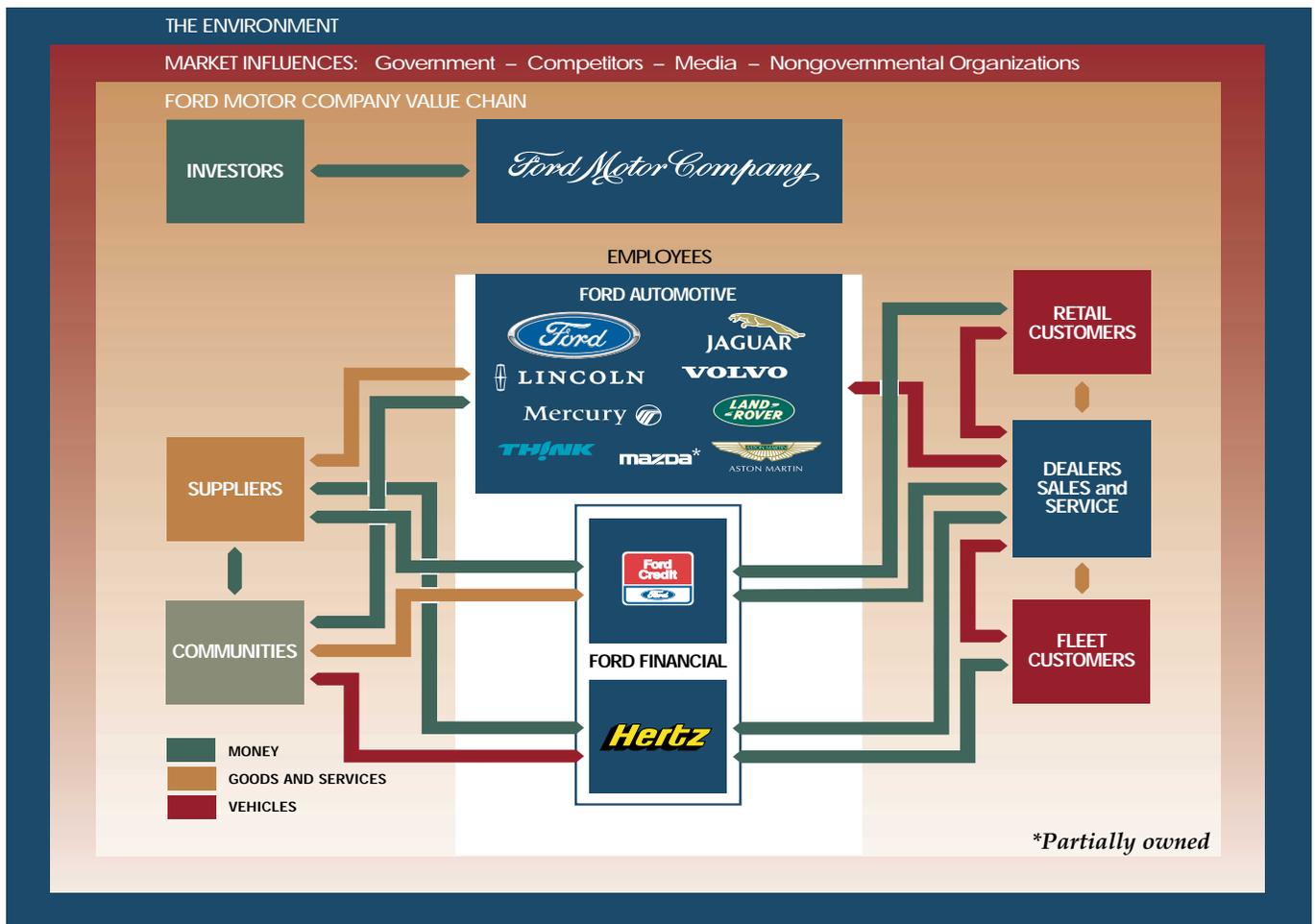
employees, customers, investors dealers and suppliers – were strained and in need of repair.

In addition, we recognized the need to build relationships with new stakeholders, including civil society organizations, which have the ability to influence our current and future markets.

In 2002 we will continue to expand our stakeholder engagement efforts and develop new metrics that help us measure the quality of our relationships with key stakeholders.

Our Business and Stakeholders

Many people have asked us to describe our business in relationship to our key stakeholders, the marketplace and the natural environment. Here is how we see it:



Close connections with our customers help us understand their needs – now and in the future.

Highly motivated employees, suppliers and dealers, together with confident investors, provide the

creativity, resources and capital needed to design and services that meet our customers' needs.

Strong relationships with social and environmental organizations

and governments at all levels help us better understand the social and environmental forces that will shape future markets. And a healthy environment allows business and communities to thrive.

Our Responsibilities to Employees



Children celebrate the dedication of the Family Service Learning Center in Sterling Heights, Michigan, in the spring of 2001. The Center, a joint partnership between the Company and the UAW, is one of many opening around the country that offers child care, employee training, retiree activities and programs and educational opportunities.

Our relationship with our employees is mutually beneficial. The Company provides meaningful employment, compensation and benefits, and the efforts of our employees enable us to provide high quality goods and services.

We strive to provide:

- A healthy, safe and diverse workplace free of discrimination and supportive of worklife integration
- Meaningful work and opportunities to use people's skills and knowledge
- Fair compensation
- Continued employability through training opportunities and personal growth
- Products and services in which our employees can take pride.

Engaging employees...

We communicate with employees in a variety of ways including e-mail, intranet and television broadcasts. Our managers use a "cascading" process to share and discuss key decisions and initiatives with all of our employees.

Every year we conduct an on-line global employee satisfaction survey (called "the Pulse") of our salaried workforce to gauge satisfaction and identify issues that need to be addressed. We work closely with union leaders to identify and address issues of concern to our hourly workers.

We also recognize the need to go beyond communication to true engagement—providing means and opportunities for employees to contribute their views before we make important choices, as we have done, for example, in developing and

testing our draft business principles. A process of this type already is in place in Europe where Ford has well-established arrangements for consulting with employee representatives on a wide variety of matters including restructuring. Ford's European Works Council has become a valuable body for management. It has enhanced relationships and helped to manage significant change at Ford of Europe. We also work closely with our union partners to give hourly employees a greater voice in designing and manufacturing our products.

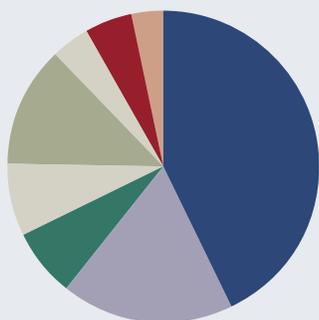
... during a year of change

At mid-year, we announced a program to reduce headcount through voluntary reductions. Other cost-saving measures included eliminating bonuses and raises for senior management, increasing salaried employee and retiree cost share for health care and eliminating the Company match for salaried employee 401(k) plans. We also stopped the expansion of the Model E program worldwide, which provided employees with low-cost computers and Internet access.

The year's financial losses, however, made it clear that more fundamental restructuring would be necessary to return the Company to profitability.

More than 35,000 employees have been or will be affected by restructuring actions undertaken since January 2001, including 21,500 in North America—(15,000 hourly, 5,000 salaried and 1,500 contract employees)—and 13,500 in the rest of the world. Plans are being made to reassign as many hourly employees as possible, and to use voluntary separation programs where possible.

Profile of Ford U.S. Employees — 2001



Includes Ford Motor Company and Ford Credit. Excludes any wholly owned subsidiaries or joint ventures.

Maintaining Satisfaction in a Difficult Year

Have the changes and challenges of 2001 affected employee satisfaction at Ford?

A record 71 percent of our salaried employees participated in last year's Pulse survey. Overall employee satisfaction levels remained consistent with 2000 levels, as did employee favorable ratings of diversity (64 percent favorable and 75 percent favorable, respectively).

Compared to global blue-chip companies that employ at least 10,000 employees, our favorable ratings continue to exceed similar manufacturing companies, including many of our competitors, by an average of nearly seven percentage points.

The Pulse survey was taken before the restructuring plan of January 2002 was announced. While the full impact of the restructuring on employee



Ford Motor Company Chairman and CEO Bill Ford talks to workers during a visit to Ford's Kansas City Assembly Plant.

“We recognize that some of the things that must be done will be painful and will impact people's lives in adverse ways, but we also know they are necessary in order to maintain our competitiveness in the short term and do the most good for the most people in the long term.”

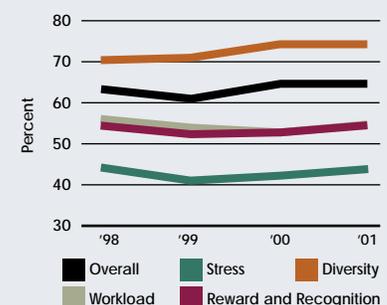
Bill Ford, e-mail to all employees, January 11, 2002

In addition, 10 of the 12 dimensions measured in the Pulse survey rose compared to 2000 levels, with the majority up by two or more percentage points. Satisfaction with supervision showed the greatest improvement with a gain of over 4 percentage points (see Figure 23.1).

However, two critical dimensions—stress and workload—remain among the lowest-rated aspects of employee satisfaction (with 44 percent and 55 percent favorable ratings, respectively).

satisfaction will not be known for some time, we are beginning to get some response to the Company's rebuilding plans. For example, an on-line survey of Ford employees taken after the restructuring announcement showed that 83 percent gained a greater understanding of the Company's current business position, and 92 percent felt the same or better about the Company's future after hearing the plan. 

Fig. 23.1
Employee Satisfaction—Pulse Survey



•Employees

Making Ford a Better Place to Work

Our performance review process and our commitment to diversity and work-life integration are two key contributors to greater workplace satisfaction.

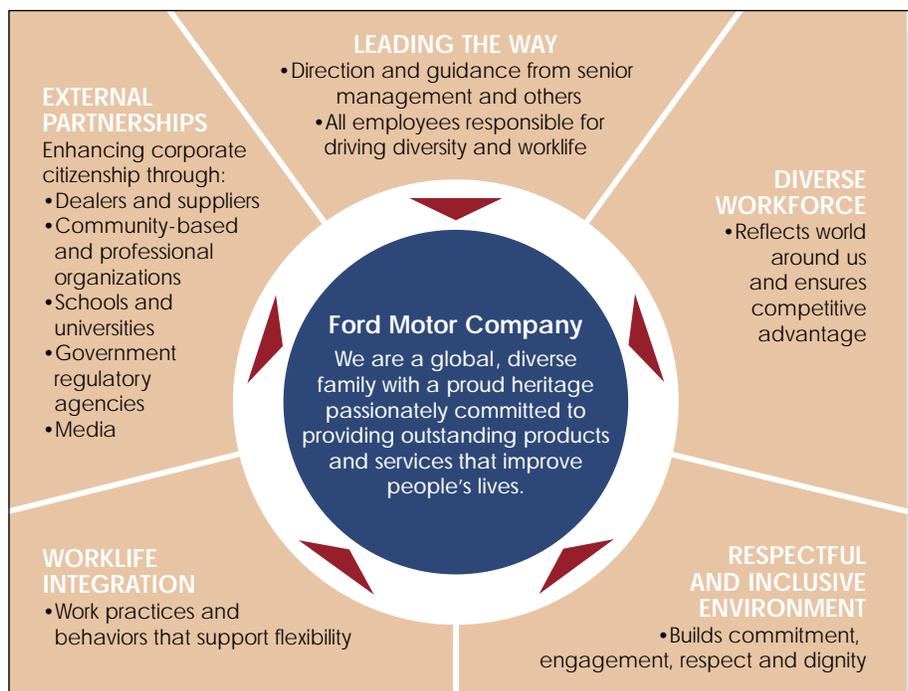
Improving the performance management process

Our employees tell us they want developmental opportunities as well as a performance review system that encourages fair assessment of their work.

A clearly defined, fair and effective performance review process provides employees with timely feedback about their strengths and any need for improvement. During 2000, we revised our performance review policy for management level employees to strengthen this process and to improve performance of all employees. The system assigned employees to one of three performance categories.

We received significant, unfavorable employee feedback on the system. In addition, some older employees and white males believed that the 2000 performance review policy was unfair and filed suit in early 2001. We have resolved this dispute.

In 2001 we made changes to our performance review system. We preserved the most important elements of our process: setting objectives that link to the Company's success; holding regular discussions between employees and supervisors; and having a link between pay and performance.



Global Diversity and Worklife Strategic Areas of Focus

This model provides a vision of what the Company is striving for in five important workplace practice areas. It broadens our definition of diversity and is designed to promote inclusion. It also facilitates alignment, links various stakeholders and moves us toward building an inclusive culture that drives business results.

Creating a more inclusive, flexible work culture

In 2001 we developed an integrated global diversity and worklife strategy that broadens our definition of diversity and helps us promote inclusion (see figure above). The Ford Executive Council on Diversity leads the strategy, and all Ford employees are responsible for implementing it.

Two examples highlight steps Ford organizations are taking to create a

more inclusive culture. Ford of Britain assessed progress on its commitment to diversity by conducting a baseline equality audit on behalf of the Commission for Racial Equality. A National Diversity Council and local counterparts were established to develop and implement action plans to follow up on the results of the audit. This process will be replicated at Ford locations throughout Europe in 2002.

•Employees

In 2001 Ford completed anti-harassment training for more than 100,000 employees in U.S. manufacturing locations. The training was agreed to as part of the Equal Employment Opportunity Commission (EEOC)-Ford Conciliation Agreement of 1999 for certain key locations. Ford chose to go well beyond the requirements and provide the training to all U.S. manufacturing employees, the largest such training effort in the United States. Key to the success of this initiative was the cooperation and support of the United Auto Workers and Ford.

Enhancing worklife integration

The first two Family Service and Learning Centers (FSLCs) opened their doors in 2001. Over time, the FSLC program is bringing services to more than 30 locations in 15 states in the United States. More than 300,000 UAW, Ford and Visteon active employees, retirees and their families will benefit from child care, before- and after-school programs, teen programs and adult and family education classes. A volunteer support network also will allow families to contribute to their communities.

Similar services are being offered in Europe. An emergency child care center has been opened in Niehl, Cologne, referred to as Ford Paenz. In addition, German employees now have access to a resource and referral service providing expert family service advice and support via the telephone.

 www.ford.com/go/corpcit/emp2

  www.ford.com/go/corpcit/werke

Adding New Employee Resource Groups

The Ford Interfaith Network (FIN) and the Middle Eastern Community (MEC) are our newest Employee Resource Groups. These groups were founded by employees with common interests or backgrounds to provide insights and different perspectives to the Company on a variety of business issues. They are vital to Ford's diversity initiative by providing support, identifying barriers, providing information and contributing to the professional development of employees.

The FIN's objectives are to assist the Company in becoming a worldwide corporate leader in promoting religious tolerance, corporate integrity, and human dignity. Following the September 11 attacks, FIN held a memorial prayer service for the victims.

The MEC's vision is to make Ford Motor Company the preferred company for automotive products and services among Middle Eastern consumers. MEC, in partnership with the other Employee Resource Groups, hosted a benefit concert in September of hope, healing and unity which raised more than \$85,000 for the American Red Cross in support of families affected by the September 11 attacks. 

In the U.K., a workplace nursery for 51 children will be opening this spring at the Dunton Research and Engineering Center. Also, a European dependent-care strategy is being developed.

Stressing stress reduction

Many operational groups made significant efforts to address job-related-stress and workload issues. For instance, Ford Asia Pacific remained committed to the process of feedback, action planning, communication and management initiatives to reduce levels of stress throughout the year and witnessed a 23 percent increase in favorable ratings on the stress dimension of the Pulse survey.

Respecting human rights in our operations

Ford has policies addressing health and safety; the use of child, forced and prison labor; freedom of association; working hours; wages, benefits and other compensation; and harassment and discrimination. We currently are developing an integrated human rights policy that will encompass all of these. Please see pages 10-11 for more details.  

In 1999, Ford began a leadership initiative to integrate health and safety management into key business processes and drive improved performance. We focus on identifying the best global practices and lessons learned to accelerate our progress.

•Employees

Maintaining a Safe and Healthy Workplace



A member of the local ergonomic committee at the Hermosillo Stamping and Assembly plant in Mexico demonstrates a new process that significantly reduces the number of shoulder, wrist and lower back injuries to employees.

Establishing accountability for health and safety performance

We measure health and safety performance according to several standard indicators including lost time injuries and severity rates. As part of our long-standing partnership with the UAW in the United States, we focus on and track performance in particular areas – for example, pedestrian safety inside our plants.

We also use indicators of our capacity to manage health and safety effectively to prevent accidents and improve continuously. Through the Ford Production System, we conduct periodic safety and health audits of the management systems and procedures globally. In early 2001, we

developed a simple employee survey to assess our “safety culture.” The rate of positive responses was 77 percent.

Compensation for plant managers and others is tied to health and safety performance. We also use a safety-specific document in performance reviews of salaried manufacturing personnel.

Making notable progress

During 2001 we saw progress on the full range of health and safety indicators. It was the first year since 1918 that Ford had no traumatic fatalities of employees, though we lost two employees to an outbreak of Legionnaire’s disease at one of our Cleveland facilities. 

Every business unit globally showed significant improvement. Our lost time and severity rates continued to experience sharp declines (see Figures 26.1 and 26.2), while pedestrian accidents and injuries declined 18 percent. Our construction safety incident rate was roughly one-half the national average.

Building on our experience

In 2000 with the UAW, we established a partnership with the U.S. Occupational Safety and Health Administration (OSHA) to work closely on auto industry-specific issues. During 2001, half our U.S. plants covered by the Federal partnership had an “OSHA day,” hosting inspectors and working together on safety issues. We now have established a similar partnership with Michigan OSHA covering our operations in that state.

Fig. 26.1
Lost Time Case Rate
(Per 100 Employees)

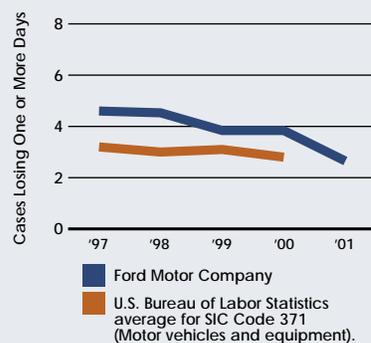
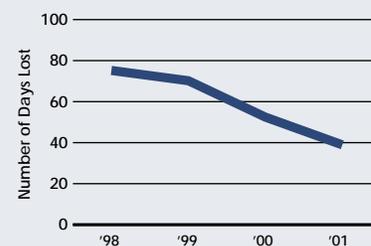


Fig. 26.2
Severity Rate
(Per 100 Employees)



These cooperative efforts have helped us improve our compliance record. In 2001, ten government agency inspections of our plants in the United States resulted in 11 violations and a total of less than \$10,000 in penalties, compared with \$25,000 the prior year.

Our Responsibilities to Customers

Ford has many loyal customers, but our recent relationship with some customers was strained. Repairing relationships with our customers by improving every aspect of our interaction with them is a key element of our rebuilding strategy and essential to our success. 

Our responsibilities to our customers include:

- Providing high quality, safe, innovative products at a fair price
- Standing behind our products
- Providing reliable information on which to base decisions about purchasing, leasing and financing our products
- Respecting privacy.

In this section, we discuss current satisfaction levels and key issues of concern to our customers. Environmental and vehicle safety issues are discussed in the product performance section.

Measuring satisfaction

We measure customer satisfaction in many ways, including surveying customers about the appeal of our products, their satisfaction with the sales and service experience and the quality of the product throughout their ownership. Studies are done as early as 90 days and as long as four to five years after purchase. We also track the percentage of first-time and repeat customers each year (see Figures 27.1 and 27.2). Ford Brand sales and service satisfaction continues to improve every month and, so far in 2002, both measures are indicating an all-time high (see

Fig. 27.1
Owner Loyalty
U.S., All Ford Motor Company Brands

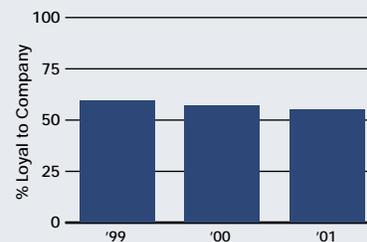
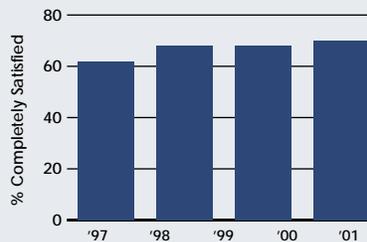


Fig. 27.3
Sales Satisfaction with Dealer/Retailer—Ford Brand



Figures 27.3 and 27.4 from Ford “Customer Viewpoint” Surveys).

We also follow the ratings of several independent organizations, including J.D. Power and Associates rankings of satisfaction with our North American products (see Figures 28.1 and 28.2).

In 2001, our overall ranking as reported in the J.D. Power and Associates Initial Quality Study for our North American performance did not improve from 2000. Several of our competitors, however, did show improvement.

Fig. 27.2
First-Time Ford Buyers
U.S., All Ford Motor Company Brands

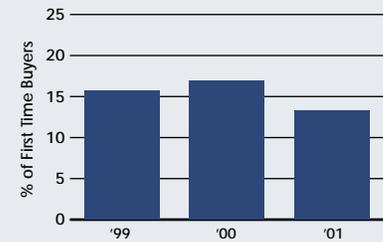
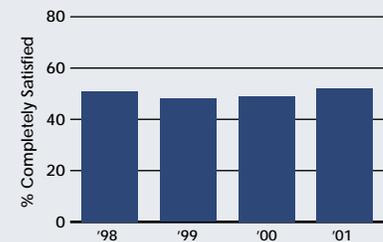


Fig. 27.4
Service Satisfaction with Dealer/Retailer—Ford Brand



We also track internal and third-party measures of satisfaction with services provided through Ford Credit and Hertz. Ford Credit was rated highest by customers in the “provider contact” category of J.D. Power and Associates 2001 Consumer Financing Study. Internal satisfaction metrics show that 84 percent of customers who finance or lease with Ford Credit were completely or very satisfied, and 90 percent would recommend Ford Credit to friends and family members.

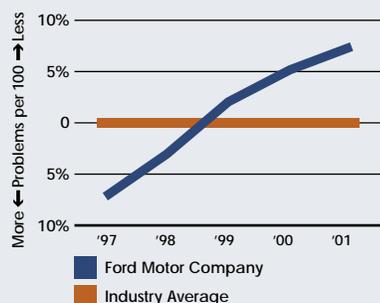
•Customers

Focusing on Quality

Fig. 28.1
Initial Quality Study
J.D. Power and Associates
(3 Months in Service)



Fig. 28.2
Vehicle Dependability Index
J.D. Power and Associates
(4-5 Years of Ownership)



In the United States, Ford has shown steady and consistent improvement since 1997 in terms of long-term durability, according to the J.D. Power and Associates Vehicle Dependability Index (Figure 28.2). In that same study, Ford leads domestic manufacturers for vehicle dependability in 2001.

In Europe the Ford brand's quality improved a full five percentage points from 2000 to 2001. And in January of 2002, the German TÜV – an authoritative, independent industry body that focuses on improving quality standards – rated Ford Focus Germany's No. 1 car in terms of quality and durability. It is the first time since 1987 that a German-built car achieved such recognition.

While overall levels of quality among major automakers including Ford have improved for several decades, in the last few years we have not progressed at the rate we targeted.

Our rebuilding strategy has an explicit focus on improving quality and building on work in progress to improve quality in our design, sourcing and production processes.

