Driving *the future* today

Corporate Responsibility and Sustainability Report, 2003

General Motors is the world's largest automobile manufacturer. Our vision is to be the world leader in transportation products and related services.

But we are more than the vehicles we build and the services we provide. GM is committed to operating responsibly, providing economic opportunity, and protecting the environment – all while building great vehicles that serve many needs.

At GM, we are driving the future today.

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Leadership and Vision

CEO statement

At a time when current events remind us of the critical importance of corporate responsibility and the value of sustainable development, we at General Motors are fortunate to have inherited a legacy of doing business the right way. It's a great asset. And, it's a huge obligation... one we take very seriously. What we call "winning with integrity" is not an optional or occasional behavior at GM. Integrity is one of our core values, and a way of doing business that helps us realize our company's full potential.

At GM, we are committed to leading not just with our products and business results, but socially and environmentally, as well.

In terms of products, we continue to strengthen our car and truck lineups around the world based largely on our steady progress in quality, our improved cost competitiveness, and our focus on technology and innovation. As far as business results, we have an important responsibility to our shareholders that we work to satisfy every day. We also believe, as we have for 95 years, in participating as a good corporate citizen in the markets where we do business all around the world – creating jobs, seeding technology, and contributing tax revenues to the local economy.

Socially, we are proud of our reputation for responsible and proactive corporate governance. From Alfred Sloan, to Rev. Leon H. Sullivan, to Jack Smith, our Board chairmen and directors have set the tone at the top of the organization, and helped create a culture that expects and demands exemplary business and personal conduct. We're equally proud that our commitments to safety and diversity, both inside and outside the company, remain a model for the global auto industry.

And in the area of the environment, we continue to use our vast technological resources to minimize the impact of the automobile on the world around us. In 2003, we announced our plan to offer three different hybrid propulsion systems on more than a dozen of our most popular models. Longer term, we continue to lead in developing hydrogen fuel-cell propulsion for the next generation of vehicles. In September 2002, we introduced the GM Hy-wire, a drivable and revolutionary new fuel-cell concept vehicle. And in May 2003, I joined legislators and policy makers in Washington, D.C., to launch a two-year fuel-cell pilot program to raise awareness and understanding of the opportunities to build a clean, hydrogen-based economy.

In short, "winning with integrity" is much more than a one-time exercise at GM. It's how we work every day. It's a philosophy that transcends borders, language, and culture, and something we promote by creating an environment within our company that supports, and demands, proper business conduct.

At GM, we will continue to lead in corporate responsibility, and to search for innovative solutions to our society's global stakeholder's economic, social, and environmental challenges. We invite you to review our progress, and to join us as we extend our legacy of doing business the right way.

Rick Wagoner
Chairman and Chief Executive Officer

This report has been prepared in accordance with the 2002 GRI Guidelines. It represents a balanced and reasonable presentation of our organization's economic, environmental, and social performance.

Vice Presidents' Statement

Welcome to the General Motors Corporate Responsibility & Sustainability Report. We are pleased to share with you GM's successes, challenges and opportunities in the areas of social, economic and environmental performance.

Roderick D. Gillum, Vice President, Corporate Responsibility and Diversity

Elizabeth Lowery, Vice President, Environment and Energy

Driving the future today

General Motors has a long history of innovation and technological design. The GM brand offers automotive innovation that improves people's lives. This drive to address future needs today can be seen in our focus on the hydrogen fuel cell. We believe fuel cells are the ultimate solution to environmental sustainability in our products, and we are committed to making this vision a reality. The hydrogen fuel cell offers the best long-term strategy for reducing our dependence on petroleum and eliminating CO_2 emissions.

We also are continually improving the internal combustion engine to achieve better efficiency, fuel economy and performance. We have already begun rolling out a range of technologies, including the Continuously Variable Transmission and the fuel-saving Displacement on Demand. Our hybrid strategy focuses on first applying hybrid technology to the highest fuel-consuming vehicles, such as transit buses and full-size pickup trucks and sport utility vehicles. These technologies will help protect our natural resources as we work toward longer-term solutions.

Investing in our communities

Our commitment to our natural resources extends well beyond our products. We believe in giving back to the communities in which we have operated. One way we do this is by investing in process improvements, new technologies and partnerships – often with other businesses and governmental and non-governmental organizations – to reduce energy consumption, facility emissions and landfill disposal and increase re-use, recycling and redevelopment of surplus properties.

We are proud of our efforts to enhance the communities where we have manufacturing plants and office locations as well as communities where a GM facility may have once existed. While our efforts have earned awards and contributed to the company's bottom line, our greatest satisfaction is in developing solutions with our partners that lead to a positive outcome for all stakeholders.

Many people, one GM, now

As a global employer, we understand that working with a diverse group of individuals – people with differing backgrounds and perspectives – creates and maintains a competitive advantage and, ultimately, global success. Through our diversity initiatives, we are establishing an environment that optimizes the contributions of our work force, our suppliers, our customers, and the communities we serve.

Our commitment to diversity is not a sign of the times or a response to emerging markets. Our consistency of purpose has been clear throughout the years. From the inception of our Minority Dealer Development Program to our Supplier Diversity Program to our support of affirmative action in higher education, the message is clear: At GM, diversity is not a goal we're striving to achieve, it's a business priority we live by every day.

Stewards of tomorrow

We also have a long-standing commitment to education. We believe it is essential for students to be strong problem solvers and critical thinkers. To help foster a successful learning environment, GM has been a consistent contributor, both intellectually and monetarily, to the education community. Many of the programs we support focus on math and science, with an emphasis on environment and technology.

Follow our progress

This year we have more fully integrated our annual Corporate Responsibility & Sustainability Report into GM's innovative and interactive web portal called GMability.com. Information about our ethics and values – demonstrated by our emphasis on workplace diversity, vehicle safety and environmental stewardship – is readily available and continuously refreshed for the public to view. We encourage you to explore the report and GMability.com to learn more about GM's initiatives in these important areas.

Roderick D. Gillum, Vice President
Corporate Responsibility and Diversity

Elizabeth Lowery, Vice President
Environment and Energy

For an overview of GM's performance in key areas, we have provided a "report card" on economic, environmental and social performance, as compared with 2001. The report card is a high-level view of the contents of this report. More detail, data and specific successes can be found in the individual chapters of this report.

Key Indicators

Economic Indicators:	**2002**	**2001**
Revenue	$186.8 billion	$177.3 billion
Earnings/(loss)	$1.7 billion	$0.601 billion
Dividend (share)	$2	$2
Vehicle sales (cars and trucks)	8.5 million	7.8 million
Global vehicle market share (%)	15.1	15.1
Environmental Indicators:	**2002**	**2001**
Global energy use (1000 GWh)	35.4	33.8
Global carbon dioxide emissions (metric tons)	14.1 million	13.7 million
Global non-recycled waste (metric tons)	679,000	741,203
Global water consumption (m3)	64.3 million	66.2 million
GM sites certified to ISO 14001	96%	96%
Social Indicators:	**2002**	**2001**
Community donations and sponsorships	$80.5 million	$82.7 million
Employees	350,000	365,000
Diversity: % female employees (U.S. workforce)	20.7%	20.6%
Diversity: % minority employees (U.S. workforce)	23.2%	23.2%
Discrimination charges (GM North America only)	245	310
Employee satisfaction (% of employees satisfied with their organization as a place to work at the present time)	Global census to be completed in 2003	Global census to be complet-ed in 2003
Recordable injury rate (per 100 employees, GM Global)	3.8	6.1
Lost time accident rate (per 100 employees, GM Global)	0.3	0.6

GM's vision: Corporate responsibility and sustainability at GM

General Motors' vision

Our vision is to be the world leader in transportation products and related services.

At General Motors, we've long recognized the importance of government policies, international relations, environmental performance and labor and community responsibilities to our business. Recently, these issues have increased in visibility as the public, government, and non-governmental organizations (NGOs) have looked to corporations and the private sector to play a leading role in addressing the impact of globalization on living standards, economic development and environmental improvement.

This makes our commitment to corporate responsibility more important than ever. Our values are clear and reflected in our Guidelines for Employee Conduct, as well as our commitment to the Global Sullivan Principles. The principles, developed under the guidance of the late Rev. Leon H. Sullivan, are a guide for responsible corporate behavior, emphasizing the common goals of human rights, social justice, and economic opportunity. We use the principles as the foundation for our corporate responsibility initiatives. We measure our performance against the principles using the Global Reporting Initiative guidelines.

As the world's largest automotive company, we can do much to improve people's lives and help ensure a better world for future generations. Through our products, global reach and our people, we strive to be a positive force in the world.

Innovation is a long-standing priority at GM, and our renewed commitment, our drive, is to build on that heritage. We focus on thinking beyond "the way it's always been done" to new ways – better ways – it can be done. Working as a team, building a collective passion for new ideas, we strive for automotive innovation that stands out from the competition and results in great cars and trucks. We've led in introducing innovative new technologies to the mass market.

We are also using innovation to reduce the environmental impacts of our plants. GM has reduced energy consumption by our facilities, eliminated the use of many materials in our production processes and developed innovative new uses for waste. We have also reduced the amount of material going to landfill in our North American operations alone by increasing the recycling and reuse of our waste materials as new useable products. In addition, we have initiated land-management initiatives in partnership with local governments to redevelop former GM manufacturing facilities and sites. Our goal is to convert these sites into productive, job-creating complexes that benefit local communities.

We continue our focus on health and safety initiatives, and on developing the skills and capabilities globally of our workforce. We also are expanding our education initiatives at the community level.

Our long history of building strong partnerships with our employees, customers, investors, governments, communities, our dealers and others helps us be responsive to the needs of our various stakeholders. By working with other businesses, governments and NGOs, we are taking steps toward a responsible and sustainable future.

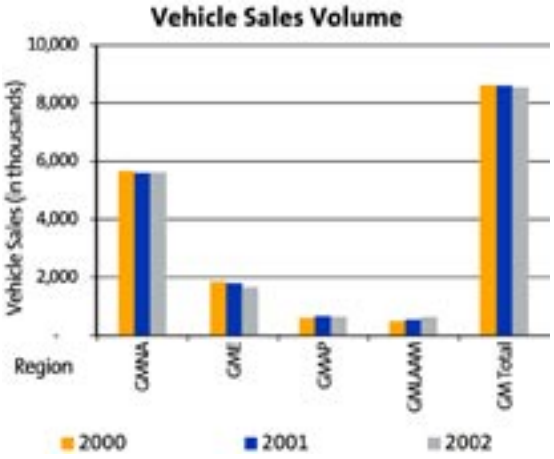
GM will realize its vision of industry leadership by engaging in our business the right way worldwide. Our responsibility lies in building great cars and trucks, and in balancing the environmental, social and economic impacts of our industry.

Corporate profile

General Motors, the world's largest vehicle manufacturer, designs, builds and markets cars and trucks worldwide. In 2002, we earned $1.7 billion on net sales of $186.8 billion. We employ approximately 350,000 people globally.

Founded in 1908, GM today has assembly, manufacturing, distribution and warehousing operations in more than 53 countries and our vehicles are sold in approximately 200 countries.

We have been the world's automotive sales leader since 1931. In 2002, we sold more than 8.5 million cars and trucks – more than any other automaker – and realized 15.1% of the world vehicle market. Our major markets are North America (GMNA), Europe (GME), Asia-Pacific (GMAP), and Latin America, Africa and the Middle East (GMLAAM).



GM's vision

GM's vision is to be the world leader in transportation products and related services. We will earn our customers' enthusiasm through continuous improvements driven by the integrity, teamwork and innovation of GM people.

Our automotive operations are comprised of four regions:

- General Motors North America (GMNA)
- General Motors Europe (GME)
- General Motors Asia Pacific (GMAP)
- General Motors Latin America, Africa and the Middle East (GMLAAM)

Our cars and trucks are sold under the following brands:

•Buick	•Cadillac
•Chevrolet	•GMC
•Holden	•HUMMER
•Oldsmobile	•Opel
•Pontiac	•Saab
•Saturn	•Vauxhall

Additional information on our brands is available on our corporate web site www.gm.com. As part of our global growth strategy, we have equity ownership in Fiat Auto Holdings, Fuji Heavy Industries Ltd., Suzuki Motor Corporation, Isuzu Motors Limited, Shanghai General Motors Corporation, SAIC-GM-Wuling Automobile Company, Ltd., and GM Daewoo Auto and Technology Company. We also have joint ventures with Toyota and Suzuki.

We not only aim for leadership in automotive products but also in related services. Our OnStar division is the industry leader in vehicle communications and information services. With more than 2 million subscribers, OnStar has approximately 80% market share.

We also operate one of the world's largest and most successful financial services companies, General Motors Acceptance Corp. (GMAC), which offers automotive, mortgage and business financing and insurance services to customers worldwide.

GM's communication services business is operated through its subsidiary, Hughes Electronics Corp., which includes digital entertainment, information and communications services and satellite-based private business networks. GM also has operations for the design, manufacturing and marketing of locomotives.

Where we operate

As the world's largest automotive corporation, we sell vehicles in more than 200 countries, and have assembly, manufacturing, distribution or warehousing operations in more than 53 countries.

Ownership

We are a publicly traded company, listing our stock on the following exchanges:

- New York Stock Exchange, Inc.
- Chicago Stock Exchange, Inc.
- Pacific Stock Exchange, Inc.
- Philadelphia Stock Exchange, Inc.
- Montreal Stock Exchange
- Toronto Stock Exchange
- Borse Frankfurt am Main (Frankfurt on the Main, Germany)
- Borse Dusseldorf (Dusseldorf, Germany)
- Bourse de Bruxelles (Brussels, Belgium)
- Courtiers en Valeurs Mobilieres (Paris, France)
- The London Stock Exchange

Customer diversity

Diversity in the marketplace is a key priority. We are intensifying the way we market our divisions and vehicle brands to our customers. In the past, we emphasized our individual brands. Currently, the corporate brand push communicates our overall quality, safety and innovations before directing customers to the individual vehicle divisions our customers have known for decades.

Customer privacy

On Sept. 30, 2003, GM implemented a "GM Privacy Statement for U.S. Consumers" that applies to most GM consumer data collection points, both online and offline. Available on gm.com, it describes GM's privacy practices and discloses to consumers how their personal information is handled. It explains that GM will share their personal information with GM dealers, affiliates and businesses

that participate in joint marketing programs with GM, and that it may also be shared with suppliers exclusively to provide services to GM. The privacy statement provides a toll free number – 1-866-MY-PRIVACY (1-866-697-7482) – that consumers may use to listen to a short message on GM's consumer privacy practices (available in Spanish, also) or to ask questions about GM's privacy statement or privacy practices. You can review the GM Consumer Privacy Statement at www.gm.com under the Privacy tab.

In addition to the GM Privacy Statement for U.S. consumers, GM has other consumer privacy statements (e.g., GMAC, OnStar) because of different services provided, different laws that may apply, and unique personal data handling processes, that are referenced in the basic statement. Saturn's consumer privacy statement is available at saturn.com. Saab's consumer privacy statement is available at saabusa.com.

The Sustainable Mobility Project

Mobility, including personal mobility, plays an indispensable role in improving the lives of people all around the world. At the individual level, it enables us to conduct the relationships and transactions of our everyday lives. At the regional and international levels, it is essential to commercial activities and economic development. Because of mobility's tremendous benefits, global demand for mobility is expected to continue growing rapidly for the foreseeable future, particularly in developing countries. However, accompanying this steady demand is a growing global recognition that the way we move ourselves can have unintended and undesirable consequences, affecting the environment, human health, and our communities worldwide.

Because General Motors understands the importance of integrating economic, environmental and social objectives in our long-term business strategies, we conceived and initiated a collaborative project to apply the concept of sustainability to global mobility.

In early 2000 we turned to the World Business Council for Sustainable Development (WBCSD), headquartered in Geneva, Switzerland, to request its sponsorship of the proposed project.

The Sustainable Mobility Project has become the WBCSD's largest and most comprehensive member-led project, involving some of the world's largest corporations from the energy and automotive industries. Co-chaired by GM, Shell and Toyota, the project's other member companies include BP, DaimlerChrysler, Ford, Honda, Nissan, Michelin, Norsk Hydro, Renault and Volkswagen. In addition to drawing expertise from several of the world's top consulting organizations, the project has convened international "stakeholder dialogues" in Manila, Capetown, Beijing, Prague, Sao Paulo, Washington, D.C., Brussels, and Tokyo; and "Workshops" in Mexico City, Delhi, Davos, Shanghai, Paris, Aspen, and Nagoya to draw on the views of representatives of government agencies, industry, academia, labor and non-governmental organizations from around the world.

The project has defined sustainable mobility as the ability to meet society's desires and needs to move freely, gain access, communicate, trade and establish relationships without sacrificing other essential human or ecological values today or in the future. The objectives are to advance understanding of the complex issues surrounding mobility, to assess the state of mobility today and to project what the situation is likely to be in the future based on current trends. Most importantly, the project is trying to envision what sustainable mobility might look like and the pathways required to move us in the right direction.

The first couple of objectives were met with the publishing of Mobility 2001, an arm's-length report developed by a 40-person team, consisting mostly of researchers associated with the Massachusetts Institute of Technology and Charles River Associates. This report explores the current state of mobility and its sustainability worldwide at the end of the 20th century. At its conclusion, the report outlines a set of eight "grand challenges" that were adopted as the baseline for the project's further work. By definition, successfully resolving these challenges would make mobility more sustainable. Because the charge of meeting these challenges fall to a range of stakeholders extending well beyond the twelve companies in the project and the industries we represent, the "grand challenges" were categorized in the Mobility 2001 report as follows:

"Challenges that stakeholders expect industry to take a major role in addressing because of industry's special expertise and/or the impacts of specific products:

1. Adapt personal use vehicles to future accessibility needs/requirements of developed and developing countries.
2. Drastically reduce carbon emissions from transportation.

Challenges to sustainable mobility that cannot be credibly addressed without the significant involvement of other modes

3. Provide for those without access to personal vehicles, and provide reasonable alternatives for those with access.
4. Resolve the competition for resources and access to infrastructure between personal and freight transport.
5. Anticipate congestion in inter-city transportation and develop a portfolio of mobility options for people and freight.

Challenges that transcend any one mode or region:

6. Reinvent the process of planning, developing and managing mobility infrastructure.
7. Improve institutional capabilities (economic/political/social) to deal with mobility challenges.
8. Ensure transportation continues to play its essential role in economic development, to serve essential human needs and enhance quality of life."

Responses to these challenges, the culmination of the ongoing work of the project, will be delivered in Mobility 2030. This ambitious report will not only outline a vision for how mobility around the world can be made more sustainable in the next thirty years, it will also explore some of the pathways available for moving toward that vision.

To deal with the scale and complexity of the issues involved, the project is using international, member-company integrated project teams to explore developments in vehicle and fuels technologies, transportation-related infrastructures, and the dynamic changes in the need for mobility. Given the business focus of the companies involved, it is not surprising that the exploration of road transportation issues is more comprehensive than that of air, rail and sea. Within that area, great attention has been given to coverage of both passenger and freight transportation, to both developed and developing regions, and to inter-urban and long distance travel.

Far from being a forecast or a prescription for the future, the project is analyzing a range of "building blocks" and "levers" that, if applied, could help minimize mobility's harmful effects over time. Working with experts in scenario development, the Sustainable Mobility Project has explored how potential future changes in values and institutions could influence important choices that would affect the nature of mobility and affect key uncertainties. We have found already that what our twelve companies choose to do will be important, but significant progress in making mobility sustainable will require complementary choices also by many others, including other companies, industries, governments and consumers.

The project's emphasis on the potential of different pathways to the future has been critical, because the member companies involved in the project are themselves pursuing different technologies to achieve common sustainability goals. This highly competitive "portfolio approach" to innovation across the global automotive industry is likely to yield the most effective and durable solutions to mobility's challenges worldwide. Nevertheless, the collaborative effort of these companies through this project is testament to our joint recognition that mobility's challenges are among the key business imperatives of our organizations.

Through the publishing of Mobility 2001 and Mobility 2030, the Sustainable Mobility Project will have made a major contribution to the understanding of the complex challenges and opportunities involved in meeting the mobility needs of people today and in the future on a sustainable basis. At General Motors, we look forward to sharing this global vision of sustainable mobility with external stakeholders as well as with our own internal audience, our employees.

For updates on the results of the Sustainable Mobility Project or to download the reports, go to www.sustainablemobility.org

GM's core values

We have defined six core values to guide our global business conduct:

1. Customer enthusiasm
2. Integrity
3. Teamwork
4. Innovation
5. Continuous improvement
6. Individual respect and responsibility

Our employees conduct day-to-day business using this platform, which sits on a foundation of integrity. These core values are outlined in our guidebook called "Winning with Integrity — Our Values and Guidelines for Employee Conduct."

These guidelines demonstrate our global commitment to achieving business success with integrity, and are published as a series of information booklets covering personal integrity, integrity in the workplace, marketplace, society and its communities. We publish the guidebook in nine languages.

Each booklet discusses aspects of "Winning with Integnty," explaining our policies and expectations, with examples of situations employees might face, and suggestions of how they ought to deal with them.

Global Sullivan Principles

In May 1999, we announced our support for the Global Sullivan Principles, consistent with our internal policies and principles and "Winning with Integrity" guidelines. The Global Sullivan principles are aspirational guidelines, which we incorporate into our daily business operations; the principles serve as criteria to assess the focus and scope of GM's global activities. The principles, developed by the late Rev. Leon H. Sullivan, are rooted in the 1977 Sullivan Principles for South Africa, and guide companies worldwide on core issues such as human rights, worker treatment, the environment, safety, community relations, supplier relations and fair competition.

We remain committed to the Global Sullivan Principles ideals by endorsing and participating in the Global Sullivan Principles Core Group Committee.

> "The objectives of the Global Sullivan Principles are to support economic, social and political justice by companies where they do business; to support human rights and encourage equal opportunity at all levels of employment including racial or gender diversity on decision-making committees and boards; to train and advance disadvantaged workers for technical, supervisory and management opportunities; and to assist with greater tolerance and understanding among peoples; thereby, helping to improve the quality of life for communities, workers and children with dignity and equality."
>
> —The Rev. Leon H. Sullivan

Management structure

Our Board of Directors oversees our business, and is responsible for electing officers, setting policy and overseeing management.

Our subsidiaries that are corporations have independent boards of directors responsible to General Motors. Our two largest subsidiaries are General Motors Acceptance Corp. (GMAC) and Hughes Electronics Corp. Our automotive business is managed through strategy boards that ultimately report to the GM Board of Directors.

The Automotive Strategy Board (ASB) is responsible for the global strategic direction of our automotive business, which accounted for 79% of our sales and revenues in 2001. Feeding into the Automotive Strategy Board

are Regional Strategy Boards that coordinate operations in each of our major regions:

- North America
- Europe
- Latin America, Africa and Middle East
- Asia Pacific

The GM Board of Directors represents our owners' interest in perpetuating a successful business, including optimizing long-term financial returns. The Board is responsible for seeing that the Corporation is managed in such a way to ensure this result. This responsibility is active, not passive. The Board operates under the corporation laws of the State of Delaware (where we are incorporated), bylaws and our Corporate Governance Guidelines, which were adopted by the Board in 1994 and are periodically updated.

In addition to fulfilling its obligations for increased stockholder value, the Board has responsibility to other stakeholders – our customers, employees, suppliers and the communities where we operate – all of which are essential to a successful business. All of these responsibilities, however, are founded upon the successful perpetuation of our business.

There are currently 11 Board members, including 10 non-employee members and 1 management member. The Board manages the Corporation's business and accomplishes work through a number of committees. The six standing committees are Audit, Capital Stock, Director Affairs, Executive Compensation, Investment Funds, and Public Policy. Except for the Investment Funds Committee, committee membership consists of independent directors only as defined in Bylaw 2.12.

In August 2002, we announced GM would unconditionally comply with the new Securities and Exchange Commission (SEC) requirement for key officers to certify our financial reporting, and that we will expense options granted to employees beginning in January 2003. Additionally, we have endorsed the new Corporate Accountability and Listing Standards approved by the New York Stock Exchange (NYSE) and have expressed support for the Sarbanes/ Oxley Act recently signed into law.

Managing corporate responsibility and sustainability

The Public Policy Committee was created to ensure that we operate our global business in a manner consistent with the rapidly changing demands of society. The main issues reviewed by the Committee include corporate responsibility, automotive safety, energy, environment, diversity, health care, research and development, trade, sustainability, privacy, and economic development. The role of the Committee is to provide public policy guidance to management. This supports our pursuit of business growth within the framework of our core values and our sustainability goals.

Internally, corporate responsibility, government relations, energy and environment, sustainability, economics, diversity, and philanthropy and community relations issues are managed by our Public

Policy Center (PPC). The vision for the PPC is to be a lean, global network that proactively advances our position on issues of public policy. To help achieve this vision, the mission of the PPC is to:

- Anticipate external trends and changes that could impact our business decisions.
- Support corporate business and cultural objectives.
- Develop and execute coordinated public policy strategies.
- Ensure that our strategic plans and operating practices take into account the changing public policy environment.

The Global Coordination Team manages the overall operations and direction of the PPC. Within the Global Coordination Team there are members who represent our four operating regions and the respective Regional Strategy Boards. This management structure provides the Global Coordination Team with a direct link to the strategy and business decisions taken by the Automotive Strategy Board and the Regional Strategy Boards. PPC leadership is provided by our Vice President Environment and Energy, Vice President Corporate Responsibility and Diversity, Vice President Government Relations, and Chief Economist who report directly to the Executive Vice President Law & Public Policy. These individuals are also part of the Global Coordination Team.

Building on the approach used throughout our businesses, the Public Policy Center promotes a cross-functional team concept, working with a series of cross-sector teams, organized around specific policy issues. The PPC is arranged around four centers of expertise, each of which is responsible for several issues.

We report on the work of the Public Policy Center through the annual production of a corporate responsibility and sustainability report and through the GMability web site, which was launched in February 2001.

The management approaches adopted for specific environmental and social and community issues are discussed in the relevant sections of this report.

Stakeholder relationships

We value our stakeholders' opinions and encourage scrutiny from environmental and safety organizations, academia and community groups. That's one reason we've aligned ourselves with various organizations to advance our position on global issues. These include the Coalition of Environmentally Responsible Economies (CERES), Business for Social Responsibility (BSR), the World Business Council for Sustainable Development (WBCSD), CSR Europe, and Global Reporting Initiative (GRI). We encourage differing regional and country perspectives from around the globe and approaches that consider several disciplines (i.e., economic, environmental and social).

Stakeholder consultation

Consulting with stakeholders is an important part of doing business, and a good way to learn more about their views. We communicate with stakeholders via periodic meetings, advisory council forums, written correspondence and surveys.

We actively engage stakeholders in various areas of our business, which helps us

develop policies and positions of value to our business and responsive to their concerns. This information offers balanced perspective of our position on societal issues and helps us continuously improve in various areas. Some of the improvements include:

- Development of best practices.
- Benchmarking for continual improvement of various processes.
- Research.
- Regular reporting on progress toward established goals.
- Formal and informal agreements with unions and other stakeholder groups.
- Feedback used in the design of new products, machinery, equipment and tooling.