Building a toolbox to improve quality

We are using 6-Sigma processes to identify and resolve quality issues in our manufacturing and business processes. This is an extensive quality improvement initiative designed to reduce variability and improve efficiency. In 2001 we undertook

2,500 6-Sigma projects that resulted in customer satisfaction improvements in many vehicle lines and \$325 million in cost savings, a six-fold increase over 2000.

In 1997 we began the Intensified Customer Concern Definition (ICCD) program to identify and resolve product quality issues during the first year of a new product launch for Ford, Lincoln Mercury and Jaguar products sold throughout the world.

Through this program, we created a quality "report card" for each vehicle based on information received from customers after they have owned the vehicle for 30 days, which is used to resolve the customer's issues and provide feedback to improve production practices.

Getting results

A recent analysis of National Highway Traffic and Safety Administration (NHTSA) data by Ford of 2001-2002 major product launches showed that not only did Ford have fewer safety recalls than its major competitors, but significantly fewer vehicles were affected. In addition, the number of Ford's recalls and customer satisfaction actions was down 48 percent compared with 2000, and the number of vehicles affected by them was down 24 percent.

Creating New Products for New Markets

In our business, it is not enough to know what consumers want now. We must have an understanding, both empirical and intuitive, of what they will want several years in the future so we can offer them those products and services.

We believe that customers will increasingly look for vehicles with environmental attributes, and we are

developing many new products that use less fuel, produce fewer emissions and use more renewable, recycled and recyclable materials. Our plans to provide these technologies are discussed on pages 48 to 49 and in the product performance section.

We are constantly working with our value chain partners to find ways that reduce the cost of our products

to remain competitive. In the future, dramatic cost reductions and new kinds of products may be key to opening new markets. Our India assessment project, described on page 11, represents one of our initial efforts to find ways to provide affordable products to customers in the developing world.

Completing the Firestone Recall

In August 2000, Bridgestone/Firestone announced a voluntary recall of more than 6.5 million Firestone ATX and Wilderness AT tires that posed a potential safety risk to our customers. In mid-2001, Ford acted to replace the remaining 13 million 15-, 16- and 17-inch Wilderness AT tires equipped on our vehicles. Ford's Tire Replacement Program ended on March 31, 2002.

When we began the tire replacement program, many people asked us what we were going to do with all of the replaced tires. We pledged to recycle all of the tires collected at Ford and Lincoln Mercury



Tire crumb rubber in Rubber Modified Asphalt (RMA) gives new meaning to the phrase "where the rubber meets the road." Seeking an environmentally responsible alternative to burning or burying 13 million Firestone tires, the road in the picture, and others like it, are being made with tire crumb rubber derived from some of those tires — half of which made their way back through Ford and Lincoln Mercury dealerships. Paving projects across the United States will use millions of pounds of tire crumb rubber that increases the pavement's useful life and reduces accompanying noise.

dealers. To help prevent the tires from being reused on cars, we contracted with RTG, a large tire recycler, to produce crumb rubber for athletic

fields, playgrounds, roadways and other projects using the recalled tires. As of December 2001, more than 3.6 million tires had been converted to crumb rubber, the largest of three components remaining after tires have been processed for recycling. (The other components are steel and fiber.) More than 100 projects have been undertaken using the crumb rubber in environmentally responsible applications with support from the EPA and DOT.

"I applaud Ford Motor Company's foresight and initiative to make the most of a difficult situation and promote value-added markets for scrap tires."

Paul Ruesch, Environmental Engineer, EPA

• Investors

Our Responsibilities to Investors

At the end of 2001, our shareholders owned more than 1.8 billion shares of the Company's two classes of common stock.

	1999	2000	2001
Institutional Investors	49%	58%	44%
Top 15	20%	17%	16%
Others	29%	41%	28%
Employees and Management	16%	20%	20%
Ford Family	6%	4%	7%
Individuals	29%	18%	29%

Our responsibilities to our investors include:

- Providing total shareholder returns (dividends and stock price appreciation) commensurate with the level of risk posed by our business
- Identifying and executing business strategies that result in sustainable growth and are consistent with our values and business principles
- Operating in a transparent manner with no conflicts of interest

2001 FORD FINANCIAL MILESTONES		
TOTAL COMPANY	FULL YEAR MILESTONE	FULL YEAR ACTUAL*
Revenue	Grow \$5 billion	Declined by \$8 billion
Automotive		
North America	Achieve 4% + return on sales	(2.3)%
Europe	Achieve 1% + return on sales	0.8%
South America	Improve results	Improved by \$12 million
Rest-of-World	Achieve profitability	Earned \$156 million
Total costs	Reduce \$1 billion	Increased \$1.0 billion**
Capital spending	\$8 billion or less	Spent \$6.4 billion
Automotive-Related		
Ford Credit	Improve return on equity Grow earnings 10%	Declined 3.6 percentage pts. Declined 22%

*Results exclude unusual items
**Excludes Firestone-related costs

- Providing reliable information for decision-making.

Engaging with investors

Our investors expect us to provide reliable information about the Company's financial situation and expectations for future performance.

As part of our disclosure to investors, we issue annual and

quarterly financial updates that are posted at www.ford.com. We include annual financial performance milestones and report our progress against them in our quarterly reports. 

Last year, the Company's annual report to shareholders was rated best overall as a communication tool for investors by Sid Cato, a well known reviewer of corporate annual reports.

In addition, we meet regularly with Wall Street analysts, institutional and individual investors to discuss our financial performance and plans for the future. We also rotate the venue of our annual shareholders meeting to cities with a significant Ford presence so more of our shareholders may attend the meeting.

In 2001 we expanded our investor communications efforts to focus on Ford's fixed-income investors. Since these investors are key stakeholders in both Ford and Ford Credit, the Company wants to ensure that their needs are being addressed.

Employee Ownership of Ford Stock

Events of 2001 have raised governance concerns about how companies provide employees with shares of stock and control what employees do with those shares. Many Ford employees and retirees are shareholders of the Company.

Until it was suspended in 2001, Ford's match to employee 401(k) retirement plan contributions was provided in Company stock. Once in an employee's account, however, employees who have at least five years service with the Company may sell the stock and allocate the proceeds to the wide range of investments available through the 401(k) plans.

Stock options are an element of compensation plans for some management employees. Ford allows employees to convert investments in Ford stock acquired by exercising vested options and reinvesting the proceeds in other investments.

Regaining Investor Confidence

We ended 2001 with a net loss of \$5.5 billion, including charges of \$4.1 billion primarily related to our revitalization plan. Other factors affecting our performance were higher marketing costs, declining volume and costs associated with the Firestone tire replacement program, as well as credit losses from Ford Credit.

We reduced our dividend payment mid-year from \$1.20/share to \$0.60/share, and again in January 2002 from \$0.60 to \$0.40. In addition, our share price continued to decline, ending the year at \$15.72, down 33 percent for the full year.

Restructuring the business in 2002 and beyond

In January 2002, CEO Bill Ford announced a plan for restructuring Ford Motor Company that focused on improving quality, rebuilding relationships and developing exciting, innovative products. Based on our market assumptions for 2003 and beyond, we expect this plan to deliver \$9 billion of pretax profit improvements by mid-decade.

SELECTED FINANCIAL PERFORMANCE INDICATORS

	1999	2000	2001
Annual revenue (\$ Billions)	\$160.7	\$170.1	\$162.4
Automotive EBIT (\$ Billions)	\$7.3	\$5.3	(\$9.0)
Net income/(Loss) ¹ (\$ Billions)	\$6.5 ²	\$5.4	(\$5.5)
Automotive debt/equity ratio	43%	65%	177%
Stock price range ³ (per share)	High: \$37.30 Low: \$25.42	High: \$31.46 Low: \$21.69	High: \$31.42 Low: \$14.70
Diluted earnings per share from continuing operations	\$5.86	\$2.30	(\$3.02)
Common stock dividend distributed (per share) ⁴	\$1.07	\$1.17	\$1.05

¹ From continuing operations
² Includes gain of \$16 billion on spin-off of The Associates

³ Adjusted for Value Enhancement Plan and Visteon spin-off
⁴ Adjusted for Value Enhancement Plan

“Ford Motor’s restructuring plan is credible and comprehensive, and meets or exceeds our expectations on most elements. Patient investors should be rewarded.”

Wendy Needham, CS First Boston, January 2002

“On paper, the plan appears largely credible. Execution will be key.”

Steve Girsky, Morgan Stanley, January 2002

Who Audits Our Books?

The high-profile collapse of Enron in 2001 has raised concerns about the relationship between companies and their auditors.

The Audit Committee of the Board of Directors selects and hires, subject to approval by the shareholders, independent public accountants to audit Ford’s books of account and other corporate records. PriceWaterhouseCoopers, LLP presently provides this service. Coopers + Lybrand, LLP (which has audited Ford’s books since 1946) and PriceWaterhouse, LLP merged July 1, 1998, to form PriceWaterhouseCoopers, LLP. The Company also employs PriceWaterhouseCoopers, LLP for assistance with tax services; SEC filings and statutory compliance; due diligence work for mergers, acquisitions and divestitures; and advisory and other services.

 stockinfo@ford.com

•Dealers

Our Responsibilities to Dealers



Ford employees and the Company's new No Boundaries display at the 2001 North American Dealer Association Conference in New Orleans, Louisiana. Ford dealers, who are very active in their own right in corporate citizenship activities, are key partners in our efforts to better serve the needs and expectations of our customers and communities.

Like most other automotive manufacturers, we do not sell our vehicles directly to customers. We work with a network of independent, franchised dealers to market, sell and service the cars and trucks we produce.

Our responsibilities to our dealers include providing:

- Appealing and high quality products that meet customer needs
- Support that helps maintain healthy businesses.

Building a diverse global network

In 2001 our dealers sold and serviced vehicles in more than 150 markets around the globe. Total annual revenues and profits generated by our dealers in 2001 set new records.

Since 1984, Ford has worked actively to expand the number of U.S. dealerships held by minority and women

owners. Until last year, we had more minority-owned dealerships in the United States than any other manufacturer. While we saw a slight decline in the number of minority owners in 2001, those dealers enjoyed their second most profitable year on record.

Engaging with dealers

We have many different forums for communicating and engaging with the dealers in our sales network. We have established intranet services to facilitate communications between Ford Motor Company and the Ford, Lincoln, Mercury, Volvo, Jaguar, Mazda and Land Rover dealers. Each brand has sales and service representatives who work with dealers in defined areas to determine desired inventory levels, undertake joint marketing efforts and resolve customer satisfaction issues.

Fig. 32.1
Number of Dealers (All Brands)

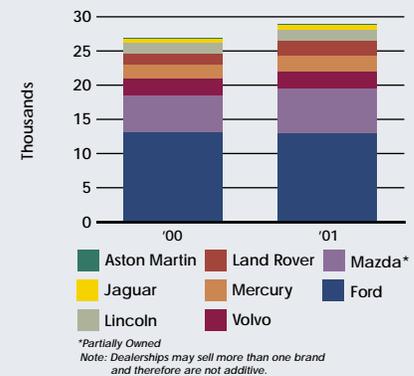
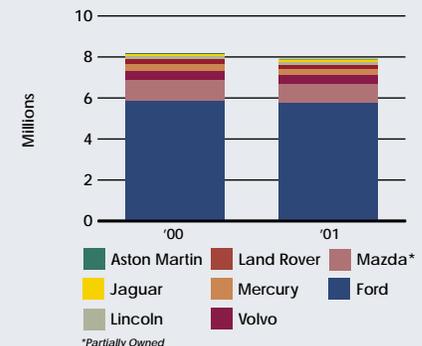


Fig. 32.2
Vehicle Retail Sales (All Brands)



We also have dealer councils for each of our brands that provide a forum for dealers and Ford employees to share information, identify and resolve problems and provide feedback on Ford activities affecting U.S. dealers.

Rebuilding Our Relationship with Our Dealers

Our dealers provide important feedback to us about key business issues.

Quality remains a top priority

Product quality was of ongoing importance to our dealers.

We are working closely with our suppliers and our dealers to find and eliminate the leading causes of any customer dissatisfaction with our products. More details on these efforts are on pages 27 to 28.

Competition is a growing concern

Our dealers are increasingly concerned about competition from other brands, particularly in the SUV and truck markets.

We did many things in 2001, including adding new features to our best-selling vehicles and offering zero interest financing and substantial customer rebates, to retain market share. These efforts remain competitive and helped our dealers earn record profits in 2001, but have not yet reversed the loss of market share in some market segments.

Between now and 2005, we plan to introduce 20 new product offerings per year across all brands to increase our appeal to customers.

As a part of our restructuring plan, we are selling all Ford-owned dealerships and divesting our interests in ancillary businesses.

Enhancing the service experience

Customers often are concerned about the quality and cost of the maintenance and repair services they purchase. We have developed a service training and certification program to give customers greater confidence in the quality and value of the services they receive from dealers selling Ford Motor Company brands.

By the end of 2001, a majority of Ford, Lincoln, Mercury, Volvo, Land Rover, Jaguar and Mazda dealers had gone through training and

Increasing margins through parts inventory control

Dealers are constantly working to maintain enough parts in inventory to address customer repair needs quickly and with as little investment of dealership capital as possible. In 2001, we announced "Daily Parts Advantage," a program designed in conjunction with our dealers and the UAW, to help our dealers with this important operational issue.

During the next three years, Ford Customer Service Division plans to expand the number of parts distribu-

"Many of you have been selling our products for almost as long as we have, and have third- or fourth-generation ownership. I often say that I am working for my children and grandchildren. I know many of you feel the same way. We are in this for the long haul."

Bill Ford addressing Ford dealers in Scottsdale, Arizona, February 2002

received certification. An independent review by J.D. Power and Associates in 2001 credited these programs for improving customer satisfaction with dealer services.

tion centers in the United States from 10 to 21. This will help dealers access parts and replenish inventory more quickly and efficiently. Dealers and customers are expected to benefit from cost savings from reduced inventory costs and fewer emergency and outside part orders. In addition, dealers will receive financial incentives and training to help support their use of the new system.

•Suppliers

Our Responsibilities to Suppliers



The Supplier Values poster with its collection of signatures represents a cross section of the Company and symbolizes our united commitment to the values to which we all aspire.

and exchange information and ideas. Further, we increased the number of Web broadcasts to ensure our suppliers are informed in real time of major announcements such as the Company’s revitalization plan and the new design cost-sharing program.

Improving satisfaction

As part of regular top supplier meetings during 2001, leaders in the Ford Purchasing organization held year-end meetings with key suppliers representing two-thirds of our global purchases to discuss the business outlook and the business challenges that we face together. Improving the stability of the product development process and reducing variability in other parts of our business were identified as key supplier concerns. Recognizing that these issues are critical to customer satisfaction and product quality, we are committed to addressing them and focusing on rigorous execution of the basics.

Our responsibilities to our suppliers include:

- Being clear about our needs and requirements
- Operating in an open, trustworthy and reliable manner
- Supporting collaboration and innovation.

Engaging with suppliers

Fundamental relationship values will guide Ford employees in our interactions with our suppliers to help drive balanced ideas and actions.

Recognizing that communication is key to our relationships, we have many forums for communication and engagement with our suppliers. Meetings such as the International Supplier Advisory Council (ISAC),

Executive Champion Program, Top Supplier meetings, Supplier Quality Roundtables and numerous specialty forums provide opportunities to develop collaborative strategies

Major Ford-Supplier Engagement Forums

ISAC – Ford and supplier senior leadership discuss emerging industry issues and establish coordinated strategies.

Executive Champion Program – The program connects Ford senior executives with the CEOs of major suppliers to address cross-company issues and ensure alignment.

Top Supplier Meetings – Meetings are held in a series of small sessions with 15–20 suppliers.

Supplier Quality Roundtables – Ford leadership and quality leaders from our top 100 suppliers jointly address emerging quality and customer satisfaction issues and develop future strategies.

Improving Product Quality and Sharing the Gains

One way of enhancing the current manufacturing processes and reducing variability in our systems will be the new Ford Q1 2002 standard. Since its inception, Ford Q1 (“Quality is Job 1”) certification recognizes supplier facilities and organizations whose quality systems meet stringent prerequisites. February 1, 2002, marked the beginning of the new Q1 2002 standard. It builds on existing requirements and stresses continual improvement, consistent metrics, manufacturing discipline, variability reduction and customer satisfaction. This standard incorporates the learnings from years of Ford and supplier quality expertise.



The new Q1 2002 book pictured above contains information on quality standards, processes and expectations sent to suppliers late last year.

Sharing savings

A key element of Ford’s North American revitalization program is a new design cost-sharing program, through which we will share 35 percent of the material cost savings with our suppliers. To facilitate the success of the program, 300 Ford engineers were dedicated in 2001 to work with suppliers to ensure their ideas are implemented, and an additional 700 will assist on a part-time basis.

Supporting joint 6-Sigma efforts

Joint supplier/Ford 6-Sigma projects are producing improvements in both

customer satisfaction and waste elimination. During 2001 we reached out to 24 high-impact suppliers to focus our collective 6-Sigma resources on critical customer concerns. Additionally, over 2,100 participants from supplier companies, including approximately 80 supplier CEOs and presidents, participated in more than 100 courses offered by the Learning Resource Center and Library in 2001. We will continue to work with suppliers to expand the reach of 6-Sigma into supplier facilities that significantly impact customer satisfaction.



Pictured is John Golden, a Van Nuys, California, employee at Superior Industries, which is a chrome wheel supplier. An example of Superior’s commitment to quality was its 6-Sigma partnership with Ford Purchasing that maximized the yield of chrome wheels to support the increasing demand for Lincoln LS and Ford Thunderbird vehicles. Through the joint efforts of Ford and Superior personnel, the 6-Sigma Black Belt Project was deemed a success and resulted in increased productivity and improved customer satisfaction.

•Suppliers

Enhancing Supplier Environmental and Social Performance in Our Value Chain



Richard Honecker, former Ford Executive Director, Global Facilities, Materials and Services Purchasing, (left) and Dr. Ray Jensen, Director, Ford Minority Supplier Development (right), receive the prestigious Corporation of the Year 2001 Award from Harriet R. Michel, President, National Minority Supplier Development Council, Inc.

In 2001 we continued our efforts to engage our suppliers to identify opportunities that improve our collective environmental and social performance.

Establishing the Ford-Supplier Environmental Forum

The Ford-Supplier Environmental Forum was formed in 2001 and met periodically to explore environmental issues such as design for environment, climate change, materials management and approaches to integrated environmental reporting. This forum will continue to develop a framework that identifies issues and develops future environmental strategies and metrics. The forum members play a vital role in helping us better communicate and refine our policies.

Sharing best practices

In collaboration with our suppliers, we have developed a number of ISO 14001 tools for suppliers including on-line and classroom training and a supplier workbook. More than 90 percent of our major suppliers embraced ISO 14001 in 2001 and met our request to certify at least one manufacturing site by year-end.

Many of our suppliers have found value in the certification process. For example, Rebecca Spearot, Environmental Director, Lear

Corporation, said, "I have gone from being the biggest opponent of ISO 14001 to its largest supporter."

Similar efforts are underway to help our suppliers understand ongoing changes in materials management and work with the systems used to collect the data. (Please see materials section on pages 48-49 for more details.)

Continuing to develop a diverse supply network

Our Minority Supplier Development Group works with individuals and communities to develop opportunities for minority-owned businesses. In 2001 we again exceeded \$3 billion in purchases from minority-owned businesses in the United States. In recognition of our efforts, the National Minority Supplier Development Council awarded Ford the 2001 Corporation of the Year Award.

Learning more about human rights

Select suppliers, senior Ford leadership and nongovernmental organizations assembled in May of 2001 to discuss and learn more about human rights issues. This was the first step in educating each other regarding the complexity and magnitude of these issues in our industry. Together with our suppliers, we will continue to formulate a strategy and identify and address critical issues.

Our Responsibilities to Communities

Our actions and decisions have direct economic, social and environmental impacts in the communities where our plants are located. In 2001, we operated 110 plants in many communities in 25 countries spanning six continents. 

We have a direct economic impact on governments at all levels through the payment of taxes, as well as investments in infrastructure development in communities where we operate.

We also indirectly affect communities where our employees live, our suppliers operate production facilities, our dealerships are located and our products are used.

Our responsibilities to these communities include:

- Providing economic opportunity
- Operating safely
- Contributing to civic life
- Being transparent about changes in our business that could impact community life and working collaboratively with community leaders to address these changes.

Engaging community leaders

In many of the communities where our facilities are located, we have established community relations committees to facilitate communication between the facility and community members.

In addition, our governmental affairs team works with community leaders and public officials at the local, state, federal and international levels to address issues affecting our stakeholder communities, our operations, our value chain partners and/or markets for our products.



A project initiated by employees in Japan last November collects abandoned bikes in Hiroshima, Japan, and ships them to South Africa. Ford personnel in South Africa receive the bikes and perform any necessary repairs with parts provided by Ford Japan. In turn, Ford South Africa donates the bikes to an organization called SOS Villages. This nonprofit organization forms and manages villages of orphaned and abandoned children, providing a permanent family environment – including food, shelter and guidance – for children who otherwise would not have any. Since this effort began, nearly 60 bikes a month have been collected and returned to good use.

Measuring satisfaction at the community level

We do not have a formal process for measuring satisfaction with our actions at the community level. Instead, we use the feedback we receive from our community relations committees, community leaders, dealers, public officials and others to help us gauge whether we are meeting community expectations in a particular location.

In 2001 we heard many questions from community leaders including:

- Would Ford's financial condition affect our communities?

- If a plant were slated for shift reductions or closure, what would Ford do to help the community address impacts from this decision?
- Would Ford continue to invest in plants and equipment during difficult times?
- Would Ford continue to make charitable and volunteer contributions?
- How will Ford take our views into account as the business restructuring proceeds?

Our response to many of these questions follows on page 38.

•Communities

Continuing to Invest and Contribute

Fig. 38.1
Charitable Contributions

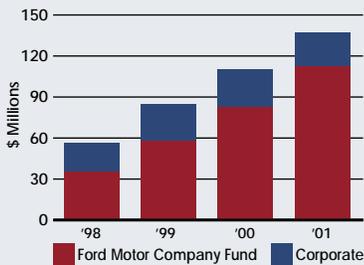
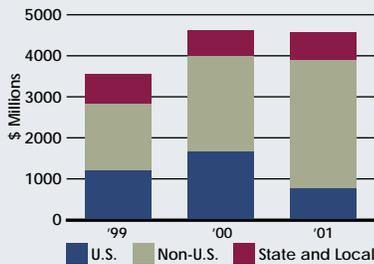


Fig. 38.2
Worldwide Income Taxes Paid



Restructuring in a socially responsible manner

One of the most significant contributions we make to a community is in the form of employment. In 2001, we employed more than 350,000 employees, representing a slight increase since 2000. (The increase was more than accounted for by the acquisition of Land Rover.)

Fig. 38.3
Capital Expenditures (Total Company)

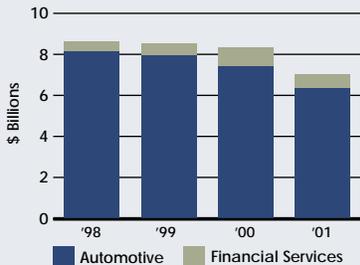
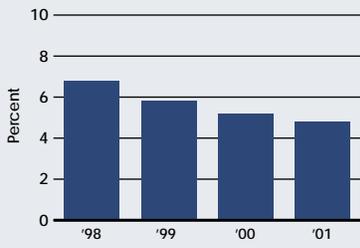


Fig. 38.4
Capital Expenditures as a Percent of Sales



When it became clear in late 2001 that significant workforce reductions would be required in 2002 and beyond, we tried to craft an approach that would give our workers and the communities where they live as much time as possible to prepare for these changes.