Community Impact Strategy Team

This team identifies internal and external issues that could affect GM and the communities in which we operate. The team's goal is to cross-functionally manage strategic processes while considering community initiatives. These issues include labor relations, facilities, community relations, philanthropy, communications, government relations, economic development, tax, real estate, manufacturing planning and purchasing.

Public policy issues

Balanced public policy solutions to societal issues are important to our business. Strategic alliances with local, national and international organizations allow us to help develop solutions.

Memberships, sponsorships and contributions

We have established memberships, sponsorships and partnerships with organizations that advance common goals on societal issues affecting public policy. These organizations include the United States Council for International Business, The Conference Board, Business for Social Responsibility and others.

About this report

This is our fifth corporate responsibility and sustainability report. In the spirit of innovation, conservation and the preservation of natural resources, the report is fully Internet-based. This report is global in scope, except where noted, and covers performance for reporting year 2002. Management progress and individual initiatives are included up to time of publication.

This report includes information and data contributed by employees of GM. Unless noted, it presents data for the 2002 calendar year and all data are normalized by production. Data reported may change due to updated information received after publication. As a result, variances may appear in year-to-year comparisons.

This report follows the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, issued in 2002, which were developed for voluntary use by organizations reporting on the economic, environmental, and social dimensions of their activities, products and services. The guidelines were the result of a multi-stakeholder,

international collaboration. We've been closely associated with their development, since their inception in 1997, as a member of the GRI Steering Committee, a pilot company, and as a member of various GRI work groups. GM also is a member of the GRI Charter Group and the Stakeholder Council. For details, see www.globalreporting.org.

Contact us

We welcome your feedback on our approach to corporate responsibility and sustainability reporting. Contact us with your comments and questions online, by e-mail, mail or by fax.

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In preparing this report, we have fully reviewed and updated our 2001/2002 data. Since many aspects of our business remain unchanged from year-to-year, we have not fully rewritten sections if the information is still valid. However, these sections have been thoroughly reviewed and verified by our experts and edited accordingly. All data and related explanations of performance have been updated for calendar year 2002. All financial data are reported in U.S. dollars.

Economic

Financial performance

As we build on our recent success and momentum, we are determined to drive GM to the next level of sustained success. We learned some important lessons in 2002, particularly about performing amid political, social and economic uncertainty, corporate scandals and fears of war and terrorism. We focused on a clear strategy:

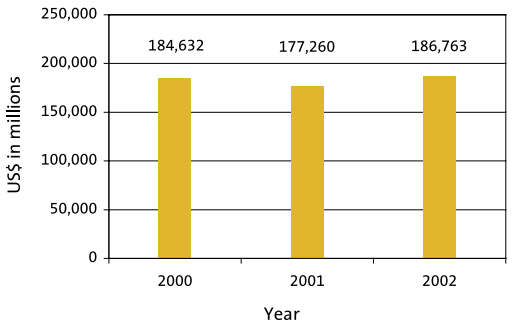
- Introduce great cars and trucks.
- Be aggressive in the marketplace.
- Reduce costs and improve quality.
- Generate cash.

And that's exactly what we did.

GM earned $1.7 billion on record revenue of $186.8 billion, or $3.35 diluted earnings per share of GM $1-2/3 par value common stock. That was double our projections at the start of 2002, and more than double our 2001 results.

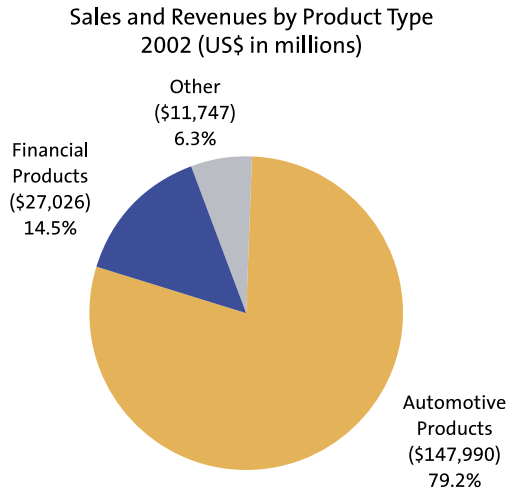
- GM again outpaced all other auto manufacturers in North America with a 4.5 percent gain in overall productivity in the respected Harbour report. GM's Oshawa car assembly plant in Ontario, Canada, was ranked the most productive in North America.
- GM Europe significantly improved launch quality, warranty costs and overall vehicle quality in 2002 as the turnaround of Adam Opel and Vauxhall continued on pace.
- GM Asia Pacific increased its market share as we performed very well in the booming Chinese market. Our Australian company, Holden, broke that nation's industry sales record. In South Korea, we successfully launched a new joint venture, GM Daewoo Auto and Technology Co.
- Despite a tough economic environment, GM Latin America/Africa/Middle East posted its best market share performance in 13 years, leading the region in sales.

Total net sales and revenues



Sales and revenues by product type (US$ in millions)

	1999	2000	2001	2002
Automotive Products	$146,056	$147,400	$140,703	$147,990
Financial Products	20,451	24,005	25,769	27,026
Other	10,051	13,227	10,788	11,747
Total Net Sales and Revenues	176,558	184,632	177,260	186,763



Worldwide net earnings from continuing operations (US$ in millions)

1999	$5,576
2000	4,452
2001	601
2002	1,736

Note: Geographic distribution not available

Net profit margin

1999	3.2%
2000	2.4%
2001	0.3%
2002	0.9%

Note: Geographic distribution not available

Debt/equity ratio

	1999	2000	2001	2002
Automotive, Communications and Other Operations				
Long-term debt to the total of this debt and equity	42.3%	30.8%	72.6%	267.0%
Long-term debt and short-term loans payable to the total of this debt and equity	48.2%	36.6%	76.5%	234.3%
Financing and Insurance Operations				
Total Debt to Total Stockholder's Equity	10.9:1	9.5:1	9.4:1	10.3:1
Dividends (US$)	$2/Share	$2/Share	$2/Share	$2/Share

Labor

In 2002, our worldwide payrolls from continuing operations totaled $21.0 billion, up from $19.8 billion in 2001.

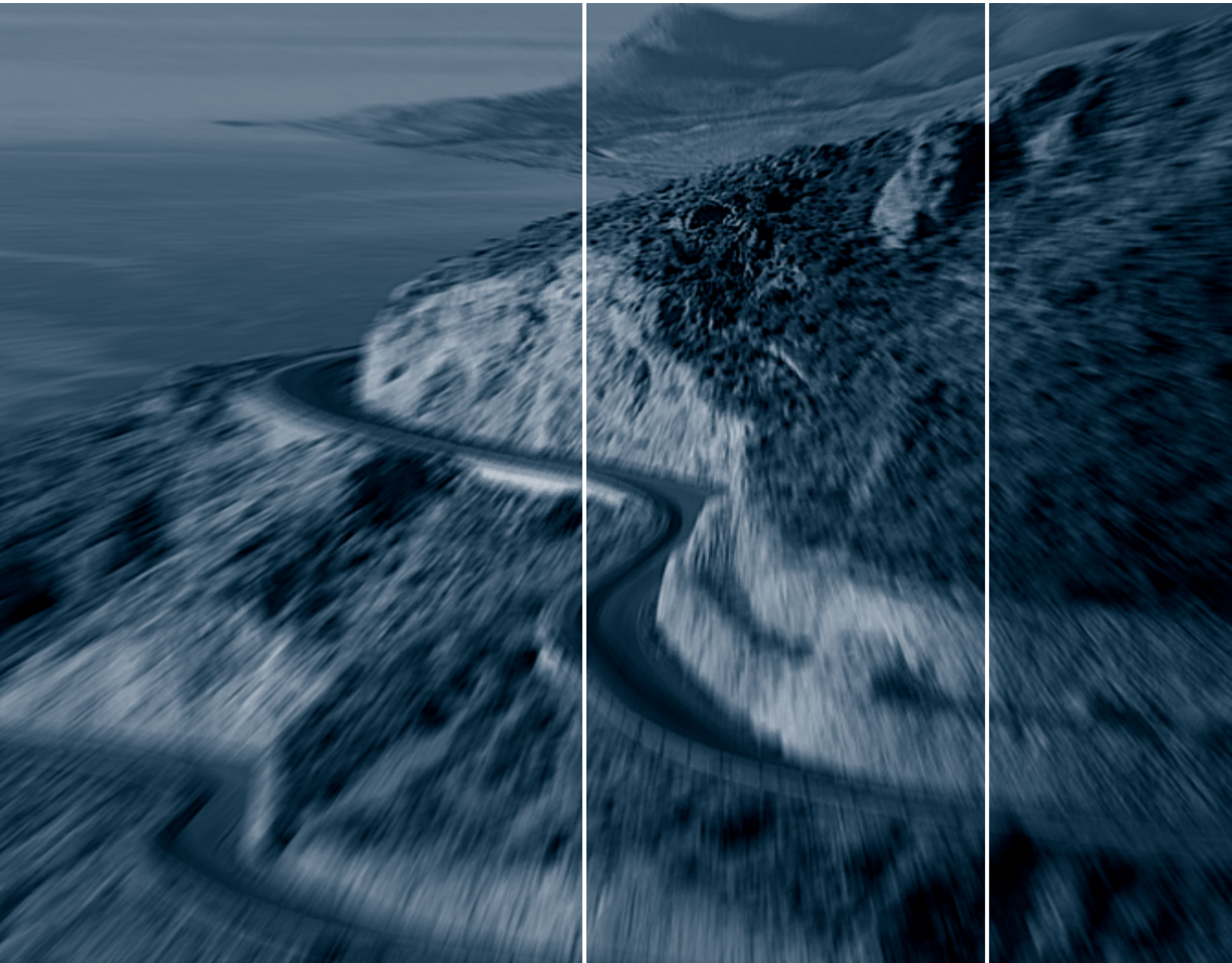
In the United States hourly payroll totaled $9.1 billion, up approximately 6% from $8.5 billion in 2001. The average labor cost per hour for the U.S. hourly work force, which includes both wages and benefits, was $62.78 for 2002.

Employment by Region and Subsidiary

EMPLOYMENT	1999	2000	2001	2002
GM North America	217,000	212,000	202,000	193,000
GM Europe	91,000	89,000	73,000	66,000
GM Latin America, Africa, Middle East	23,000	24,000	23,000	24,000
GM Asia Pacific	10,000	11,000	11,000	11,000
GMAC Financial Services	27,000	29,000	29,000	32,000
Hughes Electronic Corp.	*11,000	*2,000	*14,000	*12,000
Other (Allison Transmission Division, GM Locomotive Group, GM Service Parts Operations)	12,000	12,000	13,000	12,000
Total	391,000	389,000	365,000	350,000

**Restated to exclude Hughes' employees transferred to The Boeing Company*

Environment



INTRODUCTION

GM & the Environment

Protecting the environment is one of our most important and valuable missions. That's why we've had a formal commitment to a safe and healthy environment for more than three decades. In 1991, we strengthened our commitment with the adoption of the GM Environmental Principles. The Principles apply to our facilities, products and employees worldwide, and provide guidance in the conduct of daily business practices. GM Europe derived its Environmental Guidelines from the GM Environmental Principles.

General Motors Environmental Principles

As a responsible corporate citizen, General Motors is dedicated to protecting human health, natural resources and the global environment. This dedication reaches further than compliance with the law to encompass the integration of sound environmental practices into our business decisions.

The following environmental principles provide guidance to General Motors personnel worldwide in the conduct of their daily business practices.

1. We are committed to actions to restore and preserve the environment.
2. We are committed to reducing waste and pollutants, conserving resources, and recycling materials at every stage of the product life cycle.
3. We will continue to participate actively in educating the public regarding environmental conservation.
4. We will continue to pursue vigorously the development and implementation of technologies for minimizing pollutant emissions.
5. We will continue to work with all governmental entities for the development of technically sound and financially responsible environmental laws and regulations.
6. We will continually assess the impact of our plants and products on the environment and the communities in which we live and operate with a goal of continuous improvement.

Representatives of GM Mexico and the Pronatura Strategic Alliance for Conservation.

CERES Principles

Coalition for Enviromentally Responsible Economics (CERES) is:

- The leading U.S. coalition of environmental, investor, and advocacy groups working together for a sustainable future.
- A community of forward-looking companies that have committed to continuous environmental improvement by endorsing the CERES Principles, a 10-point code of environmental conduct.
- A common ground where groups with widely different backgrounds, assumptions, and visions find concrete solutions to today's environmental challenges.

In 1994, we became the first Fortune 50 manufacturing company to formally endorse the CERES Principles. This was a major step in affirming our commitment to environmentally responsible business activities. The original expectations of the endorsement were continuous improvement in:

- Public accountability and corporate disclosure.
- Plant environmental performance.
- Product performance.
- Stakeholder relationships.

In early 2002, CERES and GM completed a performance review process, which was intended to be a fair, candid, and constructive analysis of GM's performance compared to the original expectations established at the endorsement.

As a result of our relationship with CERES we have become more accountable for our performance and have come under greater public scrutiny. This helps us to focus on specific initiatives such as finding ways to reduce emissions from our manufacturing facilities, and developing alternative vehicles and fuels.

Energy and Environmental Strategy Board

Energy and environmental trends continue to be of increasing importance to our success. The Energy & Environmental Strategy Board (EESB) is responsible for developing and implementing our global energy and environmental strategy and develops operational business processes to address these trends. Accountable to the Automotive Strategy Board, which is responsible for the global strategic direction of our automotive business, EESB members include senior leaders from Communications, Engineering, Powertrain, Worldwide Facilities/ Manufacturing, Public Policy & Legal, and R&D and Planning. The EESB sets the overall direction for global energy and environmental policy within GM. Specifically, the EESB:

- Establishes targets for energy and environmental objectives.
- Approves energy and environmental initiatives.
- Reviews environmental performance through a set of metrics.
- Manages the overall implementation of the energy and environmental strategy.
- Champions actions that lead to progress toward GM’s energy and environmental goals.

The EESB provides guidance and support to the Energy and Environmental Strategy Core Team, a team of "subject matter" experts that supports the following energy and environmental strategic initiative teams:

- Vehicle Energy
- Vehicle Emissions
- Vehicle Fuels
- Design and Manufacture for the Environment
- Facilities Environment (see below)
- Facilities Energy
- Vehicle Pass-by Noise

Subject matter experts from Communications and Public Policy & Legal functions also support these strategic initiative teams.

MANUFACTURING

Global Environmental Issues Team

The Energy and Environmental Strategy Board (EESB) guides our approach to environmental issues from a strategic and governance perspective. Working alongside the EESB is the Worldwide Facilities Group, which manages the operational aspects of our manufacturing functions around the world. The Environmental Services and Utilities Services groups of the Worldwide Facilities team are specifically responsible for our operational environmental issues. A general view of our environmental management is that the EESB sets our environmental strategy and the Worldwide Facilities Group puts the strategy into practice at our sites around the world.

There are a number of other teams involved in our global environmental management. Under the coordination of the Worldwide Facilities Environmental Services Group are the Global Environmental Issues Team (GEIT), which aims to implement common environmental policy for our operations around the globe, and the Supplier Environmental Advisory Team, which works with suppliers to improve environmental performance. The Global Energy Team is coordinated by the Worldwide Facilities Utilities Services Group, which is responsible for utility management around the world. The Global Energy Team concentrates on energy purchase conversion and use and is currently implementing an Internet-based solution for worldwide utilities data. As a general rule the EESB sanctions the work of these teams and they are coordinated by the Worldwide Facilities Group.

GMNA Environmental Organization

GM's environmental staff supports air, water and waste issues for all our North American manufacturing and non-manufacturing facilities and implements common, consistent operating practices throughout. Regional personnel and environmental leadership meet regularly to solve problems, share learnings and create strategy.

Our Environmental Services group has been part of a single organization since 1995. This common organization offers flexibility and knowledge-sharing opportunities throughout the company. A central headquarters group in Michigan supports regional groups, and is responsible for chemical

risk management and industrial hygiene activities; environmental permitting and compliance support activities; remediation and plant decommissioning and regulatory and legislative interface. We continue implementing common environmental programs across our facilities, which are listed below.

Chemicals management program

This program allows a single first-tier supplier to manage and provide all indirect chemicals (those not used as part of the product manufactured) within our facilities. The supplier is rewarded on the ability to effectively manage the quantities and has single-point accountability for regulatory compliance and ensuring chemicals are compatible with others used in the facility. See page 3-54 for more about Chemicals Management.

Resource Management

This program looks at waste not as a waste, but as a wasted resource. A single contractor manages all aspects of the waste business in each facility, where necessary. The focus is on eliminating waste, reduction, recycling and disposal, and has helped us exceed our waste reduction goals, supporting a 59% reduction in non-recycled waste by year-end 2002 compared to the 1997 base year. See page 3-20 for more information.

Voluntary pollution prevention programs

GM continues to participate in the U.S. Enviromental Protection Agency (EPA)

Recycling at the Pontiac, Michigan, Validation Center.

WasteWise Programs. In 2002, we helped form a new voluntary program with EPA and the National Institute of Standards and Technology (NIST) called the Suppliers Partnership for the Environment. This EPA-sponsored program engages our supply base, sharing pollution prevention ideas to reduce waste and improve efficiencies. The program is open to all automotive original equipment manufacturers (OEM's) and their suppliers.

Conserve Resources/Prevent Pollution (WE CARE) strategy

This initiative is a joint activity implemented at plants where GM partners with the United Auto Workers (UAW), and focuses on the pollution prevention hierarchy of prevent, reduce and recycle. Jointly developed training materials are available for manufacturing, office operations and product and process design engineers. Materials are available to GM facilities worldwide in English and Spanish. Case studies share successes between facilities, and can be accessed on an internal web site. An awards program is also available to facilities located in North America.

Design for the Environment Facilities Team

GM formed a Design for the Environment (DfE) Facilities Team in 1999 to enhance management systems that integrate life cycle analysis and environmental considerations into product designs, manufacturing processes and material selection activities. The DfE Facilities Team works with design teams to identify and reduce or eliminate environmental impacts before products go into production. They also work with existing manufacturing operations to improve processes and implement new technologies to eliminate/reduce air, waste and other environmental impacts. The DfE team is also working with GM suppliers through the Suppliers Partnership for the Environment organization to reduce the environmental footprint while increasing quality within the auto supply chain.

Third-party data management and regulatory reporting

Our contract to engage a third-party partner to standardize environmental data collection and reporting from our facilities continues. With more than 30 regulatory reports required per facility, this process allows us to have accurate data available when making decisions regarding certain processes. This system reduces the burden on our in-plant environmental professionals, allowing them to focus on pollution prevention and compliance-related activities.

Environmental remediation and plant decommissioning activities

Environmental Remediation and Plant Decommissioning is an integrated, single-point-of-focus team responsible for all environmental remediation, plant cleanup and demolition activities. This small group of experts with single-point responsibility is responsible for uniform implementation of environmental clean-up requirements and timely and efficient demolition of antiquated facilities with a focus on recycling and redevelopment. This allows for sharing of lessons learned and implementation of the best technologies.

In 2002, we announced the redevelopment of the former GM assembly plant in Tarrytown, New York. Named Lighthouse Landing by the developer, it will feature mixed use including residential, commercial, retail and green space. GM and the developer signed a voluntary cleanup agreement with the State of New York to address environmental issues associated with the redevelopment.

ISO 14001 Environmental Management System implementation

In 1999, GM leadership determined all facilities worldwide would be certified to the ISO 14001 (or equivalent) Environmental Management Standard by year-end 2001. This required each employee at every location to become engaged. Employees underwent training to learn about their responsibilities regarding the environment. As a result,

we have improved our environmental performance and reduced emissions and cost. Our facilities have maintained certification for more than three years and we have achieved 59% reduction in non-recycled, non-product output by year-end 2002 versus the 1997 base year.

Employee support

Facilities environmental leadership demands a well-trained, highly skilled workforce to keep pace with the ever-changing regulatory landscape. GM has set a goal to have all facilities environmental professionals, their supervisors and their managers become Certified Hazardous Materials Managers (CHMM). CHMM certification requires a 40-hour training course and an examination. Topics include the management of hazardous waste, air emissions, water treatment and discharge, transportation of waste, PCB handling and disposal, risk management plans and a variety of other compliance issues. The Institute of Hazardous Materials Management, a nationally recognized certification body, conducts the CHMM certification. To maintain certification, the program requires each environmental professional to obtain 24 hours of environmental training annually, and verify such training with the Institute. To date, 84% of GM environmental professionals have achieved the CHMM certification. Worldwide, we maintain similar training programs in Canada, Mexico, South America and China.

In Europe, environmental training continues for engineers at our International Technical Development Center (ITDC) in Russelsheim, Germany. This program focuses on design for manufacturability and Design for the Environment (DfE) where environmental concerns are dealt with early in the development process.

Plastic protective shipping covers can be either reused or recycled into pellets from GM's Orion, Michigan, Assembly Plant.

Co-op/intern program

Our environmental cooperative education and intern program seeks to provide a hands-on engineering experience to students working with our facilities. Students take on given assignments with a variety of manufacturing operations including assembly, metal casting, metal stamping and machining operations. Upon graduation, the students are able to accept an assignment at a General Motors facility and immediately add value due to their prior co-op work experience.

Employee communications

We use numerous methods to communicate information and data between our environmental and energy professionals. An Internal Communications Strategy Team manages the direction and flow of information and continually evaluates the effectiveness of communications, which include newsletters, satellite

broadcasts, regional networking meetings and management meetings. The goal is for employees to have access to at least one communication channel each month.

A comprehensive Worldwide Facilities Group internal web site keeps employees informed about the group's goals and performance. The Environmental Services section offers details about organization, personnel, performance to objectives and lessons learned. Strategic business initiative updates are also available.

Management approach

Environmental Management Systems

As a responsible corporate citizen, GM is dedicated to protecting human health, natural resources and the global environment in line with our environmental principles, combining legal compliance with sound practices in our business.

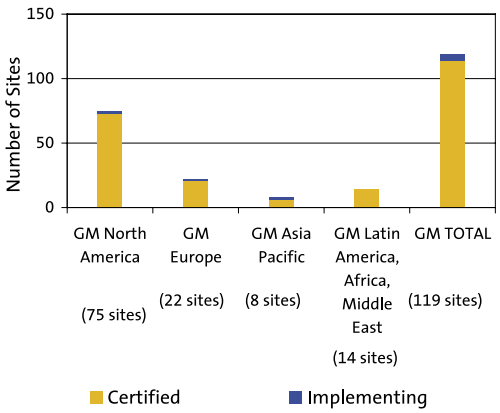
GM Environmental Management Systems enable planning, measuring and improving environmental performance through all areas of our manufacturing facilities. We control and minimize environmental impacts by managing plant activities, products and services. We maintain an EMS that conforms to the requirements of the ANSI/ISO 14001: 1996 Environmental Management System standard and GM specific requirements.

Each GM plant has an environmental policy that:

- is appropriate to the nature, scale and environmental impacts of the organization's activities, products or service;
- includes a commitment to continual improvement and prevention of pollution
- includes a commitment to comply with relevant environmental legislation and regulations and with other environmental requirements
- provides the framework for setting and reviewing environmental objectives and targets
- is documented, implemented and maintained and communicated to all employees
- is available to the public.

All new GM plants are required to implement an Environmental Management System 24 months after the start of production or the date of acquisition. The EMS must be certified to ISO 14001 using a third-party registrar.

Number of Sites Certified to ISO14001 / EMAS



ISO 14001 Implementation Status

(As of Aug. 11, 2003)

GM North America	GM Latin America, Africa, Middle East
73 Certified	14 Certified
2 Implementing	0 Implementing
0 Scheduled	0 Scheduled
75 Total	14 Total
Total Number of Sites = 75	Total Number of Sites = 14
GM Asia Pacific	**GM Europe**
6 Certified	21 Certified
2 Implementing	1 Implementing
0 Scheduled	0 Scheduled
8 Total	22 Total
Total Number of Plants = 8	**Total Number of Sites = 22**

Measuring our global performance

To assess the environmental performance of our worldwide operations and better manage environmental issues, our Global Environmental Metrics Team, made up of employees from operating units worldwide, and the GEIT agreed on a common set of metrics for our facilities in 1999.

We're in the third year of worldwide energy and environmental data collection and are publishing our global performance data (1999-2001) against four of the metrics. They include energy use, water use, carbon dioxide emissions, and recycled and non-recycled waste. The data is part of our commitment to transparency and accountability.

This global process involves more than 100 facilities in many countries with different cultural and regulatory environments. We are improving the data collection and maintenance process at all plants. Regional differences in definitions, terminology, and calculation methods pose challenges. However, we strive to ensure the accuracy of the reported data and will continue to refine the data management processes to provide further quality assurance.

Supply chain environmental management

In July 1998, we advised our top 600 vehicle parts suppliers (based on sales volume) to become certified to an Environmental Management System equal to ISO 14001 by the end of 2002. This applies to all suppliers providing parts to GM and that have a significant environmental impact and to those whose contracts extend, or might extend, beyond 2002.

GM Supplier Environmental Advisory Team

In 1998 our Supplier Council formed a Supplier Environmental Advisory (SEA) Team. This team, made up of nine suppliers and representatives from Worldwide Purchasing,

Research and Development, Engineering, Worldwide Facilities Environmental Services and Public Policy, meets to develop joint efforts to improve environmental performance. The SEA team covers a number of topics, for example:

- Development of the Environmental Statement of Requirements (ESOR) used during the quoting and purchasing process. This document informs suppliers of our environmental requirements related to vehicle parts sourcing vehicles. The ESOR is available to suppliers through the GMSupplyPower web site, www.GMSupplyPower.com. This web site includes the following information:
  - GM's policy on ISO 14000
  - TMC 003 – MSDS (Material Safety Data Sheets)
  - IMDS (International Material Data System)
  - PMRvprocess(ProductiveMaterialReview)
  - GM 1738 – North American Containerization Guidelines
- The GMability.com web site, which offers details about environmental activities; the European Union End-of-Life Vehicle Directive, which will have an impact on the global automotive industry; the Global Reporting Initiative (GRI), which we view as a business management tool, allowing us to evaluate our performance to better understand how to set goals and dedicate resources.

SUPPLIERS PARTNERSHIP FOR THE ENVIRONMENT

The Suppliers Partnership for the Environment (SP) is an innovative partnership between automobile original equipment manufacturers, their suppliers and the Environmental Protection Agency (EPA).

GM was the leader in the formation of SP as an expansion of the Saturn Greening the Supply Chain pilot. SP addresses the goals of the membership to improve environmental performance while providing value throughout the automobile supply chain. SP provides a forum for small, mid-size and large automotive suppliers to work together, learn from each other and share environmental best practices.