We have worked closely with union representatives and local leaders in communities adversely affected by the

restructuring plan and will continue to do so. We announced in January 2002 our commitment to find mutually beneficial ways to address plant closures. We will draw from the lessons learned through the restructuring and redevelopment of our Halewood and Dagenham operations as we move forward. 

Investing in our future

In 2001 we invested \$7.4 billion in research and development and more than \$7 billion in plants and equipment. In 2002, we will continue these investments in our future, with a particular emphasis on investments in flexible production and new product development.

Giving in tough times

Even in difficult times we believe it is important to continue our philanthropy and volunteerism programs.

Our total charitable giving reached an all-time high in 2001 of \$139 million for projects focused on education, the environment and community development. Examples of initiatives supported by our charitable giving are discussed on our Web site. 

In addition to financial contributions, we offer every Ford salaried employee up to 16 hours of paid time per year to work in teams on community service projects. In 2001 in the Detroit area alone, for instance, more than 14,000 volunteers devoted 111,440 hours to assist in this capacity.  

Our Responsibilities to Civil Society

During the past two years, in order to better identify and understand the risks and opportunities posed by emerging social and environmental issues, we have increased our efforts to develop relationships with leaders of civil society organizations around the world. As we have undertaken this work, we've recognized our responsibilities including:

- A willingness to participate in dialogue
- Accountability
- Transparency in our actions and our impacts.

Starting the dialogue...

In August 2000 we brought together more than a dozen leaders of outside organizations to help us identify key strategic issues. Our focus on climate change and human rights came from this dialogue.

In 2001 we invested resources in building and expanding our relationships with a number of national and international business, environmental and social organizations.

Included among these are:

- Business for Social Responsibility (BSR)
- Coalition for Environmentally Responsible Economies (CERES)
- Greenpeace
- INFORM
- Interfaith Center for Corporate Responsibility (ICCR)
- Lawyer's Committee on Human Rights
- Prince of Wales Business Leaders Forum
- Sierra Club
- Union of Concerned Scientists (UCS)
- World Business Council for Sustainable Development (WBCSD)

...and gaining insight

Through these relationships, we have gained an understanding about social and environmental issues that affect our Company. We've broadened our thinking about the kinds of responses we can make to these issues and how we can create business and societal value with our actions. And we are beginning to see ways to work with the nongovernmental organizations to define and build future markets for sustainable products.

Expanding our engagement efforts in 2002

Despite tough times, we think it is critical to continue our efforts to "bring the outside in" during 2002. We will continue to reach out to, and understand better, the perspectives of environmental, consumer and social organizations around the world.

Products are Key to Performance

OBJECTIVE	TARGETS	2001 PERFORMANCE	COMMENTS	PAGE
Among the leaders in vehicle safety	By vehicle	▶		41
Decrease greenhouse gas emissions from vehicles	Europe: ACEA commitment ¹	▶	See <i>Sustainable Mobility</i> on pages 14 and 15 for discussion of related issues	46
	U.S. SUV goal ²	▶		44
	Develop advanced and alternative propulsion systems, alternative fuel vehicles	▶		17 45
Decrease vehicle air emissions (other than GHG)	Meet or exceed requirements	▶		50 51
	Demonstrate ULEV II	✓		47
Control materials usage	Increase minimum economic recyclability	▶		48
	100% polymeric parts marking ³	▶		48
	Increase recycled materials use goals by vehicle	▶		49
	Reduce use of lead, mercury, cadmium, hexavalent chromium	▶		49

Key: ✓ Accomplished ▶ Progress towards/on track

¹ 25% reduction in European fleet CO₂ emissions from 1995 levels by 2008

² Improve fuel efficiency of U.S. sport utility vehicle fleet by 25% by 2005

³ Of polymeric parts which weigh over 50 grams

Our Company has tremendous impacts across a wide range of issues – social, economic and environmental. Some of these impacts are more directly under our control, such as emissions from vehicles and factories. Some are more indirect – traffic congestion, for example. Life cycle analyses have shown that the greatest environmental impacts occur during the customer’s use of our products rather than in their manufacture or disposal.

We have chosen to report on our product and manufacturing performance in separate sections to emphasize product performance and to delineate how the management processes for these two areas are distinct.

This section addresses several key direct environmental and social performance issues associated with our products: safety, climate change, fuel economy, conventional emissions and materials use. Safety is addressed in this section rather than the customer section because the safety of our vehicles has impacts well beyond their drivers and passengers. The larger set of questions about the sustainability of our industry is addressed on pages 14 to 15.

The table above summarizes goals and progress related to our products and is based largely on the ISO 14001 environmental management system control plan for product development.

Compared to previous years, we see a more robust set of targets and

performance indicators – and progress toward meeting most of them. We plan to work on our performance indicators to make them more forward-looking and relevant in our management approach. Our current indicators are primarily focused on outcomes, and therefore are equivalent to a look in the rearview mirror. We would like to add indicators that serve as “headlights” to illuminate questions about our ability to accomplish our goals in the future.

Volvo Car Corporation and Jaguar have tested innovative ways of assessing the environmental and sustainability issues associated with particular vehicles. Examples include:

- Volvo Cars has prepared Environmental Product Declarations (EPDs) for 72 percent of its models. The declarations examine environmental management overall and rate nine factors at each stage of the life cycle of the vehicle, comparing the vehicle’s performance to the “best” and “worst” cases for each indicator. The EPDs and information about the process are available at www.epd.volvocars.se.
- Jaguar retained an independent expert to assess the sustainability of the new Jaguar X-TYPE according to its economic, societal, environmental and natural resource dimensions. The study covered the life cycle of the car and compared it with current practice within the auto industry and compliance with legal requirements (see www.jaguar.com/uk for more information).

These and other steps are helping us to better integrate our corporate citizenship approach into the product development process so we can see our aspirations fully reflected in our products.

Safety is a Global Concern

An analysis for the World Business Council on Sustainable Development's sustainable mobility project found that road safety has improved in developed countries. However, trends are worsening in the developing world as congestion increases and pedestrians, bicyclists, two- and four-wheeled motor vehicles, buses and trucks often share the same inadequate road infrastructure. Some of the major vehicle safety issues we are working on are:

- Occupant protection in various accident scenarios, including rollovers
- Child safety
- Driver distraction
- Pedestrian safety
- Vehicle-type compatibility in accidents



In the near future, Ford's Personal Safety System will include adaptive venting of air bags to help regulate the size and pressure of the bag to the passenger for whom it is intended.

The cost in human lives, injuries and suffering attributable to highway and road crashes is staggering, particularly compared to other, less common risks of harm that invoke much greater publicity with far fewer victims.

World Business Council on Sustainable Development,
Mobility 2001

- Accident prevention through vehicle technology and infrastructure design.

Focusing on safe products

The quality and safety of our products are fundamental to our corporate success. To be among the leaders in vehicle safety, we must commit ourselves to ongoing improvement of the safety and value of our products. We do this through research,

product development and extensive testing of our products.

Measuring results of our safety efforts

Our vehicles have continued to perform well in the United States and European New Car Assessment Programs (NCAP) compared to the rest of the industry combined (see Figures 41.1 through 41.4). For example, in the U.S. Frontal NCAP test program for 2001 (Figure 41.1), 58 percent of the

Fig. 41.1
Possible 5-Star Ratings in Frontal Crash Test (U.S. NCAP)¹

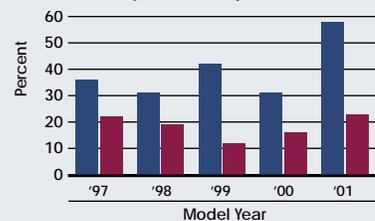


Fig. 41.2
Possible Double 5-Star Ratings in Frontal Crash Test (U.S. NCAP)¹

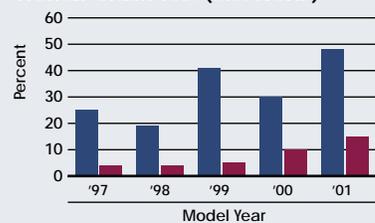


Fig. 41.3
Possible 5-Star Ratings in Side Crash Test (U.S. LINCAP)¹

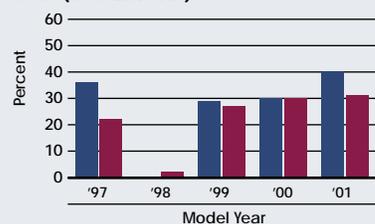
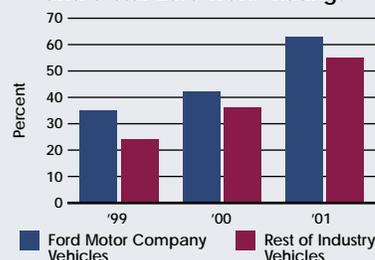


Fig. 41.4
European Vehicle Sales Attaining 4- and 5-Star Euro-NCAP Ratings



¹ Includes Volvo and Mazda beginning in 2000. All charts represent the proportion of vehicles that attain the highest ratings (e.g., if all tested vehicles received 5 stars, the percentage would be 100).



“Clive,” the crash test dummy, buckles up with a four-point safety harness in the Volvo Safety Concept Car, designed and built jointly by Ford and Volvo, that also features a see-through A-pillar. 🚗

Ford vehicles with ratings posted are 5-star compared with 23 percent for the “rest of industry.”

In Europe, the percentage of Ford vehicles achieving 4- or 5-star ratings has increased from 42 percent to 62 percent since 2000 due largely to the first full year of production for the new Ford Mondeo and the cessation of Ford Escort production. The European industry average also has improved over the same timeframe, illustrating the importance of safety in the highly competitive European marketplace.

Volvo cars continue to get top ratings on a variety of safety tests and assessments. 🚗

We introduced several safety features on new and redesigned SUVs (see page 44). We continue to roll out the Personal Safety System – a sophisticated “smart” safety belt and air bag system – to more vehicles. The newest version, available in the 2002 Ford Windstar and 2003 Lincoln Town Car,

adds a seat weight sensor to the system’s collection of sensors that gathers information about the nature of the collision, the occupants and their seating positions. Based on this information, the system can deploy the air bags at two different power levels to help reduce the risk of injuries associated with air bag deployment.

These improvements are part of the evolution of air bag restraints. Although first-generation air bags have saved many lives, they also were associated with injuries to some passengers including children and unbelted small adults. Technical improvements and education campaigns about seating children in back seats have had the intended effect – in 2001, for the first time since the introduction of air bags, the U.S. National Highway Traffic and Safety Administration did not confirm a single report of a death due to an air bag deployment.

In all 2001 Ford, Lincoln and Mercury products in North America, Ford voluntarily provides a system called BeltMinder™ that reminds people to buckle up. A recent study conducted by the Insurance Institute for Highway Safety (IIHS) has confirmed BeltMinder™’s effectiveness. The study showed that safety belt usage rates overall were 76 percent among drivers of vehicles with the new reminder systems compared with 71 percent among drivers of other vehicles. If expanded to include the entire North American driving population, this system could save an estimated 1,200 lives each year.

In Europe, Ford has been a key contributor in the development of the proposed Pedestrian Protection Negotiated Agreement between ACEA (Association of European Vehicle Manufacturers) and the European Commission. The binding commitment contains innovative, but feasible measures resulting in significant pedestrian safety improvements for new models including both active and passive measures. A final decision on the approach is expected from the Commission in the second quarter of 2002 following completion of review by the European Parliament. The EU member states, represented by the Council of Ministers, already have decided to support the Agreement. 🚗 🚗

Learning from experience and experimentation

Improving the safety of vehicles and road systems is a continuing process that involves learning about the effectiveness of technologies and systems we put into our products even as we research ways to address emerging issues. A few examples follow.

Boosting Child Safety



Throughout 2001, Ford led *Boost America!*, the largest child passenger safety campaign ever launched by an automotive company in the United States. The program delivered an educational curriculum to millions of children in over 152,000 schools, provided over \$1 million to safety organizations to support the training of child seat-fitting technicians and the establishment of hundreds of permanent child seat-fitting stations and distributed over 550,000 booster seats to Ford customers and needy families through a partnership with the United Way charity. *Boost America!* also commissioned a survey of booster seat usage and parental attitudes and lobbied in favor of child safety laws, helping increase from two to seven the number of states with booster seat laws.



We also have partnered with Allstate Insurance to fund a safety exhibit – *Play It Safe* – for the Chicago Children’s Museum. The exhibit, opening in June of 2002, will teach children about many childhood safety issues including car safety.

As the range of electronic devices that can be used in a vehicle has expanded, integrating these devices so that they become an aid to drivers and not a potentially dangerous distraction is an increasingly important design question. Ford is using its state-of-the-art motion simulator called VIRTTEX (Virtual Test Track Experiment) to study how drivers using various devices respond as they experience realistic driving conditions. The results are being used to set criteria and help minimize driver distraction from vehicle devices. Talking on cell phones is certainly not the only reason drivers might lose concentration on the task at hand, but their proliferation has put a spotlight on the issue of driver distraction.

The flip side of driver distraction is helping to draw drivers’ attention to potential dangers—even those they may not be able to see with the unaided eye. Several advanced technologies are under research or development:

- Volvo’s Eyecar automatically locates the eyes of each driver and positions the driver to enhance visibility.
- Rear Facing Sensors detect possible rear-end collisions before they happen. If a rear-end collision is imminent, motorized retractors tighten the front seat safety belts.
- Panoramic rear cameras provide an unprecedented view of the roadway behind.
- Forward-looking cameras let drivers see around the vehicle in front of them to help avoid potential problems with other cars or pedestrians.

To better understand how today’s vehicles perform in the real world, Ford Motor Company and Inova Fairfax Hospital in Virginia partnered to establish a Crash Injury Research and Engineering Network Center in partnership with NHTSA. The CIREN Center brings the medical, engineering and rescue communities together

to study real-world crashes in the Washington, D.C. area. The data from the CIREN case reviews are incorporated into a national CIREN database available for safety research.

Volvo Car Corporation teamed with a hospital in Gothenburg, Sweden, to investigate cars and accidents that resulted in whiplash injuries to learn how vehicle design can continue to reduce them.

Consistent and rigorous vehicle testing also is an important element of enhancing vehicle safety. Ford of Germany has taken the lead in developing the Path-Following Robot that uses a steering robot guided by a Global Positioning Sensor (GPS) system to follow a specific path on a test track, eliminating driver variability (a significant source of testing variation) and allowing more accurate assessment of vehicle handling, including rollover resistance.

SUV Update



The 2003 Ford Expedition and Lincoln Navigator, available in mid-2002, qualify as Ultra Low Emission Vehicles. Both vehicles come equipped with a brake assist system and Ford's Personal Safety System of advanced safety belts and air bags; tire pressure sensors will be available later this year. A Safety Canopy™, combining rollover sensors and side air curtains, is standard on the Navigator and optional on the Expedition, as is AdvanceTrac™, an electronic stability enhancement system.

Progress on fuel economy, emissions and safety are summarized here; please see pages 14 to 17 for discussion of broader sustainable mobility and technology development issues.

Increasing fuel economy

The average fuel economy of Ford's U.S. SUV fleet improved approximately 7 percent from the 2000 to 2001 model years because of the introduction of the Ford Escape, Mazda Tribute and Volvo XC. Fuel economy is projected to improve for the 2002 Model Year (see Figure 44.1) with the introduction of the Land Rover Freelander and fuel

economy improvements for the Escape/Tribute.

Even in light of the challenges in this economic climate, we continue on the path to meet our goal of improved U.S. average SUV fleet fuel economy by 25 percent by 2005. Data are reported here for the United States because the goal specifically addresses U.S. fuel economy, but the new products and technologies achieving improvements are being introduced worldwide.

Reducing emissions

Since the 1999 model year, all Ford, Lincoln and Mercury SUVs sold in North America have been certified to Low Emission Vehicles standards – from two to five years ahead of the requirements – resulting in a reduction of more than 4,250 tons of smog-forming pollutants being released into the atmosphere each year.

Improving safety

All North American-produced 2002 Ford Explorers and Mercury Mountaineers are available with side curtain air bags to help protect an occupant's head in a side collision. The Safety Canopy™, introduced in March 2002, combines the side curtain air bags with a rollover sensor that activates the side curtain air bags when a rollover event is sensed. The device uses a new technology that allows it to stay inflated longer and helps keep occupants inside the vehicle for the duration of the rollover event.

Ford designed its recent SUVs with a "blocker beam" on a level with typical passenger cars, enhancing SUV-to-car crash compatibility.

Ford's SUV offerings compare favorably to the competition in the percent of possible 5-star crash test

Fig. 44.1
U.S. SUV Corporate Average Fuel Economy (Estimated)

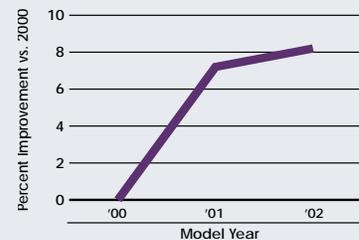
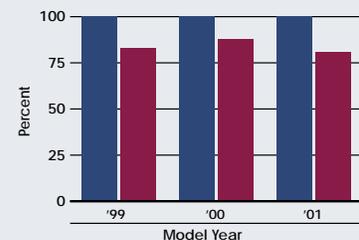


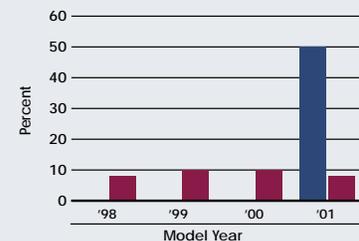
Fig. 44.2
Ford SUV Possible 5-Star Ratings in Side Crash Tests (U.S. LINCAP)



Testing program began with model year 1999.

■ Ford Motor Company Vehicles ■ Rest of Industry Vehicles

Fig. 44.3
Ford SUV Possible 5-Star Ratings in Frontal Crash Tests (U.S. NCAP)



■ Ford Motor Company Vehicles ■ Rest of Industry Vehicles

ratings awarded in U.S. government testing. In a comparison of real-world accident data, for example, the Ford Explorer, continues to be among the safest compact SUVs in all accident types including rollover.

 www.ford.com/go/corpcit/suvsafety

Reducing Greenhouse Gases by Improving Fuel Economy

Greenhouse gas emissions in the automotive sector are related to the following factors: the fuel economy and type of fuel used by a vehicle, the road and traffic conditions, the driving patterns of the consumer and emissions from the vehicle's air conditioning system. 

The fuel economy of a vehicle in turn is affected by powertrain efficiency and the inherent energy losses of a typical vehicle, examples of which are shown below.

POWERTRAIN-RELATED EFFICIENCIES
Engine efficiency
Transmission efficiency
Engine-transmission matching efficiency
VEHICLE ENERGY LOSSES
Weight
Drag coefficient and frontal area
Rolling resistance
Driveline losses
Mechanical accessory loads
Electrical accessory loads

Our greatest engineering challenge is to provide a vehicle that has the highest possible fuel economy and meets the needs of our customers. Ford is developing a range of technologies that improve the fuel economy of gasoline and diesel engines and demonstrate new powertrain systems, for example:

- Fuel cell, hydrogen internal combustion, hybrid and battery electric vehicles (see page 17)
- A new family of I-4 gasoline engines, first introduced in the Mondeo in Europe and Ford Ranger pickup in the United States
- Common-rail diesel technology developed in partnership with PSA Peugeot Citroën (see page 47)
- Direct-injection spark ignition (DISI)

engines that show potential for approximately 20 percent improvements in overall fuel economy of gasoline engines

- Demonstration of the use of continuously variable transmissions on large vehicles such as the Ford Expedition
- Use of low-friction motor oil to improve engine efficiency while maintaining or improving horsepower
- Improvements in aerodynamic design to cut wind resistance, a particular benefit in highway driving
- New four-wheel drive systems to reduce operating friction by disconnecting drivetrain components when they are not needed

European Association of Automobile Manufacturers (ACEA) and the European Commission on the reduction of new car CO₂ emissions, and still plays a key role in maintaining the ACEA commitment. The agreement requires that the average new car fleet achieve 140g CO₂/km by 2008, a reduction of 25 percent over 1995 levels.

In the United States, we committed to improve the average fleet fuel economy of our SUVs by 25 percent from 2000 by 2005.

Making progress against our goals

In Europe, the auto industry is on track to meet the interim target for 2003 (165g–170g CO₂/km). Over the

Although we've seen areas of progress, reducing average vehicle CO₂ emissions in North America has been challenging. We recognize that more can be done to improve vehicle fuel economy and reduce greenhouse gas emissions.

- Increased use of all-aluminum engines to save vehicle weight and contribute to better fuel economy.

In the long term, use of lower-carbon fuels, production of fuels using renewable energy and effective action on broader sustainable mobility issues (discussed on pages 14 to 16), hold promise for de-linking mobility and greenhouse gas emissions.

Setting goals in the U.S. and Europe

Ford was instrumental in securing a negotiated agreement between the

1995–2001 period, ACEA has cut its new car average CO₂ emissions by 11.4 percent. In 2001, fleet consumption of gasoline cars was down by 8.5 percent (to 7.3L/100km or 32.1 U.S. mpg), and those from diesel cars by 13.1 percent (to 5.8L/100km or 40.4 U.S. mpg). These reductions were achieved despite average car mass, engine capacity and power increases between 1995 and 2001 of 8.8 percent, 4.8 percent and 19 percent, respectively.

Since 2000, Ford has improved its EU fleet average CO₂ emissions by 2 percent, Jaguar by 7 percent and Land

Fig. 46.1
European CO₂ Performance
Passenger Vehicles

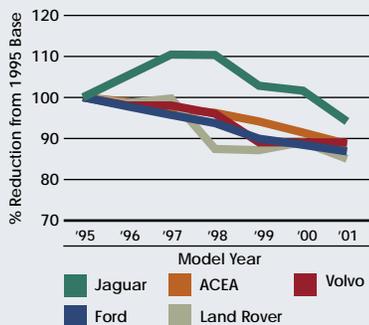


Fig. 46.2
Ford U.S. Corporate Average Fuel Economy*

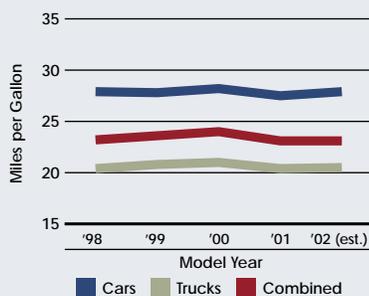
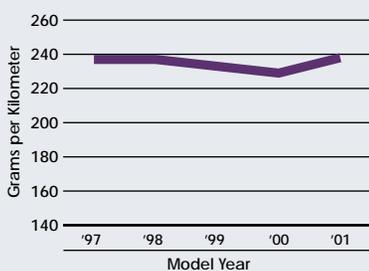


Fig. 46.3
Ford U.S. CO₂ Emissions Per Vehicle*
Combined Car and Truck Fleet Average
CO₂ Emissions



* Includes Ford, Jaguar, Aston Martin, Volvo (beginning 2000) and Land Rover (beginning 2001). 2001 and 2002 status are estimates (reported to the U.S. government).



Cologne Mayor Fritz Schramma test drives the Ford Focus FCV (Fuel Cell Vehicle) from the Cologne Cathedral to the Town Hall.

Rover by 5 percent. Compared to the 1995 baseline for the ACEA agreement, Ford has improved its performance by 13 percent, Jaguar by 6 percent, Land Rover by 15 percent and Volvo by 11 percent (see Figure 46.1).