SP has workgroups that are working on specific tools for suppliers to use to improve their environmental footprints. These workgroups are focusing on Design for the Environment, Environmental Metrics, Energy Optimization, Environmental Business Integration, and SP Technical Assistance Workshops. These workgroups are focusing on Design for the Environment, Environmental Metrics, Environmental Business Integration, SP Technical Assistance Workshops.

Each working group has been made up of member suppliers and works together to provide a cross-functional aggregation of the best of the best. SP has open membership for all automotive companies. As a member, individual experience will be integrated into the existing working groups. There is the opportunity to develop additional workgroups as the needs and goals of the membership changes. Workgroups include:

Design for the Environment - Examine the range of sustainability issues within the automotive industry and how they can be translated into business value along the supply chain. Define tangible outcomes as to application of sustainability concepts and document case examples.

Environment Business Integration – Develop an understanding of how environmental issues affect the business processes for both suppliers' and OEMs' value chains and develop methods and recommendations for integrating these issues into the procurement process.
Environmental Performance Metrics – Develop methods for measuring improvement in both business and environmental performance of suppliers and OEMs.

Energy Optimization — Develop recommendations for how to reduce energy consumption as well as how to improve the understanding of the possible long-term effects of economic growth and other human activities on the climate system; demonstrate that Energy Reduction = CO2 Reduction = Cost Reduction.

SP Technical Assistance Workshops — Development of NIST-MEP workshop format to train subject matter experts (SMEs) on business value integrating environmental issues into business processes. Implement workshops for SMEs in the automotive sector.

Supply chain management at Opel and Vauxhall

"Creativity" teams of buyers, representatives from European plants and engineers from the International Technical Development Center (ITDC) decide which suppliers the company will work with. Opel, for example, requires candidate suppliers to comply with the QS9000 quality standard and informs suppliers of these guidelines when seeking quotes. Since 1998, expert teams from Opel and eight suppliers have met to analyze supplier relationships and how to improve cooperation with partners on environmental issues, with respect to production and manufacturing.

Standardized environmental management

In addition, the team has expanded the guidance for Opel's materials and components suppliers on preparing their environmental management system (EMS). Opel and Vauxhall require Europe-based suppliers to obtain certification to ISO 14001 or the EU Eco-Management and Audit Scheme (EMAS), or submit a relevant company self-declaration. An adequate system should cover company facilities that cause significant environmental impact. This results in reduced environmental expenses and enhanced ecological performance.

Close cooperation starts early on

As customer expectations and legal requirements for Opel's models become increasingly demanding, Opel must rely on suppliers to provide top quality parts. It's crucial, therefore, that suppliers have in-depth technological expertise. Indeed, Opel's partners often make valuable contributions at very early stages of development of a vehicle.

This is the case, for instance, where Opel needs to hasten the introduction of new materials in series production. In their endeavors to close material cycles by releasing recycled materials for use in new vehicles, Opel engineers go to supplier sites to get a realistic idea of sample material or component production. Among others items, they verify compliance with specified assembly times and make sure fluctuations in recycled material batches are minimized. It is frequently the

suppliers themselves who suggest materials for recyclability testing. Opel acknowledges its suppliers' contributions at its annual "Supplier of The Year" event.

Supporting smaller suppliers at Vauxhall

Vauxhall recognizes that achieving ISO 14001 can be a challenge for smaller com panies. To assist small-to medium-sized enterprises (SMEs), Vauxhall supports a Department of Trade and Industry DTI-sponsored program called Project Acorn. Operated by the British Standards Institute (BSI), the scheme provides training and partial funding to SMEs wishing to implement environmental management systems.

The scheme has two levels, fast track and non-fast track. Vauxhall intends that fast-track suppliers achieve an EMS, equivalent to ISO 14001, within one year. This is achieved by training classes offered in “manageable steps.” Non-fast track aims to achieve this level within two years, for a reduced fee.

Currently, Vauxhall has nominated 25 companies, with five signed up for the fast- track plan. This will help achieve its objective of ensuring all suppliers have a certified EMS in place by the end of 2003.

Awards and accomplishments

Every year, General Motors receives many awards recognizing our commitment to environmental stewardship. For example, we recently accepted two awards from the U.S. Environmental Protection Agency (EPA) for our environmental performance in 2002. The EPA presented GM with its WasteWise

Representatives of GM accept the EPA’s 2002 WasteWise award.

2003 Partner of the Year award in the Very Large Organization and Climate Change categories for taking extraordinary steps to reduce waste and the greenhouse gas (GHG) emissions associated with waste disposal. This was the third consecutive year that GM has been honored with awards from WasteWise – a voluntary EPA program, through which organizations eliminate solid waste to benefit the environment.

GM’s U.S. operations recycled 2.2 million tons of waste in 2002 and prevented more than 3,000 tons of waste by investing in new technologies and implementing innovative waste reduction strategies. These combined

tonnages are equivalent to the weight of more than 1.2 million Chevy Cavalier coupes. Because waste also has an effect on greenhouse gas (GHG) emissions, this waste savings reduced GHG emissions in 2002 by more than 4.7 million metric tons of carbon dioxide equivalents. According to the EPA's WAste Reduction Model, or WARM, this is comparable to the annual emissions from power used by more than 575,000 households.

GM utilizes internal metrics for a variety of strategies, which include resource, chemicals and oil management programs; ISO 14001 environmental management systems; design for the environment initiatives; and a joint Quality Network action strategy, with our unions, to conserve resources and prevent pollution, have contributed to our success.

It is an honor to have our hard work, our discipline and our achievements recognized by others. For more information on GM's environmental awards, visit www.GMability.com/environment.

Global Energy Team

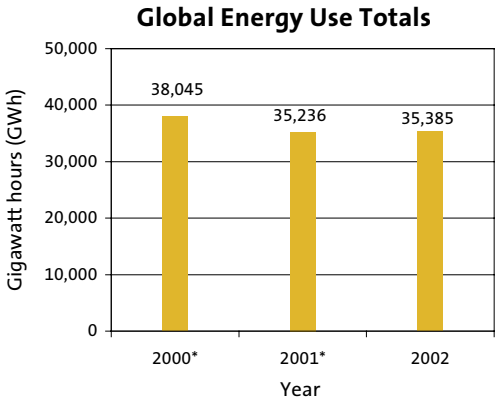
Our Global Energy Team, which is coordinated by the Worldwide Facilities Energy & Utility Services Group and made up of representatives from each of our business regions, meets quarterly to discuss and share energy practices. The team also held its first face-to-face meeting in April 2002. Its objectives are to establish common goals, monitor progress and share best practices across our global operations.

During 2001, the team established a corporate goal for 10% energy and water use reduction globally by 2005 from a 2000 baseline. To help manage energy globally, a common utility information system has been developed, and we began tracking all global utility information in 2003.

Energy efficiency is an essential element of our energy strategy. The Energy & Utilities Services Group integrates procurement, operation of utility systems and plant level energy efficiency through a single organization. Common initiatives have been developed to improve equipment shutdown and efficiencies, integrate the latest efficient technologies and monitor and control utility usage.

GM global energy use

Our global operations focus on using energy as efficiently as possible. In 2002 our global operations consumed 35,385 gigawatt hours (GWh) of energy from various sources including electricity, a 0.42% increase from 2001. The energy used per vehicle produced decreased by 6.7% to 4.34 megawatt hours (MWh) per vehicle.

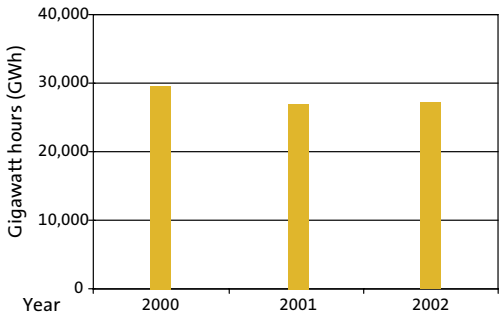


* 2000 and 2001 data have been restated due to the addition of previously unreported data

GMNA energy use

We continue to work toward a 25% reduction in energy consumption by 2005, from a 1995 base. This is during a period where our floor space has increased and process environmental controls are becoming more energy intensive. By the end of 2002 we reduced energy use by 16.4% from 1995 and continue to progress. During 2002, energy use rose by 0.88% from 2001, due primarily to a 6.1% increase in heating degree days (HDD) and a 9.8% increase in production compared to 2001. Energy use per vehicle decreased by 8.2% from 2001, to 16.9 MMbtu (4.95 MWh) per vehicle produced.

GMNA Total Energy Use



Energy efficiency progress

Strategies to reduce facility energy consumption involve changes to manufacturing processes such as painting, metal casting, energy conversion and efficiency improvement at our powerhouses, as well as many plant-level initiatives. Most of these efforts involve the participation of plant work force through the GM Energy Sufficiency initiative. Following are some of our completed energy efficiency projects:

- Our Defiance, Ohio, plant installed a new compressed air and chilled water facility in 2001. This facility has reduced energy usage, improved the quality of utilities provided to the process and eliminated over 100 point-of-use air dryers.
- At our Fort Wayne, Indiana, and Shreveport, Louisiana, assembly plants, the use of landfill gas has replaced more than 50% of fuel used in the boilers.
- Moraine, Ohio, Assembly has a new compressed air system that's 25% more efficient and provides superior quality air. Steam heating has replaced gas heating.
- Paint shops use more than one-third of all energy at GM. Because of their complexity, it's difficult to shut down paint operations on the weekend, but we've now implemented weekend paint shop shutdowns at all GM facilities with major energy and emissions savings.
- GM implemented an aggressive plan to close facilities during July and December holiday periods to cut energy usage. Our 2003 July shutdown was the best ever.
- GM Energy Sufficiency Plans have been implemented at all GMNA plants, which engages all employees in energy use reduction.
- We are installing common energy management and control systems at GMNA facilities. These monitor and control lighting and heating, ventilation and air conditioning systems for optimum operation. Installation has been completed at 37 facilities. A typical system saves about $500,000 per year in energy costs.

We are integrating energy-efficient practices into new plant designs and at those undergoing major improvements. For the

Lansing, Michigan, Grand River Plant, paint processes and building systems incorporated efficiencies that conserve energy compared to older plants. This plant opened in the first quarter of 2002. Similar efficiencies have been designed in the Flint, Michigan, L6 Engine Plant, Oklahoma City, Oklahoma, and Shreveport, Louisiana, facilities.

The Fort Wayne, Indiana, ribbon cutting, unveiling its methane recovery system.

Voluntary energy programs

Our U.S. plants are working on several voluntary programs with the U.S. Environmental Protection Agency (EPA) and others to improve energy efficiency at many of our plants.

EPA Green Lights Program

As part of our participation in the Green Lights program, we've completed lighting improvement surveys at all assembly plants. Six plants received EPA Green Lights certifications in 2002. By the end of 2003, 90% of our plants should be certified. A typical plant can save 5-10 million kwhs per year or 3-5% of electricity usage.

EPA Green Power Partnership

We're a founding partner of the U.S. EPA Green Power Partnership, and have committed to sourcing 2% of our Service Parts Operation facility electric load to green power sources. In May 2003, green power generated from landfill gas began flowing to SPO facilities. We will receive 13 million kwhs of power each year.

World Resources Institute

Together with the Green Power Market Development Group, we are advancing implementation of green power generation projects. The group, comprised of leading corporations, the World Resources Institute (WRI), and Business for Social Responsibility (BSR), focuses on developing corporate markets for 1,000 megawatts of cost-competitive, new green energy capacity by 2010. The group promotes a clean energy future by identifying cost-effective strategies for environmentally sustainable energy consumption. We are working with this group to develop landfill gas generation, fuel cell generation and wind power electric generation projects at several sites.

EPA Energy Star Program

Since 1999, GM has been involved with the EPA's Energy Star Program to develop energy benchmarks and best practices for automotive plants.

EPA Methane Outreach Program

We participate in the U.S. EPA Methane Outreach Program, a voluntary program to expand the use of landfill gas for plant heating and electrical generation. We've completed four projects to use landfill gas as boiler fuel, with another in progress. This will

provide more than 1.7% of our total North American energy usage from renewable sources this year.

GLREA educational SolarSchools Program

Our partnership with the Great Lakes Renewable Energy Association (GLREA) leverages the existing GLREA educational SolarSchools Program. DTE Energy developed SolarSchools to promote renewable energy education as a two- to-four week program for grades 4-8. The curriculum meets state and federal testing standards and covers several academic areas. It includes workbooks and materials for projects and energy experiments and pre- and post-tests to measure learning. The program has run in nine schools in southeast Michigan since 1998.

GM Canada

Since 1990, our Canadian operations have reduced energy usage by more than 41%. Energy usage increased by 0.6% in 2002 compared to 2001 due in part to the addition of a thrid shift at the Oshawa, Ontario, car assembley plant. GM of Canada publishes detailed energy efficiency accomplishments annually in the Voluntary Challenge and Registry Inc. (VCR) Program and has been recognized as Gold Level Champion Reporter by VCR.

GM Mexico

Our Mexican operations continue to aggressively implement energy initiatives, including an energy sufficiency plan, the closure of a paint shop, EMS implementation, compressed air pressure reduction, and more.

We reduced energy usage per-unit-produced by 7% for electricity, 20% for thermal and 4% for water.

GMM increased total energy usage in 2002 by 3.2% over 2001, due primarily to a 16% increase in production, including a new engine plant at Silao Complex. We decreased our thermal energy usage (LP and Natural) by 6.8%, an excellent result. The price of electricity for all our facilities increased by 6% in 2002 compared to 2001.

The thermal price was not affected for Ramos Arizpe and Toluca complexes because of the natural gas fixed price contract of $4 USD per MMBTU. Silao Complex reduced its gas expense by 40%, due to LP to Natural gas conversion by the end of 2001.

GMM's total energy payments decreased by 5% overall.

GM Europe

In 2002, GM Europe engaged employees in shutting down equipment during non-production periods; changing temperature and humidity set points in paint shop spray booths; reducing lighting levels and replacing energy-inefficient fixtures; reducing ventilation during non-production periods; and lowering the compressed air pressure during non-production periods. Since early 2003, GM Europe has increased conservation efforts by implementing an energy cost council. One of the first successes of their process efforts was the non-production shutdown process of all paint shops during the 2003 Easter weekend.

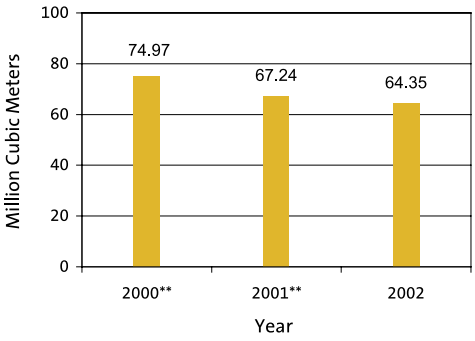
GM LAAM

Our Latin America, Africa and Middle East (LAAM) operations decreased energy use in 2002 by 2.5%. Our LAAM operations continue aggressive implementation of sufficiency plan initiatives, which include shutdown of paint shops and other process equipment to sustain a 159% reduction from 2000 levels.

GM global water use

Our worldwide manufacturing and support operations use water from many sources. In 2002 our global operations purchased and used 64.3 million cubic meters (17.0 billion gallons) of water, down 4.31% from 67.2 million cubic meters (17.8 billion gallons) in 2001. Water use per vehicle also declined 11.0% to 7.89 cubic meters per vehicle built compared to 8.9 in 2001.

Global Water Use*



* Purchased and well water

** 2000 and 2001 data have been restated due to the addition of previously unreported data

Water sources

In the United States, our water sources are primarily lakes, rivers, and tributaries. Well-derived water is a minor source of water. In Mexico and in other parts of the world, well water is the primary source and is highly valued as a scarce commodity. This emphasis is reflected by water reduction efforts at our Ramos Arizpe and Silao plants in Mexico, where water use per vehicle is nearly less than half that of the U.S. benchmark. Our San Caetano do Sul facility in Brazil was also recently recognized by the non-governmental organization Water & City for its successful water conservation program. Our sustainability goals drive our efforts to minimize the impact of our water usage on the communities where our operations are located.

Water and wastewater management

We consider water to be a scarce resource and for this reason we have continued to focus on water conservation initiatives. Within GMNA, our goal is to reduce water usage by 30% by the end of 2002 from a 1995 base year. Water usage for 2002 was 45.0 million cubic meters (11.9 billion gallons), which represents a 31.5% reduction from 1995. In comparison with 2001, our water use was reduced by 3.6%. Our North American plants also decreased water usage on a per vehicle basis by 6.7% in 2002 to 7.9 cubic meters (2,084 gallons) compared to 2001.

In all of our plants wastewater is treated before being discharged to municipal treatment plants or other receiving bodies of water, meeting applicable regulations. Where there is no clear discharge criterion, we apply our own minimum guidelines as defined by our Environmental Performance Criteria.

At Janesville Assembly, for example, we are installing a cooling tower for eight large air compressors in the powerhouse. These compressors currently use "once through" city water for cooling. With the installation of the cooling tower, each gallon will be re-used in a closed-loop process. The anticipated reduction in water usage is 87 million U.S. gallons per year. The project will result in a similar reduction in discharge volume to the Rock River, since the current practice treats the "once through" water in an on-site stormwater treatment plant, which, in turn, discharges to the river.

GM global waste management

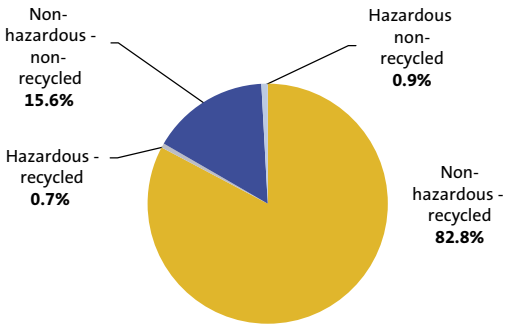
Of the 136 GM sites that provided data in this report, 110 are in North America (74 manufacturing sites and 36 non-manufacturing including GM world headquarters, technical and engineering facilities, proving grounds, service parts operations and distribution centers).

Several sites have transfered to the Fiat-GM Powertrain joint venture operations. We collect waste metrics data from our worldwide facilities using electronic surveys and a web-based reporting system. We continue to experience challenges and are working to overcome global differences in definitions and to refine and confirm the data we report. Joint venture data is not included at this time. Manufacturing sites for GM regions outside of North America are: Europe (GME), 12 sites; South America, Africa and Middle East (GMLAAM), nine sites; and Asia-Pacific (GMAP), five sites.

General categories of automotive wastes

- Absorbents
- Adhesives and sealants
- Automotive fluids
- Batteries
- Bio-medical wastes
- Boiler ash
- Cafeteria wastes
- Cleaning fluids
- Coal
- Corrugated paper
- Cylinders
- Filters
- Foundry sand and wastes
- Fuels
- Gasoline
- Glass
- Grease
- Grinding swarf
- Lighting bulbs and tubes
- Metal scrap and metal chips
- Obsolete equipment
- Oil, coolants and lubricants
- Paint-related wastes
- Paper
- Plastics
- Protective clothing
- Rags
- Refrigerants
- Resins
- Rubber
- Sludges
- Solvents
- Trash
- Wastewater
- Wood

2002 Global Waste by Type and Treatment Method



Total waste = **4,044,912** metric tons

Wastes are generated by production processes and support operations such as facility maintenance, laboratories and medical departments, powerhouse services, wastewater treatment, janitorial services, and administrative and engineering offices.

Global waste goals

Our global facilities continue to make progress toward our goals to reduce waste and increase recycling. Total waste generation was up 2.8% between 2001 and 2002 and down 7.5% since 2000. Worldwide vehicle production was up 5.9% in 2002. Production-adjusted waste amounts decreased 2.9% (2001 to 2002). North American operations produce roughly 85% of the total amount of waste generated.

The chart below shows the methods used to manage our waste. Our facilities report that over 80% of the waste we generate worldwide is being recycled.

Focusing on our goals

Our facilities are working aggressively to achieve our waste reduction and recycling goals. Since 2000, we have reduced total waste generated by 6.2% (from 3.7 to 3.5 million metric tons). Since about 80% of our facilities are in North America, more information and case studies are available from this region. Here are a few examples of the ongoing activities to reduce and reuse waste materials (all dollars are U.S.).

- Service Parts Operations (SPO) sold 879 metric tons of new but obsolete spare parts to an outside provider for reuse rather than scrapping them, saving $205,000.
- At a metal fabricating plant, employee training and improved efficiencies in the plant's trash management reduced container pulls from 694 in 2001 to 580 in 2002, reducing waste by 755 metric tons and saving $35,900.
- One assembly plant installed new sludge filters into three paint systems, reducing the volume of sludge for landfill by 363 metric tons and saving $150,000.
- A metal fabricating facility reduced the use of floor block by 346 metric tons due to a change to concrete flooring. Savings were $40,600.
- Another metal fabricating facility sent 285 metric tons of poly-aggregate floor block off-site to be crushed and re-used as fill under new floor construction, saving $22,800.
- An engine manufacturing facility reduced its plant trash to landfill by 105 metric tons while production increased by 3.2%.
- Several facilities used a supplier's on-site mobile unit to refurbish and reuse air filters, saving $40,000.

- The wastewater treatment operation at a foundry facility decreased sludge generation by 36 metric tons as a result of returning mixed liquor to the aeration basin for additional bio-degradation. The efforts saved $44,000.
- A new wastewater treatment plant at a metal fab facility manages sludge more effectively, reducing filter cake volumes for disposal by 12 metric tons, saving $7,700.
- A metal fabricating plant implemented an expired mastic adhesive return policy. Segregating the material from the plant's routine waste stream, the expired material is returned to the manufacturer for re-certification and reuse. Waste was reduced by 2 metric tons and savings were $600.
- SPO changed computer coding to eliminate excessive packages for a single piece order. The amount of packaging waste avoided is unknown but the savings was $1,200,000.
- SPO improved a container design that allows more effective and better attachment of labels. Waste packages are reduced because tags and labels stay put.
- One powertrain components site eliminated the use of absorbents on the plant floor and instituted a policy in the plant that leaking equipment had to be repaired. Savings were $12,000.

GMNA facilities have built up significant momentum from our earlier goal to reduce non-recycled waste. The new five-year goal to increase recycling expands upon successes already realized. The amount of waste recycled in GMNA increased by 1.8 percentage points between 2000 and 2002. Below are the wastes recycled during 2002 and recycling examples from just a few facilities.

- The Warren Technical Center recycled 3,000 metric tons of non-contaminated soil and dirt that was shipped to a landfill for use as daily cover material. They also recycled 2,450 metric tons of concrete, 590 metric tons of bricks and blocks, and 522 metric tons of wood from construction and demolition projects, 558 metric tons of office paper, 345 metric tons of cardboard, 327 metric tons of ceiling tiles, 236 metric tons of carpet tiles, and 6.4 metric tons of electronic and computer equipment.
- Metal Fabricating Division, Pittsburgh, used 2,270 metric tons of ground-up asphalt from parking lots undergoing resurfacing to pave other roadways on the property.
- Lordstown Assembly instituted a recycling program that collected 127 metric tons of cardboard and 880 metric tons of pallets, saving the plant $111,000.
- Bowling Green Assembly implemented a fiberglass fascia, hood and door recycling program for damaged or unused parts, recovering 104 metric tons of materials and saving $7,000 in disposal fees.
- Fort Wayne Assembly implemented a windshield glass recycling program and prevented 18 metric tons of glass from going to landfill.
- Resources Managers implemented cardboard recycling programs by obtaining vertical balers from GM's “Share the Spare” Program. The internal program publicizes available unused equipment so other GM locations can use it.

GMNA waste management

Our North America (GMNA) operations[1] account for 80% of the worldwide plants and facilities that report waste data, or 110 out of 136. In GMNA, we track waste using an internal data collection and management process and an Internet-based system that allows each facility to directly input data as it becomes available.

[1] The GMNA emissions, effluents, and waste data in this report represent the automotive operations, and GM Locomotive Group.

Resource Management

Our Resource Management (RM) program preserves natural resources, reduces our environmental impact, and achieves cost savings. In this program, a single first-tier supplier manages all plant wastes, providing all services through its on-site staff. The supplier is economically compensated to reduce waste volumes.

We've designed the program to eliminate waste before it happens. Resource managers receive financial incentives to find innovative ways to eliminate waste created during the manufacturing process. Rather than paying a waste contractor to dispose of materials, our approach makes the supplier a partner inside the plant. Cardboard boxes, wooden pallets and even cooking grease from cafeterias, items previously sent to landfill, are now turned into useful products. Program benefits were recognized by the U.S. Environmental Protection Agency at its WasteWise Awards and Recognition Ceremony. The program is now operating in nearly all our GM North American facilities, where economically feasible. Our RM program has saved more than $8.4 million annually in North America.

For more information on Resource Management, including a GM case study visit: http://www.epa.gov/epaoswer/non-hw/reduce/wstewise/wrr/updates.htm.

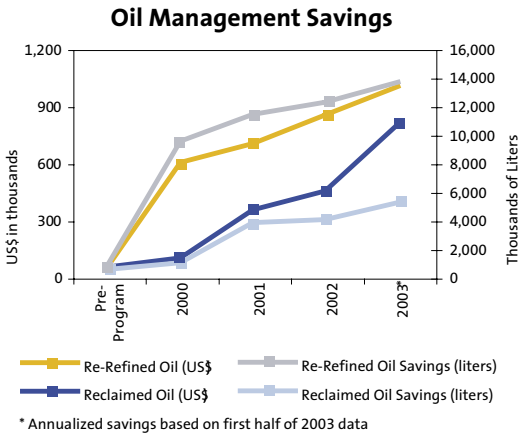
Industrial oil management

In the spirit of continual improvement, in early 2003 we revamped our program to improve life cycle management of industrial oils in GMNA. The program, which began in 2000, offers substantial cost savings and significant environmental benefits via waste prevention. The program focuses on cutting the level of used oil generated and increasing used oil recycling. Recent improvements include:

- Most GMNA plants have switched to GM-approved "LS2" lubricants. LS2 ensures the use of high-quality lubricants, drives consolidation and stresses proactive maintenance. Savings exceeded $3 million in 2002.
- We evaluated potential new off-site oil recyclers for qualifications and environmental compliance. The off-site oil managers now provide detailed data quarterly on used oil picked up from each of the highest-volume GMNA plants and the ultimate disposition of products and by-products of the recycling process. The intent is to include all of the GMNA plants in the program over time.
- Use of reclaimed and re-refined oils is increasing significantly, and will accelerate as we use more recycled oil products in plants.

Oil Management Savings

	Pre-Program	2000	2001	2002	2003
Re-Refined Oil (1,000s of US$)	$50	$600	$700	$850	$1,000
Reclaimed Oil (1,000s of US$)	$50	$100	$350	$450	$800
Re-Refined Oil Savings (1,000s of liters)	790L	9,500L	11,350L	12,200L	13,600L
Reclaimed Oil Savings (1,000s of liters)	500L	1,000L	3,800L	4,000L	5,200L



* Annualized savings based on first half of 2003 data

- We've made significant progress in developing specifications for metal removal fluids used in GMNA machining plants.