In the United States, however, our average fuel economy and CO₂ emissions of our vehicles are relatively stable (see Figures 46.2 and 46.3) because of a combination of countervailing trends:

- SUV fuel economy improved consistent with our commitment (see Figure 44.1 and discussion on page 44)
- SUVs and other light trucks, which generally are heavier and use more fuel, continued to grow in popularity: For 2001, light trucks constituted

Awards

For the third consecutive year, the VCD (Mobility Club Germany) has named the Ford Focus the most environmentally friendly family-size car. The 1.6- and 1.4-liter engine versions of the Ford Focus estate (wagon) were named first and second, while the bi-fuel version was named the best alternatively fueled car. The ratings take into account fuel economy, emissions and noise.

56 percent of sales, compared to 50 percent in 2000. This shift has partially offset some of the other fuel economy improvements.

Clean Diesel – a Bridge Technology?

Diesel compression-ignition engines offer approximately 10 to 20 percent better fuel economy than typical gasoline spark-ignition engines. Although diesel passenger vehicles used to be known as noisy, smelly and dirty, the technology has advanced considerably in the last couple of decades, and they now are competitive with their gasoline counterparts.

In 2001, for example, Ford introduced a second generation common-rail injection engine for the Focus that offers improved performance at no fuel economy penalty compared to other diesel technologies. This engine was the product of a unique, long-range partnership between Ford and PSA Peugeot Citroën to develop a new family of advanced diesel engines for use by both companies.

In Europe, nearly 40 percent of new vehicles sold in 2001 were diesel-powered, a major factor in the improving picture of European average fuel economy.

Although diesel engines produce fewer emissions of greenhouse gases, their emissions of particulates and nitrogen oxides are higher than comparable gasoline engines. The relationship between particulate air pollution and adverse health effects continues to receive scientific and press attention. These concerns have inhibited broader use of conventional diesel technologies in North America.

Ford is working intensively on the development of a range of technologies to further reduce emissions of particulate matter and nitrogen oxides. These include particulate trap filters and engine thermodynamic improvements.

A Ford research vehicle introduced in 2001 uses co-fueling of diesel and urea, an ammonia-based compound, to achieve the stringent Ultra Low Emission Vehicle II standard – which requires particulate and nitrogen oxide emission 90 percent lower than current standards. The technology would require modified infrastructure to provide urea along with diesel fuel. It also is clear that for any advanced after-treatment system to be fully effective, diesel fuel sulfur levels of below 10 ppm are required.



The Ford Mobile Laboratory is equipped to collect emissions data from moving objects. Here it samples exhaust from a diesel test vehicle on a high-speed track.

Doing more on fuel economy

We have made progress, but we realize that more can be done to improve fuel economy and reduce greenhouse gas emissions. Although there are areas of improvement (SUV fleet and development of advanced technology vehicles that will soon be in production), progress in reducing average vehicle CO₂ emissions in markets with low fuel prices, such as North America, has been challenging. We are addressing

the issue by research and development of more fuel-efficient conventional technologies and powertrains that use lower- or zero-carbon fuels (see page 17). These offer the promise of no-compromise solutions for customers.

We also are working with external organizations on green marketing and policy initiatives – such as consumer incentives for early adoption of new technologies.

Although we expect these steps to yield a more coherent and effective approach to reducing greenhouse gas emissions from our vehicles, we may not see immediate results given the long-lead time required to bring new products to the market. In addition, we need to develop product solutions that do not compromise the traditional vehicle attributes (e.g., safety, low emissions and functionality) that our customers want.

Managing Materials Takes Partnership



The 2001 Ford Mondeo, sold in Europe, contains 55 parts made of recycled, non-metallic material and 21 parts made of renewable material, (of which 10 parts also are recycled). This includes an air channel footwell made of recycled bottle caps, a fan and shroud radiator made of recycled carpets and an insert door trim panel made from kenaf natural fibers.

Several trends are converging to make materials management an increasingly important issue for automakers:

- Automobiles are made of thousands of parts and thousands of materials. Both the complexity of automobiles and the number of materials used to make them has increased as engineers add new features for safety, comfort and other purposes while seeking weight reduction to improve fuel economy.
- Over the past two decades, concerns have risen about certain substances, recently reflected in bans on the use of certain materials and substances in products manufactured or for sale in Europe. (Ford addressed these substances of concern beginning

in 1984 through its Restricted Substance Management Standard.)

- The ultimate recycling and disposal of vehicles also has been the subject of regulation in Europe, requiring a close look at how vehicles can be disassembled and materials recovered.
- We have been increasing the amount of recycled material we use to help reduce landfill disposal and build markets for recovered materials. We're also increasing the use of renewable materials based on life cycle analyses that show they have lower environmental impacts.
- Automakers increasingly rely on external suppliers to provide parts, components and assemblies.

Taken together, these trends support our approach to: 1) better understand and track the materials going into our vehicles, 2) consider the use of recycled and renewable materials and vehicle end-of-life during product development, and 3) work closely with our suppliers to control materials use and develop innovative approaches that meet these challenges.

Setting goals to improve our materials use

Ford has set the following global materials use goals:

- Increase the recyclability of our vehicles¹
- Mark 100 percent of polymeric parts more than 50 grams in weight (to facilitate recycling)
- Continuously increase the recycled content of polymers from the current level (targets are set for new vehicles as a percentage increase over the levels of previous models)²
- In addition to other substances, globally reduce or eliminate where possible the use of lead, mercury, cadmium and hexavalent chromium in line with the strictest global requirements
- Achieve materials and substance reporting by suppliers on materials

¹ In theory, end-of-life vehicles are nearly 100 percent recyclable. However, the cost in energy and labor to recover the final fractions often exceeds the value of the materials. Ford focuses on increasing the economically viable and environmentally sound recycling percentage through a number of means: selection of materials, labeling, reducing the number of different materials and providing information to dismantlers on materials and methods for disassembly.

² There are no shared definitions for recyclability or recycled content in the auto industry. Ford's definitions are conservative, focusing on the economic recyclability of parts and materials and counting as recycled content only the weight of actually included post-consumer and post-industrial materials that would otherwise require disposal.

use, polymeric part marking and recycled content through the International Material Data System (IMDS).*

*IMDS is an industry-wide, Web-based database that collects information on materials used in the auto industry for compliance monitoring with global regulatory requirements including the EU End-of-Life Vehicle Directive.

Using materials information to make better decisions

Since 1984, Ford has used a Restricted Substance Management Standard (RSMS) to determine which substances should be avoided, eliminated or phased out in Ford plants and products. In March 2001, we requested that all suppliers to all of our brands phase in the use of IMDS to collect and report information required by the restricted substance standard. In early 2002 we began assessing compliance with the requirements through periodic supplier reviews.

Ford's action helped establish consistent requirements for suppliers by encouraging other global automakers to adopt IMDS reporting. During 2001 Ford helped enhance the IMDS in 11 areas to make it more user-friendly. We have worked with industry associations and suppliers in coordinating various restricted substance lists, which ultimately will reduce cost and confusion and help meet industry-wide goals to better manage restricted substances.

Textiles and leathers used in Volvo cars meet the German Oeko-Tex standard that limits certain materials and requires testing and verification.

We also completed the phase-out of mercury-containing convenience light switches in all Ford products in 2001.

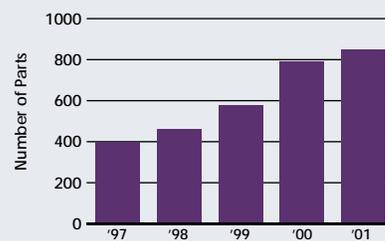
To increase recycled and renewable material use, materials specialists work with product development teams to identify possible applications and test materials to ensure that they meet specifications for quality, performance and cost. These efforts have resulted in steady increases in the number of parts launched with recycled or renewable content, and total recycled materials used (see Figure 49.1).

Ford's research and recycling teams also help by investigating specific materials and providing design tools. For example, they have developed a life cycle assessment tool that allows designers to compare in real time various materials choices for their life cycle environmental impacts.

Integrating a life cycle approach

We are making good progress toward our specific goals and toward an integrated, information-based system for materials management that allows us to make choices that reduce environmental impacts through the life cycle of our products. We recognize that we have a long way to go.

Fig. 49.1
Number of Parts Launched Containing Recycled Non-Metallic Materials



The demands on our suppliers, particularly for participation in the IMDS, have been considerable, and we appreciate their cooperation. They are crucial to improvement of our materials management.

Ford, our suppliers, consumers and recyclers all have roles to play in addressing the environmental impacts of automobiles (see Figure 49.2). We will work with these stakeholders and others as we seek continued progress.

Fig. 49.2 Roles in the Life Cycle Management of Vehicle Environmental Impacts

	PRODUCER	CONSUMER	RECYCLER
Upstream in the life cycle	Green supply chain Materials management targets	Purchase greener products (at higher price?) Provide feedback	Inform end-users of proper management
Product ownership life cycle phase	Environmental performance of manufacturing (e.g., ISO14001) Design for environment, product improvement	Eco-driving Proper maintenance Inter-modality	Environmentally sound operations (e.g., ISO14001) Ensure quality of recovered materials
Downstream in the product life cycle	Work with dealers on green approaches Inform consumers about choices Provide information on end-of-life	Correct disposal	Feedback to manufacturers on disassembly and recovery

Cutting Conventional Emissions Worldwide



The Volvo Adventure SUV, available in early 2002, will meet ULEV (Ultra Low Emission Vehicle) standards.

By the mid-1990's, new vehicles were substantially cleaner than their predecessors that lacked emission control equipment. Technology breakthroughs that reduced carbon monoxide (CO) and hydrocarbons (HC) by 96 percent, and nitrogen oxides (NOx) by 75 percent allowed us to meet the stringent standards in the United States, Europe and Japan. Since then, further emissions requirements, as well as voluntary efforts by Ford to go beyond the requirements, have cut remaining levels of smog-forming emissions from our products by more than half.

The United States, Europe, and Japan now are poised for further major reductions by 2004 and 2005. Beginning with the 2004 model year, new vehicles in the United States must meet a complex set of new federal Tier II requirements that ratchet down regulated emissions by an *additional* 50 to 95 percent, depending on the pollutant and vehicle class. Europe's Stage IV requirements will achieve similar levels of control (see Figure 51.1).

At the same time, we are facing stringent new requirements limiting

the amount of gasoline that can evaporate, permeate or leak out of the vehicle's fuel system. Over the last 35 years, these emissions have been reduced by more than 95 percent in the United States. The State of California has tightened these standards by another 75 percent, effective with the 2004 model year, while U.S. federal requirements mandate a 50 percent reduction. Ford and other auto manufacturers have voluntarily committed to using the same technologies needed to meet the more stringent California standards on virtually all vehicles sold in the United States.

We are seeing similar trends toward more stringent standards worldwide as more countries adopt emissions standards based on U.S. and EU requirements. For example, prior to January 2000, China had no emission

a major barrier to basic and proven emission control technologies.

Making progress

Given the complexity of new regulatory requirements, the focus of our near-term efforts for emissions control is to meet the stringent new standards, producing clean vehicles that also meet customers' needs for fuel economy, safety and other features.

There also are many instances where we have gone beyond the requirements:

- Since 2001, the high volume versions of the Volvo S60, Volvo S80 and Volvo V70 conform to Ultra Low Emission Vehicle standards and also meet Europe's Stage IV requirements. Volvo offers these vehicles globally, regardless of local regulation. During 2001, 31 percent of Volvo cars bought met these requirements.

Beginning with the 2004 model year, new vehicles in the United States will have to meet a complex set of new requirements that significantly ratchet down permitted emissions. These "Tier II" requirements, however, provide a simple rating system that will allow consumers to choose cleaner vehicles.

control requirements but intends to implement the same requirements as Europe by 2010 (matching over 40 years of European emissions evolution in just 10 years). Faster adoption of state-of-the-art emissions standards in China and many other countries is often prevented by local market conditions. Fuel quality, for example, can be

- Jaguar has pledged that, outside the United States and where supported by fuel infrastructure, all its vehicles will meet European emissions standards.
- The Ford Ikon, developed for the Indian market, emits from 40 to 60 percent less than legal limits, depending on the pollutant.

Rare Earth Oxide Catalyst Improves Environment and Cuts Costs

A Ford-invented catalyst uses rare earth oxides to substitute for 75 percent of the precious metals used in conventional vehicle emission control devices. Though initially developed to make emission control more affordable on new and existing vehicles in emerging markets (and therefore, more widely used), the technology has been adopted worldwide, saving Ford an estimated \$100 million per year. The Pacific Basin Economic Council awarded Ford its Silver Award for Environmental Stewardship for its development and implementation of the rare-earth oxide catalyst.

Tackling tough issues through innovation

The challenge to develop even cleaner vehicle technologies is heightened by the need to make those same vehicles more fuel efficient. Technologies known for significantly improved fuel efficiency – such as gasoline direct injection and diesel fuel operation – tend to produce more tailpipe emissions. Ford is working continuously to offset these emissions and create vehicles that are both clean and less “hungry” for non-renewable resources.

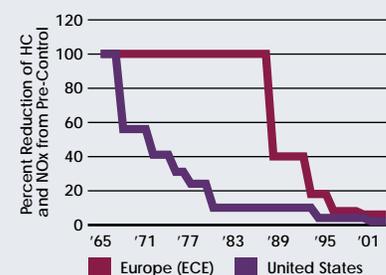
Offering “greener” vehicles

Over the next few years, Ford and other automakers will introduce vehicles that meet a complex array of new standards. Consumers who wish to do so will have the opportunity to purchase low-emission vehicles.

- In Europe, Ford has pioneered (and now all automakers must provide) the use of Eco-Labels that affix information on a vehicle’s fuel economy, safety and emissions class to the window at the point of sale.

- In some countries such as Germany, Ford has offered vehicles that meet legislated levels up to five years early in response to consumer interest.
- Several programs in Japan at the national and municipal level provide a voluntary designation of vehicles, for example, as “good,” “excellent” or “ultra low emission.” In 2001, Mazda offered more than 40 models designated as low-emission vehicles.
- Beginning with the 2004 model year, new vehicles in the United States will have to meet a complex set of new requirements that significantly reduce permitted emissions. These “Tier II” requirements will establish 10 “bins” of certification standards representing a range of emissions performance. Each vehicle will be certified to a bin, where “1” is the cleanest with progressively higher levels up to a category “10.” These requirements will provide a simple rating system that allows consumers to choose cleaner vehicles.

Fig. 51.1
Emission Reductions (Standards)
Europe, U.S.*



* This chart shows the trend of declining emissions as the percent reduction in emission standards. Differences in test procedures prevent direct comparison of European and U.S. standards. The chart does not reflect European controls on CO₂ and HC that began in 1975.

Looking ahead

Beyond 2005, breakthrough reductions in conventional emissions from new vehicles in developed countries will likely come from the introduction of new technologies such as hybrid electric and hydrogen-fueled vehicles that also emit fewer greenhouse gases and reduce dependence on imported fuel.

A major source of potential emission reductions, particularly in countries that only recently have started to control vehicle emissions, is retiring or retrofitting older vehicles still on the road that typically emit significantly more pollutants than new vehicles.

Along with our efforts to reduce emissions from vehicles we make, we intend to continue working through partnerships that develop systematic approaches to the issues of congestion and infrastructure (see pages 16 to 18 for examples).

Improving Environmental Management through Manufacturing Performance

OBJECTIVE	2001 TARGETS	2001 PERFORMANCE	COMMENTS	PAGE
Expand ISO 14001 EMS	2001 Certification of Product Development (PD) function 2003 suppliers ¹	Primary PD functions certified	Ford Land Site Management, Dearborn, MI, Research and Engineering Vehicle Testing Operations also certified in 2001	52
		91% certified at least one facility		52
Increase energy efficiency	Energy efficiency index per unit: 2001 — 96 2002 — 93	95.7	Measures production efficiency, 2000 baseline equals 100. Excludes Volvo, Jaguar and Aston Martin	53 53
Use of renewable energy	2% of energy from Green Power (0.1% new sources) (U.S.)	2%		54
Increase water efficiency	2001 Establish baseline 2003 — 3% reduction over 2000	Baseline established; 8.9% reduction over 2000		56 56
Decrease VOC emissions from painting	2002 North America — 31 g/m ²	32 g/m ²		57
Reduce wastes	Establish waste generation baseline using TWM system	Complete for U.S. and Canada		58
Increase use of returnable packaging	Percent of part numbers 2002 — 68%	95% returnable incoming cubic volume	2002 metric revised to provide more detailed tracking of projects	58
Eliminate use of PCB transformers	Percent remaining of 1995 base 2006 — 5% 2010 — 0%	38%	A possible source of emissions if not properly maintained and disposed	

¹ Ford has asked that all suppliers with manufacturing facilities certify at least one site by the end of 2001 and all facilities by July 1, 2003. Volvo and Mazda suppliers have been requested to complete certification by the end of 2002.

This section covers environmental issues in our manufacturing operations. Employee health and safety is addressed in the employee section (page 26), community programs at our plants in the community section (pages 37 to 38).

Ford's principles for environmental management of its facilities are to demonstrate environmental stewardship at manufacturing facilities:

- Transition to sustainability and eco-effectiveness
- Open, transparent connection with external stakeholders (community and regulators)

- Integration of environmental objectives into business processes
- Continual improvement in manufacturing site emissions
- Compliance with both the letter and spirit of environmental regulations. 

Making progress on business integration

Our commitment to the ISO 14001 environmental management framework for all of our facilities¹ has been one of several valuable vehicles for communicating environmental goals and integrating them into business

processes throughout our complex value chain. Below are some examples:

- At the end of 2001, 91 percent of Ford's major suppliers had certified at least one of their manufacturing facilities to the ISO 14001 management standard. The ISO 14001 requirement has been integrated into the sourcing process for "Q1" preferred suppliers.
- We extended ISO 14001 certification to the key business function of product development by examining our processes, identifying environmental issues and setting and tracking targets.
- As the Ford Production System (FPS) (a set of common principles and processes used in manufacturing worldwide since 1999) was under development, processes and requirements from the Ford Environmental System were integrated into it including environmental training and production work group identification of environmental issues.
- The business planning process and "scorecard" used to evaluate plant managers was expanded to establish accountability for performance on the full range of issues integrated into FPS. A typical scorecard encompasses employee health and safety, quality, delivery, cost, morale and environment.

In the sections that follow, you will read about how we also focused in 2001 on improving our measurement of key environmental indicators — including energy and water use and waste generation — as the basis for better setting and meeting our goals.

¹ Ford manufacturing facilities completed ISO 14001 certification using the Ford Environmental System in 1998.

Managing Operations to Cut Energy Use

The energy used at Ford facilities has environmental impacts locally as well as globally.

Energy management gained importance in 2001 because of the reduction goal set in 2000 and the Company-wide focus on efficiency and elimination of waste. The tough economic conditions have made it challenging to secure resources for investment in energy projects. Because of this, Ford has been developing and strengthening relationships with energy service suppliers that can finance projects through shared savings in energy costs.

Other important issues during 2001 were finding mechanisms for sharing best practices and measuring and tracking progress.



The North American headquarters of the Premier Automotive Group, opened in Irvine, California, in November 2001, showcases “green building” design practices. The 300,000-square-foot facility houses North American operations for Aston Martin, Jaguar, Land Rover and Volvo, and is global headquarters for Lincoln and Mercury.

“Our focus is good environmental stewardship through sound economic discipline. We’re cutting costs and energy-related emissions by examining every aspect of our energy use, purchasing ‘negawatts’ instead of megawatts and leveraging our buying power. Energy management and efficiency projects saved Ford \$77 million in 2001.”

Tim O’Brien, Vice President, Ford Real Estate

Beating our target for 2001

Ford’s global operations have set a target to reduce energy use by 14 percent from 2000 levels on a production-normalized basis¹ by 2005.

This performance measure was converted to an “energy efficiency index,” set at 100 for the year 2000, to simplify tracking. Thus, the target is an energy efficiency index of 85 in 2006.

¹ An engineering calculation that adjusts for fixed and variable portions of energy use and production to track production energy efficiency.



A fuel cell producing 200 kilowatts of electricity and 900,000 BTUs of heat provides 25 percent of the building’s power.

A “green” roof on the Product Development wing uses rooftop landscaping to create a home for more than 30 categories of vegetation and save energy through insulation. The building is the first in Orange County and only the third in California to secure Leadership in Energy and Environmental Design certification from the U.S. Green Building Council.

Fig. 54.1
Worldwide Facility Energy Consumption

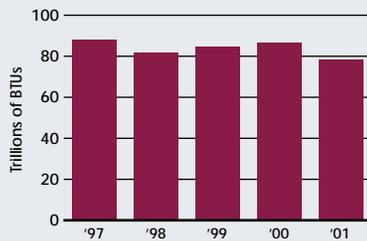


Fig. 54.2
Worldwide Facility Energy Consumption Per Vehicle¹

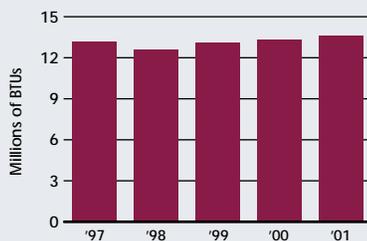
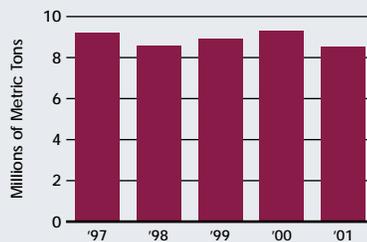


Fig. 54.3
Worldwide Facility CO₂ Emissions



Excludes Volvo, Land Rover and Aston Martin.

Visteon has been spun off and data not included for any year.

¹ Energy use per vehicle divides actual energy use by vehicles produced.

Leveraging Our Resources

Ford has extended its ability to implement energy-saving projects through “performance contracts” with energy service suppliers that finance and install energy-saving projects and equipment and are paid from the resulting cost savings. The approach allows Ford to do more projects faster. At the end of the contract term, Ford receives all energy savings. Results include:

28 PROJECTS INSTALLED AT 21 PLANTS	
Supplier Investment	\$93 million
Annual Energy Savings	\$18 million
Other Benefits	\$4 million

In 2001, we cut total energy use at our facilities by 7.6 percent (see Figure 54.1) and reduced global CO₂ emissions by 8.6 percent (see Figure 54.3). The reduction reflects lower production but also greater efficiency in the manufacturing process. Our facilities achieved an energy efficiency index of 95.7, slightly ahead of the 2001 target of 96. Energy consumption per vehicle increased slightly (see Figure 54.2), however, because facility energy use was divided by a smaller number of vehicles produced.

These programs saved more than \$77 million. About half of those savings were due to operational changes and projects to improve energy efficiency, with the remainder due to cutting the cost of energy supplies.

Managing energy takes focus and yields benefits

Ford Land (which manages Ford’s properties) is responsible for energy management globally. Together with manufacturing they track energy costs

and usage, identify opportunities for savings and new energy sources, develop targeted initiatives, facilitate sharing between facilities and establish partnerships with energy service suppliers.

During 2001, Ford joined two U.S. Environmental Protection Agency voluntary efforts aimed at reducing energy use and increasing use of renewable energy. Ford is a founding member of the Green Power Partnership under which we committed to secure 2 percent of our energy supply from renewable energy, with 5 percent of this amount in the form of new sources.

We also were accepted into the Energy Star Program, which is based on ISO 14001 principles and requires corporate policies, measuring and tracking facility energy usage, developing plans and employee education.