The web page for oil management and Lubrication Standards can be found at: http://www.gmsupplypower.com in the Manufacturing Power "Library."

Recycled waste

For the past five years, GMNA operations have worked to reduce non-recycled, non-product-output (NPO) by 50% from a 1997 base year. NPO includes U.S. Toxic Release Inventory (TRI) and Canadian National Pollutant Release Inventory (NPRI) on-site air and water releases and waste data. We achieved our target in 2001, a year ahead of schedule, with a reduction of 54% (50% when adjusted for production). Our chemicals, resource, and oil management programs helped us reduce use by 20% between 2000 and 2001. By the end of 2002, facilities had reached a 59.1% reduction in NPO (59.3% adjusted for production).

GMNA operations are participating in the two five-year global waste goals to cut waste generated and increase the percentage of waste recycled. Our Resource Management, Chemicals Management, Oil Management, ISO 14001, and WE CARE programs give our facilities tools to help them reach the goals.

More recycling initiatives

Battery recharge and reuse

Goodwill Industries of Flint has partnered with GM to provide a battery recharge/reliability verification service to ensure all new vehicles leave the factory with a fully charged, reliable battery. This program has been in place for more than 20 years. Goodwill Industries provides services to many Southeast Michigan assembly facilities. They pick up batteries from facilities, recharge and check them, and return them for reuse. Batteries that can no longer be reused are reclaimed in an environmentally safe manner.

Cartridge filters

GM's assembly, metal fabricating and powertrain operations extensively use air filtration systems with cylinder air filters,

such as Torit-type filters, to filter particulate matter generated from plant activities such as welding. We now contract with suppliers in three states to refurbish these filters for reuse. Before the program began, GM purchased and disposed of more than 90,000 filters each year in North America. Now, the program conserves more than 20,000 cubic yards of landfill space each year.

Rolled filter media

To produce transmission parts, many machining operations are required to cut, grind and hone the metal parts before assembly. These machining systems use emulsified oils (coolants), which become mixed with metal chips and shavings in the process. Rolled filter media separates the coolants and metal scrap so the coolants can be recirculated and reused. The filter media becomes a waste byproduct, along with the metal scrap. This material had been landfilled in the past. The Warren Transmission facility uses a supplier that cleans, shreds and recycles their rolled filter media into pellets for products such as plastic lumber (used to make picnic tables, decks, park benches, etc.) As a result, the plant now recycles 80 to 90 percent of its filter media. Other GM Powertrain plants have begun to use this process as well.

Scrap pallets and wood

A Southeast Michigan wood processing facility receives scrap pallets and other wooden packaging from some of our facilities in Pontiac, Michigan. They chip the materials and sell them to landscape contractors as dried landscaping mulch. Some of the material is marketed in its natural state, while some is dyed into colors ranging from red to black to gold. The company also offers green wood mulch, typically used for trail work.

2002 GMNA Recycled Materials	Metric Tons
Absorbents	34
Asphalt	170,672
Batteries	2,474
Boiler ash	18,396
Carbon	68
Concrete	9,904
Corrugated paper	36,052
Glass	172
Mixed organics	470
Other yard wastes	37
Paint	6,330
Paper, high grade/office	570
Paper, newsprint	254
Paper, mixed	2,624
Rubber	485
Industrial sludges	301,539
Miscellaneous foundry wastes	90,149
Sand/grit/fines	364,515
Soil/dirt	7,978
Used oils	47,267
Fluids, solvents, cleaning solutions	3,651
Gasoline and diesel fuel	448
Textiles	620
Construction debris	8,776
Mixed trash	123
Wood	42,007
Iron	165,676
Steel	1,332,698
Other ferrous metals	47,384
Aluminum	91,372
Other non-ferrous metals	11,268
Mixed metals	172,881
HDPE	3,482
PVC/vinyl	98
LDPE	47
Polypropylene	265
Polystyrene	50
Mixed plastics	3,651

Waste data accounting adjustment

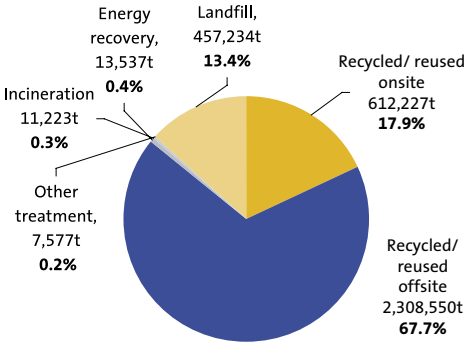
We recently worked with the internal group that manages the sale of our scrap metals to ensure we're accurately tracking and reporting the correct unit-of-weight measure, which led to adjustments in this data. Because metal scrap is a large percentage of our GMNA waste stream (see table), amounts are higher this year. We've made adjustments over all applicable years so the data is proportionally similar to previous reports.

Type of Waste	% of GMNA Total Waste
Metal scrap	55.2%
Foundry wastes	32.4
Plant trash	3.0%
Oil	1.7%
Wood	1.5%
Sludges	1.4%
Corrugated	1.1%
Grinding swarf	1.0%
Boiler ash	0.6%
Other	2.1%

Non-hazardous waste

Total non-hazardous waste managed in 2002 was 3,410,348 metric tons in GMNA. This waste is made up of general plant trash, used packaging, most foundry wastes, production scrap and scrap metals and most industrial process sludges and waste oils. In 2002, we recycled or reused 85% of our non-hazardous wastes.

2002 Non-Hazardous Solid Waste Management Methods
(U.S., Canada, Mexico)



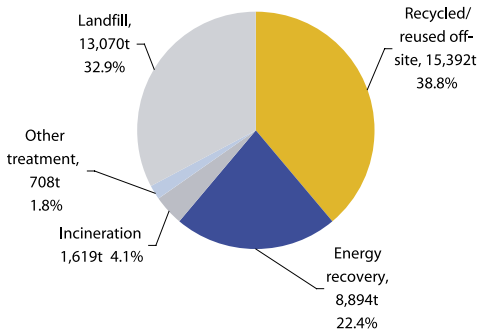
Non-hazardous waste total = **3,410,348** metric tons (t)

Hazardous waste

The total hazardous waste managed in 2002 was 39,683 metric tons. Of this total, we recycled almost 39%.

GMNA hazardous wastes include batteries, some process solids and sludges, solvents, and some waste oils.

2002 Hazardous Solid Waste Management Methods
(U.S., Canada, Mexico)



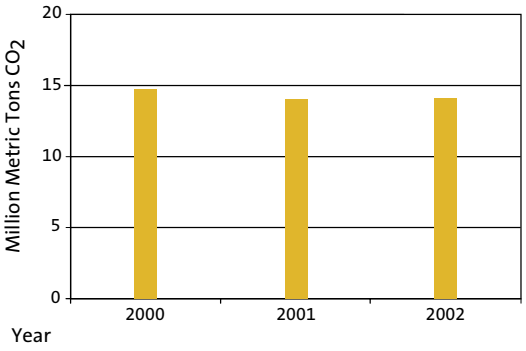
Hazardous waste total = 39,683 metric tons (t)

Greenhouse gases from stationary sources

In 2002, our global facilities emitted 14.1 million metric tons of CO_2 (see graph), a 0.5% increase compared to 2001. Facility CO_2 emissions per vehicle produced decreased by 6.5% to 1.7 metric tons from 1.8 in 2001. Our CO_2 emissions are calculated from fuel and electricity use at each facility, which are the major sources of greenhouse gas emissions from our operations.

Our GMNA emissions of CO_2 in 2002 were 10.7 million metric tons, a 1% increase from 2001 levels. This increase resulted, in part, from a 6.1% increase in HDD and a 9.8% increase in production from 2001 levels. Total CO_2 emissions have decreased by 5.8% since 2000.

GM Global CO_2 Emissions Totals



In 1995, we were the first automotive manufacturer to voluntarily report greenhouse gas emissions from U.S. facilities under Section 1605(b) of the Energy Policy Act of 1992 – Voluntary Reporting of Greenhouse Gases – and we continue to provide this information. In 2002, CO_2 emissions from our U.S. facilities were 9.65 million metric tons, a reduction of 13.8% from 1990 levels and a reduction of 5.6% from 2000.

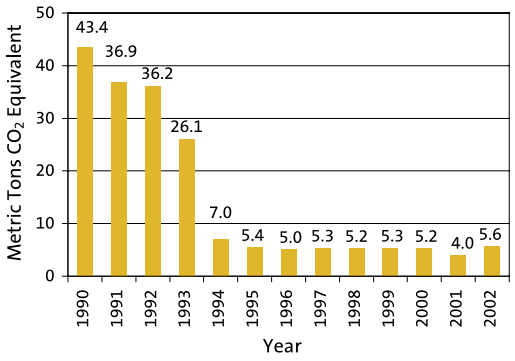
General Motors of Canada Limited (GMCL) operations report greenhouse gas emissions as part of the Voluntary Challenge and Registry Inc. (VCR) program. GMCL has reported to the VCR since its inception in 1994 and for the fifth consecutive year was recognized as a Gold Level Champion Reporter for its 2002 report.

Our Canadian operations have achieved a 41% reduction in energy consumption since 1990, resulting in a 37% reduction in CO_2 emissions over the same time period. For more, refer to the GMCL Action Plan for Reduction of Greenhouse Gas Emissions filed in October 2003 with Canada's Climate Change VCR Registry (http://www.vcr-mvr.ca).

Ozone-depleting substances

Starting with the 1995 model year, all air conditioning systems installed in our new vehicles have been ozone-friendly, containing no CFCs or other ozone-depleting substances (ODS). Likewise, since April 1995, we have not used Class I ODS in the vehicle manufacturing process.

Greenhouse Gases from U.S. Vehicle Refrigerants



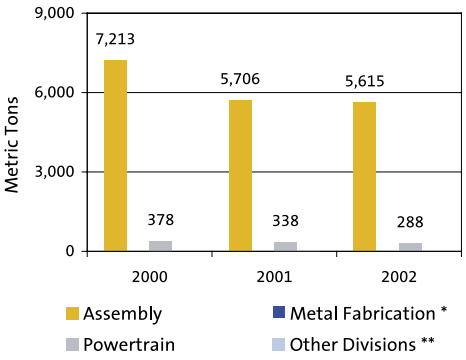
We continue to maintain some stationary equipment, such as building air conditioning systems, which contain ODS. The majority of such equipment has been replaced or converted to non-Class I refrigerants. The remaining systems will be replaced and the ODS refrigerants recovered and recycled over time as this equipment is upgraded.

Air pollutant emissions

Emissions to air are tracked in GMNA facilities using data reported to the U.S. Toxic Release Inventory (TRI) and the Canadian National Pollutant Release Inventory (NPRI).

Between 2001-2002, combined TRI air pollutant emissions from all facilities were down 2% (from 1.4 to 1.1 kg/vehicle) while U.S. production levels were up 10%, representing an 11% decrease in one year on a production-adjusted basis.

SARA TRI Releases to Air (U.S.)

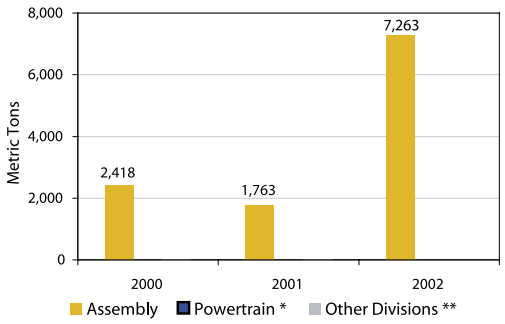


*Metal Fabrication Releases: 2000=5; 2001=3.2; 2002=7.4

** Other Divisions Releases: 2000=5.6; 2001=7.3; 2002=4.8

Total General Motors of Canada Limited NPRI air releases increased in 2002 by 2188% (40,143 metric tons) compared to 2001 (1,753 metric tons). This is a direct result of amendments made to the NPRI reportable list of substances for the 2002 reporting year. For 2002 Criteria Air Contaminants (carbon monoxide, nitrogen oxides, particulate matter <2.5µm, particulate matter <10µm, total particulate matter, sulphur dioxide, and volatile organic compounds) were added to reported releases. More than 38,000 metric tons of Criteria Air Contaminants were reported from the GMCL facilities in 2002.

NPRI Releases to Air (Canada)



* Annual Air Release for Powertrain: 2000=0.1; 2001=0.1; 2002=54

** Annual Air Release for Other Divisions: 2000=11.2; 2001=10.3; 2002=152

If one removed Criteria Air Contaminants from the total reported releases, a downward trend results: decreasing 13% from 1,763 metric tons (2.12 kilograms per vehicle) in 2001 to 1,540 metric tons (1.70 kilograms per vehicle) in 2002. This was achieved despite a 9% increase in production levels, and was a result of facility improvements in purge usage, paint formulation changes, implementation of improved paint spray technology, and other pollution prevention initiatives.

Oshawa Truck Assembly installs new paint technology and reduces VOCs

Oshawa Truck Assembly Centre in Canada, in cooperation with Sames, Fanuc and our North America Paint Group, developed a rotary bell applicator – Aquabell – for waterborne electrostatic paint application. Aquabell merges the benefits of waterborne paint electrostatic application with a rotary bell to improve transfer efficiency. In 2002, the plant became the first in the world to implement this technology. Paint transfer efficiency is increased significantly, with a 30% decrease in usage compared to the former electrostatic waterborne spray system. The benefits also include lower paint cost and waste, reduced air emissions and less required spraybooth cleaning. The facility also has seen a 5% reduction in its annual releases of VOCs.

Criteria Air Pollutant emissions

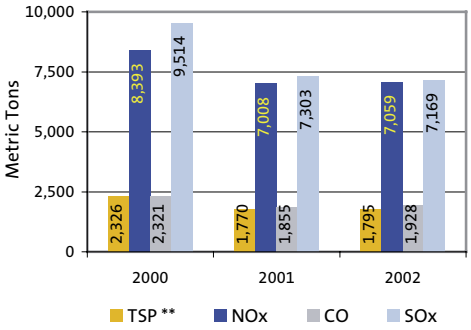
GMNA

The major source of criteria air pollutant emissions is from burning fuel to supply heat and power to our facilities and from solvents used in the painting of vehicles.

During the past decade we have decreased emissions from heating and power operations by reducing our use of coal burning systems, increasing our reliance on cleaner burning natural gas, and improving the energy efficiency of our facilities. When replacing coal-burning systems, we are often able to replace larger, less efficient units with smaller, high-efficiency systems. As a result, although we are producing record numbers of vehicles, emissions of particulate matter (TSP), nitrogen oxides (NOx), carbon monoxide (CO), and sulfur oxides (SOx) have significantly declined in the past ten years.

The following graph shows our emission levels of these pollutants emitted from North American facilities since 2000 The data is derived from fuel usage and calculated using generalized emission factors. Combined total emissions of TSP, NOx, CO, and SOx are down 20% since 2000. On a GMNA production-adjusted basis, these emissions dropped 19% between 2000 and 2002, and 9% since the previous year (2001).

Criteria Air Pollutant Emissions*
(U.S., Canada and Mexico)

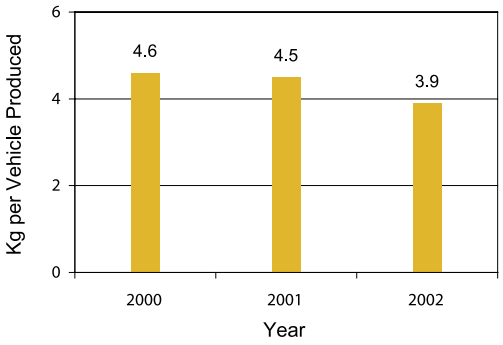


* Air emission data derived from corporate fuel use records and generalized emission factors
** Total Suspended Particulates

Volatile organic compounds

Production-adjusted VOC emissions from paint shop operations at North American facilities have fallen 13% from 2001 to 2002 and 15% since 2000 (see chart). Regional differences in definitions, terminology and calculation methods make it impossible to publish meaningful global VOC data at this time.

Assembly Facilities Volatile Organic Compound Emissions
(U.S., Canada and Mexico)



Painting and coating operations at our assembly facilities are the major sources of the air emissions. We continue to install technologies that lower emissions as we make major renovations at existing paint shops and install new shops. Since 2000, GM has updated three paint shops and built two new paint shops with state-of-the-art technology. In the next two years, GM will build two new paint shops with similar technology. The technology includes:

- Low emission waterborne basecoat coatings.
- Abatement systems to control volatile organic compounds from the bake ovens, the ELPO dip process and portions of the spraybooths.
- Reduced use of cleaning and purge solvents.
- Use of mostly de-ionized water for purging waterborne basecoat.
- High efficiency applicators including electrostatic application of waterborne paints.
- Use of lead-free ELPO material.

In addition to this technology above, GM has continued to reduce VOC emissions through the following:

- In 2000 we initiated a plan with major paint suppliers to minimize the Hazardous Air Pollutants (HAPs) in paint coating materials. As of 2001 new colors introduced into the facility allow GM to comply with proposed maximum achievable control technology (MACT) standards.
- All new materials introduced in GM facilities are approved for environmental compliance at corporate and plants before they are permitted into a GM facility.
- We design grilles, mirror housings, cowl screens, bumper caps and door handles for minimal traditional paint operations – reducing airborne and waste emissions.

GM has many success stories for improving the efficiency of its painting operations and reducing VOC emissions in its plants.

GMBOND® core sand binder technology reduces VOCs

GM Powertrain Saginaw Malleable Iron Plant is installing a prototype process to develop GMBOND. GMBOND is the trade name for a new environmentally friendly core sand binder. It is protein-based and significantly reduces VOC emissions from the core making and casting operations in foundries. Since GMBOND is a physical binder, sand reclamation and sand reuse are additional environmental advantages.

The U.S. government sponsors the project and directs funding through the Casting Emission Reduction Program (CERP), whose mission is to improve, develop and demonstrate new products, processes and technologies for the metal casting industry that reduce negative environmental impact and keep the industry competitive in a global economy. Other supporters include Hormel Foods and the United Auto Workers.

GM facility actions to reduce greenhouse gas emissions: 2003 Progress Report

Our commitment to reduce greenhouse gas emissions (GHGs) is illustrated in our leadership in numerous voluntary energy and environmental management programs in our facilities around the world. We apply the experience we gain from our participation in voluntary programs to our 136 global facilities across 53 countries of the globe.

This table offers a summary of some of GM's commitments to GHG emissions reductions from its global operations.

Voluntary Program	Targets/Progress/Awards
DOE 1605b: Greenhouse Gas Reporting Guidelines and Registry	GM participated in the development of the 1605b GHG Reporting Protocol with the DOE in 1994. GM has been reporting under the 1605b guidelines since its inception in 1995.
DOE Climate VISION Program (started in 2003)	GM has committed to reduce CO_2 per vehicle produced by at least 10% between 2002-2012 for all its U.S. facilities.
The Business Roundtable Climate RESOLVE Program (started in 2003)	GM is committed to energy and CO_2 reduction programs across company operations beginning in 2003.
EPA Climate Leaders Program (started in 2002)	GM is the only automotive partner and one of two founding members to join. An aggressive target, jointly developed with the EPA, aims to reduce absolute GHG emissions from North American facilities by 10% between 2000-2005.
EPA WasteWise	GM's U.S. operations recycled 2.2 million tons of waste, and prevented more than 3,000 tons of waste in 2002. This avoided more than 4.7 million metric tons of CO_2 equivalent emissions. GM was awarded the EPA WasteWise Partner of the Year Award (2001 and 2003) EPA WasteWise Climate Partner of the Year Award (2003).
EPA Energy Star Program	GM is a founding member and set a 25%, energy reduction target across its North American facility operations and a global 10% energy reduction target across its global facility operations. In 2002, GM remained on target to meet these goals with a total reduction of 16.5% from 1995 levels. We were awarded the EPA Energy Star Partner Award (2002).
EPA Combined Heat and Power Partnership	The Combined Heat and Power (CHP) Partnership is a voluntary program that seeks to reduce the environmental impact of electricity generation by fostering the development of CHP, a more efficient, clean, and reliable alternative to conventional electricity generation.
EPA Green Power Partnership	GM is a founding partner with a commitment to source 2% of GM's Service Parts Operation (SPO) facilities' electric load to green power sources. As of May 2003, green power started flowing to SPO facilities equaling 13 million kilowatt hours on an annual basis.
EPA Landfill Methane Outreach Program	Four GM facilities to use landfill gas (LFG) as boiler fuel are complete, and another is in the development phase. This effort will provide 1.7% of GM's North American energy usage from renewable sources. GM is the largest corporate user of LFG for thermal energy in the U.S.. GM was awarded the EPA Project of the Year Award (2000).
World Resources Institute Green Power Market Development Group	GM is founding partner and is working with team members to develop 1,000 megawatts of new, cost competitive green power by 2010. For example, a GM/Dow announcement of 35 megawatt fuel cell project launched in 2003 is the largest fuel cell project in the world.
Great Lakes Renewable Energy Association (GLREA) since 2001	GM works with the GLREA to identify and implement renewable energy projects. For example, with the DOE and the GLREA, GM helped launch the SolarSchools Program across Michigan in 2002. The GM/GLREA partnership earned a 2003 Rebuild America grant from the DOE.

DOE – Department of Energy
EPA – Environmental Protection Agency

Greenhouse gases

GM supports voluntary initiatives to reduce greenhouse gas (GHG) emissions from facilities and, in the United States, we support the Bush Administration's goal to reduce GHG intensity by 18% by 2012. We have provided leadership in GHG mitigation via various global voluntary initiatives with government agencies and independent organizations. We have helped in the development of a global GHG reporting protocol consistent with the U.S. Department of Energy 1605(b) GHG reporting guidelines. In 2001 GM implemented its Global GHG Reporting Protocol and, to date, is collecting energy and emissions data from each of its 136 global facilities.

Global climate

GM believes the development and global implementation of new, cost-effective technologies in all sections, such as renewable hydrogen, is the most effective way to improve energy effiencies and reduce greenhouse gas emissions.

We continue to monitor greenhouse gas emissions from our facilities and products and are moving to achieve near-term reductions. We also continue to support scientific research to better understand the possible long-term effects of economic growth and other human activities on the climate system.

Climate change levy

In 2000, Vauxhall actively participated in obtaining a negotiated agreement for the U.K. motor industry (through its trade body SMMT) in relation to the Climate Change Levy, a tax on business energy use introduced in April 2001. This was one of the first negotiated agreements to be approved by the U.K. government, and provides the motor industry with a rebate against the levy in return for agreed improvements in the energy efficiency vehicle production over the next 10 years.

Climate leaders partnership

We joined the Environmental Protection Agency's (EPA) Climate Leaders Partnership in 2001. This initiative is a voluntary program that challenges its partners to set an aggressive, corporate-wide greenhouse gas (GHG) emissions reduction goal for plants and facilities. Through the EPA's Climate Leaders Program, we are committed to reduce CO_2 emissions from our North American facilities by 10% over five years (2000 to 2005).

GM's Holden in Australia has contributed more than $100,000 to the Murray Darling Rescue, which aims to plant 10 million trees over the next decade. Holden also provided a Rodeo Space Cab, fitted as a water tanker, to help trees survive the drought.

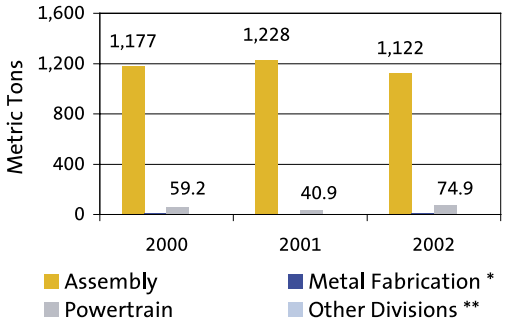
Emissions to water

Typical wastewater quality parameters include biological oxygen demand (BOD5), total suspended solids (TSS), chemical oxygen demand (COD), nitrate nitrogen, and phosphorus. Meaningful empirical data is not available from GM for these indicators due to the many and diverse locations of our facilities, our existing data collection systems, and the variability of analytical processes.

Water pollutant emissions in GMNA are tracked using the U.S. TRI and Canadian NPRI data. The main contributors to these emissions are vehicle painting and coating operations and industrial wastewater treatment.

Combined divisional TRI transfers to water are down 6% from 2001 levels and 3% from 2000 levels (see graph). Production-adjusted levels of water pollutant releases have remained relatively stable around 0.22 kg/vehicle since 2000.

SARA TRI Transfers to Water (POTW)[1] (U.S.)



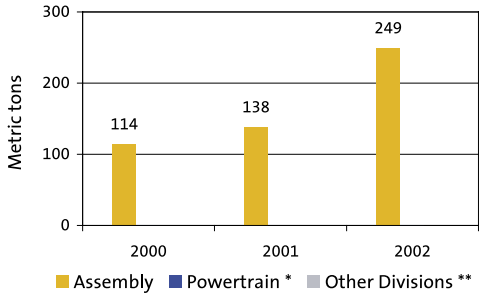
1 Publicly Owned Treatment Works

* Metal Fabrication Transfers: 2000 =9.3; 2000=6.8; 2001=7.8

** Other Divisions Transfers: 2000=0.02; 2001=0.02; 2002 =0.04

Total transfers to Municipal Water Treatment Plants (MSTP) for GM of Canada Limited (GMCL) increased from about 138 metric tons in 2001 to 249 metric tons in 2002. On a normalized, per-vehicle basis these transfers increased from 0.14 kilograms per vehicle to 0.28 kilograms per vehicle over the same time period. Production levels in Canada were 9% higher in 2002 than 2001, which led to some of the increases in total transfers to water. Additional increases come from improved estimation methods and analytical information received in preparation of the 2002 NPRI reports.

NPRI Transfers to Water (MSTP)[1] (Canada)



1Municipal Sewage Treatment Plant

* Annual Transfers for Powertrain: 2000=0.5; 2000=0.2; 2002=0.4

** Annual Transfers for Other Divisions: 2002=0.009; No transfers in 2001 or 2001

TRI and NPRI data

We quantify emissions and effluents from our North American facilities with U.S. Toxic Release Inventory (TRI) data and Canadian National Pollutant Release Inventory (NPRI) data. See Appendix for detailed list. Mexico currently does not have a similar data tracking system.

Our U.S. facilities submitted the 16th annual report to the TRI for 2002. Fifty facilities reported emissions for 57 of 637 chemicals. GM of Canada Limited (GMCL) presented its 10th annual NPRI report to Environment Canada for 2002. Eight facilities reported on 32 chemicals that met reporting thresholds, out of 273 chemicals listed.

This year saw a big change to the NPRI, which affected GMCL reportable air emissions. For the first time, Criteria Air Contaminants (carbon monoxide, nitrogen oxides, particulate matter <2.5µm, particulate matter <10µm, total particulate matter, sulphur dioxide, and total volatile organic compounds) were on the list of reportables. This required GMCL facilities that triggered the thresholds for these substances, due to powerhouse or painting operations, to report emissions of these substances to air. GMCL reported about 5,491 metric tons of Criteria Air Contaminant air releases in 2002.