We are reducing energy use through a wide range of methods, some low- or no-cost and some requiring significant investment. Major initiatives in 2001 included:

- Shutdown procedures: Ford’s energy managers surveyed how plants were reducing energy use when production has stopped (generally late nights and weekends) and found room for significant improvement. By developing and implementing shutdown procedures, facilities cut energy use by an additional 10 percent to 12 percent during shutdown periods.
- Paint shops: Accounting for one-third of energy use, we have focused on measures to cut current energy use and are working with equipment makers to provide lower energy-consuming equipment in the future.
- Other areas of focus include heating, ventilation, compressed air use, heat recovery and temperature setback.

Measuring, learning and sharing are part of the process

Qualifying for the Energy Star Program involved our conducting a detailed self-assessment and program benchmarking against those of energy management leaders. We found that we have most of the elements in place for an effective program but need to improve in a couple of areas, including training. We also plan to strengthen our processes for sharing best practices from one site to another.

More frequent, accurate and up-to-date monitoring of energy use has helped us learn a lot about areas for potential improvement. We have begun to use remote monitoring of North American facilities’ energy use. This will allow real-time Web-based energy use tracking and supports our reduction efforts.

Putting It All Together at the Rouge

The Rouge revitalization project described briefly on page 60 and in more detail on the Web, is both showcase and proving ground for a collection of features to cut energy use and develop new energy supplies. As we gain experience with the technologies, they are being adopted at our plants worldwide. These features include:

- A “living roof” to capture, store and clean rainwater falling on the vast assembly plant roof also reduces heat loads and improves insulation
- Extensive use of natural lighting to cut lighting energy requirements by 15 percent
- “Big foot” (i.e., very large air handling units) heating and ventilating systems that are 98 percent efficient compared to 75 percent for indirect gas-fired and 60 percent for steam
- Use of efficient lighting and power transformers
- Continued use of combined cycle cogeneration (generation of electricity and capture of waste heat for use) that reduces overall CO₂ releases

We also are evaluating potential uses of fuel cell technology as part of the Rouge Project. All told, the energy efficiency features at the Rouge will save \$423,800 per year at the two buildings where they will be used.

IMPROVEMENT	SAVINGS (\$)	CO ₂ AVOIDED (METRIC TONS)
• “Big Foot” heating and ventilation system	\$ 277,800	9,844
• Photo sensors turn off lights when not needed	46,000	826
• High efficiency lamps	8,000	138
• High efficiency lighting design	30,000	550
• Reduced losses from power transformers	62,000	1,124
TOTAL	\$ 423,800	12,482

Focusing on Water



Ford's Sharonville, Ohio, Transmission Plant slashed its process water usage using 6-Sigma (quality management) methodologies. By investigating and monitoring process water usage within the plant, a team identified ways to reduce water usage such as process changes to an existing cooling water system. Completion of the relatively minor process changes resulted in savings of 22,000 gallons per day (more than 8 million gallons per year) of purchased water and \$100,000 annually.

Though water is essential to all life on earth, in many cases it also is "free." Ford facilities use water from diverse sources in a variety of ways. In some areas (particularly where water is scarce), water supply is a significant cost, but in other regions it is drawn from rivers or water bodies at little cost.

Nevertheless, through the ISO 14001 environmental management process, many Ford facilities identified water

use as a significant environmental opportunity and set targets to improve their water management. By the end of 1998, Ford global manufacturing plants had reduced water usage by approximately 11.4 million cubic meters compared with 1996. Establishing further goals and tracking progress, however, proved difficult for many facilities because of a lack of baseline data on the full range of water sources and uses.

Setting a target to reduce water use

We know that goals and targets are needed to drive progress. However, when we announced our Water Conservation Initiative in mid-2000, we found we lacked the baseline data needed to develop a meaningful goal.

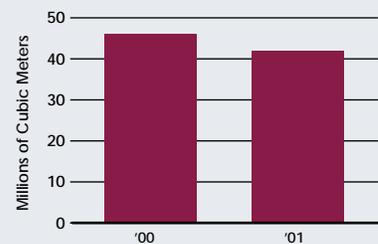
During 2001 we conducted pilot projects at several plants to pinpoint all processes using water in order to identify the best opportunities to reduce water use. We also expanded our data tracking to include all water use: purchased and non-purchased; potable (drinking water quality) and nonpotable; groundwater, surface water and municipal or industrial supplies. 

The baseline study was used to establish a three-year global target to reduce our water use by 3 percent by 2003 compared with 2000. Manufacturing and non-manufacturing facilities that use in excess of 30,000 cubic meters of water per year set individual targets based on their needs and opportunities.

Seeing initial progress...

Even as we have wrestled with how to measure and track progress in reducing water use, our plants have continued to pursue their individual

Fig. 56.1
Global Manufacturing Water Use



goals, resulting in an 8.9 percent reduction in water use (2.8 percent on a per-vehicle basis), a total savings of 4.1 million cubic meters of water (see Figure 56.1). Loaded into rail cars, this amount would make a train stretching 400 miles. For example, Ford's Cologne, Germany, facilities have used innovative manufacturing techniques and recycling to reduce water use by about 10 percent over five years including a 5.7 percent reduction from 2000 to 2001.

The importance of water management was brought home to Ford's Dearborn, Michigan, headquarters when a serious drought affected southeast Michigan in the summer of 2001. Ford took a series of steps that saved more than 1,900 cubic meters of water per day, equal to the summer water use of 1,250 typical households.

...and expecting more in the future

We have developed tools to help our facilities better measure and manage water use as a basis for developing facility-specific water conservation and management plans. We also are requiring regular reporting of water use along with other key environmental data.

Clearing the Air



Ford uses steam from a nearby industrial facility to heat a vehicle paint line at its Cologne, Germany, assembly plant.

The most important impact on air quality from our manufacturing facilities is due to volatile organic compound (VOC) emissions from painting vehicles. The control equipment that

based on site-specific factors such as the VOC control equipment. Targets use the grams of VOCs emitted per square meter of surface area coated. This allows us to compare a manufacturing facility that paints a Focus with one that paints an Excursion. We also have established goals on a company-wide basis and track performance monthly.

We track and report on our emissions under the U.S. Toxic Release Inventory and the Canadian National Pollutant Release Inventory (see Figures 57.1 through 57.4), and similar systems in Australia and Mexico. A number of individual VOCs also are reported under the pollutant release inventories of these countries.

Making progress toward the target

Our plants are making steady progress toward the targets. The upgrade of paint application equipment at numer-

Ford's most important impact on air quality from its manufacturing facilities is due to VOC emissions from painting vehicles. We've set goals and are actively working to reduce VOC emissions.

reduces VOC emissions also is a significant energy consumer; thus, we are looking hard at our painting processes to reduce both emissions and energy use.

Setting reduction targets

We have set VOC emission reduction targets for each manufacturing facility

ous plants has reduced the quantity of paint used and the associated VOC emissions.

Our plants in North America (the United States, Canada and Mexico) averaged 32 grams/square meter in 2001. Using this as a baseline, we set a target for North America of 31 grams/square meter for 2002.

Fig. 57.1
Ford U.S. TRI Releases

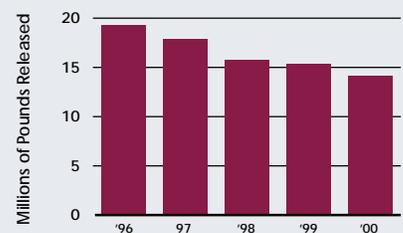


Fig. 57.2
Ford U.S. TRI Releases Per Vehicle

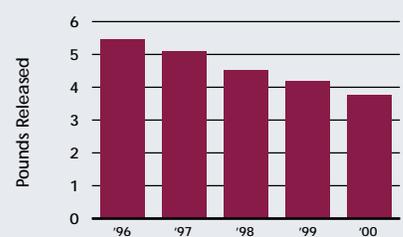


Fig. 57.3
Ford Canadian NPRI Releases*

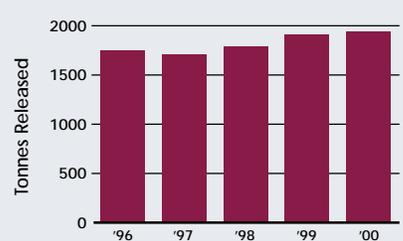
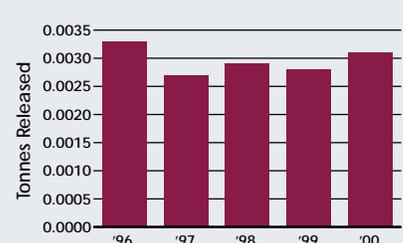


Fig. 57.4
Ford Canadian NPRI Releases* Per Vehicle



* Data have been restated to remove a Viscon plant that was "spun off" and two plants that now are part of a joint venture with 25 percent Ford ownership.

Tracking and Trimming Waste

Fig. 58.1
Manufacturing Waste 2001
(U.S. and Canada)



Fig. 58.2
Volume of Parts Received in
Returnable Packaging (Global)

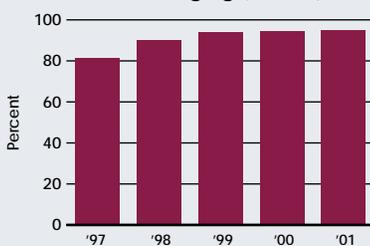
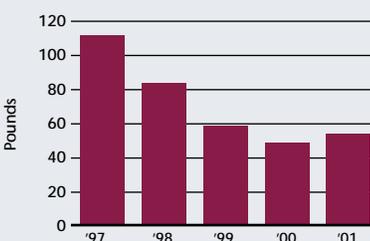


Fig. 58.3
Packaging Waste per Vehicle Generated
at Ford North American Plants



“Solid wastes” (that include some liquids and sludges) are defined and their management regulated on a national, state and sometimes municipal level. For some, but not all wastes, there are requirements for tracking and reporting. Thus, compliance-oriented systems for waste management tend to be a diverse collection of reactive programs.

Several years ago, Ford decided to take a more strategic approach and develop a total waste management program (TWM). It consolidated its contracts with a small number of waste management service suppliers and asked them to share responsibility for measuring, managing and reducing solid wastes. This system has begun to produce results.

Putting a management system in place

A key element of our system is defining solid wastes in categories globally relevant in the auto industry. Ford defined 135 kinds of wastes in six broad categories for TWM supplier partners to use in tracking waste generation and management. As the system develops complete baseline information, we will use it to set global targets for waste reduction.

Making steady progress

During 2001 we worked closely with our TWM partners to implement our waste categorization and tracking system. All TWM contractors have demonstrated good cooperation in supporting our data tracking system. There are some plants in new markets and Premier Automotive Group plants where TWM has not yet been established, in some cases because of their country-specific waste management market situation.

Waste Minimization Award

Ford's Lio-Ho facility was awarded the Taiwan National Industrial Waste Minimization Excellence Performance Award in August 2001 for its design for the environment, waste minimization and pollution prevention efforts.

We developed a baseline of waste generation for the United States and Canada (see Figure 58.1). North American assembly plants continued to increase reusable packaging use (see Figure 58.2). Since 1997 these plants have cut packaging waste by more than half, but the waste per vehicle increased slightly in 2001 because of the mix of vehicles processed (newer models have less associated waste – see Figure 58.3). Beginning in 2002, progress in reducing packaging waste will be measured by the percent of parts numbers received in returnable packaging. The previous metric – volume of parts received in returnable packaging – appropriately targeted high-volume parts. The new metric targets the large number of diverse, smaller parts for conversion to returnable packaging.

Looking ahead

In implementing this program, we have learned some of the complexities of categorizing wastes in a consistent and meaningful way.

As we get higher quality data, we expect it to prove very helpful in benchmarking and sharing best practices, identifying additional opportunities and providing a reliable basis for setting targets.

Next year we expect to have complete data from Mexico and global data shortly thereafter. We will also put the systems in place to analyze how the wastes are managed.

www.ford.com/go/corpcit/waste

Recognizing Our Impacts on Land

Accommodating nature and industry...

Industry and nature are often perceived to be in conflict. At many of our manufacturing sites and other properties, we strive to show that we can coexist and, in some instances, enhance the wildlife, biodiversity or natural functioning of the land at our sites.

There is no doubt that the construction and operation of our facilities have impacts on the land where they are located. We do not systematically measure these impacts on nature.

At this stage in our Company's growth, we are reinvesting in existing properties more often than building new ones.

One exception is Ford's newest plant in Bahia, Brazil, described further on page 61, where we are planting native vegetation and trees on 7 million square meters of land on or adjacent to the plant property.

Though the Brazil plant is perhaps our most dramatic effort to restore degraded land, many of our sites present opportunities on a smaller scale to work with the natural features of the property to restore nature.

...takes partnership

Managing lands to improve their natural features requires partnership with experts from governmental and nongovernmental organizations. Nearly 40 Ford sites worldwide have worked with the Wildlife Habitat Council assessing opportunities to improve the site for wildlife habitat. Eight sites have been certified as wildlife habitat through the Council's rigorous review process. 🌿



A great egret is one of the migratory waterfowl and nontropical migratory birds that finds food and habitat around the man-made lake at Ford Motor Company's Powertrain Operations in Taubaté, Brazil. The site was certified by the Wildlife Habitat Council in 2000.

"Our manufacturing and office sites are more than steel and concrete. They often include land that can be used for wildlife habitat and education with help from Ford employees and partnership with other organizations."

Tim O'Brien, Vice President, Ford Real Estate

Ford's Research and Engineering Center, located along the Rouge River in Dearborn, Michigan, has partnered with nearby schools to use the certified site for educational purposes including engaging the students to do research on restoration projects. The facility received the Wildlife Habitat Council's 2001 Corporate Lands for Learning Award.

In Valencia, Spain, Ford's plant is located very near the Natural Park of L'Albufera, a key international marsh and special bird protection area. The

plant has developed a lagoon system using treated wastewater that complements the park habitat by providing important shelter and breeding sites for several bird species. In cooperation with the organization SEO/BirdLife, a five-year plan for the total lagoon area has been developed to improve the environment for the birds. The plan includes landscaping, encouraging new species, increasing the diversity of natural fauna and providing educational and leisure activities for the community.

Is Sustainable Manufacturing an Oxymoron?



Outside of nature, it may be hard to find examples of truly sustainable manufacturing. That is why Ford is borrowing concepts from nature to use at its manufacturing sites, including the venerable Rouge complex in Dearborn, Michigan. But sustainability encompasses human aspects as well. Is the plant a good place to work? Does it support the people who work there and help them grow? Are the products made there and the processes used to make them sustainable?

Natural processes evolve toward greater interconnectedness, efficiency and resiliency. Our model of sustainable manufacturing also includes lean, flexible, manufacturing processes that provide flexibility to respond to rapidly changing global conditions. These processes cut waste of materials, money and time and help drive a highly motivated and skilled workforce. Many include seamless integration with suppliers located at or adjacent to the Ford site.

We see these elements coming together in exciting ways at facilities around the world – from the Rouge to Chicago, to Cologne and Brazil.

Although these features are not yet standard practice at all manufacturing sites, we are consciously sharing lessons learned and best practices. The examples below show some of the learning that is taking place as management of other sites works with the Rouge team, in particular, to adopt innovations that will work at their site.

Our success in adopting a sustainable manufacturing model that encompasses people, products and processes, and works with nature, is essential to our revitalization as an efficient and profitable corporate citizen.

Developing a comprehensive model at the Rouge

In 2000 Ford laid out an ambitious plan to revitalize the Rouge manufacturing complex in Dearborn, Michigan, as a model of sustainable manufacturing. The plan includes flexible, lean manufacturing methods at a new assembly plant, features designed to protect the safety and promote the well-being of employees and energy efficiency and habitat elements (described in more detail in Ford 2000 Corporate Citizenship report; see page 55 for summary of energy features). The project is taking place in consultation with community groups and within a landscape context linked to other restoration and historic preservation efforts in the Rouge River Basin.

Ford is proceeding with implementation of the plan. Construction began during 2001 on the new assembly plant. Preliminary results of studies to test the effectiveness of using plants to clean up impacted soil from the coke oven area (slated for demolition) are promising. The “green roof” design for the assembly plant, composed of living plants, has been modified to make it lighter and easier to build. A test of the paving system that allows rainwater to pass through the porous pavement and be cleansed by soil is working well. Drivers who use the paved area particularly appreciate that it does not ice over in the winter months like adjacent, nonporous areas.

The Rouge Project won an Environmental Achievement Award from the Environmental Management Association in early 2002.

Using stakeholder input to shape plans in Chicago

Ford’s Torrence Avenue Assembly Plant is located in the heart of

Chicago's Lake Calumet area, an area of heavy industry past and present (much now abandoned), which also has valuable, though degraded, wetland resources.

Since late 1999, Ford has participated in a "good neighbor dialogue" initially convened by the U.S. EPA to address the interests of government agencies, community and environmental NGO stakeholders in the cleanup and redevelopment of the area.

Ford met in a facilitated dialogue to learn about those interests that included pollution prevention, reduction of air emissions and odors, worker and community safety and employment.

Ford agreed to locate a \$400 million supplier park adjacent to the assembly plant, leveraging an additional \$85 million investment by local and state governments for infrastructure improvements. The supplier park will



Readers of one of Brazil's leading business newspapers, Valor Econômico, chose the Ford Northeast Complex Plant in Bahia, Brazil, as winner of the Social Value Award in the paper's "Respect for Environment" category.

Restoring Atlantic Rain Forest in Brazil

Ford's newest manufacturing facility, the Complexo Industrial Ford Nordeste (Ford Northeast Industrial

meters, and devotes 7 million square meters—both within and adjacent to the manufacturing areas—to recovery efforts, with the planting of native vegetation and trees.

The design of the complex uses natural light and ventilation for energy efficiency and favors natural materials available within the region, such as granite and wood of certified origin. Rainwater is collected and discharged to three new lakes designed to control runoff and provide wildlife habitat.

The site is testing a pilot system of constructed wetlands that use soil planted with rice, water lily and cattail culture to purify the production facility's sanitary waste water. All sewage is planned to be treated as such, with no help from public sewage systems, and the resulting purified water will be used to irrigate the facility's gardens. Suppliers are found on-site and are an integrated part of the production and communication processes.

"In revitalizing the Rouge, Ford is demonstrating its commitment to a sustainable manufacturing model of 'People, Products and Processes' because it makes environmental, social and economic sense."

**Anne Stevens
Ford Vice President, North American Vehicle Operations**

incorporate a number of "green" features including energy efficiency measures, native landscaping and diesel particulate emission reductions. It also will establish the Calumet Environmental Center and create programming, scientific research and educational outreach programs for people throughout the area.

Complex), is located near the city of Camaçari, in the State of Bahia, Brazil. The complex, capable of producing 250,000 vehicles per year, is located within a developing industrial district that included areas where topsoil and vegetation had been removed.

The complex occupies a tract of land measuring 4.7 million square

Public Policy Review

Ford Motor Company is an active participant in the development of a wide array of public policies. We support local, national and international public policy proceedings in many ways including:

- Providing scientific, economic and environmental research to public officials and other interested parties
- Supporting public education campaigns on issues such as safety and environmental awareness
- Participating in trade associations and other coalitions engaged in public policy advocacy activities
- Conducting direct lobbying campaigns

Our Governmental Affairs office, which is a part of our Corporate Affairs organization, has primary responsibility for tracking emerging issues, developing public policy positions and supporting Ford's participation in the public policy process. The team has staff in numerous key locations around the globe.  Governmental Affairs works closely with other offices in Corporate Affairs including Environment and Safety Engineering, Corporate Governance, Ford Motor Company Fund and Public Affairs.

Identifying the issues

Our public policy activities center on issues that affect our business. These issues can impact our global operations, a particular market or specific activities in which our plants, suppliers or dealers operate.

Though we engaged in a broad spectrum of public policy issues, our major areas of focus in 2001 were:

- Safety
- Climate change
- Fuel economy
- Tailpipe emissions standards
- European vehicle distribution  
- European end-of-life vehicle requirements   
- Pension management and 401K plans
- Health care issues (e.g., prescription drug benefits, universal coverage, etc.)
- Trade policy
- Corporate restructuring (e.g., plant closures, tax abatements and incentives, etc.)
- New technology acceleration initiatives such as Freedom CAR, consumer tax incentives and research and development partnerships

Developing policies in these key areas is an important process. We weigh the long-term impacts of our decisions with the consequences any policy may have on our business, customers, shareholders and company values and reputation. We have broken new ground with a variety of policy efforts such as working to create consumer-based tax incentives for fuel efficient advanced technology vehicles such as hybrids, fuel cells, electric vehicles and alternative vehicles in the United States. We developed and negotiated the implementation of a significant CO₂ reduction target in Europe and negotiated

new ways to improve product and pedestrian safety.

Climate change and CO₂ emissions continue to be very complex and challenging issues for the Company. We've demonstrated our continued commitment to the issue by pledging to voluntarily reduce the amount of energy our global plants and facilities use on a production-normalized basis, by being the first automobile manufacturer to participate in the U.K. Emissions Trading Scheme and the Chicago Climate Exchange pilot projects to design a voluntary U.S. trading program. We also are initiating a study in New Delhi, India, to research Clean Development Mechanisms for the transportation sector.

We understand that more needs to be done, and we will continue to focus our efforts on advanced vehicle technology research, cooperative partnerships with leading environmental groups and universities, and exploring new policy options and flexible mechanisms to develop long-term solutions.

Working with associations

We are members of several automotive, manufacturing and trade associations that are involved globally in the development and implementation of public policy issues. 

We also are members of business organizations focused on sustainability and corporate responsibility including Business for Social Responsibility, the Prince of Wales International Business Leaders Forum and the World Business Council for Sustainable Development.

 www.ford.com/go/corpcit/gao

  www.ford.com/go/corpcit/eurodistrib    www.ford.com/go/corpcit/euroend

Making political contributions

The Ford Motor Company Civic Action Fund, supported by voluntary donations from Ford employees, gives campaign contributions to national, state and local political candidates from both major political parties in the United States. A list of contributions made during 2000-01 can be viewed at www.fec.gov.

Looking forward

We are committed to improving our relationships and developing our public policies, and we will continue our discussions with a variety of stakeholders in order to achieve our business goals and our corporate citizenship objectives. We will continue to address societal problems in an innovative and cost-effective manner while reacting responsibly to business and economic conditions. We will work cooperatively with governments around the world to address issues of societal concern and continue our efforts to engage and deepen our relationships with key stakeholders. As alternatives to regulatory mandates, we will continue to emphasize innovation, advanced technology, and flexible mechanisms as long-term solutions to address environmental and safety issues.

Vehicle Fuel Consumption

In 2001-02, corporate average fuel economy (CAFE) standards were a controversial issue in the U.S. Congress. CAFE is a weighted average that reflects what a manufacturer is able to sell, not merely what vehicles it offers. For example, an automaker can increase the fuel efficiency of all of its vehicles, but, if it sells a higher number of large cars or trucks, its CAFE average may still decline. This means that full-line manufacturers like Ford that sell a significant number of full-size cars, performance cars, pickups, minivans and SUVs have a significantly higher CAFE task than manufacturers that produce primarily smaller vehicles. As a result, we opposed legislation that would not have taken these competitive impacts into consideration and would have selected fuel economy (CAFE) standards through a political, rather than a scientific, process. We instead supported alternative legislation that requires the scientists and experts at the National Highway Traffic Safety Administration (NHTSA), the government agency with jurisdiction over CAFE, to establish new fuel economy standards at the maximum feasible levels after considering all the potential employment, safety, economic, and competitive tradeoffs and impacts.

While many of our stakeholders supported the position we took, others did not, believing that the CAFE standards could be met using existing technologies and that CAFE would force greater environmental innovation.

The House and Senate passed legislation that directs NHTSA to establish new fuel economy standards and offers new customer tax incentives for the purchase of advanced technology vehicles. We support performance-based customer tax incentives because they will encourage the acceptance of fuel-efficient technology vehicles, and we will work with NHTSA throughout its rulemaking process.

Listening and Learning

We are committed to continuous improvement in our corporate citizenship reporting.

To prepare this report, we started by reviewing the feedback we received on our 2000 report and benchmarking leadership and competitors' reports.

Reviewing feedback on the 2000 Report

We received many comments about the 2000 report from our employees, business partners and advocacy organizations. This feedback came to us directly – through e-mails, phone calls, post cards and letters. We also got indirect feedback through media stories and public opinion research we commissioned on the report.

The majority of the feedback from our employees was positive. Most

thought it was important and appropriate for Ford to report on its environmental, social and economic performance.

We also heard from several advocacy organizations. Most thought Ford had done a good job of discussing the issues of climate change and human rights and setting a course for action. However, they thought action was needed and that their final opinion about the Company would depend on its performance, rather than its words.

We also got very detailed feedback on the report from SustainAbility in the form of a benchmarking report. 

Improving our 2001 Report

All of this feedback helped us identify some key areas for improvement in the 2001 report.

First, people thought it was important to further explore the issue of sustainability and what it means for our business. We have tried to do this with our discussion of sustainable mobility on pages 14 to 15, where we share the current state of our thinking about sustainability, some of the lessons we learned through our participation in the WBCSD sustainable mobility project and how that is influencing our thinking on climate change and technology development.

Second, while we reported on a fairly comprehensive set of environmental, social and economic issues, we did not have clear goals, strategies, performance targets and metrics for managing these across the full range of issues. Although we have not dotted all the "i"s and crossed all our "t"s, we have tried to be very clear about where we have goals, strategies, performance targets and metrics, and where we don't. Over the next few years we hope to fill in these gaps.

Third, we need to continue expanding distribution of this report. In a Web survey we commissioned in the days following the release of the report, we found that 10 percent of all respondents had heard of the report, and of those who were aware of the report, 92 percent thought that discussing the issues was a good idea, and 40 percent had an improved opinion of the Company.

Planning for our 2002 Report

In the next report, we will broaden the scope and depth of the report in line with the GRI guidelines and consider:

- Expanding coverage to all of the entities in Ford Motor Company
- Further refining performance reporting so progress is clear
- Adding data about leadership and competitor activities to promote benchmarking and comparison
- Continuing to explore verification
- Enhancing the Web version of our report.

"I think it is important that they [college students] understand many companies talk social responsibility. The fact that Ford is using GRI standards sets them apart somewhat. Independent organizations setting standards for companies to follow may be the difference. ... with reference to your publication Connecting with Society ... I have reviewed this document and would like to incorporate it in my class."

Steven B. Gilbert
Department of
Marketing/Management
Northwest Missouri State
University

Your comments...

are extremely important to us as we shape future reports. Please send us your thoughts on the enclosed comment card or via e-mail at corpCit@ford.com or the Ford Web site, www.ford.com.

Index to Global Reporting Initiative Indicators

Below is a cross-reference between indicators recommended by the Global Reporting Initiative Sustainability Reporting Guidelines (June 2001) and the pages where they can be found in this report.

CEO Statement *GRI Section 1*

2 Letter from Ford Chairman and CEO William Clay Ford, Jr.

Corporate Overview *GRI Section 2*

5 Operating Highlights

Executive Summary and Key Indicators *GRI Section 3*

5 Operating Highlights

19 Making Steady Progress

Vision and Strategy *GRI Section 4*

7 Introduction

8 Climate Change

10 Human Rights

12 Business Principles

14 Sustainable Mobility

16 Partnerships and Technology

Policies, Organization and Management Systems and Performance *GRI Sections 5&6*

20 Stakeholder Relationships

40 Product Performance

53 Manufacturing Performance

60 Sustainable Manufacturing: A Special Section

62 Public Policy Review

Ford Reports and Web Resources

Other Ford reports, including those listed below, can be obtained from the following sources:

Ford

Ford Motor Company Annual Report

www.ford.com

- S.E.C. Form 10-K Annual Reports
- S.E.C. Form 10-Q Quarterly Reports
- Proxy Statement
- Quarterly Financial Results Announcements

Ford Motor Company Fund Annual Report

www.ford.com

Available from:

Ford Motor Company Shareholder Relations

One American Road
Dearborn, MI 48126-2798
(800) 555-5259 (U.S. and Canada)
(313) 845-8540 (elsewhere)

Mazda's Environmental Report 2001

www.mazda.com

Jaguar's Environmental Report 2001

www.jaguar.com/uk

Volvo Corporate Citizenship Report 2001

www.citizenship.volvocars.com

Other Ford Resources:

Envirodrive (environmental information on U.S. products)

www.fordenvirodrive.com

THINK

www.thinkmobility.com

Ford Supplier Network

fsn.ford.com



As we at Ford Motor Company look forward to our 100th anniversary in 2003, we feel more connected than ever to our heritage. Throughout this report, you will find images of Ford Motor Company people, products and processes from the past and present, as well as a few that hint at the shape of the future.

This report is printed on recycled paper, using non-toxic soy-based inks.



More on Climate Change Partnerships

Greenhouse Gas Emissions Revisited

In our 2000 Corporate Citizenship Report, we published a rough estimate of total greenhouse gas (GHG) emissions associated with Ford operations and products. The number we arrived at was about 400 million metric tons (mmt) of CO₂ equivalent. Many factors do influence the magnitude of this estimate. Some are more directly under our control than others (see figure below).

The number stirred considerable interest in the media and environmental community, and we have fielded a number of questions throughout the year about its purpose, how it was calculated and whether it will be updated this year. We developed the estimate to give us a sense

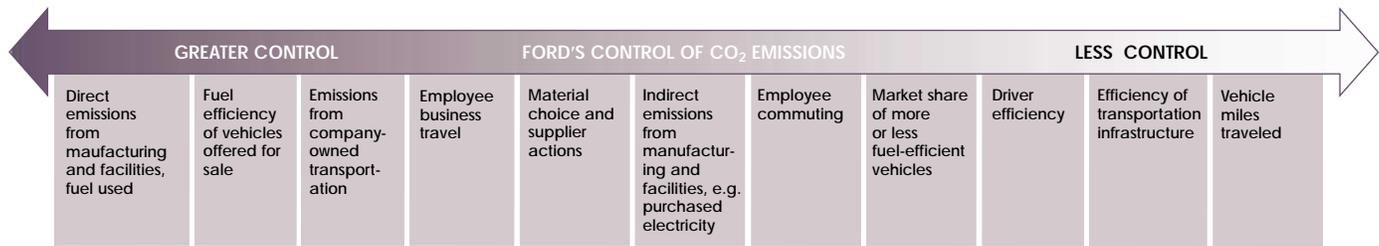
for the order of magnitude contribution of our operations and products to the issue of climate change.

We have not modified the estimate for 2001. We improved the CO₂ efficiency of new vehicles in Europe, reduced energy-related CO₂ emissions from manufacturing worldwide and experienced no major increases in greenhouse gas emissions. However, the reductions relative to emissions from the existing fleet are not substantial enough to warrant a change in the estimate (for an update on our stationary source emissions, see pages 54 to 55).

We continue to work with the World Resources Institute and the World

Business Council for Sustainable Development to improve our greenhouse gas reporting by focusing in the next year on developing a better methodology for estimating the GHG emissions during the customer use phase.

We will continue exploring ways to refine our estimates and make them more useful for assessing long-term performance. The increasing rigor of our greenhouse gas accounting supports our efforts to develop a comprehensive climate change strategy and track our progress on this critical issue.

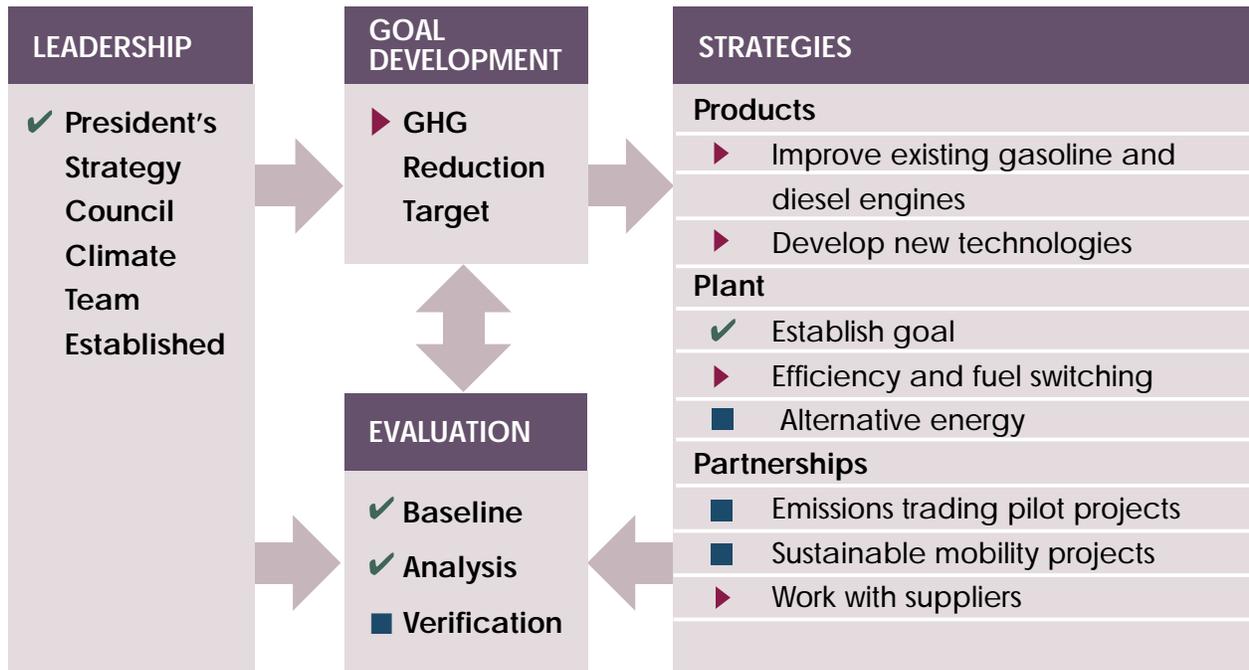


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www.ford.com/go/corpcit/climate2

More on Climate Change

Climate Change Strategy Development Process and Status 2001



Key:

✓ Accomplished

■ Pilot project(s)

▶ Progress toward

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More on Greenhouse Gas Reduction

U.K. Emissions Trading Project Started

Ford Britain is the first automotive manufacturer to enter the pioneering U.K. Emissions Trading Scheme. The voluntary five-year plan is the first of its kind and will help the U.K. reduce its greenhouse gas emissions.

At a government auction in early 2002, the 34 participating companies agreed to individual emission reduction targets in exchange for incentive payments. Ford agreed to cut baseline emissions from eligible plants and facilities by a total of 5 percent (roughly 12,500 tons of CO₂) over the next five years.

By joining the U.K. program, Ford intends to “learn by doing” and to focus on energy efficiency improvements and renewable energy alternatives to meet its targets.

For voluntarily entering the plan and meeting agreed targets, the U.K. government will provide the Company with about \$1 million in incentives over the five-year program.

To ensure transparency to the public and demonstrate actual environmental improvement, participants undergo independent annual verification audits; results are published by the government. Those that meet their targets will receive the agreed incentive payments. Overachievements can be either sold to other organizations to help them meet their targets or banked for future use. Underachievements will be penalized. Participating concerns are able to trade allowances to meet their annual target at a minimum overall cost.

Pilot U.S. Trading Program Design

Ford is participating in the design phase of the Chicago Climate Exchange, the first U.S. voluntary pilot program for trading of greenhouse gases. The program is focused on seven U.S. Midwestern states, and has the potential to expand to include national and international sources.

More on Human Rights

Report Issued on Ford-Werke Under the Nazi Regime

In December 2001 Ford released the results of its 3 1/2-year study on the activities of its German subsidiary, Ford-Werke, during the World War II era, after the plant was placed under German government control. The report, *Research Findings about Ford-Werke Under the Nazi Regime*, summarizes more than 98,000 pages of documents and other materials gathered and analyzed from more than 30 archival repositories including Ford archives in the United States, Germany and the United Kingdom, as well as outside archives like the National Archives in Washington, D.C. At various times more than 45 archivists, historians, researchers and translators worked on this project.

Ford Group Vice President and Chief of Staff John Rintamaki was quoted, "We didn't find anything substantial that hasn't been known before, but we did add a great deal of detail on this subject. The use of forced and slave labor in Germany, including at Ford-Werke, was a dark period in our history. In looking back, it must be remembered that all companies operating in Germany at that time had to use labor provided by the German government, and that the Nazi regime chose to provide forced and slave laborers to industry. By being open and honest about the past, even when we find the subject reprehensible, we hope to contribute toward a better understanding of this period of history."

The Company hired two independent experts to watch over the development and release of the report. Lawrence Dowler, formerly a librarian and archivist at both Harvard and Yale universities and a noted authority on research methodology, was commissioned to assess the thoroughness of the research and the report process. Author and university professor Simon Reich, one of the world's foremost scholars on the automotive industry in Germany during the World War II era, reviewed the report as it was being compiled and consulted with Ford on the issues raised by the investigation.

Regarding the process, Dowler said, "I conducted an independent three-year analysis of the objectives, methods and results of the research effort. Ford Motor Company has not only fulfilled its original promise 'to find out what happened,' but has traveled an extra mile in doing so."

Reich verified the integrity of the report. "I believe that the outstanding effort of a dedicated staff of professionals has yielded a report that offers honest answers to sensitive questions," he said. "It is a credible example of a company accepting and implementing the code of corporate social responsibility regarding a most delicate issue."

The Company donated the documents compiled for this project, along with a searchable database, to the Benson Ford Research Center at Henry Ford Museum & Greenfield Village, where they are available for research. Additionally, Ford announced that it will donate its present and future historic records to the Benson Ford Research Center.

The Company also will contribute a total of \$4 million toward forced and slave labor studies and humanitarian relief, half of which will be donated to establish a center for the study of human rights issues. Details of the new center have not been announced, but it will be administered independently by a university recognized as a center of excellence in this field.

Ford will donate the other \$2 million to the U.S. Chamber of Commerce Center for Corporate Citizenship to support its World War II Humanitarian Fund. It is anticipated that the money will be used to fund internationally recognized organizations whose mission is to help survivors of economic terrorism under the Nazi regime, including forced and slave laborers.

To obtain a copy of this report, please contact archive4@ford.com

More on Sustainable Mobility Partnerships

Mobility Pilots Underway in Several Cities

In addition to the TH!NK@bout London project, TH!NK city vehicles are available as station cars at the Fremont, California BART station; for daily rental at Fisherman's Wharf in San Francisco; from select Ford dealers in California; and as part of the New York Power Authority's Clean Commute station car program.

In Georgia, a partnership between Ford, Georgia Power and Emory University is testing the market for small, urban electric vehicles in the Atlanta area. Georgia Power will receive 15 TH!NK city vehicles, which will be put to use in both the Georgia Power Employee RideShare Program and a shared car program at Emory University.

All of the vehicles will be equipped with an Intelligent Transportation System (ITS) designed by the University of California Riverside's Advanced Mobility Systems organization. The system will allow both on-demand and Internet online reservations for vehicles. This program will provide valuable vehicle utilization and tracking information for future shared car program expansions in the Atlanta area.

More on Technology and Partnerships

Fuel Cell Vehicles and the Hydrogen Economy: Here Today or Here Tomorrow?

Vehicles that run on hydrogen fuel hold great promise for addressing two major concerns about current and future mobility. When powered by fuel cells or internal combustion engines, vehicles running on hydrogen emit neither greenhouse gases nor conventional pollutants, only water vapor (although there are emissions associated with producing the hydrogen fuel and the vehicle itself).

We believe that hydrogen-fueled vehicles are likely to prove the best long-term alternative to gasoline and diesel powered vehicles, and, more broadly, that the vision of a hydrogen economy across all sectors is compelling.

Ford is working in partnership with government agencies, other automakers and the fuel cell company Ballard Power Systems to develop and test the technology to create fuel cell

vehicles. Significant issues remain in developing fuel cell vehicles, including their current high cost compared to conventional technologies and relatively short range.

More daunting is the need to develop an entirely new fueling infrastructure, either as central filling stations or dispersed small-scale units that make hydrogen gas from a feedstock such as natural gas. For testing purposes, we have installed a hydrogen fueling station in Dearborn, Michigan.

Automotive companies alone cannot compel the development of this infrastructure. This is where broader partnerships and public consensus are necessary. The sustainable mobility visions of automotive companies, energy companies, governments and consumers must converge on the hydrogen economy to make the



Ford Focus FCV (Fuel Cell Vehicle)

an important contributor to greenhouse gas emissions unless the fuel itself is manufactured using renewable energy.

There also remain many mobility challenges that hydrogen fuels do not address—from access to mobility to sprawl and congestion. To the extent that hydrogen-powered vehicles are a premium technology, they may fail to penetrate emerging markets leaving a pollution divide between the hydrogen “haves” and “have-nots.”

Ford has initiated partnerships to explore these issues and determine how cooperative action can help. For example, we’re working with several partners on the largest renewable fuel project in the world in Thailand. We are committed to work over the long run and continue exploring and seeking solutions to the challenges on the road to a hydrogen economy.

The sustainable mobility visions of automotive companies, energy companies, governments and consumers must converge on the hydrogen economy to make the vision a reality.

vehicles. Hydrogen fuel cell Focus cars are currently being tested in real-world conditions through the California Fuel Cell Partnership. We are also researching internal combustion engines that run on hydrogen fuel and are the only North American automaker to have introduced a prototype vehicle.

vision a reality. In addition, we should keep in mind what a hydrogen economy can offer—and what it does not address.

Hydrogen-powered and other advanced vehicles can cut greenhouse gas emissions significantly. However, the transportation sector will remain

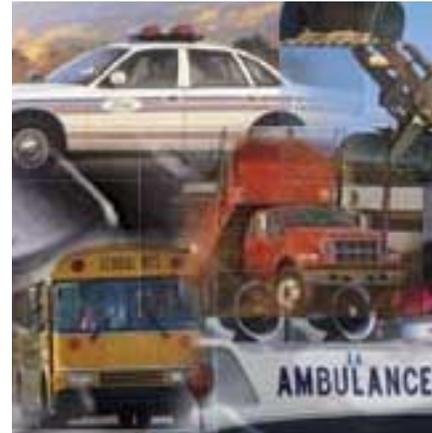
More on Technology and Partnerships

Fuel Projects in Thailand and Sweden

Ford's partners in the projects in Thailand include the Thailand National Science and Technology Development Administration and the Thailand National Metals and Materials Technology Center. The project is particularly important to Thailand because locally produced bio-fuels could help reduce dependence on imported oil and reduce the price of fuel. Ford is testing the performance of bio-diesel in several Ford Ranger pickup trucks.

Volvo Car Corporation is one of the partners of a project aimed at strengthening natural gas and biogas as vehicle fuels in the Gothenburg, Sweden region. Other partners include the City of Gothenburg, the City Road Authority, the Volvo Group,

FordonsGas (a fuel provider) and Renova, a local waste management company. Approximately 800 out of 10,000 vehicles in the region are driven by gaseous fuels. Today these vehicles can be filled with methane at seven gas filling stations in the Gothenburg area. Seven more stations are to be opened in 2002. The introduction of locally produced biogas to the system has reduced the dependency on fossil fuels. Regional authorities have promoted the initiative with generous parking rules for vehicles driven on gaseous fuels. The project aims at 25 filling stations and 2,500 vehicles using natural gas fuels and 120GWh biogas by the end of 2003. Volvo Cars is launching a new generation of bi-fuel cars based in part in this project.



Examples of transportation representing partnerships

More on Technology and Partnerships

Road Safety in Developing Countries

The Global Road Safety Partnership (GRSP), a World Bank initiative, seeks to find more effective and innovative ways of dealing with road safety in developing and transition countries. Through a comprehensive approach to road safety, GRSP partners collaborate and coordinate road safety activities. This approach aims to build the capacities of local institutions by enhancing the ability of professionals and communities to tackle safety problems

proactively. Ford Motor Company and Volvo Car Corporation serve on the steering committee of the Partnership. Within the framework of the Partnership, Volvo Cars, in collaboration with the Ministry of Transport and the Asian Institute of Technology, will start up a project aimed at establishing an accident research center in Thailand. The project is planned to start in 2002 and run through 2008.

More on Performance

“People desire mobility. They desire it both for its own sake and because it improves accessibility to places they work, shop, seek medical attention, go to school, do business or visit friends and relatives. Businesses desire mobility because it provides access to sources of raw materials, markets and employees. Although increased mobility yields great benefits, it also generates negative consequences.”

Mobility 2001 Report, WBCSD

The following table summarizes some of the environmental, social and economic aspects of Ford's products and operations.

	PRODUCT DESIGN/ PRODUCTION	SALE/PURCHASE/ LEASE	USE	END OF LIFE
		<ul style="list-style-type: none"> •Promotion •Financing •Service 	<ul style="list-style-type: none"> •Driving •Maintenance/repair •Infrastructure 	<ul style="list-style-type: none"> •Disposal •Reuse •Recycling/recovery
Environmental	Materials Use Operations <ul style="list-style-type: none"> •Energy use •Water use Emissions to air, water, land including greenhouse gases Land use for operations Biodiversity Logistics <ul style="list-style-type: none"> •Energy use •Packaging 	Land use (dealerships)	Energy use Toxic chemicals use Air emissions, including greenhouse gases Waste: fluids and parts Noise Biodiversity Land use, impacts of road construction and urban sprawl	Energy use <ul style="list-style-type: none"> •Transport •Disposal •Recycling Energy savings: reuse, recycling Energy generation: recovery Water use Emissions to air and water
Social	Employee safety Worker satisfaction Community economic development Supplier relationships Community participation Knowledge capital Training	Promotion practices: <ul style="list-style-type: none"> •Pricing •Creation of demand Lending practices <ul style="list-style-type: none"> •Equity Dealer relationships <ul style="list-style-type: none"> •Diversity •Use of e-commerce •Participation in community Customer relationships <ul style="list-style-type: none"> •Satisfaction 	Land use/urban sprawl Privacy Congestion Impact of mass transit Safety <ul style="list-style-type: none"> •Occupants •Pedestrians •Occupants of other vehicles Mobility Sense of community Accessibility	Employee safety Community participation
Economic	Wages, benefits and other compensation Investment in plants Taxes Minority suppliers	Wages, benefits and other compensation Taxes — sales and property Local economic development and wealth creation Wealth distribution	Wages, benefits and other compensation Infrastructure investment <ul style="list-style-type: none"> •Roads and highways •Urban centers •Parking Road and fuel taxes Recalls — costs to Company and consumer	Wages, benefits and other compensation Market development for recycled materials Economic efficiency from parts reuse Reduced resource dependency

More on Employees

What Employees are Saying about the Restructuring Plan

Following the January 11, 2002, announcement of the Company's restructuring, Ford conducted an on-line poll of employee responses. When asked whether a company could be considered an employer of choice while reducing its workforce, nearly half thought this was possible, but only if handled properly. Respondents identified several acceptable actions for a socially responsible company to take in difficult economic times:

- Offer early retirement
- Discontinue slow-selling products
- Suspend bonuses
- Reduce charitable giving

Most survey participants thought that increasing health care costs for retirees was not socially responsible.

Some representative comments and questions included:

Hourly Employees

- "Will Ford Motor Company become more competitive as a result of restructuring? What will be the long-term effects on the economy as a result of the layoffs?"