In addition to the NPRI inventory reported to the federal government, the Ontario Ministry of the Environment (MOE) introduced an extra inventory reporting requirement under O. Reg. 127 – Airborne Contaminate Discharge Monitoring and Reporting Regulation, requiring an annual report on releases to air. O. Reg. 127/01 is divided into three tables; 2A, 2B, and 2C for a combined total of more than 358 air contaminants. Table 2A lists criteria air contaminants and greenhouse gases, Table 2B lists contaminants of specific interest to the MOE, and Table 2C refers to the NPRI list.

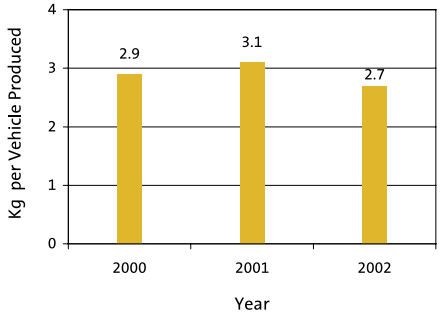
In 2002, GMCL reported the release of a total of 264,605 metric tons to the MOE under O. Reg. 127. The total reportable emissions can be summarized as follows:

- 97% - Carbon dioxide
- 1.5% - Volatile organic compounds
- Less than 1% - Other criteria air contaminates and greenhouse gases
- Less than 1% - MOE-specific substances
- Less than 1% - NPRI substances

Recycled TRI and NPRI substances

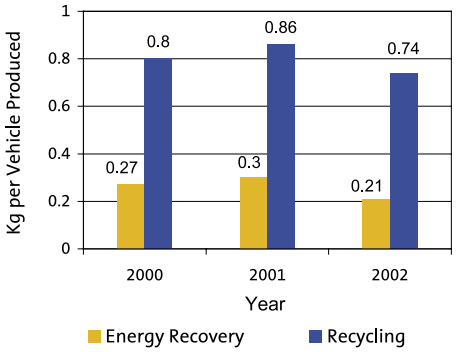
A portion of the toxic materials from U.S. and Canadian facilities are managed using recycling and energy recovery. Those amounts in kilograms, adjusted for production, are presented in the following graphs for 2000-2002 from either the U.S. TRI or the Canada NPRI. We continue to try to reduce our use of materials that contain TRI substances. On a production-adjusted basis, recycled volumes of U.S. TRI substances decreased 14% between 2001 and 2002 and energy recovery levels were down 30%. Non-adjusted TRI recycling decreased by 6% while energy recovery decreased by 22%.

NPRI Recycling per Vehicle Produced
(Canada)



On a production-adjusted basis, the amount of GMCL-reported NPRI substances recycled (including energy recovery) decreased by 13% in 2002 compared with 2001. Total (non-adjusted) GM Canada NPRI recyclables decreased 4.4% from about 2,589 in 2001 to 2,476 in 2002. The majority can be attributed to product changes at the St. Catharines Engine Plant, as the GEN I engine was discontinued and the GEN II engine ramped up. The new engine contains less NPRI reportable substances.

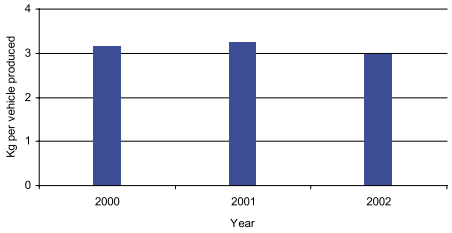
SARA TRI : Energy Recovery and Recycling per Vehicle Produced (U.S.)



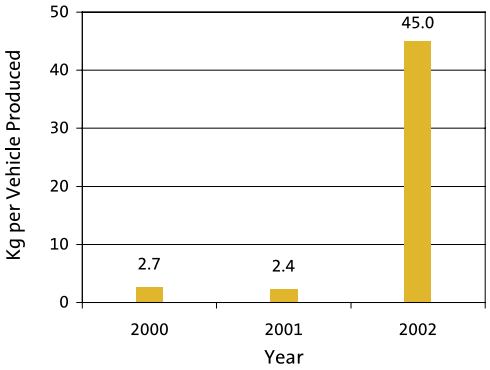
Non-recycled TRI & NPRI substances

Our combined, non-adjusted U.S. facilities' TRI on-site releases to air, water, land and treatment, and off-site transfers to publicly owned treatment works and treatment/ disposal facilities dropped by 4% over the previous year. Combined TRI releases and transfers are down 72% since the 1988 base year. When adjusted for production, combined TRI releases and transfers are down 65% since 1988 and 4% over the past year. U.S. “kilograms per vehicle” figures include a large, diverse mix of assembly, metal fabrication, powertrain, foundry, and engineering facilities all reporting under the TRI. This raises overall emissions per vehicle compared to other automakers. Normalization for production for the United States and Canada is calculated using the number of vehicles produced in each country's plants.

SARA TRI Releases and Transfers per Vehicle Produced (U.S.)



NPRI Releases and Transfers per Vehicle Produced (Canada)



GMCL reported NPRI releases and transfers normalized to production have increased by 1782% since 2001. From the perspective of total annual releases and transfers reported to Environment Canada under NPRI, the GMCL numbers increased from approximately 2,000 total metric tons in 2001 to more than 40,000 total metric tons

in 2002. The reason for this increase is due to changes in the NPRI reportable substance list that came into effect for the 2002 reporting year. The NPRI now includes reporting of Criteria Air Contaminants (carbon monoxide, nitrogen oxides, particulate matter <2.5µm, particulate matter <10µm, total particulate matter, sulphur dioxide, and total volatile organic compounds). When the Criteria Air Contaminants are removed from the reported releases for 2002, the total releases and transfers normalized to production have remained the same at 2.40 kg per vehicle. Releases from painting operations at automotive assembly facilities make up the majority of the emissions reported in our GMCL NPRI submissions.

Legal compliance

Statutory, regulatory and permit programs administered by various government agencies impose numerous substantive and procedural requirements on our facilities and vehicles. For example, a typical assembly plant in Michigan is subject to more than 1,100 environmental legal requirements. Given these extensive requirements, it is common for compliance issues occasionally to arise through allegations by government agencies or by private parties, as well as through matters identified by our own audit programs.

In the United States, the automobile and truck manufacturing industry is one of many industries that federal, state and local authorities regulate through environmental requirements. Government agencies or private parties can, on occasion, challenge our compliance with numerous environmental requirements. Each instance of alleged non-compliance is treated seriously. These actions are often settled, even though we may not agree that a violation has occurred. In these situations, we do not admit liability, but settle the matter if we determine it is preferable to litigation. Administrative and judicial matters resulting in the payment of a fine or penalty greater than $25,000 in 2002 are reported in the table shown.

2002 Administrative and Judicial Matters

	No. of resolved matters	Total value of penalties/ fines paid*
Clean Air Act (CAA)	1	$53,900
Clean Water Act (CWA)	0	
Resource Conservation and Recovery Act (RCRA)	1	$41,096
Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (other than Superfund)	0	
Superfund Amendments and Reauthorization Act (SARA)	0	
Toxic Substance Control Act (TSCA)	0	
Atomic Energy Act (AEA)	0	
Occupational Safety and Health Act (OSHA)	0	
Hazardous Material Transportation	0	
Total Value	2	$94,996

** Penalties or fines paid may be for matters commenced in prior year(s). These figures include payment of penalties/ fines for actions under corresponding state statutes.*

Outside the United States, we use a variety of tools to manage compliance, including an expansion of our environmental audit program globally and implementation of environmental management systems (e.g., ISO 14001 and EMAS). In addition to our environmental principles, we have also developed global environmental performance criteria designed to safeguard human health and the environment, which apply where local regulations do not exist or are less stringent than GM requirements. In addition, we have a global environmental issues team to share knowledge from our facilities around the world and implement global programs.

Accidental releases

We track oil and chemical spills and non-routine air emissions above reportable quantities. The table below shows spills and non-routine air emissions above federal reportable quantities for U.S. and Canadian plants, as defined by the Environmental Planning and Community Right to Know Act (EPCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Reportable releases from these facilities have steadily declined over the last three years.

Accidental Releases

Year	Land/Water	Air	Total
2000	0	1	1
2001	0	0	0
2002	0	0	0

Land use, biodiversity and clean-up

Surplus GM sites

Our goal is to return our surplus properties to productive use while being sensitive to the economic impact on local communities, public agencies and GM. We consult local real estate experts, business leaders and government officials in determining the most suitable re-use.

Superfund sites

"Superfund" refers to the federal statute requiring cleanup of historical sites where prior, perhaps legal, disposal occurred. When developing cleanup plans at state and federal Superfund sites, we evaluate future land uses and ecological habitats. The absence of current property owners and diverse interests of various stakeholders often complicate creating plans consistent with a productive end use for these sites.

The following are examples of subquent reuses of Superfund sites.

Michigan Superfund sites

Saginaw River and Bay, Michigan

As previously reported as a significant legal matter, a multi-party settlement was reached in the lawsuit filed in 1994 by the State of Michigan against GM, the City of Bay City, and the City of Saginaw. The case alleged damage to the natural resources in the Saginaw River and Bay. The settlement included our acquisition of more than 1,600 acres of important ecological habitat, including eagle nesting areas, islands in Saginaw Bay and threatened lakeside prairie and coastal wetland habitats. As part of the

settlement, we transferred all of the land to the State of Michigan and the U.S. Fish and Wildlife Service. Some of these areas were threatened by proposed residential developments, and others had been degraded through past agricultural practices, including the construction of berms and drainage tiles to de-water these resources.

We've removed existing obstacles to restore the wetland habitat and re-establish hydraulic connection with Saginaw Bay. Restoration was completed in June 2002, ahead of schedule. We have worked in cooperation with the Wildlife Division to make the wetland restoration a reality. To enhance an important local fishery habitat, we removed barriers that inhibited fish from reaching critical spawning areas. We're also planning improvements to the Tobico Marsh connection with the Saginaw Bay. This will enhance seasonal fish spawning in the marsh while reducing the potential for local flood damage. In addition, we have funded educational initiatives at the Greenpoint Environmental Learning Center.

We have significantly improved access to these resources by enhancing existing boat launches and building new ones. The community uses the launches year round and they are handicap accessible. We improved one boat launch near the mouth of the Saginaw River by adding a new ramp, skid pier, overlook and more. In addition, we've installed two all-new boat launches on land owned by the City of Bay City. The largest launch is located just north of one of our plants and includes a gazebo and ecological park on acreage we donated to the city. The site features newly planted native lake plain prairie species. We completed the launches and the ecological park in 2002.

Linden Road Site, Flint Township, Michigan

Located in a developing area, this previously undeveloped 40-acre brownfield site's potential was impaired by past use as a disposal site. Traditional site remediation methods would have inhibited the property's future use. We then learned of a youth soccer organization that had been unable to obtain a playing field in the area. We contacted the group and soon designed a cleanup plan to accommodate both the environmental and soccer organization's needs. The soccer fields opened in spring 2000 to the delight of many youngsters.

Mt. Morris Site, Genesee County, Michigan

A small portion of this wooded 80-acre parcel was once used to dispose of various waste materials. Working with the state environmental agency, we conducted the cleanup of this area and re-contoured it to create a scrub-brush wetland environment. What was once a debris-strewn area that only marginally supported vegetation is now an area rich in wetland grasses, flowers, reeds and wetland biota. Since then, we plan to create several types of new wetlands on the property and protect existing wetlands. The new wetlands, which may include emergent, forested and scrub environments, will provide valuable fish and wildlife habitat as well as water resource protection.

Saginaw Manufacturing Facility, Saginaw, Michigan

At our iron foundry site we teamed up with Ducks Unlimited, U.S. Fish and Wildlife Service and North American Waterfowl Management Plan to create a 25-acre native prairie habitat on the property. Located along the Saginaw River in a waterfowl

migration route, it will offer valuable habitat for grassland nesting birds and other wildlife. Native warm season grasses are especially good nesting cover and effectively absorb rainfall and slow soil run-off.

Grassland habitat developed at the Saginaw Manufacturing Facility, Saginaw, Michigan.

Willow Run Creek Site, Wayne County, Michigan

Several companies, including GM, teamed up with local governments, the State of Michigan and the U.S. EPA in an innovative partnership to restore a river and pond habitat affected by years of wastewater discharge from local industries, businesses and residents. Before the cleanup, this urban resource had severely diminished recreational and habitat potential. The ponds were choked with excessive, contaminated sediment and the water couldn't sustain a healthy and diverse aquatic habitat. In all, we removed more than 400,000 metric tons of contaminated sediment from the waterways and improved the stormwater management system to mitigate future impacts. During the cleanup, we made various infrastructure improvements to enhance an existing community park near one of the cleanup areas. In addition, we constructed a new wetland area nearby to enhance the overall habitat quality.

New York Superfund sites

Berlin & Farro Superfund Site, Genessee County, Michigan

This former rural Michigan disposal site was surrounded by agricultural fields and wooded areas. The EPA's planned cleanup would have led to a barren, flat property with little ecological potential. With EPA approval, we made subtle but important changes in grading the site's surface to create a wetland after the cleanup. We transplanted native wetland species to hasten its development. Less than a year after completion, this former Superfund site had become home to wildlife including waterfowl, frogs and turtles.

"Lighthouse Landing" Waterfront Development at former General Motors North Tarrytown Assembly Plant, Sleepy Hollow, New York

One of GM's oldest automotive assembly plants, which operated from 1914 to 1996, was recently demolished to prepare the site for non-industrial uses to enhance the local community and environment. The site is situated on 96.2 acres along the Hudson River waterfront in one of the most scenic areas of the Hudson River Valley. Industrial development of this site dated back to the mid-1800s.

GM's plans were under way to conduct environmental surveys, remove environmental contaminants before demolition, and conduct extensive environmental investigations of the property to confirm the site could be developed for community-compatible use. This decommissioning process included the cleaning and environmental decontamination of all assembly and support buildings

before demolition, completion of interim remedial measures to remove contaminated soils, and initiation of soil and groundwater investigations to characterize environmental quality of the site.

GM sought proposals from several developers and elected to partner with Roseland Property Company, a successful developer of brownfield properties in the New York-New Jersey metropolitan area. The proposed development, named Lighthouse Landing, is a mixed-use waterfront project with 1,562 residential units, 185,000 square feet of retail space, 95,000 square feet of office space, a 150-room inn, a proposed train station, and associated parking, with more than 20% of the site planned as publicly accessible open space. Although the specific uses are subject to modification in response to the ongoing state environmental review process, the final project will enhance the Village of Sleepy Hollow and provide a significant connection between the heart of the village and the scenic Hudson River waterfront, which had not been previously possible.

To ensure that any public concerns regarding environmental restoration of this site would be addressed under appropriate government review, GM and Roseland became co-volunteers in a Voluntary Cleanup Agreement with New York State Department of Environmental Conservation (NYSDEC). Under this agreement, NYSDEC and the New York State Department of Health will review all prior and ongoing environmental investigations and proposed remedial action plans. Following a public review of the remedial action plans, NYSDEC will provide written approval of the appropriate cleanup plans, soils management plans and institutional controls that will support the proposed development of the site.

Salina Industrial Powerpark in Salina, New York

An example of our efforts to return our surplus properties back to productive use is our former plant site in Salina, New York. When the facility ended production in December 1993 it was put on New York State's waste site list and appeared likely to be subjected to an extended remedial investigation and cleanup process. These programs often take years to implement and gain regulatory approval, making it difficult to put the facilities back into productive use for the community on a timely basis.

Our approach, where practical, is to work proactively with various stakeholders to put these surplus properties back into active use. At the Salina site, we integrated the existing environmental studies into a preliminary Remedial Investigation and Feasibility Study report and presented an alternative approach to the state agency to resolve outstanding environmental issues in parallel with developing the site into a new industrial park attracting new manufacturers and existing companies looking to expand. Populating the site with new companies before the investigation and cleanup work ended posed challenges for both GM and the government. By working cooperatively, GM, government agencies and community leaders overcame these difficult obstacles.

Interim remedial measures were performed in advance of final site remedy selection, addressing known environmental exposures at the site. More than 50 different cleanup

projects have been performed including: cleaning of the building's interior, demolition of utilities and waste facilities, construction of an on-site containment system, removal of contaminated soils, creation of stormwater retention basins, and a new water treatment system.

The first new companies established occupancy in 1998, shortly after the first portions of the building interior were cleaned. Since then more than 12 additional companies have made the new Salina Industrial Powerpark their new home. Each of them could have built their new home on greenfield sites in the area, or even left the community to find suitable manufacturing facilities elsewhere while taking valuable manufacturing jobs with them, if not for the efforts and cooperation of GM, state and local leaders.

Outreach and educational projects

We recognize the need for restoring and protecting wildlife habitats, especially those that are sensitive or endangered. In addition, we conduct outreach programs to educate youth on the importance of biodiversity.

The Nature Conservancy

In 1994, we began an unprecedented relationship, in size and scope, with The Nature Conservancy (TNC). We support TNC because of its collaborative approach to promoting a healthy economy and environment. We've pledged $1 million per year in cash and trucks over a 10-year period to aid its often-rugged conservation work help protect precious places around the world.

The Nature Conservancy is the world's largest private, non-profit conservation organization supported by more than 1 million members. It preserves plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

Protecting the Brazilian Rain Forest

In 2001 we launched a major initiative to restore and protect more than 30,000 acres of degraded rainforest in southern Brazil, an area twice the size of Manhattan. The Brazil Atlantic Rainforest Restoration Project, a collaborative undertaking between GM, The Nature Conservancy and the Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental (SPVS, a leading Brazilian conservation organization), purchases privately owned agricultural land in Brazil's Atlantic Forest and converts it into a private nature reserve owned and managed by SPVS. The $10 million project protects in perpetuity this critical wildlife habitat while stabilizing the environmental health of the Cachoeira River valley, reducing slash and burn clearances and pollution, and creating economic opportunities for nearby communities.

With only 5% to 7% of the Atlantic Forest intact, restoration is one of the world's highest conservation priorities. Some 53% of the trees and 77% of other plant species found here are unique to this ecosystem. Fifty species of mammals and 158 species of birds can be found nowhere else on the planet, and 171 of Brazil's 202 officially recognized endangered species depend on the Atlantic Forest for survival.

A primary objective of the project is creating a scientifically based model for biodiversity protection and ecosystem restoration on a large scale. Scientists quantify and document, for example, how the restored forest absorbs atmospheric carbon, to better understand the role that reforestation can play in responding to concerns over the global climate.

PRODUCT USE

Impact of motor vehicles

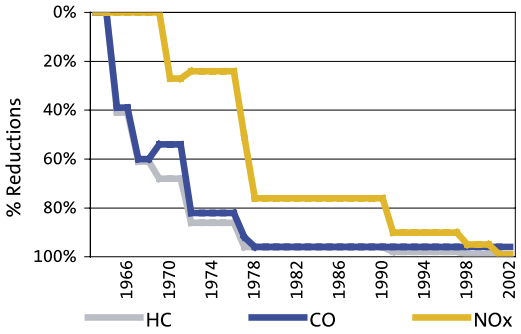
With such a heavy reliance on motor vehicle transportation around the world, even with today's technologies, the vehicles we produce have an impact on the environment.

Our vehicles and products have been developed to achieve high levels of energy efficiency, very low levels of emissions and high recyclability, while meeting customer expectations in terms of comfort, style, performance, handling and safety. We believe that through our products, and the innovation and technology used to develop them, we can provide transportation that improves people's lives around the world.

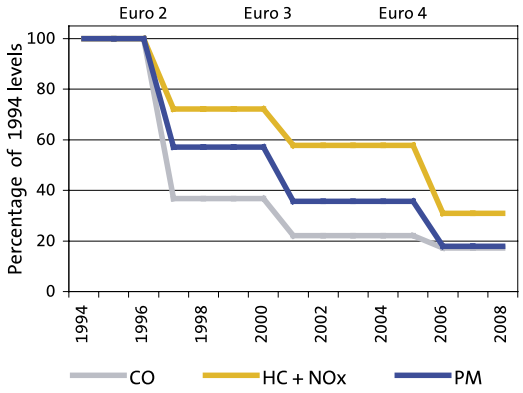
Reducing product exhaust emissions

Exhaust emissions such as nitrogen oxides (NOx), particulates, unburned hydrocarbons (HC) and carbon monoxide (CO) can cause environmental impacts. Since the mid-1960s, emissions of hydrocarbons, carbon monoxide and oxides of nitrogen have significantly decreased. In the United States and Canada, HC, CO, and NOx of passenger cars have fallen by 99 percent, 96 percent, and 95 percent, respectively, (see chart). We're achieving this by producing Low Emission Vehicles (LEVs) in the United States and Canada as part of the National Low Emission Vehicle (NLEV) program we initiated.

US Tailpipe Emissions
Light Duty Vehicles



EU Tailpipe Emissions Since 1994



We will begin meeting stringent Federal Tier 2 and California LEV II standards in the 2004 model year. Once fully phased-in, all GM cars and light trucks will meet these standards, which cut smog-forming emissions (HC + NOx) by 99 percent relative to mid-1960s models.

Offering LEVs nationwide could have put a severe strain on the availability and pricing of the required platinum group metals needed to produce the very efficient catalytic converters. However, through technological improvements in our powertrain controls, we were able to meet these standards while maintaining a cost-effective supply of platinum, palladium and rhodium thereby helping to ensure a sustainable supply for the future.

Like the United States, Europe has come a long way in reducing exhaust emissions. When the latest Euro 4 standards take effect in 2005, emission levels of carbon monoxide and combined emissions of hydrocarbons and nitrogen oxides will have been reduced by 97% since 1970, when emission standards were first introduced. The most significant reductions will be achieved between 1993-2005, with CO emissions reduced by 83%, combined HC + NOx by 69% and particulate matter (PM – from diesel engines) by 82%.

Our commitment to environmental protection was already documented in 1989, when we became the first automobile manufacturer in Europe to supply all passenger cars with standard closed-loop, three-way catalytic converters. Since then we have complied with Euro 2, Euro 3 and Euro 4 emissions standards long before they became mandatory. Today, new gasoline engines of the Ecotec engine family, which was first introduced in 1993, meet stringent Euro 4 emission standards that don't come into force until 2005.

- The new Opel Astra 1.7 CDTI is the first diesel car in the world to fully comply with the Euro 4 emissions standard. The 4-cylinder Ecotec turbo diesel offers higher performance and lower emissions.
- The standard becomes mandatory for all vehicles in 2005, and calls for 50% lower emissions than the Euro 3 regulation. Opel will launch three more all-new diesel models intended to top their market segments.

Cleaner fuels mean reduced emissions

We need cleaner fuels to meet the more stringent 2004 Tier 2 and LEV II emissions standards and to realize the full potential of our powertrain emissions control technologies. We continue to be an industry leader in encouraging governments worldwide to adopt regulations for low-sulfur and improved quality gasoline and diesel fuels. Sulfur in fuel reduces the effectiveness of the three-way catalytic converter even in today's vehicles, and improved fuel quality is essential in meeting the new Tier 2 and LEV II emission standards. We've also teamed up with companies like British Petroleum, ExxonMobil and Shell. Through our joint efforts, we'll develop advanced engine/fuel systems for improved vehicle efficiencies and lower emissions while meeting the performance expectations of our customers.

Reducing fuel consumption

Greenhouse gas emissions and fuel economy are directly related. Carbon dioxide (CO_2), a greenhouse gas, is emitted by the clean combustion of gasoline or diesel fuel in an engine. The primary means of controlling CO_2 emissions from vehicles is through vehicle fuel economy.

Our approach

Over the years, we have responded to challenges from governments and ourselves to improve the fuel efficiency of our products and to reduce their impact on the environment. We believe technology, innovation and partnerships can meet these challenges.

Regional regulatory pressures

United States

Earlier this year in the United States, the Department of Transportation raised fuel economy standards (Corporate Average Fuel Economy standards) for light trucks by more than 7%, the largest increase in truck standards in 20 years. In recent years, GM's light truck fleet and passenger car fleet in the United States have struggled to increase their CAFE fleet averages as consumer trends for larger models, higher performance engines, and more features have offset much of the fuel economy increases from technologies we've implemented. Since our light truck fleet already has difficulty in meeting existing CAFE standards, higher standards will be even more of a challenge.

European Union

ACEA (the European auto manufacturer association) is committed to a 25% reduction in average CO_2 emissions per kilometer over 1995 levels by 2008, reaching 140g CO_2/km or approximately 40 mpg for gasoline engines on the European test cycle. Interim targets have been set for 2003 with a review scheduled to determine if additional measures are necessary. The EU has also adopted vehicle fuel economy labels, publication of fuel economy guides, and monitoring of industry performance by authorities. Government pressure exists for further reductions to 120g CO_2/km (47 mpg) by 2012.

Asia-Pacific

In the Asia-Pacific region, the Japanese government established fuel economy standards for various vehicle weight classes for the 2010 model year. The requirement calls for, on average, approximately a 30% increase in fuel economy as compared with the mix of GM models sold in Japan in 1997.

Australia

In Australia, the auto industry has set a voluntary target for an 18% reduction in fuel consumption by 2010.

Technology and innovation

We have near-term, mid-term, and long-term plans for improving fuel economy, thereby reducing emissions of CO_2, via technology and innovation.

In the near-term we will be introducing:

- new, more efficient engines with technologies such as displacement on demand, continuously variable transmission, variable valve timing, electric power steering and innovative vehicle weight savings;
- efficient engines such as our new in-line engines in 4-, 5-, and 6-cylinder versions (e.g., new Chevrolet Colorado pickup will be offering a new five-cylinder dual overhead cam four-valve engine with variable valve timing);
- and designing and adapting engines to use alternative fuels such as ethanol, liquid petroleum gas (LPG), compressed natural gas (CNG), and biofuels.

In the mid-term, we have announced a comprehensive hybrid vehicle plan to offer three types of hybrids systems on a dozen models. Beginning next year we'll begin our rollout on the Silverado as we gauge market reaction to these types of technologies.

Longer-term, we see hydrogen playing a major role as a provider of energy in transportation and other sectors. Automobiles propelled by hydrogen fuel cells made from renewable sources provide a vision for virtually emission-free transportation.

GM is a leader in fuel cell development. Fuel cells have the potential to reduce CO_2 emissions dramatically when running on fossil fuels – and to nearly eliminate CO_2 emissions when running on hydrogen produced with renewable energy such as wind, solar, biomass and hydro-electricity.

Partnerships

The challenges faced in developing and introducing new breakthrough technologies – and the infrastructure to support them – are enormous. We believe the quickest, most effective way to overcome these challenges is to work with others in our industry, with those in associated industries such as energy companies, and with government and society.

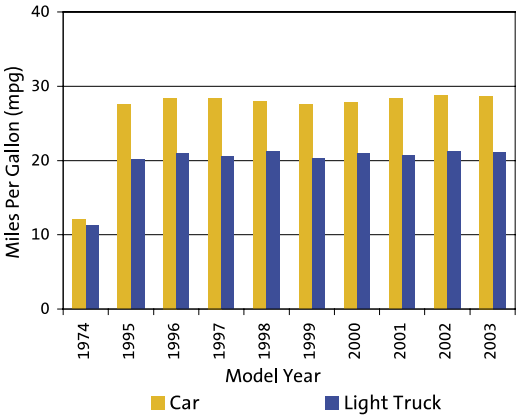
Significant resources are being devoted for collaborative research and development programs. We also support partnerships with government including the U.S. Department of Energy's FreedomCar initiative to develop advanced technologies for use in vehicles. Such collaborative programs have resulted, for example, in the 80-mpg hybrid Precept concept vehicle, the announcement of a parallel hybrid full-size truck for 2004, and fuel cell breakthroughs in Europe and the United States.

Performance in reducing fuel consumption

U.S. and Canada

In the United States, the average fuel economy of our new cars and light trucks has increased over 130% and 75%, respectively, since 1974 (see graph). Since 1990, new vehicle fuel economy has been relatively constant as consumers, reflecting increased disposable income and relatively low fuel prices, have not emphasized vehicles with high fuel economy.

U.S. GM Fuel Economy for New Vehicles

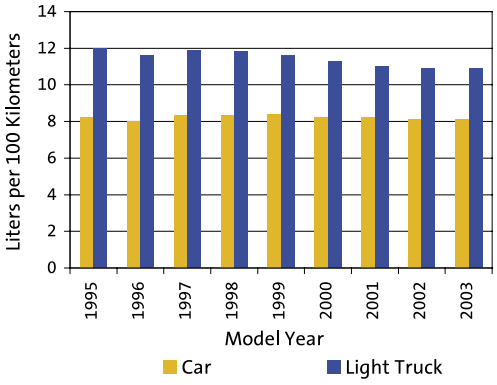


Includes imported & domestic U.S. car sales; Based on GM's CAFE: 2003 is forecasted

Our 2003 CAFE fleets are meeting the U.S. Corporate Average Fuel Economy (CAFE) standards. However, since CAFE is a sales-weighted average of the fuel economy of the models customers purchase, CAFE is not a good measure of whether manufacturers are improving the individual fuel economy of their various models. With consumers choosing larger models, the fuel-saving technology improvements on individual

models are being offset. For example, on a comparable model-to-model comparison, GM's trucks lead in fuel economy. GM's light truck CAFE is lower than that of other automakers because we sell more large SUVs than our competitors.

GM Canada Fuel Consumption for New Vehicles



2003 is forecast

To compare GM's model-to-model fuel economy to other manufacture's, see www.gmability.com.

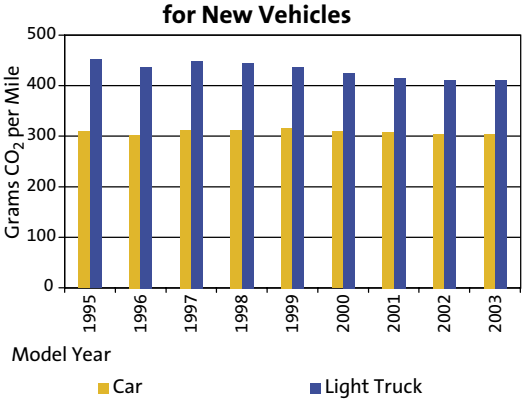
In Canada, the fuel consumption (measured in liters per 100 kilometers or L/100 kilometer) of GM's passenger cars and light trucks has followed similar trends as the U.S. fleets. GM Canada's car and truck fleets are meeting their Company Average Fuel Consumption (CAFC) targets of 8.6 L/100 km and 11.4 L/100 km, respectively.

Europe

With fuel prices in Europe three to four times higher than in the United States, there is large customer demand for fuel efficiency. GME's goal is to offer automobiles that deliver outstanding efficiency, thereby coupling responsive performance with low fuel consumption.

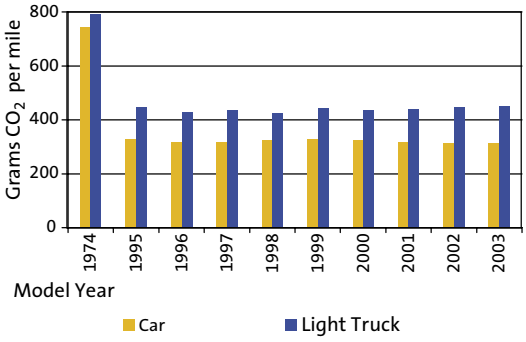
Despite the introduction of new test procedures in Europe in 1996 and 2000, which resulted in effectively increased fuel consumption figures, GME has been able to reduce fuel consumption by approximately 10% since 1995.

GM Canada Average CO_2 Emissions per Mile for New Vehicles



2003 is forecast; CO_2 emissions based on 8,865 grams of CO_2 per gallon of gasoline

GM U.S. Average CO_2 Emissions per Mile for New Vehicles



Includes imported & domestic U.S. car sales; 2003 is forecast; CO_2 emissions based on 8,865 grams of CO_2 per gallon of gasoline

Reducing fuel consumption in Europe

In several western European countries, auto manufacturers have agreed to voluntary commitments to improve fuel consumption on a national level, because national markets in Europe are still not homogenous, mainly driven by different taxation schemes. The different GME brands in these national markets continue to support the industry commitments.

The German manufacturer association (VDA) has been monitoring fuel consumption of the sales weighted new vehicles since 1978. In 1995, the VDA made a voluntary commitment to cut fuel consumption in Germany by 25% in 2005. Compared to 1978 levels, Opel has improved sales weighted fuel consumption of its fleet by more than 34%. Policy makers are now calling on the industry to adopt more aggressive targets for the 2010 timeframe. Through its German subsidiary Opel, GM has adopted an active role to set up a dialogue between policy makers and industry.

Opel/Vauxhall extend portfolio of high-fuel economy ECO models, introduce new fuel economy technologies in powertrains.

Opel/Vauxhall Astra 1.7 CDTI is the first series-produced diesel car in the world to meet all requirements of the Euro 4 emissions standard, effective in 2005. The newly designed four-cylinder Ecotec turbo diesel engine with two overhead camshafts has common-rail direct injection (59 kW/80 hp) and a maximum torque of 170 Newton meters.

The optimized Astra ECO4 has a special five-speed manual transmission, needs only 4.4 liters of diesel per 100 kilometers and can reach top speed of up to 178 km/h. Since April 2003 the Astra Caravan ECO4 has also been available as a station wagon. This version is also highly economical, consuming only 4.5 liters of fuel per 100 kilometers, and it has a top speed of 173 km/h.

Twinport Ecotec engine has intelligent fuel saving technology. Opel/Vauxhall reduces the fuel consumption of small gasoline engines (up to a maximum size of 1.6 liters) by as much as 6 percent through a smart solution employing a variable intake manifold in combination with a high rate of exhaust gas recirculation. The Twinport technology works in conjunction with engines with four valves per cylinder, a requirement fulfilled by Opel's complete Ecotec range. Twinport controls the supply of the fuel-air mixture to the cylinders according to the engine's actual needs. At part load, one of the two intake ports leading into the cylinder is throttled. This causes an intensive swirl effect to develop as the mixture enters the cylinder, which in turn makes the engine more economical when operating with a high proportion of recirculated exhaust gas. At full load, on the other hand, the throttling device is opened, the cylinder receives a greater charge of mixture and full power is developed. By adapting the swirl movement of the incoming charge to suit engine-operating conditions, maximum fuel economy is always achieved. Extensive tests have confirmed that these smaller engines, if equipped with Twinport, can achieve at least 80 percent of the fuel savings expected from an engine using gasoline direct injection and the stratified-charge principle.

The 2.2 Direct Ecotec engine: debut of Opel/Vauxhall's first gasoline direct-injection engine. The new 2.2 Direct Ecotec is the first Opel/Vauxhall direct-injection gasoline engine controlled via a variable intake control in which both intake canals are controlled according to the load conditions. This causes an intensive turbulence of the fuel in the burn chamber so that an especially efficient combustion occurs. During partial load, high rates of exhaust gas recirculation provide for low fuel consumption. This creates a positive condensation (12:1) compared to the conventional 2.2 Ecotec engine. The cooling of the fuel air mix in the injection chamber allows for improved power development. The 114 kW (155 hp) engine consumes approximately 6% less fuel as compared to a similar inlet manifold injection unit, yet it has approximately 10% more torque at low rpm and 6% more power. The Vectra station wagon 2.2 Direct requires only 8.1 liters of fuel per 100 kilometers.

Opel ECO-Speedster sets 17 international records. On July 27, 2003, and after 24 hours at full speed, the 82 kW (112 hp) prototype set 17 new international records for special automobiles with turbocharged diesel engines in the 1100 to 1499 cm3 displacement class. The ECO-Speedster is powered by the Opel/Vauxhall 1.3 CDTI engine. Shortly before the finish,when the average speed was at more than 240 km/h, the ECO-Speedster even covered the first 500 kilometers at more than 250 km/h. The fastest lap was clocked at 256.269 km/h and top speed for the flying kilometer was 256.739 km/h.

An identical ECO-Speedster model tested on public roads by a group of international journalists displayed exceptionally economical engine behavior. At 2.54 liters per 100 km, a noteworthy best performance was achieved. The 17 records by the ECO-Speedster complement those achieved by another prototype that made headlines 31 years ago. On June 1, 1972, a modified Opel GT with a 95 hp 2.1-liter turbo diesel engine also set numerous world records at the same proving grounds in Dudenhofen while achieving a top speed of 197.5 km/h.

A high performance version of the new Opel/Vauxhall 1.3-liter common rail diesel engine served as the powertrain for the ECO-Speedster. The four-valve engine, which made its production debut in the Corsa and Agila models, is one of the best diesels when it comes to fuel consumption, emissions and refinement. The production version of the new CDTI Ecotec engine delivers 51 kW (70 hp) and develops maximum torque of 170 Nm. The Agila requires 5.2 liters per 100 kilometers, which amounts to a CO_2 emissions level of 140 grams per kilometer. The Corsa 1.3 CDTI needs an average of 4.5 liters per 100 kilometers (122 g CO_2/km).

Product design and performance

The rate of innovation and change within the motor vehicle industry is accelerating. This is driven partly by changing customer needs. Customers are ever more demanding in what they expect from their vehicle and how it meets their needs. Our customers, however, are not the only agents behind change. New technology allows designers to challenge every aspect of car design, from

styling through body construction. Intense industry competition has led to a search for new winning vehicle concepts, resulting in the development of new vehicle segments and hybrid vehicles.

Product design

Meeting customer demands in a dynamic marketplace is not just a question of developing an acute understanding of current customer needs and designing vehicles to meet them. It is also essential to identify future customer needs and requirements as well as trends in style and taste. This is particularly important in the motor vehicle industry.

Vehicle quality

In 2002, we again showed improvement in respected independent studies of productivity and quality.

Product portfolio implications

Customer enthusiasm is central to our corporate vision. Producing the right range of products is key to developing enthusiastic customers. The collective effect of our customers' individual purchase decisions ultimately determines the type and number of products that we produce.

The product portfolio determines when, where and how much of a given product we produce. Supporting this production is a manufacturing portfolio of facilities. Changes in consumer preferences eventually impact the manufacturing portfolio and drive decisions regarding the location of facilities, including openings, closings, expansions and contractions.

We analyze a variety of factors to predict future customer needs and requirements, including sales experience, customer feedback, market research, competitive market analysis, option portfolio development, auto shows and economic trend analysis. Our products must also address additional requirements including occupant safety, fuel economy, vehicle emissions, serviceability, affordability, and manufacturability. Our planners use this information to develop a multi-year product portfolio strategy to balance the customer's needs with the product requirements mentioned above. Our Automotive Strategy Board is responsible for approving the final product portfolio strategy.

Product use and environmental protection

Our vehicles are designed to reduce resource use. When drivers act responsibly, they can reap the benefits of fuel efficiency, and lower emissions. Fuel consumption is dependent in part on individual driving habits. A smooth and defensive driving style is easy on the environment and on the driver's wallet, and helps extend vehicle life. Conversely, a hectic driving style with frequent starts and stops and rapid acceleration and braking leads to substantially higher fuel consumption. The intelligent on-board computer in many of our models enables drivers to check fuel consumption with the touch of a button. We also provide detailed information in the operating manual regarding fuel-efficient driving habits.

Tips for reducing fuel consumption and CO_2 emissions

- Begin driving as soon as you start the engine. Don't let the engine idle until warm, but drive at moderate engine speed until it warms up.
- Maintain constant speed.
- Avoid unnecessary acceleration and braking.
- Shift into higher gears early.
- In each gear, stay in the lower engine speed range, from 2,000 to 3,000 rpm.
- Avoid idling. Cutting the engine pays off for waits of as little as one minute.
- While in coasting mode, don't step on the gas and don't disengage the clutch.
- Avoid driving at full acceleration.
- Check tire pressure regularly.
- Switch off devices that consume additional energy, such as air conditioning, heated windows, or fog lights, when not needed.
- Remove roof luggage racks when not in use.
- Give your vehicle regular maintenance and tune-ups.
- Avoid unnecessary short trips.

Vauxhall promotes responsible car use by supporting car clubs. These clubs benefit society and the environment by reducing unnecessary car travel. They also increase use of alternative modes of transportation where appropriate and provide access to personal transportation for those currently excluded. The program uses well-maintained vehicles with the best environmental performance in their class, minimizing pollution per mile traveled. Vauxhall supports the Community Car Share Network (CCSN) and car share programs in several U.K. cities.

Design for Environment

At GM, we've long believed a design done right the first time helps minimize a vehicle's impact on the environment during its lifecycle. This philosophy influences the entire chain, from development and production to regular use and recycling. Environmental thinking cuts costs and encourages efficient resource use.

We factor in environmental and recycling requirements from the earliest stages of vehicle development and have created a common global template to establish these requirements. As the vehicle moves through the development process, we track our progress to confirm we are achieving our goals.These requirements include specifying vehicle recyclability and recoverability and compliance with GM restricted and reportable materials requirements.

As a support for these processes, DfE utilizes tools such as Life Cycle Analysis and DfE Assessments to determine the best-fit solutions. We are actively working with our suppliers to teach and integrate lean environmental principles for them to use through the "Supplier Partnership for the Environment" initiatives.

The GM oil life monitoring system has saved an estimated 70 million gallons of oil, and $1 billion in unnecessary oil change charges.

Life cycle analysis

We've formed a global life cycle analysis subcommittee to better use our capabilities. We also adopted GaBi 3 Professional as a common software tool for life cycle analysis studies and utilize one of the largest databases of automotive life cycle inventory data. Analysis takes place at GM operations all over the world. At Opel, for example, internal studies are joint projects with Advanced Engineering, Product Engineering, and Powertrain. One study compared magnesium and steel as materials for the cross car beam, and the life cycle for an entire vehicle was done on the Astra G. In North America, employees have completed studies on aluminum casting, painting, and fuel cell components.

Choosing the right materials

Selecting the right materials is vital for product quality and protecting the environment. Our designers seek to use non-toxic materials, increase the use of recyclable materials and choose recycled over virgin materials whenever possible.

We use various complementary information systems and guides for relevant information and ideas about environmentally responsible product design. Product specifications list external and internal requirements with references to further data sources. The "Global Legal Database," developed by ITDC and available online throughout the company, contains detailed information on currently applicable and known future product regulatory requirements around the world. Internal specifications such as the "GMW3059 Restricted and Reportable Substances for Parts Specification" give engineers and suppliers information on material inputs that are prohibited or subject to declaration requirements.

Health and environmental impact assessments

The materials recommended for use in our products and manufacturing processes are assessed for potential health and environmental impacts prior to approval using several complementary processes. Materials are assessed according to the Productive Material Review Process (PMRV), which supports the release and material engineering community and is part of the Design for the Environment process (DfE) process. If a material is approved, the information is then sent to the plant Hazardous Materials Control Committee (HMCC) for local approval and implementation. The HMCC assesses potential health and environmental impacts of those materials that support the manufacturing process (indirect materials), but do not actually become part of our products.

The PMRV team continues to provide critical support during assessment of the materials proposed for use at our facilities. Timely review and communication to material and designing engineers and local HMCCs assist our plants in meeting start-up deadlines and material needs. For example, a silicone sealant that provided improved sealer performance at reduced cost was reviewed for use at the Tonawanda Engine plant. Concerns about employee health and safety were alleviated

by the PMRV process; production was not affected. The timeliness of these PMRV reviews ensures a smooth transition for all new production systems.

Manufacturing Planning Studies and DfE Assessments take a proactive look at our processes and materials in conjunction with the PMRV process. These early assessments analyze processes planned for use in our facilities, incorporating the DfE principles of prevent, reduce and recycle. The process considers a wide variety of items ranging from how the material is brought into the facility, stored and transported, to correct ventilation and recycling of any waste that may be created.

International Material Data System

- Details about the materials that suppliers use in parts and components is essential. In the future, this information will be harmonized and made available to the auto industry in the form of an International Material Data System.
- GM has been using this information to assist our engineering community in designing-in products and processes that will benefit vehicle recycling at end-of-life as well as reducing the environmental footprint at our suppliers.
- This site is designed to provide information for suppliers on how to help us become best in class for environmental product and process development and improvement. For details, visit www.gmsupplypower.com.

Oil life monitoring
It's easy to forget to change the oil on time, and, while essential for a vehicle, frequent oil changes can be hard on the environment. That's why GM has installed its Oil Life System on nearly every new North American vehicle. The system gives motorists an accurate, reliable way to determine exactly when the oil needs to be changed based on vehicle use and road conditions. In some instances, it will double or triple the oil change interval. Since 1995, GM has produced 18 million vehicles with the system. It is estimated these vehicles will save 70 million gallons of oil over their liftimes and more than $1 billion in unnecessary oil change charges. For more information on GM's Oil Life System, visit www.GMability.com.

Chemicals management

We continue to expand our Chemicals Management programs in our facilities to include all indirect chemicals used in the manufacturing process (those not directly involved in producing a vehicle). Chemicals Management uses a single supplier to provide non-product-related chemicals at each GM facility. Program activities include chemical process control, process improvements, chemical reuse and recycling. The supplier also provides the chemical data required for regulatory reporting.

These programs offer an average first-year material savings of 20%, with additional savings of 3% to 5% in the second and third years. Savings come from material conservation and standardization, process optimization, and environmental performance. Other benefits include better quality, throughput and manufacturing efficiency.

We recently requoted these programs to a new specification that standardized program scopes and administration and supports our strategic environmental and manufacturing initiatives.

We also aggressively advocated the creation of the Michigan Minority Chemical Association (MMCA). This consortium of minority suppliers provides second tier Chemicals Management products and services. GM's minority share of Chemicals Management increased 67%.

Noise

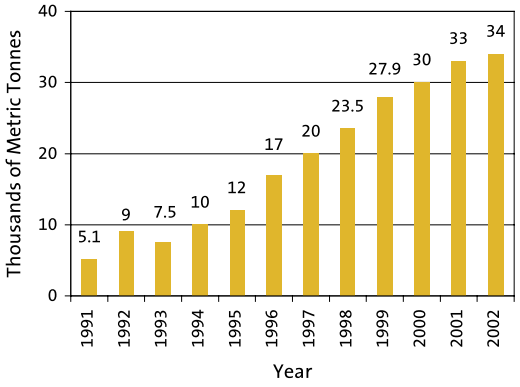
Every community, whether it's the largest metropolis or the smallest county outpost, is concerned about excess noise. Not surprisingly, vehicle and traffic noise is of special concern in heavily congested urban environments. As a result, most governments regulate vehicle noise levels.

We actively participate in reducing community noise by ensuring all our vehicles meet or exceed the most stringent noise requirements, and we continually pursue new technologies to improve vehicle noise performance. Our participation in the International Standards Organization (ISO) gives us direct involvement in the development of improved vehicle noise test procedures to address concerns.

Product dismantling and recycling

To meet regional requirements for end-of-life vehicles, we've organized a global End-of-Life Vehicle Team. This ensures we provide the necessary support to our regional business units in a common manner. Vehicle manufacturers around the world, through automotive trade associations, are developing methodologies for calculating the recyclability and recoverability of vehicles. Since 1994, we've participated in a series of car recycling workshops to promote responsible treatment of end-of-life vehicles (ELV) regardless of where they are used and retired.

Use of Recycled Plastics in Vauxhall/Opel Vehicles



In our North American, European and Asia/Pacific regions, we continue to improve the end-of-life vehicle infrastructure through appropriate partnerships. In North America we continue to develop new technologies through the Vehicle Recycling Partnership and its recycling infrastructure partners. In Europe, Opel, Vauxhall and Saab are committed to working with industries involved in taking back, treating and scrapping ELVs to reduce automotive waste going to landfill to 5% of a car's weight over the next 15 years – compared to 25% in 2002.

North America

In a first among U.S. automakers, we are making our vehicle recycling information easily accessible by posting the manuals to www.GMability.com.

In addition to dismantling manuals for GM products sold in Europe, pre-treatment manuals that provide details for removing automotive fluids, CFCs/HFCs, and other substances are available for North American vehicles.

ELV manuals provide dismantlers with information on which parts of a vehicle can be recycled. Currently, more than 75% of a car is recycled because the majority is metal. But few non-metals on vehicles are recycled. With ELV manuals now easily accessible, there is potential to significantly increase the percentage of the vehicle that is recycled.

GM is committed to reducing the use of substances of concern in vehicles. For example, GM voluntarily eliminated mercury convenience light switches from all vehicles produced after the 2002 model year.

We depend on the automotive recycling community to treat end-of-life vehicles in an environmentally sound manner. This includes the removal and proper handling of substances of concern.

Europe

In Europe, Opel, Vauxhall and Saab make available to provide all contracted dismantlers with a manual with detailed information on all removable plastic components, their weight, composition, and the time it takes to dismantle. It is important for mechanical recycling that incompatible types of plastic are not mixed after shredding, as different materials can only be separated afterwards with great difficulty.

This data is now available on CD, a result of the International Dismantling Information System (IDIS) to which Opel, Vauxhall, and Saab contributed. The IDIS consortium, originally a development project of European vehicle manufacturers, now comprises 23 vehicle producers from around the world.

The latest release of the CD, containing information in eight languages on environmentally sound pre-treatment and dismantling of more than 360 different vehicle models from the world's largest manufacturers, is distributed free to European dismantlers twice a year since early 2000.

Rapid and cost-effective solutions can be found through close cooperation with dismantlers. For example, we have provided dismantlers with details on how to centrally de-activate air bags to eliminate potential hazards.

To optimize dismantling, we address issues early in the vehicle development cycle. We're also making a significant contribution to creating a market for recycled materials, which helps stimulate demand for reycled plastics, encouraging greater levels of recycling in the future. Use of recycled plastic materials in Opel/Vauxhall vehicles rose to 34,000 metric tons in 2002. helps stimulate demand for recycled plastics, encouraging greater levels of recycling in the future.

European Union Directive on 'End-of-Life' vehicles

In September 2000, the European Parliament passed a directive that comprehensively addresses costs, recycling and recovery targets and substance bans for vehicles at the end of their useful lives – called end-of-life vehicles (ELV). The European Directive on End-of-Life Vehicles requires final vehicle owners to return ELVs to authorized collection networks to obtain "certificates of destruction" necessary to deregister vehicles. The delivery of the vehicle to the facility must be without any cost for the last holder and/or owner as a result of the vehicle's having no or a negative market value. The Directive has three major consequences for the auto industry:

- Obligation to cover "all or significant part" of any take-back costs for new cars put on the market since July 2002 and all ELVs starting in 2007 (member states may bring this latter date forward if they wish).
- The Directive's target values for the recovery or recycling of ELVs are: (a) 85% by weight re-use/recovery and 80% by weight re-use/recycling to be achieved by 2006. (b) 95% by weight re-use/recovery and 85% by weight re-use/recycling to be achieved by 2015.
- Materials/components of vehicles put on the market since July 2003 may not contain lead, mercury, cadmium and hexavalent chromium unless there is an exemption under the Directive.

To meet these objectives, Vauxhall, Opel, Saab and our other companies operating in Europe have a dedicated ELV organization.

The group is working with Product Engineering to step up efforts under way in each part of the company to increase the use of recycled materials across our entire product range and to establish markets for recycled material to make recycling economically viable. With respect to dismantling, our European companies are part of the International Dismantling Information System. We have adopted the Design for Recycling (DFR) concept for all newly designed vehicles. DFR includes, for example, reduced complexity of materials and improved fastening technology (easy to dismantle). All plastic components are marked to identify the material content. DFR concepts are conveyed to design engineers and suppliers through a global specification, GMW 3116.

We support harmonization of environmentally sound ELV treatment in Europe. Opel, Vauxhall and Saab work with businesses and associations involved in collection/recycling to reduce landfill burden according to the EU directive.

Since legislation, or voluntary agreements, on handling ELVs exist in some countries, we are building on these national models, for example in Denmark, Germany, Sweden and the Netherlands. In countries without programs, we are creating collection system with other interested economic operators.

Through increasing availability and use of recycled materials, product development is also helping create markets for these materials. Opel, Vauxhall and Saab are committed to working with industries involved in taking back, treating, and scrapping ELVs to reduce the amount of automotive waste going to landfill from 25% of a car's weight today to 5% by the year 2015.