- "Will the closed plants and layoffs be the last of them?"
- "Quality is Job 1. Where is it? Honda and Toyota."
- "We all realize these are critical times and that measures have to be made to reverse bad decisions ... The hope of a brighter future inspires us to set feelings aside and trudge through the trenches of this economic war until the battle is over."

Salaried Employees

- "In times like this we're able to really evaluate whom we work for. Job cuts are painful but necessary. I am pleased as an employee and also as a shareholder about the actions that are on the way. This is our chance to continue to do what is best for the company, which is focus on the basics and make smart decisions. Make every move count."
- "Continue to provide internal information. Do not allow external sources to be first to announce Ford news."

- "The Board of Directors needs to stay more involved and should take the power to veto direction by the CEO/COO if a plan does not make a good business case. Also keep in mind that the intangibles such as 'employee good will,' morale, etc. are just as important as the bottom line."
- "I believe that restructuring can be a good thing as long as we don't make panic decisions that we will regret later. Ford has been the best employer I have ever worked for, and that's why I personally believe that employees will put forth their best efforts and be loyal to the blue oval."

More on Our Employees

Ford Motor Company Had Nine Employee Resource Groups Active in 2001

- Ford African Ancestry Network
- Ford Professional Women's Network
- Ford Asian Indian Association
- Middle Eastern Community at Ford
- Ford Gay, Lesbian or Bisexual Employees
- Ford Hispanic Network Group
- Ford Chinese Association
- Ford Interfaith Network
- Ford Parenting Network

U.S. Representation of Minority-Group Members and Women at Year-End¹

Job Categories ²	AFRICAN-AMERICAN		HISPANIC-AMERICAN		OTHER MINORITIES ³		WOMEN	
	2001	2000	2001	2000	2001	2000	2001	2000
Officials and Managers	11.1%	10.1%	2.4%	1.9%	3.9%	3.1%	17.5%	15.1%
Professionals	11.5%	9.4%	3.7%	2.7%	7.7%	6.5%	32.4%	29.8%
Technicians	7.4%	8.7%	4.0%	2.9%	2.0%	2.6%	19.2%	18.9%
Office and Clerical	22.2%	19.5%	6.9%	5.6%	1.7%	1.5%	49.4%	49.0%
Craft Workers (skilled)	8.5%	8.4%	1.4%	1.3%	0.8%	0.7%	3.0%	2.8%
Operatives (semiskilled)	25.9%	25.8%	3.0%	2.9%	1.0%	0.9%	22.5%	22.3%
Laborers (nonskilled)	33.1%	31.3%	1.8%	2.1%	0.8%	0.8%	13.3%	13.5%
Service Workers	34.1%	32.7%	2.6%	2.5%	0.3%	0.4%	11.8%	11.2%
Percentage of Workforce	2001	2000	2001	2000	2001	2000	2001	2000
	19.0%	18.5%	3.1%	2.7%	2.6%	2.2%	22.8%	21.7%

¹ Employment for Ford Motor Company and Ford Credit at year-end. (The data excludes Hertz, Land Rover, Volvo and other wholly owned subsidiaries and joint ventures). The year-end U.S. employment does not include non-U.S. employees assigned to International Service in the United States and year-end 2001 data does not reflect the separation decreases. Hourly employees assigned to Visteon who are covered under the Ford/UAW contract are included.

² Excludes sales workers (retail), a job category that is not applicable to Ford Motor Company.

³ Includes Asian American, Pacific Islander, American Indian or Alaskan natives only.

More on Employees

Addressing an Unexpected Emergency

Tragically, in 2001 we lost two Ford employees to an unexpected hazard. In March, four workers at our Brook Park, Ohio, plant became ill and two subsequently died of Legionnaires' disease. As the outbreak unfolded, we cooperated with all of the public health authorities and closed the 2,500-employee casting plant for five days while the U.S. Centers

for Disease Control conducted an investigation and disinfected water-bearing systems. The source of contamination was not pinpointed. We tested all of our plants for Legionella bacteria and closed two sections of another plant after finding the bacteria in water systems, but no illnesses were reported at that plant. Though we were in compliance with all require-

ments at the time of the outbreak, we have begun an enhanced world-wide program of preventive maintenance and regular testing for the bacteria at all of our facilities to prevent any future outbreaks. We believe this program represents an industry-leading practice in the prevention of Legionella.

More on Customers

Who are Ford's Customers?

When people ask us who our customers are, there is no simple answer.

Ford's automotive operations, which include all of our brands, sell cars and trucks to customers around the world through our network of dealers. The number of customers purchasing Ford products has grown significantly during the past three years, in part because of the acquisition of Volvo and Land Rover and a strong U.S. economy.

We keep an especially close eye on the number of first-time vehicle buyers and repeat customers we are serving to get an idea of whether we

are attracting and retaining customers. During the past few years, we've seen a slight decline in the percentage of both of these customers.

As our society becomes more diverse, we are making extra efforts to reach out to growing customer segments. For example, in the southwestern United States, the Hispanic community represents an increasingly important customer segment. Ford Motor Company and our dealers are taking a focused approach to introducing Hispanic buyers to Ford products and making the sales and service experience an appealing one to them.

Through our dealers, we serve customers who need large fleets of vehicles – mostly governments and businesses. Hertz and Ford Credit also serve a large number of retail and fleet customers per year.

In any given year, many customers are served by more than one part of Ford Motor Company. For example, a young family may decide to purchase a Ford Focus wagon from a Ford dealer using financing from Ford Credit. When they take a vacation, they might decide to rent a Ford Windstar from Hertz.

More on Ford Investors

Corporate Citizenship – Is it Important to Investors?

Corporate citizenship is essential in the small, but rapidly growing field of socially responsible investing. It also is beginning to be recognized by mainstream investors as a means for enhancing value, creating operating efficiency, contributing to the identification of market trends and opportunities, and strengthening risk management. Those same investors also are watching the degree of transparency in our behavior and accounting.

Rating and ranking our performance

Ranking and rating agencies assess corporate citizenship performance and provide this data to investors in-house or elsewhere. Environmental, human rights, and economic opportunity issues – corporate citizenship focus areas for Ford – are among the most frequently reviewed issues. Examples of such agencies include Ethical Investment Resource Service (EIRIS), Investor Responsibility Research Center (IRRC), Sustainable Asset Management (SAM), Innovest, Business in the Community (BITC), Kinder Lydenberg Domini (KLD), and others. This is an important group, whose influence we expect to increase over time.

Ford openly participates in the ranking and rating processes by responding to surveys and questionnaires and by providing management interviews and other information as requested.

Although their evaluation methodologies are still evolving, we think that it is critical to participate in this process to help further the understanding between corporate citizenship and financial performance. We support alignment of the methodologies with the Global Reporting Initiative indicators.

The table which follows provides an example of how we are viewed by one of the prominent analysts, Innovest.

Ford is not currently in the Dow Jones Sustainability Index (DJSI) or FTSE4Good. Some of our European competitors – BMW, DC, and VW – appear in the DJSI, while still others – Honda, Toyota, and BMW – are included in FTSE4Good indices. FTSE4Good excludes companies providing strategic parts or services in the manufacture of whole nuclear weapons systems, or companies manufacturing whole weapons systems. Ford received notification from FTSE that it was excluded on this basis and has submitted an appeal requesting review of this criteria as it applies to Ford.

Ford ranked 39th out of 192 companies reviewed in the BITC Index of Corporate Environmental Engagement.

EcoValue '21 Company Scores and Ratings

COMPANY	RATING
Honda Motor	AAA
Toyota Motor	AAA
Volkswagen Group	AA
PSA Peugeot Citroën	A
Renault SA	A
DaimlerChrysler	BBB
Fiat SPA	BBB
Ford Motor Company	BBB
Nissan Motor	BBB
Bayerische Motoren Werke	BB
General Motors	BB
Fuji Heavy Industries	B
Mitsubishi Motors	B
Porsche	CCC

Source: Innovest Strategic Value Advisors

2002 Financial Milestones

We have set and communicated new financial milestones for 2002. Although we hope to achieve these goals, they should not be interpreted as projections, expectations or forecasts of 2002 results. The financial milestones for 2002 are as follows:

2002 Milestone	
RESTRUCTURING PRIORITIES	
Communicate/implement plans	Report on progress
Quality (U.S.)	Improve J.D. Power Initial Quality Survey
Capacity utilization (North America)	Improve by 10%
Non-product-related cost	Reduce by \$2 billion
Divest non-core operations	\$1 billion cash realization
FINANCIAL RESULTS	
Corporate	
Pretax operating earnings	Positive
Capital spending	\$7 billion
Europe	Improve results
South America	Improve results

 www.ford.com/go/corpcit/operations

More on Communities

FORD AUTOMOTIVE OPERATIONS BY GEOGRAPHIC REGION

NORTH AMERICA

Revenue (Millions)—\$90,952
Net Income / (Loss) (Millions)—\$(5,597)
Taxes (Millions)—\$(2,658)
Capital Expenditures (Millions)—\$3,350
Wages Including Benefits (Millions)—\$14,328

SOUTH AMERICA

Revenue (Millions)—\$2,229
Net Income / (Loss) (Millions)—\$(777)
Taxes (Millions)—\$(420)
Capital Expenditures (Millions)—\$260
Wages Including Benefits (Millions)—\$299

ASIA PACIFIC AND REST OF WORLD

Revenue (Millions)—\$6,422
Net Income / (Loss) (Millions)—\$(159)
Taxes (Millions)—\$109
Capital Expenditures (Millions)—\$170
Wages Including Benefits (Millions)—\$428

EUROPE

Revenue (Millions)—\$31,925
Net Income / (Loss) (Millions)—\$266
Taxes (Millions)—\$161
Capital Expenditures (Millions)—\$2,577
Wages Including Benefits (Millions)—\$6,006

TOTAL WORLDWIDE

Revenue (Millions)—\$131,528
Net Income / (Loss) (Millions)—\$(6,267)
Taxes (Millions)—\$(2,808)
Capital Expenditures (Millions)—\$6,357
Wages Including Benefits (Millions)—\$21,061

For additional information about Ford Motor Company, please see our Annual Report.  www.ford.com

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More on Dagenham and Halewood

Our 2000 Corporate Citizenship Report discussed in detail three projects to regenerate manufacturing sites in the U.S. and the U.K. We provide here an update on the two U.K. sites, Dagenham and Halewood. (See page 60 for an update on the Rouge.)

Dagenham — Regeneration is Underway

The Dagenham manufacturing complex in East London is undergoing a transformation, as the 473-acre site prepares to become home to Ford's global center of excellence for diesel engine design and manufacture, Dagenham Stamping Operations, and the Centre for Engineering and Manufacturing Excellence.

Over a five-year period (2000-2004), Ford's investment in the Dagenham Estate will total \$600 million and will see the creation of a world-class, high technology, diesel engineering and manufacturing center. At the heart of Ford's plans is the new Clean Room Assembly Hall, the first major new building to be constructed at Dagenham for more than 30 years. The Clean Room will be one of the most modern manufacturing facilities in Europe.

February 20, 2002 marked the end of vehicle assembly at Dagenham when the 10,980,368th, and last vehicle — a Ford Fiesta — rolled off the production line.

Since announcement of restructuring of operations at the site, \$36 million has been spent in upgrading Dagenham Stamping Operations. The operation provides vehicle panels, sub-assemblies and wheels to Ford plants throughout Europe and emerging markets.

In October 2001, construction of the Centre of Excellence for Manufacturing and Engineering began on land donated by Ford. The Centre is a unique partnership between Ford, regional government, local colleges and the Universities of Loughborough and Warwick.

The Centre will support education and skill training for the local area, to provide a seamless route from basic skills to higher education and research programs around manufacturing, engineering, commercial and technological themes.

Halewood — Up and Running

The Halewood, U.K. manufacturing site, which stopped producing Ford brand products in mid-2000, has been completely revamped and reopened as the manufacturing site for Jaguar's new X-TYPE car.

The facility uses lean manufacturing principles for efficient production, in line with the Ford model of sustainable manufacturing. Jaguar is building a Lean Learning Academy on site to accelerate learning and support further improvement.

During the changeover to Jaguar production, the Company invested heavily in retraining the workforce, including skills and knowledge training and community service. These efforts have been recognized in several ways:

- Jaguar received the Investors in People award recognizing its delivery of more than one million hours of training to Halewood employees and its partnership efforts in the community.

- Halewood also won the National Training Award for the North West (U.K.) Region for its program training 37 long-term unemployed people to move into the workforce.
- A silver "Green Apple" award from the Green Organization recognized Halewood's environmental projects in the community.

Halewood is working on a range of corporate citizenship projects currently, including:

- A partnership with three pharmaceutical companies and public sector bodies to build a state of the art training facility to serve local industry and the community. The "Partnership for Learning" will include comprehensive training facilities, a visitor center, showroom and heritage center. Also proposed are a Community Learning Fund to provide grants for local residents, a bridge to the University for Industry to promote access to higher education and a range of business support services. The Partnership for Learning will also provide educational opportunities for children.
- Jaguar Cars is providing what is thought to be the largest sponsorship for a U.K. zoo to support the Spirit of the Jaguar rainforest exhibit at the Chester Zoo.
- A variety of environmental improvement projects are underway, including development of a green travel plan for employees, investigation of a combined heat and power system for the Halewood site and recycling of toner cartridges, with the proceeds donated to local charities.

More on Expanding Access to Education

Throughout his lifetime, Henry Ford had a deep interest in education, funding dozens of K-12 schools and other educational institutions around the world. These schools linked the academic knowledge that a student learned in the classroom with what he or she might later do in the workplace.

We continue to invest in education. In today's intensely competitive global economy, having access to a highly skilled workforce is critical to our survival. By working with our partners in education to inspire the next generation of scientists, engineers and technical workers, and supporting greater diversity in these areas, we help to ensure not only their future success, but ours as well.

North America (U.S./Mexico/Canada)

- An example of this enduring commitment is the College Relations Sponsor Program (CRSP), an industry-leading model for the development of long-term partnerships with colleges and universities. In 2001, Ford Motor Company Fund provided over \$34 million to CRSP schools in addition to supporting a large number of other non CSRP schools.
- The Henry Ford Academy graduated its first class in June 2001. The Academy is a national model for education reform, providing a diverse population of 415 students from the City of Detroit and surrounding Wayne County, Michigan, with a rigorous educational experience focused on math, science and technology. Ford employees provide hands-on support as tutors, mentors, coaches and guest speakers. The Academy's results so far are impressive: Its first graduating class scored significantly higher than their countywide peers on state educational achievement tests, and 88 percent were accepted into post-secondary education.
- In 2001 we initiated a three-year, \$3 million update of our premiere K-12 education program, the Ford Academy of Manufacturing Sciences (FAMS). Each year over 2000 high school students in 70 sites in the United States, Canada, and South Africa participate in FAMS courses and activities. When completed in 2003, this curriculum update will allow FAMS students and teachers to utilize the World Wide Web for research, interactive learning and collaboration between students and teachers, and will introduce cutting edge industry practices and issues such as 6-Sigma, Corporate Citizenship and Governance and Product Design for the Environment.
- Ford's Manufacturing and Quality Group launched the Manufacturing Business, Education, School Initiative (BESI) in 2001. Led by Jim Padilla, Group Vice President, Ford North America, this initiative partners Ford Manufacturing facilities with six high schools in Detroit and Dearborn to help young men and women realize their potential. Actions taken so far include: participating in the schools' career days, establishing a mentoring program (technical and non-technical), starting a speaker's bureau, providing internships (paid and unpaid), coordinating plant and dealership tours, coordinating Science Fairs, sponsoring UAW-led instruction (home maintenance), crash test demonstrations, assistance in course development (environmental science and networking), establishing a Ford Academy of Manufacturing Sciences program and providing community service work to improve the facilities at each school.
- Ford's Technical Support Operations support a comprehensive series of career-entry programs ranging from high school outreach to two-year college degrees. Examples include:
 - Ford/AAA Student Auto Skills challenge, a nationwide, hands-on competition involving 5,700 high school seniors from 1,100 participating schools competing for hundreds of thousands of dollars in college scholarships.
 - Ford Accelerated Credential Training (FACT) program, a 13-month, post-secondary automotive training program offered in partnership with the Universal Technical Institute.
 - Ford Automotive Student Service Educational Training (ASSET) program, a 24-month program where students earn an associate degree while alternating between classroom studies and work at their sponsoring dealerships.
 - Maintenance & Light Repair (MLR) training, a 3-6 month program offered at vocational schools and community colleges. The MLR program provides entry level technicians with skills in the brakes, electrical, steering and suspension and climate control specialties.

More on Expanding Access to Education

- Automotive Youth Educational System (AYES), an all-manufacturer industry partnership providing selected high schools with an automotive training program. Selected students are provided internships with sponsoring dealerships between their Junior and Senior year. AYES prepares students to continue their education for a successful automotive career.

These programs have provided an opportunity for thousands of young people to begin a rewarding career as an automotive technician.

- Ford Motor Company Fund supports the Ford Corporate Scholars Program that provides hundreds of scholarships to minority college students through the United Negro College fund, the Hispanic College Fund and the American Indian College Fund. In addition to scholarship assistance, program participants have access to mentoring from Ford employees and internships at Ford Motor Company.
- In 2001 Ford of Mexico and its dealership network celebrated the 35th anniversary of their Ford Schools Construction Program. Launched in 1966, this initiative aims to increase the possibilities for development and economic well-being for Mexican children. It created high quality educational centers for low-income communities in urban as well as rural areas and built 193 public elementary schools and donated them to the National Education System.

Principals and teachers at Ford schools are eligible to participate in special professional development programs created by Ford of Mexico, its Dealership Network and partners

in higher education. Ford schools serve more than 60,000 students across Mexico and have served more than 1.5 million children since its inception.

- In Chicago, Ford has entered a unique partnership with the Illinois chapter of Jobs for America Graduates (JAG), a school-to-work transition program helping at-risk high school students graduate, get further education or secure a quality job. Local JAG graduates will be linked with The Youth and Adult Automotive Training Center (YAATC), a unique collaboration between Ford Motor Company and its Trustmark dealerships, community colleges, social agencies and faith-based organizations. In addition to the Chicago YAATC, there are 12 other such programs in Florida, Louisiana, Maryland, Michigan, Missouri, New Jersey, Ohio, Texas and Virginia. Collectively, these entities target the recruitment and training of disadvantaged, displaced workers and adults from diverse backgrounds for entry-level automotive technician positions.

Asia Pacific

- Together with the Books for Barangay Foundation, Ford Philippines donated over 15,000 textbooks and reference materials to 40 depressed and underserved schools in the Laguna province. These educational supplies are urgently needed to help improve the country's current 4:1 student-to-book ratio. Ford employees volunteered their time and talents to help organize a friendship ceremony to turn over the books and sort and distribute hundreds of boxes of books.

- Ford of Australia has teamed with Youth At Risk (Australia), Inc. to develop a partnership to assist at-risk youth in the Geelong and Broadmeadows Regions prepare for employment or a return to education. Through training programs, development and education, this partnership enables at-risk young people to remove employment barriers. After completing an intensive series of seminars and workshops, participants move into a two-month mentoring phase paired with a Ford mentor. So far, 190 Ford employee volunteers have been trained as mentors and have taken the challenge.
- Ford Lio Ho served as the co-host of the 2001 Taiwan Aboriginal Children Education Trip organized by the Chinese Fund of Children and Families, Taiwan and the Council of Aboriginal Affairs. The purpose of this three-day trip is to help broaden the educational and life experience of aboriginal children in Taiwan. One hundred aboriginal children began their trip by visiting Ford Lio Ho operations for a plant tour. The children also traveled with Ford Lio Ho's human resources director to visit the Presidential Palace and participated in a special inspirational session hosted by Vice President Annette Lu to conclude the trip.
- The Ford Academy of Manufacturing Sciences was started in India in October 2001 to provide employment opportunities for the community. Ford India partnered with the Hospital & Education Foundation in implementing the academy. The first site is an ancient temple village located near the state-of-the-art Ford India manufacturing facility.

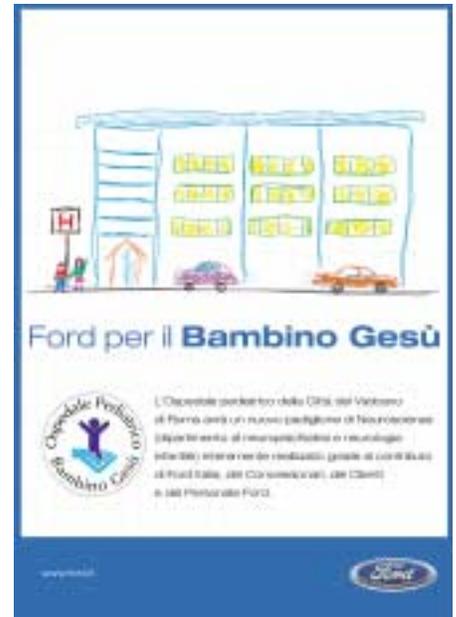
More on Expanding Access to Education

Europe

- Ford of Germany's Fit Project: Women in Technical Careers, designed to encourage young women to study engineering, won first prize in the team category of the European Chairman's Leadership Award for Diversity in March 2001. During 2001, this initiative provided 105 events/projects with 2,700 participants and sustained an ongoing supporters network of 150 Ford employees. The results so far have been encouraging: Since the initiative began in 1999, the percentage of young women in technical work experiences has increased from 5 to 32 percent.
- Ford's Dagenham Estate operations works with local authorities to provide learning opportunities in engineering to local students through its Saturday Club. Students are given the opportunity to do lathe work, learn about electronics, and do electrical and bench work. Club participants make CD racks, an electronic random number generator, an Extension lead and tool boxes. At the end of the program students are presented with a certificate of completion and a selection of tools.
- Ford's sites in the U.K. support the TRIDENT program, which is run by the TRIDENT TRUST. The program seeks to provide 14- to 16-year-olds, regardless of ability or background, with an integrated program of experiential learning and a unique opportunity to develop skills for life through personal challenge, community involvement and work experience. In 2001, for instance, Dunton provided work experience

opportunities for 130 students from local schools.

- Jaguar has committed to develop an Education Business Partnership Center at each U.K. plant where visiting teachers and their pupils will have access to the workplace, ensuring that they see the relevance and application of subjects studied. An estimated 32,000 children and 2,000 teachers per year will be using the centers, which will also be used for community education and to help the long-term unemployed and excluded transition back to work. Jaguar opened its third such center in Halewood in 2001, and is developing plans for its fourth center at Whitley in 2002.
- Ford in Russia has a similar arrangement, and Ford in the U.K. at Dagenham will create a new Education Campus in conjunction with local colleges and universities to support the needs of schools, the local community, suppliers and small and medium enterprises.
- Ford of Britain sponsors the Ford Award Scheme, an open competition for schools and their partners from the business and industrial world in which they can demonstrate innovation in the context of high quality education business partnership activity. The program, developed with the Careers Research and Advisory Center, targets secondary and primary schools in Essex and primary schools in Halewood, offering schools and industrial partners an opportunity to develop a project of their choice. For example, they may tackle environmental issues or form a school council to combat behavioral issues. The outcomes are focused on culture change in the participating organizations.



- In December 1999 Ford Italia announced a program whereby the customers, dealers, suppliers and employees could contribute money to support the Bambino Gesù Pediatric Hospital (run by the Vatican Holy See). Approximately \$2.5 million has been raised since, specifically to support the construction of a new block to house the Department of Neurosciences including the Department of Infant Neuropsychiatry and Neurology. This funded the building itself, all furniture and equipment and two new state-of-the-art Ford Transit ambulances specially fitted for small children. The ceremony to place the first stone took place on July 20, 2000, and the building was dedicated in December 2001.