APPENDIX

Canada 2002 NPRI Reportable Chemicals (kilograms)

	On-Site Air	On-Site Water	On-Site Land	Total Treatment	Off-Site Disposal	Off-Site MSTP	Total Releases & Transfers	Total Recycle
Ethylbenzene	57,322	0	0	0	0	0	57,322	6,379
Ethylene Glycol	11,426	0	0	6,703	0	0	18,129	3
Methyl Isobutyl Ketone	86,116	0	0	0	0	0	86,116	23,267
Toluene	433,702	0	0	0	0	0	433,702	259,814
Oxides of Nitrogen (expressed as NO2) *	536,633	0	0	0	0	0	536,633	0
2-Butoxyethanol	150,158	0	0	8,449	0	211,969	370,576	4,157
Xylene	582,632	0	0	0	0	0	582,632	187,385
Formaldehyde	13,817	0	0	0	0	31	13,848	0
Carbon Monoxide *	253,470	0	0	0	0	0	32,973,739	0
Methanol	23,114	0	0	0	0	0	23,114	1,551
Isopropyl Alcohol	47,556	0	0	2,228	0	0	49,784	2,872
n-Butyl Alcohol	188,593	0	0	0	0	0	188,593	12,095
Sulphur Dioxide *	423,768	0	0	0	0	0	425,768	0
Sodium Nitrite	0	0	0	0	0	2,727	2,727	0
Hydrochloric Acid	14,039	0	0	0	0	0	14,039	0
Sulphuric Acid	5,031	0	0	0	0	0	5,031	3,000
Nitric Acid	0	0	0	0	0	0	0	0
I-Butyl Alcohol	32,219	0	0	0	0	0	32,219	2,317
N-Methy-2-Pyrrolidone	16,988	0	0	0	0	0	16,988	1,222
1,2,4-Trimethylbenzene	81,328	0	0	0	0	0	81,328	5,825
Antimony and its Compounds	0	0	0	0	0	0	0	0
Chromium and its Compounds	26	0	0	0	3,108	0	3,134	13,608
Copper and its Compounds	522	0	0	0	4,229	3	4,754	191,435
Lead and its Compounds	2	0	0	0	211	0	213	40
Manganese and its Compounds	38	1,046	0	0	11,001	1,745	13,830	196,483
Nickel and its Compounds	18	1,003	0	0	10,414	21	11,456	176,254
Zinc and its Compounds	115	0	0	0	0	0	115	1,388,116
Nitrate Ion in Solution at pH >=6	0	0	0	0	0	34,024	34,024	0
Total Particulate Matter *	259,157	0	0	0	0	0	261,157	0
Particulate Matter <= 10 Microns *	214,748	0	0	0	0	0	221,748	0
Particulate Matter <= 2.5 Microns *	81,884	0	0	0	0	0	88,880	0

United States 2002 TRI Chemicals (kilograms)

	On-Site Air	On-Site Water	On-Site Land	Off-Site POTW	Off-Site Disposal	Total Treatment	Total	Total Recycle	Energy Recovery
Xylene (mixed isomers)	2,280,354	0	0	1,168	256	796,930	3,078,708	1,527,450	433,566
Certain Glycol Ethers	582,770	0	0	702,851	141,109	704,420	2,131,150	142,089	58,368
n-Butyl alcohol	829,823	0	0	0	227	451,231	1,281,281	101,817	32,953
1,2,4-Trimethylbenzene	602,147	6	285	12,407	45	229,170	844,060	270,089	144,901
Manganese Compounds	6,044	487	648,634	3,781	40,070	0	699,016	0	2,585
Ethylbenzene	337,337	0	0	14	63	112,469	449,883	116,188	46,339
Nitrate Compounds	26	21,564	0	395,341	10,768	17,871	445,570	0	0
Toluene	304,672	3	8	19	101	55,314	360,117	61,964	69,621
Sodium nitrite	18	5	0	24,684	35,836	287,318	347,861	0	104
Methanol	228,553	0	0	19	8	74,746	303,326	122,408	32,061
Triethylamine	79,424	0	0	0	0	181,436	260,860	42	0
Lead Compounds	1,438	15	211,373	577	304	0	213,707	4	0
Methyl isobutyl ketone	154,530	0	0	0	0	58,717	213,247	102,040	11,538
Zinc Compounds	3,412	671	104,326	5,275	90,207	0	203,891	413	0
Styrene	17,277	0	0	0	45	145,602	162,924	82	0
Ammonia	36,086	1,093	0	848	0	91,947	129,974	0	0
Hydrochloric acid	123,376	0	0	0	0	0	123,376	0	0
N-Methyl-2-pyrrolidone	91,034	0	0	6,563	20	16,610	114,227	28,226	20,485
Copper Compounds	424	10	78,017	45	9,361	0	87,857	0	0
Methyl ethyl ketone	63,915	0	0	0	1	12,383	76,299	379,846	1,520
Nitric acid	0	0	0	0	0	64,410	64,410	0	0
Polychlorinated Alkanes	0	0	0	2,631	59,875	0	62,506	0	0
Benzene	40,819	3	34	0	0	16,721	57,577	10	1,231
Barium Compounds	45,362	104	0	8	176	0	45,650	44	0
Chromium Compounds	580	3	37,330	0	2,181	0	40,094	0	0
Copper	1,013	145	0	126	36,161	0	37,445	92,458	0
Nickel Compounds	417	6	26,354	1,530	8,986	0	37,293	74	0
Diisocyanates	785	0	2,817	61	30,437	322	34,422	0	0
Ethylene glycol	2,538	1	5,942	20,039	1,098	1,846	31,464	5,425	3,653
Phenol	28,758	16	1,264	26	5	590	30,659	355	0
Nickel	141	12	0	136	22,772	0	23,061	2,272	0
Manganese	105	225	0	536	19,717	0	20,583	36,641	0
Aluminum (fume or dust)	50	0	0	0	16,511	0	16,561	0	0
Cumene	10,587	0	0	680	0	4,491	15,758	13,780	9,299
Polychlorinated Alkanes	0	0	0	0	14,957	0	14,957	0	0
Cresol (mixed isomers)	14,787	10	0	2	1	0	14,800	0	0
Naphthalene	8,578	0	0	0	5	2,227	10,810	3,230	0
Formaldehyde	6,455	32	3,384	10	55	393	10,329	35	227

n-Hexane	8,035	0	0	0	0	48	8,083	3,992	127
Chromium	0	0	0	55	6,160	0	6,215	222	0
Cobalt Compounds	77	6	5,851	1	4	0	5,939	0	0
Vanadium Compounds	0	0	0	0	3,946	0	3,946	0	0
Methyl tert-butyl ether	1,922	0	0	0	0	386	2,308	0	78
Acrolein	771	0	0	0	0	0	771	0	0
Cumene hydroperoxide	340	0	0	0	236	0	576	0	0
Lead	37	35	0	80	308	0	460	1,683	0
Manganese Compounds excluding Manganese	0	0	0	449	0	0	449	0	0
Cyclohexane	175	0	0	0	0	94	269	0	6
Zinc Compounds excluding Zinc	20	0	0	200	0	0	220	0	0
Polycyclic aromatic Compounds	90	0	0	0	0	0	90	0	3,130
Potassium dimethyldi-thiocarbamate	0	0	0	37	0	0	37	0	0
Antimony Compounds	0	0	0	0	27	0	27	0	0
Mercury	4	0	20	0	0	0	24	0	0
Mercury Compounds	16	0	3	0	0	0	19	0	0
Benzo(ghi)perlyene	14	0	0	0	0	0	14	1	0
Dioxin and Dioxin-Like Compounds	2	0	0	0	0	0	2	0	0
Hexachloroethane	1	0	0	0	0	0	1	0	0
Sulfuric acid	0	0	0	0	0	0	0	0	0

Workplace

Health and safety

Safety is central to all we do at General Motors. It's a priority on every job, every time. We have a long history of creating world-class health and safety programs and reducing risk in the workplace. Our GM Health and Safety Policy reads:

> *We are committed to protecting the health and safety of each employee as the overriding priority of this Corporation. There will be no compromise of an individual's well-being in anything we do. The implementation of actions to help our employees realize a healthy, injury-free environment is a leadership responsibility. Continuing support of this effort is the responsibility of everyone. We will lead the General Motors team to ensure that we protect the well-being of every member.*

Joint programs with trade unions and specialized employee training initiatives have helped us become the leader in health and safety performance in our industry. We have developed a practical risk-assessment methodology that is used during the design of machine safety features. Known as Safety 21, the system has dramatically improved machine safety resulting in reduced risk to our employees. Safety 21 is a joint effort between our engineering and safety professionals, the United Auto Workers union and our employees.

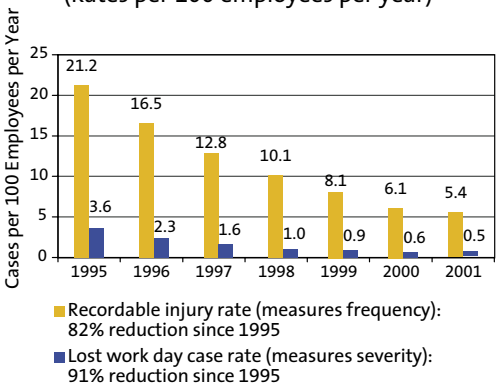
We are establishing a common global health and safety management system structured around the ISO 9000-2000 Quality Management System. This common process provides the framework for effective management of numerous programs and procedures including: GM Global Best Health & Safety Practices, ergonomics, safety through design, contractor safety, skilled trades safety, employee well-being, employee assistance programs, industrial hygiene evaluation, and due diligence surveys.

We belong to numerous health and safety industry and business associations. Experience has shown that such partnerships have symbiotic benefits, where we learn from benchmarking against other organizations and in turn share our best practices.

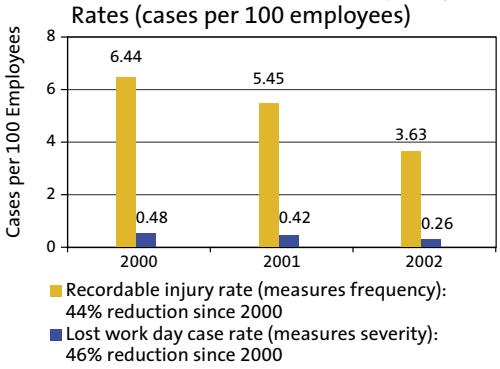
GMNA memberships include: National Safety Council, American Industrial Hygiene Association, American Society of Safety Engineers, Organization of Resources Counselors, National Association of Manufacturers, Automotive Industry Action Group and American National Standards Institute.

A worker in the Mishawaka, Indiana, plant, which produces the Hummer H2.

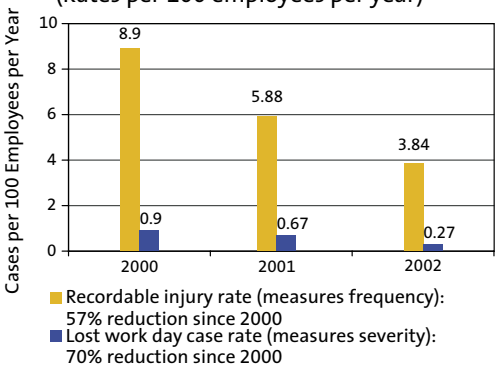
GM Global Health and Safety Progress
(Rates per 100 employees per year)



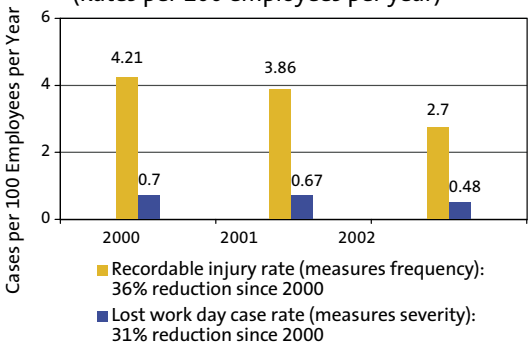
GM North America Health and Safety Progress
Rates (cases per 100 employees)



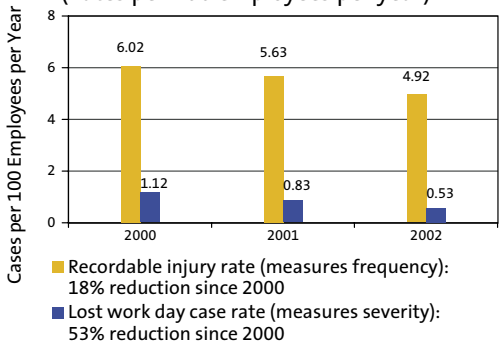
GM Asia Pacific Health and Safety Progress
(Rates per 100 employees per year)



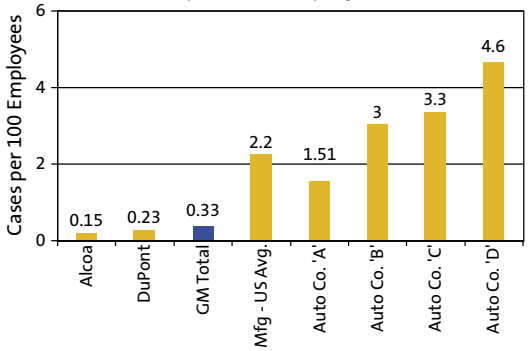
GM Latin America, Africa, Middle East Health and Safety Progress
(Rates per 100 employees per year)



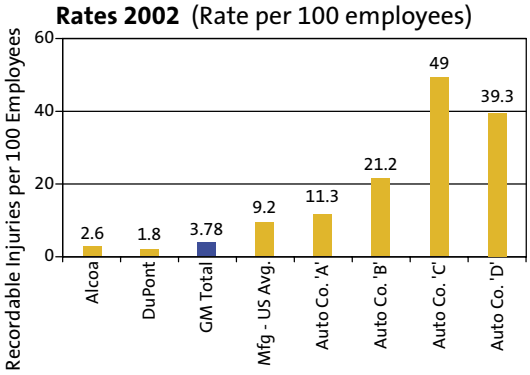
GM Europe Health and Safety Progress
(Rates per 100 employees per year)



Comparison of Lost Work Day Case Rates 2002
(Rate per 100 employees)

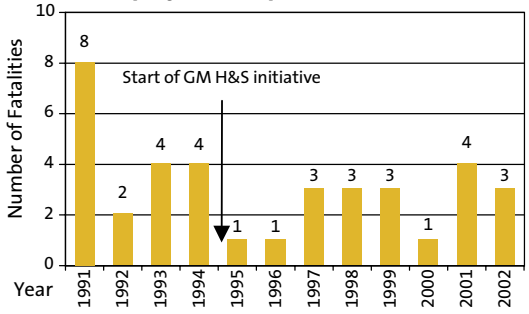


Comparison of Total Recordable Injury Rates 2002 (Rate per 100 employees)



Consistent with GM's core values, our global team continues to aggressively pursue improved safety performance for our employees. While we are pleased with our world-class performance in the automotive sector, we continue to focus on ways to prevent serious injuries and fatal accidents. To reduce risk to our workers, we are accelerating skilled trades and non-routine task safety performance. In addition, global leaders have instituted a "Make It Personal" campaign to send a clear message that safety of employees is the overriding priority of General Motors and its leaders.

GM Employee Occupational Fatalities



GM's efforts have resulted in dramatic improvements in employee health and safety, and our sustained performance has placed GM as the industry leader. We continue to benchmark the world-class performance of other industry leaders like Alcoa and Du Pont.

Working on a Chevrolet Blazer engine at the Jinbei GM Plant in China.

Human Rights and Labor Standards

At its essence, support for human rights begins by treating each other with respect and dignity. We are responsible for respecting each other in our business relationships and in the communities in which we operate. We acknowledge the rights of our employees and believe our fairness and respect policies demonstrate our support for employees' rights. We honor all local laws and respect local customs throughout our global operations. Following is our approach to specific human rights and labor issues:

Child labor

We believe a child's primary objective should be education. We therefore respect all local laws regarding compulsory school attendance and do not hire children under the legal age for employment in any location. Our Worldwide Purchasing Policy prohibits our suppliers, and their subcontractors, from using child labor in the supply of goods or provision of services when under contract with GM.

Forced labor

The decision to seek employment is voluntary, and we do not condone involuntary servitude in any form. Our Worldwide Purchasing Policy prohibits the purchase of goods produced with the use of forced or slave labor. This policy applies to our global operations and to all of our joint ventures.

Indigenous rights

In various locations, we employ executives in decision-making capacities that represent the indigenous people. These locations include, but are not limited to, Taiwan, Indonesia, India, Japan, South Korea and Thailand.

Freedom of association

As part of our corporate policy, we respect the right of all employees to choose union membership. This concept is outlined in the Global Sullivan Principles and we have specifically endorsed respect for the voluntary freedom of association. We comply with all laws covering the right of employees to organize for purposes of collective bargaining, and encourage employees to support or oppose union membership without fear of coercion or retaliation from GM, any individual or external organization.

GM AwareLine

We have a 24-hour toll-free telephone line available globally seven days a week. The GM AwareLine allows employees to anonymously report concerns such as possible criminal wrongdoing by the company, management, supervisors, employees or agents; actions believed to be contrary to corporate policy; emergency or life-threatening situations; or allegations of harassment. We investigate every AwareLine complaint. Our business units worldwide have customized this reporting process to meet local language and cultural needs. Operations that choose not to use AwareLine because of legal or cultural reasons must implement an alternate, approved process. In addition, we have the following processes:

The grievance process

Grievances or complaints by U.S. hourly employees are handled according to the procedures specified in national and local collective bargaining agreements. These differ from procedures for salaried employees.

Open door policy

For U.S. salaried employees, we manage complaints according to the Open Door Policy, detailed in "Working with GM." This helps ensure open communication with management when employees have a question, concern or complaint about any aspect of their employment.

Security of GM premises

We are committed to providing a safe, secure work environment, and our security personnel support the Corporation in achieving this goal. Our security personnel also strive to protect property assets, including proprietary information, and to reduce interruption to business operations.

Security employees subscribe to the same code of conduct as all GM employees – "Winning with Integrity, Our Values, and Guidelines for Employee Conduct."

We primarily contract for security services. The majority of site contractors adhere to the policies and standards in the GM Global Security Manual. We are working to ensure similar standards cover the few remaining site security service contractors. As its name implies, the Global Security Manual applies worldwide and is on the GM intranet.

All security services apply for approval from the head of the corporate security organization and pass a rigorous review prior to providing armed security personnel. One criteria is training in the use of force. Very few sites have armed personnel and only in countries with a high level of threat.

We rely on federal, state, provincial and local law enforcement to enforce existing laws that protect citizens and businesses from unlawful actions that could harm employees, contractors, visitors and property. We offer assistance on request to law enforcement, but do not direct the efforts of government personnel.

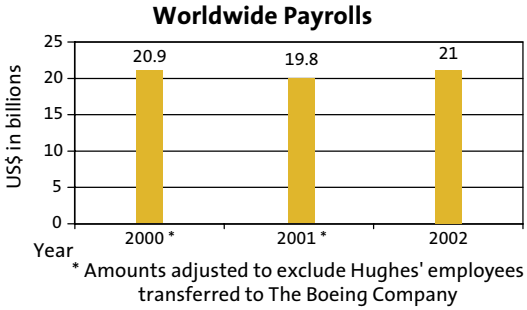
Wages and benefits

We are proud of our compensation policies and practices around the globe. Jobs at our facilities are highly sought wherever we operate. Compensation and benefit practices vary widely around the world, according to local customs, competitive markets, and local regulations. Our market-based compensation meets or exceeds all legal requirements. Health care is provided to all employees, in accordance with local laws, customs, and practices.

Wages and benefits are not in all cases negotiated with local unions. In locations where our employees are represented by unions they typically are negotiated. Not all of our locations are represented by unions.

Pensions are not provided to all employees. Our philosophy with respect to benefits is to provide them whenever it is customary to do so in the specific country of operation. While in many, if not most, countries it is customary to provide pensions, in some countries where we operate it is not, e.g., Poland, Colombia, and Hungary, and, therefore, we may not provide such a benefit.

Labor issues, such as wages, benefits, hours, and working conditions within our GME operations are managed to respect European Union and national legislation and through the collective bargaining process, where applicable. Internal employee representation systems are established in all countries in which we operate.



GM hourly pension plan

Our GM Hourly Pension Plan was adopted in the U.S. in 1950 following negotiation and agreement with our affiliated trade unions. The benefit plan covers all hourly employees who have worked for the company for more than five years. No contributions are made by employees. Vesting under the Plan is achieved once an employee accumulates five years of credited service. The retirement age under the Plan is 65 but employees can retire at any age once they have completed 30 or more years of credited service. If an employee meets certain eligibility requirements, supplements are payable until age 62, the earliest date when Social Security benefits are available. Upon the death of a retiree, an eligible surviving spouse would receive 65% of the retiree's lifetime pension benefit.

Significant improvements have been made to the Plan in its more than 50 years of existence.

Benefit from hourly pension plan
(with 30 years of credited service)

- Age up to 62
  $2,730 per month ($32,760 annually).
- 62 and over
  $1,420 per month ($17,040 annually) + Social Security benefit.
- Upon the death of a retiree, an eligible surviving spouse would receive 65% of the retiree's lifetime pension benefit.

GM salaried retirement program

The current salaried retirement program, adopted in 1950, is a defined benefit pension plan applicable to all regular salaried employees. It includes all the features of the hourly pension plan. There also is a minimal monthly voluntary employee contribution – 1.25% of monthly base salary over $3,400. However, benefits upon retirement are favorable, as a vested employee could receive 100% of their employee contributions in one year and continue to receive such additional benefits for their lifetime.

For all new employees with a service date on or after Jan. 1, 2001, we will contribute a percentage of basic monthly pay, based on the employee's age, into an individual account for each new employee. The account is vested after five years of credited service. No employee contributions are permitted under this new feature of the program. The new feature was adopted, in part, to address the changing nature of the salaried workforce.

In the United States we had 117,000 salaried retirees and surviving spouses at the end of 2002, and payments under our salaried retirement program totaled $2.1 billion.

Employee investment plans

In the United States, our board range of investment options offer several socially responsible investment funds, including the Promark Social Equity, Domini Social Equity,

and Neuberger Berman Socially Responsive Fund. These investment portfolios consist of only the stock of companies deemed socially responsible.

Employee health benefits

The quality and cost of health care has become one of the nation's most important issues. With the ever-increasing cost of health care, U.S. companies are facing a crisis.

GM is the largest private purchaser of health care in the U.S. In 2002, we spent $4.5 billion on health care benefits for 1.2 million employees, retirees and their dependents -- fully 0.4 percent of the U.S. population. On a per-member basis, our cash cost in 2002 was more than $3,800. Put another way, about $1,200 of each vehicle we sold in 2002 was earmarked for health care. In 2001, the per-member figure was $3,500.

Many factors affect health care costs, including benefit design, public policy, delivery system quality and efficiency and enrollee health and behavior.

We've teamed up with our unions to develop initiatives to address each area:

- We work with health care carriers and health care providers to improve the quality of care and ensure that high quality, cost-effective care is delivered
- We're actively involved in driving health care quality improvement on national public policy and local delivery system fronts
- We provide enrollees with a wellness and health promotion program, LifeSteps, the largest wellness and promotion program in the U.S.

Health care is not a major cost issue for employers in other countries, largely because employees receive health care benefits through their government, not their employer. Import automakers do not bear this health care cost pressure in their home markets.

General Motors has several quality and cost strategies to improve the health care delivery system, educate employees and retirees and manage costs. The key strategic areas include managed care, community initiatives, benefit design, patient safety, prescription drugs, disease management and LifeSteps, our employee and retiree wellness initiative.

GM health care fact sheet:

- Total covered lives: 1.2 million
- 2002 U.S. health care spending: $4.5 billion
- 2002 U.S. health care expense: $5.0 billion (Includes impact of SFAS 106)
- 2002 prescription drug cost: $1.4 billion ($1.1 billion excluding HMO)

Equal opportunities and diversity

In the United States, state and federal laws protect individual civil rights. The majority of state civil rights laws mirror federal law. These civil rights laws generally prohibit an employer from discriminating against an individual based on certain characteristics such as age, race, color, sex, religion, national origin, disability, etc.

In addition to our commitment to comply with state and federal laws protecting individual civil rights, we have widely distributed a written policy on equal employment opportunity and harassment. This prohibits

all forms of harassment such as sexual harassment, and harassment based on characteristics such as age, gender, race, color, religion, disability, national origin, sexual orientation or veteran status. The policy clearly states there will not be any retaliation against employees who bring harassment to the attention of appropriate management.

The "Integrity in the Workplace" booklet in our "Winning with Integrity" series, published in 1998, addresses the issues of the rights and responsibilities of employees toward one another and our commitment to equal employment opportunity. Specifically, these materials make it clear our company policy is to hire, promote, train and pay based on merit, experience and other work-related criteria. The Corporation values diversity and strives to create an environment that is supportive and tolerant of differences.

Note: Statistical information provided obtained and/or derived from data used to meet governmental reporting requirements under 41 CFR Chapters 1-100.

Gender

In the United States, the ratio of male to female employees is 4-to-1 with female employees making up 20.7% of the work force. Broken down by hourly and salaried employees, women make up 17.7% and 28.2%, respectively, as shown in the chart below.

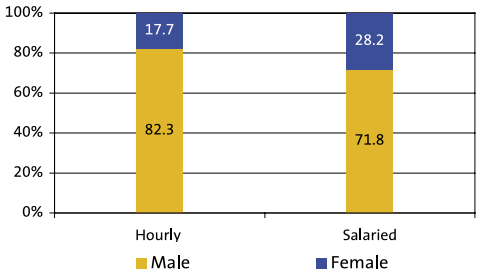
The chart below gives the breakdown of male and female employees by job type in the United States.

In the United States (excluding GMAC, MIC and Saturn), women occupy 19.2% of all official/management positions and 26.9% of all professional positions within GM. Including Saturn, GMAC, and MIC the figures are 19.9% and 28.9%, respectively.

U.S. Gender Profile by Hourly and Salaried Employees 2002

	Hourly	Salaried
Female %	17.7	28.2
Male %	82.3	71.8
Male employees	105,649	36,163
Female employees	22,769	14,233
TOTAL	128,418	50,396

U.S. Gender Profile by Hourly and Salaried Employees 2002



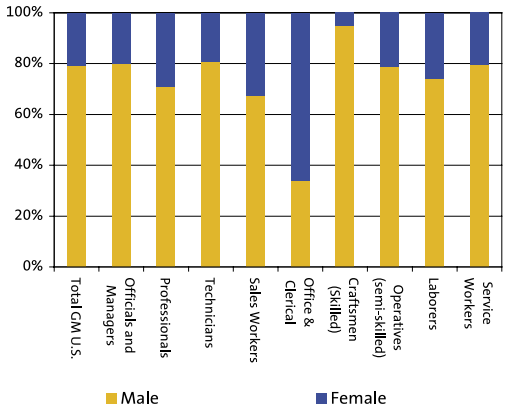
U.S. only; GM Corporate, including Saturn, GMAC and MIC

U.S. Gender Profile by Job Type 2002

Job category	Male	Female
Total GM U.S.	79.3	20.7
Officials and managers	80.1	19.9
Professionals	71.1	28.9
Technicians	80.8	19.2
Sales workers	67.4	32.6
Office and clerical	34.0	66.0
Craftsmen (skilled)	94.8	5.2
Operatives (semi-skilled)	78.6	21.4
Laborers	74.3	25.7
Service workers	79.5	20.5

U.S. only; GM Corporate, including Saturn, GMAC and MIC

U.S. Gender Profile by Job Type 2002*



I.S. only; GM Corporate, including Saturn, GMAC and MIC

Minority employees

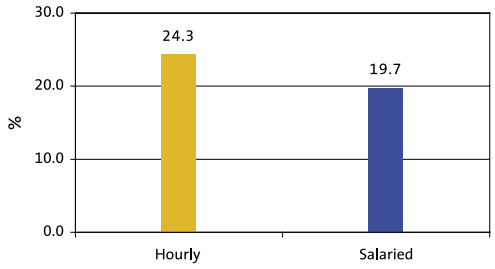
The following chart shows the distribution of minority employees in hourly and salaried ranks in the United States.

The chart below indicates representation of individual minority groups in the salaried and hourly workforce in the United States.

Percentage of Minority Employees in the U.S.