The Ford Motor Company Conservation and Environmental Grants program is a continuation and expansion of the successful Henry

More on Expanding Our Support of the Environment

Ford Conservation Awards, which were first launched in Europe in 1983, and subsequently in Brazil in 1997, have continued to expand.

This global program was developed to enhance Ford Motor Company's corporate citizenship strategy, support local environmental conservation efforts, and foster improved relationships with governmental ministries and nongovernmental organizations (NGOs). It has provided grassroots support to more than 15,000 organizations and individuals from over 50 countries outside the

U.S. that focus on preservation of the natural environment and support conservation in a noteworthy manner.

Support has been provided in the following five program categories:

- **The Natural Environment:** conserving flora, fauna and/or their respective habitats.
- **Heritage:** conserving man-made aspects of national or international heritage.
- **Conservation Engineering:** projects designed to reduce the rate of consumption of natural resources and/or pollution.
- **Child and Youth Projects:** involves any conservation project whose main members are young people aged 18 or under.
- **Environmental Education:** programs to enhance overall public awareness of "reduce, reuse and recycle" or other educational, environmental and conservation initiatives or to create such initiatives in the country or local communities.

More on Answering the Call

The September 11th terrorist attacks in New York, Washington D.C. and Pennsylvania shocked and deeply touched all of us at Ford Motor Company. Our sympathy goes to all who were affected by this tragic event.

Our employees responded to this crisis with generosity, kindness and spirit.

Employees from our Edison, New Jersey, plant learned that the Port Authority of New York and New Jersey had lost their vehicle fleet in the attack and that rescue workers were carrying equipment and supplies by hand to Ground Zero, losing precious time and effort. Our employees mobilized quickly, and working in conjunction with the police and the Port Authority, delivered 15 Ford Rangers and two Ford Explorers to New York City to help with the rescue and recovery efforts. In total, Ford operations loaned or donated more than 50 vehicles to New York police, fire and public safety organizations.



Ford Motor Company, together with our employees and the UAW donated almost \$6 million to assist victims of the terrorist attacks. New York-area dealers and the Ford Division contributed \$500,000. In addition Ford Motor Company and its dealers provided transportation, gave supplies and assisted with local blood drives. Hertz froze prices, waived one-way

rental restrictions and fees and helped tens of thousands of stranded travelers get back home.

In Ford offices and plants around the world, employees found constructive ways to provide support and move forward. And we took greater steps to ensure the safety of all of our employees in our facilities around the world.

As we reflect on the painful events of September 11th, we find ourselves thinking more broadly about things like our role in world, globalization and what we can do to use our resources to expand economic opportunity and social inclusion.

“They asked for our help. We had to help, and we felt we could.”

Rob Webber, Plant Manager, Edison Assembly Plant

 www.ford.com/go/corpcit/volvo

More on Volvo Safety Tests

The Volvo Safety Concept Car

The Volvo Safety Concept Car (VCC) represents a paradigm shift in safety design. The VCC adapts ergonomically to the driver, helping him or her to prevent accidents. When the driver is seated, a sensor locates the eyes of the driver. Within seconds the seat, the steering wheel, the panels and even the

floor and pedals will adjust, improving vision and comfort for the driver. Infrared cameras, intelligent lights and sensors that tell the driver if another car is getting too close all enhance the information a driver gets from his or her normal sight and visibility. VCC is a concept car and has not been

designed for production. However, some of the systems will appear in new Volvo car models. The Volvo SC90, launched in 2002, will, for example, be equipped with the infrared camera giving the driver dramatically improved night vision.

LATEST TEST RESULTS OF VOLVO CAR MODELS

TESTING BODY	TEST METHOD	S80	S70	V70	S60	S40	V40
EuroNCAP	Crash Test	1*	1*		2**	1*	
US-NCAP	Crash Test Frontal	1	1		2		
	Crash Test Side	1	2		1		
IIHS	Crash Test	1	1			1	
IIHS-HLDI	Fatality Statistics		1				
HLDI	Insurance Injury Claims	1	2	1		3	
Folksam	Fatality and Injury Statistics		1	1		2	2
Which?	Expert Assessments	1	1	1	1	1	1

The scales may consist of 4 to 12 grades depending on the method, with 1 being the highest awarded by the relevant organization.

* 4 of 4 stars

** 4 of 5 stars (scale changed from 4 to 5 grades in year 2000)

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More on Pedestrian Safety in Europe

Agreement ensures improvements in the near future

The Negotiated Agreement provides a first phase of feasible improvements to new car models (passive safety) that stretches the engineering expertise of the vehicle manufacturers. A second phase would be established following review in 2004, to apply in 2010. Phase 1 provides over 80 percent of the reductions in fatalities and injuries claimed for the infeasible measures proposed by EEVC. Implementation of the Negotiated Agreement is scheduled by October 2005 for new models – three years earlier than a directive would be effective. Anti-lock brake systems (ABS) will be fitted as standard on all cars as a proactive measure to reduce accidents. The Agreement also includes the commitment that rigid bull-bars would no longer be fitted or marketed by auto association members from January 2002.

Driven by research

In the last few years, the focus of safety research has shifted to enhance the protection of the most vulnerable road users. However, this area is extremely complex and has to meet a broad range of requirements. Ford has completed research in this field that will provide improved pedestrian protection for all brands in Ford Motor Company.

The objective of the Pedestrian Protection Research of the Ford Forschungszentrum Aachen (FFA) is to improve the understanding of the complex interaction between pedestrians and vehicles during a pedestrian accident to provide a basis for improvements.

In the early days of pedestrian protection research, tests were conducted on dummies to investigate the kinematics of the impact. However, there were serious doubts about the validity of the results achieved with these dummies.

In collaboration with the Cranfield Impact Centre in England, the FFA developed a family of pedestrian computer models. This family consists of a 6-year-old child, a small female, an average and an above-average-sized man. In close cooperation with the Forschungsgesellschaft für Kraftfahrwesen Aachen in Germany, the FFA Team developed detailed vehicle computer models that allow the kinematics of the human body to be simulated on the computer in a much more realistic manner.

Pedestrian accidents can be simulated on the computer as many times as necessary without inflicting pain to anyone. Meanwhile the Ford engineers

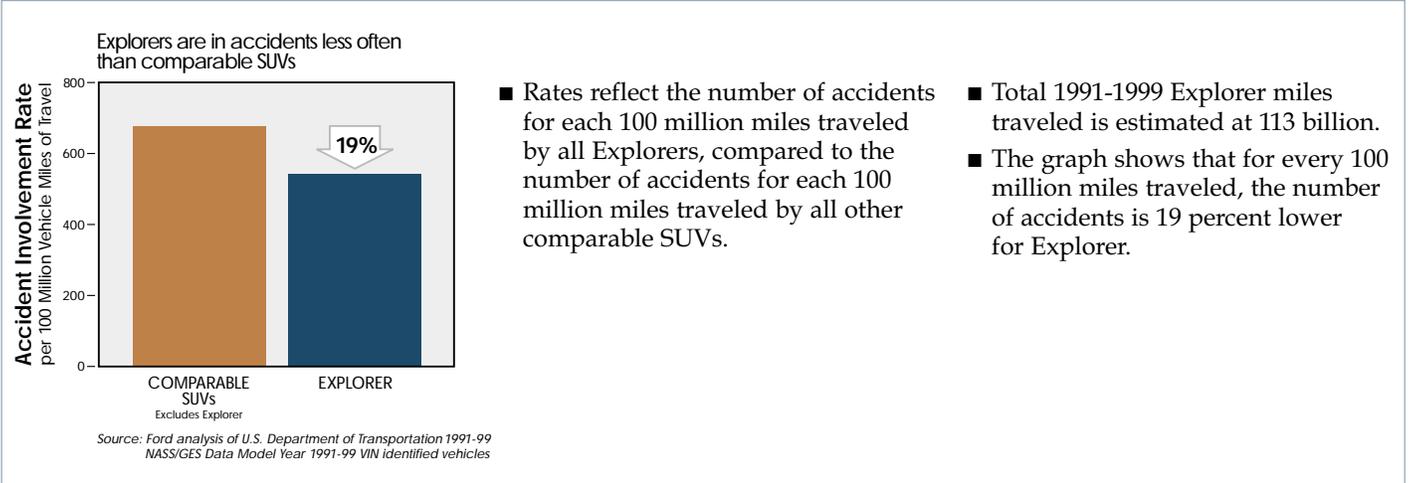
can modify the parameters in these simulations, for example, the form and material of the individual components. This enables the optimization of new components for pedestrian protection at an early stage of product development.

Based on results of the computer simulations as well as of the accident research, the FFA developed three prototype systems for pedestrian protection: 1.) a mechanical system that allows the hood to move rearward and upward during a pedestrian accident, 2.) an optimized bumper and 3.) headlamp components.

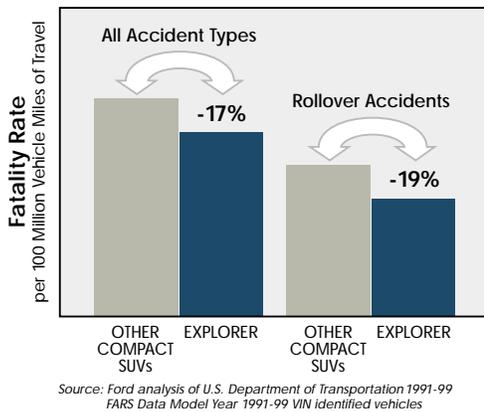
The Ford researchers have integrated all these systems into a demonstration vehicle based on the highly acclaimed Ford Focus.

In addition to ongoing research into how the vehicle design may be improved for pedestrian protection, it is important not to neglect the other ways in which pedestrian safety can be improved. Road planning measures to separate pedestrians from traffic could reduce the risk of a collision between a pedestrian and a car. Ford participates in many research projects in this field.

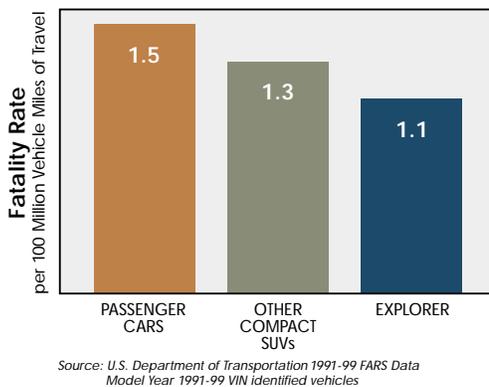
More on SUV Safety



Explorer is safer than other SUVs



Explorer (and comparable SUVs) are as safe as passenger cars



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 www.ford.com/go/corpcit/csc

More on **Greenhouse Gas Emissions**

In the late 1980s and early 1990s, Ford cut the life cycle greenhouse gas emissions from its vehicles nearly in half by changing the refrigerant used in vehicle air conditioners. Ford led the industry in replacing CFC-12, a refrigerant with a global warming potential of 10,600, with R-134a (otherwise known as HFC-134a), which has one-eighth the global warming potential. The change was driven by

concerns about the ozone depleting potential of CFC-12 (R-134a does not deplete ozone) rather than its global warming potential, but it has had a significant effect on greenhouse gas emissions. Emissions also have been reduced by cutting leaks from air conditioning units and handling refrigerants carefully to prevent release during servicing and at the end of the vehicle's life.

Air conditioning now accounts for 4 to 5 percent of a typical vehicle's greenhouse gas emissions, compared to approximately 45 percent for older vehicles using CFC-12. Thus the retirement of older vehicles over time can be expected to help reduce greenhouse gas emissions from vehicles currently on the road.

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More on Materials

Role of life cycle stakeholder to improve environmental performance of products and services

	ROLE OF INDUSTRY (MANUFACTURERS AND SUPPLIERS)	ROLE OF CONSUMER (USERS/END-USERS)	ROLE OF COMPANIES IN THE DISPOSAL/RECYCLING BUSINESS
Upstream in the life cycle	<ul style="list-style-type: none"> ■ Influencing the environmental performance processes of suppliers directly (e.g., Ford Motor Company is demanding ISO 14001 certification by all suppliers no later than July 2003); banning the usage of certain targeted substances in the supply chain (lists of restricted substances are used by most companies in particular in the electronics and automotive industry); setting environmental targets ■ Creating a green supply market by demanding competitive, environmentally favorable materials, technology and design solutions that provide a better environmental performance ■ Establishing an environmental information flow 	<ul style="list-style-type: none"> ■ Buying materials, technology and design solutions that provide significantly better environmental performance even if they are more expensive ■ Giving feedback to manufacturers, as to what (environmental) issues have priority for them 	<ul style="list-style-type: none"> ■ Providing end-users information on where products may be left when they are no longer viable
Own life cycle stage	<ul style="list-style-type: none"> ■ Improving own environmental performance of manufacturing (cleaner production, waste and energy management, ISO14001, etc.) ■ Choosing materials and design options (use of recycled or renewable materials, use of materials that are supported by Design for Environment tools [14], [15], [16], etc.) ■ Educating staff and cooperating suppliers in environmental aspects [17] ■ Innovating/improving the product (see <i>Combination of Improvements, Re-Design and Innovation</i>) 	<ul style="list-style-type: none"> ■ Following recommendations to use the product in an environmentally responsible way (e.g., Eco-Driving). ■ Switching off stand-by devices to avoid unnecessary environmental impacts, etc. ■ Looking for further usages/functions of products as well as use-cascades (e.g., old computer processors for other purposes) ■ Intelligent combinations of products (inter-modality using the different mobility and communication opportunities) 	<ul style="list-style-type: none"> ■ Improving environmental performance (cleaner production, waste and energy management, ISO14001, improved yield, etc.) ■ Ensuring high quality/competitiveness of recycled materials/products (same or lower price, same or higher quality compared to virgin materials/products)
Downstream in the life cycle	<ul style="list-style-type: none"> ■ Educating dealers and including environmental aspects in dealership contracts (e.g., Ford's Green Dealership initiative) ■ Informing and training customers about environmental aspects of the products (e.g., Ford's environmental and safety label) and environmentally conscious use of the products (for example Ford's Eco-Driving, dosing recommendations to measure out washing agents, etc.) ■ Enabling and providing information for product dismantling and recycling/recovery (IDIS, IMDS) 	<ul style="list-style-type: none"> ■ Directing products and materials to the appropriate collection/disposal/recycling facilities 	<ul style="list-style-type: none"> ■ Communicating to manufacturers how to improve design for recycling/dismantling

Schmidt, W.P.: *Strategies for Environmentally Sustainable Products and Services*. In: *Corporate Environmental Strategy*, Vol. 8, No. 2, pp 118-125

More on Compliance with Laws and Regulations

Significant facility environmental penalties

We strive to comply at all times with all legal requirements. In this section, we provide discussion of any penalties exceeding \$25,000.

In the United States during 2001, the Company paid a civil penalty of more than \$25,000 in one facility environmental matter involving the Edison Assembly Plant in Edison, New Jersey. The plant had reported certain information to the New Jersey Department of Environmental Protection (NJDEP) relating to the presence of volatile organic compounds (VOCs) in vehicle coatings. NJDEP issued a Notice of Violation (NOV) in connection with this information, but the alleged violation of coating composition requirements did not result in the exceedance of a facility VOC emission limit. The matter ultimately was settled with the state through an administrative consent decree and payment of a \$30,500 civil penalty.

Environmental Notices of Violation (NOVs) are down significantly

The table below shows the NOVs received from 1999-2001, grouped by media, for U.S. facilities. The issuance of an NOV is an *allegation* of noncompliance with anything from a minor paperwork requirement to a permit limit, and does not necessarily mean that the Company was in noncompliance or received a penalty.

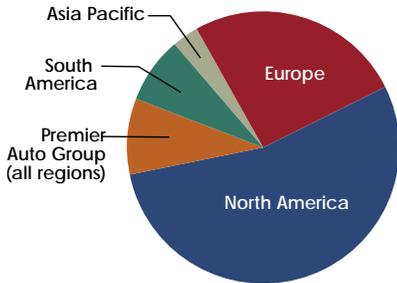
Facilities in other areas of the world received no NOVs during 2001.

Notices of Violation Received by U.S. Ford Manufacturing Facilities

MEDIUM	1999	2000	2001
Air	5	4	2
Water	43	36	20
Waste	7	4	1

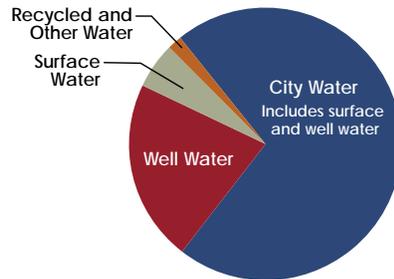
More on Water Use (2001)

Global Water Use by Source



Total = 42,217,309 Cubic Meters

Global Water Use by Region

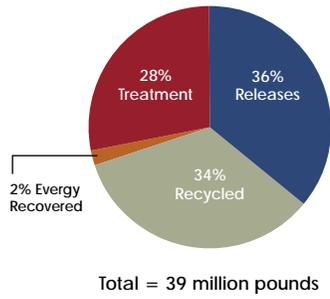


Total = 42,217,309 Cubic Meters

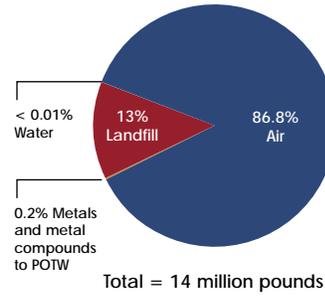
¹ Purchased water. Includes surface and well water.

More on Emissions

Management of 2000 U.S. TRI Releases and Transfers



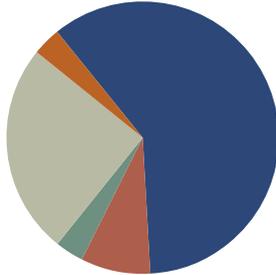
2000 U.S. TRI Releases by Media



 www.ford.com/go/corpcit/waste

More on Total Waste

North America Vehicle and Powertrain Operations (2001)



■ Casting ■ Assembly
■ Engine ■ Stamping
■ Trans-A

755,304 Metric Tons Total

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 www.ford.com/go/corpcit/whc

More on **Ford Plants Certified by the Wildlife Habitat Council**

Arizona Proving Grounds, U.S.A.

Dearborn Research and Engineering
Center, Dearborn, Michigan, U.S.A.

Dunton Engineering Centre, Laindon,
Basildon, England

Essex Engine Plant, Windsor, Ontario,
Canada

Fairlane Business Park, Dearborn,
Michigan, U.S.A.

Henry Ford II World Center, Dearborn,
Michigan, U.S.A.

Romeo Engine Plant, Romeo,
Michigan, U.S.A.

Taubaté Powertrain Operations, São
Paulo, Brazil

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More on **Governmental Affairs Office**

The Governmental Affairs team has staff in:

- Albany, NY
- Atlanta, GA
- Chicago, IL
- Dearborn, MI
- Kansas City, KS
- Sacramento, CA
- Washington, DC
- Bahia, Brazil
- Bangkok, Thailand
- Beijing, China
- Berlin, Germany
- Brussels, Belgium
- Buenos Aires, Argentina
- Chennai, India
- Cologne, Germany
- Hanoi, Vietnam
- Kuala Lumpur, Malaysia
- Madrid, Spain
- Manila, Philippines
- Melbourne, Australia
- Mexico City, Mexico
- Oakville, Canada
- Paris, France
- Pretoria, South Africa
- Sao Bernardo do Campo, Brazil
- Stockholm, Sweden
- Taipei, Taiwan
- Valencia, Venezuela
- Warley, U.K.

More on **Associations**

The associations we belong to and work closely with on public policy activities include:

- Automotive Trade Policy Council (U.S.)
- Coalition for Vehicle Choice (U.S.)
- Council for International Business (U.S.)
- European Automobile Manufacturers' Association (ACEA)
- U.S. – Japan Business Council
- National Association of Manufacturers (U.S.)
- The Alliance of Automobile Manufacturers (U.S.)
- Other industry associations and business councils around the world.

More on European Vehicle Distribution

Vehicle Distribution

As of early 2002, the European Commission had proposed new competition rules for the auto sector, replacing the established regime on October 1, 2002. The Commission's stated purpose is to increase competition and bring tangible benefits to European consumers for both vehicle sales and servicing.

The Commission says that the regulation will open the way to greater use of new distribution techniques, such as Internet sales, and will lead to more competition between dealers, make cross-border purchases of new cars significantly easier, and lead to greater price competition. Consumers will be better informed and it will be easier to compare cars and associated services offered by dealers. Car owners will have easier access to after-sales servicing, potentially at lower prices and without loss of quality.

According to the proposed rules, in principle vehicle manufacturers can choose between selective distribution and exclusive distribution. If they choose exclusive distribution, they can determine the number and location of their dealers and allocate a territory to each dealer but not stop dealers from selling vehicles to other professional resellers such as supermarkets and Internet retailers. If they opt for selective distribution, they can determine the total number of dealers but not their location: dealers will be free to set up

additional sales or delivery outlets in other locations within their own country or in other countries (this provision will be implemented most likely after a delay and possibly tied to a review as to whether it is necessary).

Dealers will be able to sell different brands of vehicles in "separate sales areas" of the same show-room, and will have the right to subcontract after-sales service to "authorized repairers" who meet the manufacturer's criteria. These repairers can be multi-make if they meet the criteria of more than one manufacturer. Manufacturers will have to recognize as authorized repairers all those who meet their qualitative criteria. Independent repairers will be granted access to technical information, tools, diagnostic equipment and training.

Some of these these changes will have major impacts on the existing vehicle distribution network and, potentially, on the level of service provided to consumers. Because of this, the European automotive industry has suggested a number of improvements to the initial proposal, many of which have gained support in the European Parliament and amongst European Member States.

Ford is committed to working with European authorities in order to ensure a viable and consumer-oriented distribution system for the future.

More on European Vehicle End of Life

End-of-life vehicle recycling

Pressure in Europe for producers to take responsibility over the whole life cycle of a product, from production to disposal, has resulted in recent legislation (the European End-of-Life Vehicles' Recycling Directive, which is to be transposed to national legislation by April 21, 2002). As of July 1, 2002, car manufacturers will have to take back free of charge all new vehicles that were put on the market after that date. As of 2007, car manufacturers will have to bear all or a significant part of the end-of-life recycling costs of all vehicles on the road by then, including old vehicles put on the market before July 1, 2002.

In principle, Ford welcomes the European-wide requirements for environmentally sound end-of-life vehicle treatment and accepts to take back free of charge vehicles put on the market after July 1, 2002. However, Ford has serious concerns with the retroactive application of the European legislation, as "old" vehicles were not really designed with recycling objectives in mind. At the time these vehicles were designed and put on the market, the requirements of the proposed legislation could not be foreseen. Also, this would set a legal precedent, as the legislation

would be applied retroactively and impose a high financial burden for the past. It would, moreover, discriminate against companies like Ford, with a long manufacturing history in Europe, in favor of the relative newcomers to the EU market, especially manufacturers from the Far East.

Ford favors a system by which the dismantlers would have an option to take back end-of-life vehicles from the last owner. Independent studies show that dismantlers will generate revenues from handling complete vehicles, even after having made the necessary investments to meet the more stringent environmental requirements. Car manufacturers would step in if shredders could show that they have incurred a deficit. This allows the market in end-of-life vehicles to run cost efficiently and avoids the obligation for car manufacturers to book a one-time provision for existing vehicles on the road. If a deficit was established, Ford believes that its contribution should not exceed 50 percent of the take-back costs of these end-of-life vehicles. Ford will continue discussions with national governments in order to ensure the most cost-effective and environmentally sound implementation mechanism.