	Hourly	Salaried
Total employees	128,418	50,396
Total minority employees	31,241	9,949
Minority %	24.3	19.7

Percentage of Minority Employees in the U.S. 2002

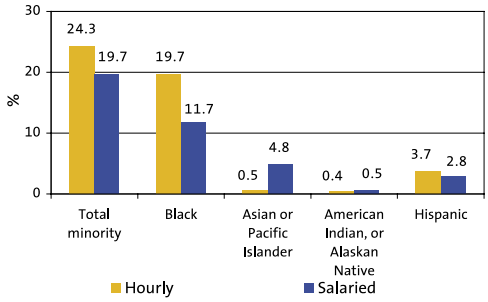


*U.S. only; GM Corporate, including Saturn, GMAC and MIC

Minority Profile for U.S. Hourly and Salaried Employees

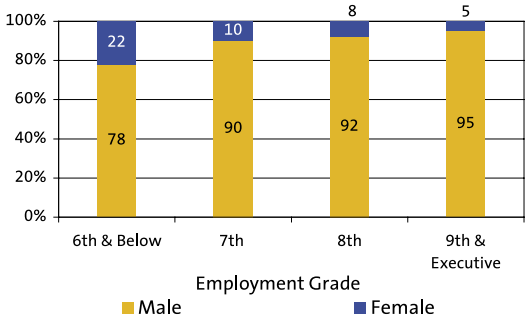
	Hourly	Salaried
Total minority %	24.3	19.7
Black %	19.7	11.7
Asian or Pacific Islander %	0.5	4.8
American Indian or Alaskan Native %	0.4	0.5
Hispanic %	3.7	2.8

Minority Profile for U.S. Hourly and Salaried Employees 2002*



*U.S. only; GM Corporate, including Saturn, GMAC and MIC

GME Gender and Employment Level Profile Salaried Staff

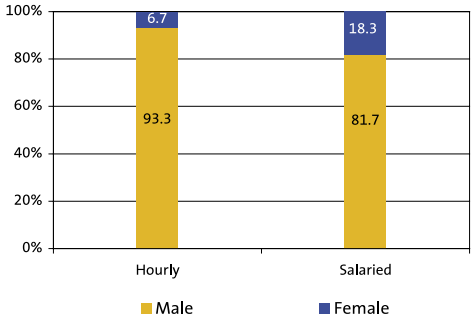


* Excludes Saab employees

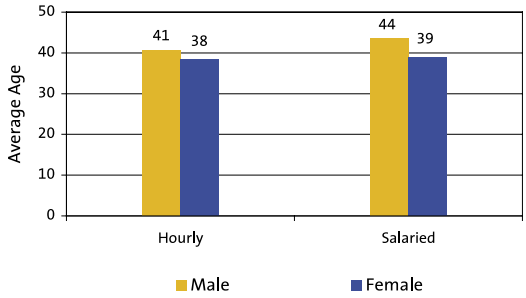
GM Europe

The following charts show the distribution of employees by gender and age.

GME Gender Profile Hourly and Salried Employees



GME Age Profile of Hourly and Salaried Employees (Average)



Discrimination-related agency charges

In the United States during 2002*, GM received 245 new discrimination charges compared to 307 new charges in 2001*. The basis upon which these charges were filed includes race, sex, national origin, religion, retaliation, age, disability, and the Equal Pay Act.

In 2002, 225 charges were closed compared with 219 closings during 2001. Below is an analysis of the charges closed during 2002:

- 60.9% were found to have no probable cause.
- 34.7% were administratively closed.
- 2.2% were found to have probable cause.
- 0.4% of the charges were withdrawn.
- 1.8% of the charges were resolved. through settlements with the respective governmental agency or employee.

In 2002, the Office of Federal Contracts Compliance Programs (OFCCP) scheduled 14 GMNA facilities for compliance evaluations and three GMNA facilities for compliance checks. Four facilities were found to be in compliance, 11 facilities evaluations/checks were administratively closed, and two facilities responded to OFCCP's request for additional information and are now awaiting final determination. In Europe, we have signed formal agreements on racism and tolerance with GM's German Works Council (labor union leaders). Litigation regarding discrimination is rare in Europe.

** These figures do not reflect all open charges*

Diversity vision and strategy

What is diversity? We believe it's a collective mixture of our similarities and differences. Working with people with varied backgrounds and perspectives creates a competitive advantage and helps us achieve global success. It's essential for our work force to reflect the marketplace and our customers. For us, diversity includes race and gender, as well as age, education level, family status, language, military status, physical abilities, religion, sexual orientation, union representation, and years of service, just to name a few. We do not tolerate discrimination or devaluating behavior under any circumstance.

Our diversity strategy is based on three guiding principles:

- Integration of diversity concepts into other change processes in the corporation. We encourage key stakeholders, such as suppliers and dealers, to support our diversity efforts. For example, all GM University (GMU) courses now begin with a protocol emphasizing diversity-supportive and inclusive behavior.
- Creation of a "one company" experience for all employees where, regardless of race, age and gender, employees should experience "one GM."
- Approaching diversity with "Big and Fast" in mind. Our Diversity Initiatives process aims to use GM's size to make decisions and create change quickly, consistent with our corporate "GoFast!" strategy. Diversity Initiatives asks senior teams in business units to address diversity gaps with their teams and enact immediate change. This encourages employees to behave in ways that contribute to our mutual success.

Diversity Initiatives

Our corporate Diversity Initiatives develops the strategy, sets the tone, and provides tools that enable units to provide supportive environments to all who interface with GM.

Diversity Initiatives made enormous strides in 2002-2003. We updated our strategy to include a foundation based on connecting with people. This includes relationships with consumers, dealers, employees, communities, and suppliers. Additionally, we refocused the strategy to encourage GM leaders to make a concerted effort to communicate expectations, seek diverse input, create diversity awareness, and manage for results.

Throughout 2003, Diversity Initiatives is focusing on functional diversity. A new video features GM employees discussing

how it impacts them at work and how they improve relationships. Diversity Initiatives also participated in Diversity Immersion Day II, an all-day diversity and diversity marketing conference for GM's top leadership.

Equal opportunities, recruitment and retention

Our greatest asset is the quality and capability of our diverse work force. We strive to attract, retain, develop, nurture and advance our work force in a respectful, supportive employee environment. We believe in offering maximum opportunity for all, helping us retain employees and be an employer of choice with an educated, diverse population.

We base employment decisions solely on the match of a candidate's qualifications with the organization's requirements. We do not make employment decisions, or place employment-related advertisements, on non-job-related criteria such as age, race, sexual orientation, color, gender, religion or national origin.

We remain committed to affirmative action as required by U.S. federal law. As such, we monitor our programs to determine whether recruitment, hiring and other personnel practices are operating in a nondiscriminatory manner. This process includes outreach programs designed to identify qualified individuals of any race or gender we would not normally access. All managers are expected to meet or exceed diversity goals set through the Affirmative Action Program. Executive representation goals have been set for each of our business sectors. We expect to fully meet all of our targets.

Integration systems

While we continue our commitment to affirmative action, we are widening the diversity agenda and moving toward the broader concept of managing diversity. Our aim is no longer to simply satisfy legal requirements; we are creating an environment that optimizes the performance of every employee in pursuit of their business objectives. Two examples of this are "Affinity Groups" and "Diversity Partners."

Affinity Groups

Affinity Groups are a formal link between diverse employee groups and our diversity management, human resources staff and senior management. Affinity Groups are formed around employee initiatives and are employee-driven. Employees who believe they will benefit from affinity or networking can start a group, provided they meet the guidelines and reporting requirements. Affinity Group membership is available for current active, salaried and full-time employees. Contract employees who are part of collective bargaining agreements, part-time employees, consultants and others may participate in activities, but are not considered formal members. The groups may also include other non-members such as retirees, supplemental employees, community groups, and customers.

There are nine Affinity Groups:

- Affinity Group for Women
- African Ancestry Group
- Asian Indian Affinity Group
- Chinese Affinity Group
- GM PLUS - Gay and Lesbian

- Hispanic Initiative Team
- Mid-East and South-East Asia Affinity Group
- People with Disabilities
- Veterans Affinity Group

Diversity Partners

Diversity Partners are employees with an interest in diversity and have committed themselves to championing diversity efforts. Each Diversity Partner has access to a Diversity Partner Network, which is used to influence change throughout the organization. Diversity Partners meet monthly to share best practices, and discuss corporate and business unit diversity initiatives. Diversity Partners report to their Diversity Partner Network so information and updates filter out to the organization.

Supplier diversity

As a national leader and the first automaker to establish a minority supplier development program, we've been at the forefront of minority business development for more than 35 years. Our comprehensive commitment includes mentoring of 52 minority suppliers, providing technical and managerial assistance, financing and other developmental support.

In 2002, GM spent $6.2 billion with more than 600 minority suppliers, and 12 minority suppliers received the GM "Supplier of the Year" award. In addition, GM commits leadership and resources to mentor 54 certified minority companies to grow their strategic capabilities and position them for future growth. For more than 17 years, GM's Tier 1 minority spending has been $1 billion or more, and since 1999 it has exceeded $2 billion annually.

Dealer diversity

For more than 30 years, we've been committed to growing a diverse and financially successful dealer network. We were the first U. S. automaker to institute a structured minority dealer initiative in the industry. Since 1972, we've offered industry-leading training opportunities to qualified minorities to help prepare them to become future dealers. Today, more than 70% of our 378 minority dealers own their dealerships outright.

The selection process for identifying new dealerships has been standardized, and we consider factors such as size, location, demographics, complexity of operations and investment when matching candidates to dealerships. The result is new minority-owned dealerships are more profitable than ever.

GMNA diversity accomplishments

- Participated in Diversity Immersion Day II, a conference held for GM's top leadership.
- Launched the "Behaviors X Results = Success" video series, which presents a panel discussing functional diversity.
- Launched an updated and newly designed Diversity Initiatives web site.
- Monthly flash videos available via the web site, VHS, and DVD.
- Celebration of National Diversity Week in October.
- Growth of the Diversity Partner group.
- Reach and growth of Diversity Learning Moments.
- Circulation of the Diversity Constituency Exhibit at many GM locations.
- Circulation and growth of the "You Make a Difference" Award.
- Launched new diversity materials available on the web site.

GMNA diversity awards

- 2003 Ellis Island Medal of Honor Award – Michael Liao.
- Latina Style magazine, "Top 50 Best Companies for Hispanic Women to Work for in the U.S." (2003).
- YMCA Minority Achievers Award – recipient, Jocelyn Allen-Harp, May 2003.
- "100 Emerging Business Leaders" – Detroiter Magazine, August Issue publication – recipient, Tanya Hayes, Public Policy Center, May 2003.
- LA SED (Latin-Americans for Social and Economic Development, Inc.) 2003 Board of Directors' Award – Roderick D. Gillum, GM Vice President, Corporate Responsibility & Diversity – May 5, 2003.
- "Top 50 Hispanics in Business and Technology" Hispanic Engineer & Information Technology magazine – April 24, 2003: Diane DeHoyos, Greg Deveson, Grace Lieblein.
- 2003 National Asian American Engineer of Year Award from the Chinese Institute of Engineers/USA (February 2003) (J.T. Wang received).

- Southern Christian Leadership Conference (SCLC) Detroit Chapter – Corporation of the Year (2003).
- 2003 Automotive Manufacturer of the Year – National Association of Hispanic Publications.
- Prism Award (2002).
- U.S. Hispanic Chamber of Commerce – Chair Award to Orlando Padilla (2002).
- Top 50 Corporations for Multicultural Business Opportunities (Div50) by Div2000.com (2002).
- Detroit Hispanic Development Corporation – Dream Maker Award (2002).
- Minorities in Business magazine – Corporate Trailblazer Award to Orlando Padilla (2002).
- U.S. Hispanic Chamber of Commerce – Corporation of the Year (October 2002).
- Organization of Chinese Americans National Asian American Corporate Achievement Award – Ray G. Young (October 2002).
- Helen Keller Achievement Award in Employment Opportunity, from the American Foundation for the Blind (2002).
- Hispanic Engineer National Achievement Awards Corporation (HENAAC) – Orlando Padilla.
- Latina Style magazine, "Top 50 Best Companies for Hispanic Women to Work for in the U.S." (2002).
- National Association of Minority Automobile Dealers, Diversity Advocacy Awards (2002).
- THE BLACK COLLEGIAN magazine, "Top 50 Diversity Employers for 2002," July 2002.
- Fortune magazine, "Best Companies for Minorities to Work," July 2002.
- Services To Enhance Potential (STEP) – Employer of the Year (2002).
- National Conference of the Society of Hispanic Professional Engineers (SHPE) – Company of the Year (2002).
- Closing The Gap Award – from the New Detroit Coalition. "In recognition of exemplary achievement toward closing the gap in the area of racial justice."
- Black Engineer of the Year Recognition Awards – Valorie Horton, Sherri Hankerson, Belden Love.
- African American on Wheels magazine, Executive of the Year – Rod Gillum, awarded January 2002.
- Working Mother magazine, "100 Best Companies for Working Mothers," 2002.

Diversity education and training

- Communicating Across Cultures: This course, available at GMU, seeks to understand the business impact of connecting and its effect on morale, productivity, quality and customer service; assess the level of connectivity in the organization; appreciate how mismanaged diversity issues can create disconnect; focus on taking personal responsibility; and learn the skills needed to connect with team members.
- Conversation Starters: The Conversation Starter manual helps employees talk about diversity. Using this manual to discuss different diversity-related vignettes supports individual responsibility and respects the value that each employee brings to GM.
- Learning Moments: Every week, more than 10,000 employees globally, including top leadership, receive Learning Moment voicemails with fast, interesting facts on diverse subjects to engage people in discussion. An employee survey shows Learning Moments are well received and have an internal and external impact.
- Constituency Exhibit: Diversity Initiatives has designed a rolling kiosk-style diversity display. It includes a short video stream explaining behaviors conducive to an inclusive environment and educates about the multiple dimensions of diversity. The display has room for Affinity Groups to display material regarding their group, usually during events such as National Women's History Month.
- Diversity Orientation: Moving toward company-wide diversity training, a number of units within the United States offer it as part of orientation. New salaried employees attend an orientation that includes a diversity segment taught by professionals, and a diversity overview is included in the new executive orientation and business briefing.

Training and education

Total customer enthusiasm is at the core of everything we do. As a result, our employees must be equipped with the skills and knowledge required to continuously improve and meet our vision of being a world leader in transportation products. Educating our work force to achieve the highest standards is one of our highest priorities.

We believe it's essential to invest in organizations that improve education in the communities we serve, and we have consistently provided funding from elementary through to post-doctoral level.

GM University

In 1997, we formed General Motors University (GMU), a global network of education resources aimed at helping our employees continuously improve their performance. GMU has become one of the world's largest corporate universities for salaried employees. Its vision is to provide leading-edge learning resources that help develop professional excellence and result in technical and business leadership. It focuses on improving GM's business results and developing a performance-driven culture by:

- Building professional skills and capabilities linked to performance and results.
- Fostering faster learning and change management in our global operations.
- Developing programs that build our leadership strength.

GMU's efforts are aligned with 16 of our global business processes and functions. For each business process, a dean is responsible for delivering learning that develops capability and drives performance in that function. The president of GMU and the Council of Deans set direction and run its operations.

GMU provides real-world education using innovative learning techniques in class and online. Currently, GMU offers approximately 1,500 courses to 86,000 managerial, executive, professional and technical employees.

Two technologies are key to GMU's courses– Interactive Distance Learning and e-Learning – both of which provide fast, inexpensive ways to provide and redistribute skills and knowledge more broadly to the work force. GMU uses IDL and e-Learning in company and dealership training in North America and increasingly worldwide.

Interactive Distance Learning (IDL) is linked to 6,885 dealership and company sites in North America. It's used for sales and service interactive learning broadcasts as well as a range of technical and professional topics. This system is also used for our Quarterly Satellite Broadcasts. GMU has 12 broadcast studios that support satellite delivery across the dealer and corporate network.

E-Learning uses our web capability to improve the access and availability of GMU courses. GMU plans to increase e-Learning courses that fit easily into employee schedules, eliminate the expense and inconvenience of travel to a classroom and promote common content across the globe. In some instances, IDL and/or e-Learning may be combined with classroom sessions to provide "blended" learning that can make the overall approach more effective and efficient for certain topics.

Employee Satisfaction

A company can invest millions in technology and facilities, but much of it is meaningless if the employees are unsatisfied. Engaged, enthusiastic, motivated employees are the key to business success. Our Employee Enthusiasm Strategy focuses on engaging employees with positive leadership behavior and effective management strategies. We emphasize personal safety and economic stability and pledge to develop policies and programs to assist our employees both at work and in their home environments.

Job satisfaction levels

For more than 60 years, we have asked our employees how they feel about their jobs and the company. In 2000 we launched our first global employee census and 40 percent of employees participated. Our next census, currently under way, will include questions about corporate goals and objectives, a sense of urgency, product and customer focus, innovative products and services, improved business results, leadership, integrity, communication, involvement, teamwork, and learning and development.

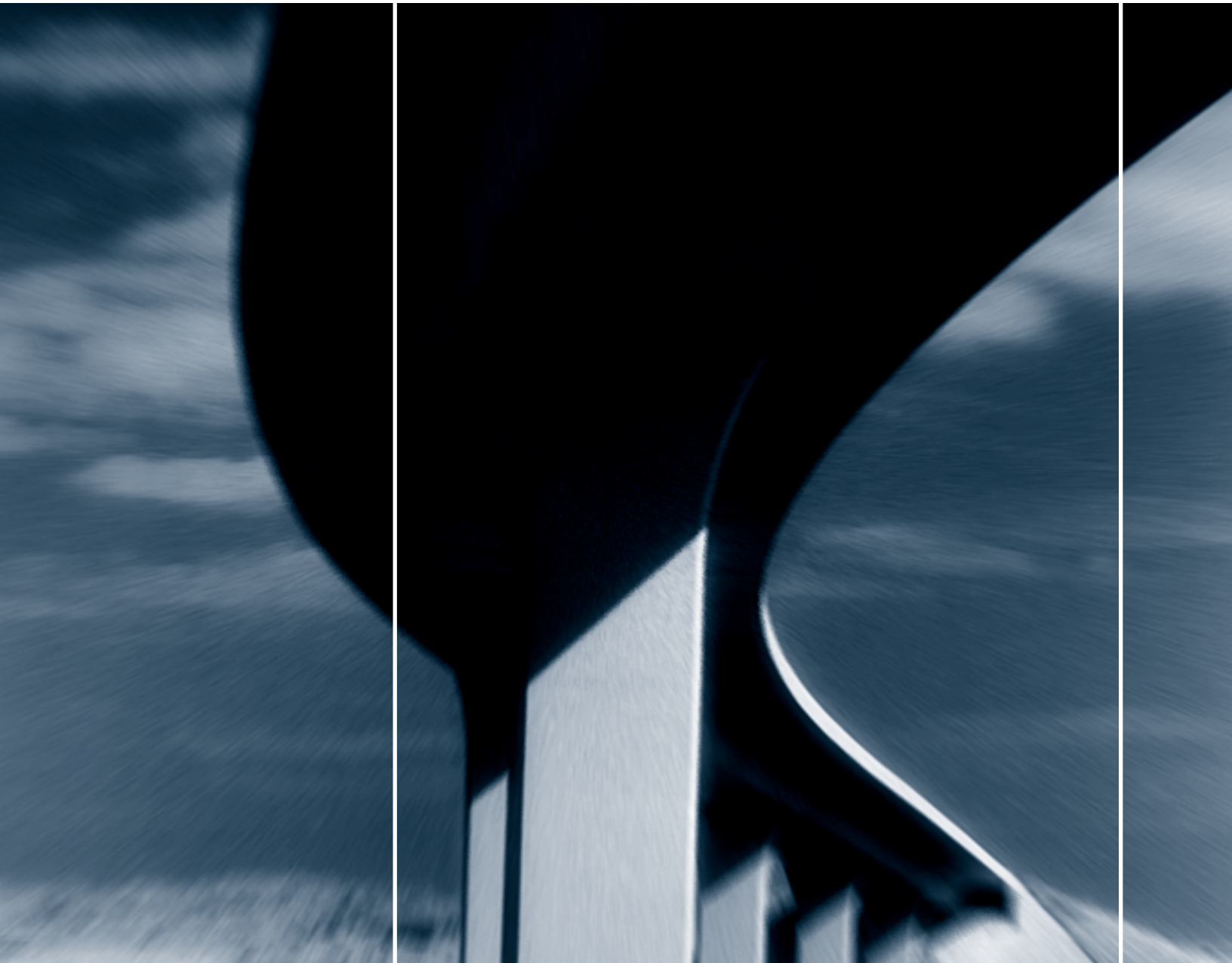
In 2003, our aim is for more teams around the globe to develop action plans to improve employee satisfaction for improvement based on the census results.

Supplier Management

Guidelines for employees concerning supplier management are discussed in "Winning with Integrity — Our Values and Guidelines for Employee Conduct," and in the supplemental booklet "Integrity in the Marketplace."

rIn addition, the Worldwide Purchasing Policy includes a number of practices that guide us and our suppliers in purchasing activities throughout the world. Our suppliers, and any goods or services supplied, must comply with all applicable regulations or standards of the country(ies) of destination or that related to the manufacture, labeling, transportation, importation, exportation, licensing, approval or certification of goods or services, including, but not limited to, those relating to environmental matters, wages, hours, conditions of employment, subcontractor selection, discrimination, occupational health and safety, and motor vehicle safety. Additionally, neither suppliers nor their subcontractors may utilize slave labor, prisoner or any other form of forced or involuntary labor in the supply of goods or provisions of services. In order to ensure successful implementation of these policies, suppliers must adhere to the terms and conditions outlined in the GM Purchase Order Terms and Conditions, and must certify their compliance with these terms and conditions at our request.

Community Investment



Community Investment

A corporation is only as good as the good work it does for the community. We're big believers in this at GM, and have a long history of giving back to the communities in which we live and work.

In 2002 we contributed nearly $89 million to charitable causes through cash contributions, in-kind donations and participation in charity events. We typically donate products, components and other equipment to a variety of universities, colleges, vocational schools, secondary schools and correctional institutions with automotive service or engineering programs. We also donate non-product equipment and real estate to selected non-profit charitable institutions in the communities in which we operate. In addition, we participate in numerous charity events benefiting a diverse group of philanthropic causes and organizations. These contributions reach their target group through the GM Foundation and GM corporate contributions.

Community involvement

A thriving community is the heartbeat of society. That's why we invest in cultural, economic, educational, environmental and social organizations and projects in the communities where we operate. We support numerous philanthropic causes through the GM Foundation and corporate contributions

2002 Contributions Worldwide

Cash Contributions (Dollars in millions)	**GM Foundation**	**GM Corporation***	**Total**
Health & Human Services	$ 5.8	$ 7.9	$13.7
Education	$ 9.9	$ 1.8	$11.7
Civic & Community	$ 2.1	$ 4.3	$ 6.4
Public Policy	$ 3.5	$ 0.2	$ 3.7
Environmental & Energy	$ 0.7	$ 0.3	$ 1.0
Arts & Culture	$ 1.7	$ 1.4	$ 3.1
Other	$ 0.2	$ 5.7	$ 5.9
Total Cash Contributions	$23.9	$21.6	$45.5
In-Kind Donations	-	$35.0	$35.0
Total Contributions	$23.9	$56.6	$80.5
Charitable Events	-	$ 8.3	$ 8.3
TOTAL	$23.9	$64.9	$88.8

** Includes North American Operations, Europe, Latin America, Africa and Middle East, Asia Pacific, Hughes Electronics Corporation and General Motors Acceptance Corporation (GMAC).*

Note: Contribution focus area categories may overlap and hence appear to understate others, since contributions can only be reported in one category. For example, our "Earthtroop" environmental education program may be categorized as "education," when it also clearly represents an "environmental" contribution.

in the form of cash donations, as well as in-kind gifts and participation in various charity events.

Philanthropic initiatives

Our economic success is inextricably linked with the health and vitality of the communities where we operate. Our most measurable impact on a community results from our decisions about plant sites, employment levels and supplier selection. We pay taxes to support important public services and investments. We also contribute to community life through philanthropic contributions and volunteer efforts.

We're at the forefront of applying modern technology to philanthropy. For example, we have applied an electronic pledge process for employee contributions for the annual GM/UAW Charitable Giving Campaign. Our U.S. employees now make direct payroll contributions to the United Way or other not-for-profit organizations, such as The Nature Conservancy, Mothers Against Drunk Driving (MADD), or The Marrow Foundation. This project was a joint effort between affiliated trade unions and GM.

The GM Foundation also supports many plant-city activities. These initiatives help establish us as a preferred employer and facilitate awareness of local governmental and community matters. The GM Philanthropic Guidelines can be found at www.gmability.com

Other initiatives

- A Vauxhall Zafira was chosen to be the first vehicle handed over to celebrate the start of Motability's Silver Jubilee. Established in 1977 at the request of the government, Motability enables disabled customers and their families to purchase or obtain the use of a vehicle at low cost. As a founding member, Vauxhall has established itself as one of the largest suppliers of vehicles for 25 years. In 2001, the company registered 37,000 vehicles to Motability customers.
- Holden has embarked on a five-year sponsorship of Zoos Victoria to help fund a new Lion Safari at Werribee Open Range Zoo outside Melbourne. It will be Australia's biggest lion exhibit, featuring a natural, open landscape environment. Designed to engage visitors and encourage them to take action on wildlife and conservation, the Lion Safari will be interactive and educational, with dedicated play activities for children.

Disaster relief

In the midst of crises, a community's needs spike sharply, and the response must be swift. Since its inception in 2000, GM Global Aid has facilitated more than $4 million in donations. The program quickly direct funds from the GM Foundation to those in need, while leveraging our national and international units to contribute vehicles, supplies and volunteers. An essential component is a web site located on www.gmability.com, which allows not only our employees, but others worldwide, to contribute funds to disaster relief efforts, many of which are matched by the GM Foundation.

In 2002, GM Global Aid facilitated the donations of more than $125,000 to organizations worldwide. These donations included:

- $25,000 to assist in flood relief efforts in South Korea.
- $50,000 to aid in the flood relief efforts in Europe. In addition to contributions through GM Global Aid, several GM subsidiaries in Europe helped flood victims. Opel Austria created a program with its dealers enabling those who lost their vehicle the ability to borrow an Opel for up to three weeks. Adam Opel AG in Germany offered zero-interest financing to owners who lost their vehicle in the floods.
- $50,000 to support flood relief efforts in Indonesia.

Employee volunteerism

GM employees can feel the warm glow that comes from helping others, while raising valuable dollars for their organizations of choice, thanks to GM's Volunteer PLU$ program. Through the program, we actively encourage and support employee volunteerism and reward them for doing so. When GM employees volunteer 50 or more hours with a non-profit group, GM donates $250 to the group on behalf of the employee. Thanks to the giving nature of GM employees, the program has donated more than $1 million over the past four years. The program is now being expanded globally.

Civic and community support

The GM Foundation supports organizations that strengthen community awareness and improvement. In 2002, the combined contributions from the GM Foundation and GM totaled over $6 million for civic and community efforts.

Donated machinery is used to pump out floodwaters from residential areas in the Guanajuato region of Mexico.

In 2002, Habitat for Humanity International and GMAC Financial Services partnered to build affordable homes for families in 17 states and four Canadian provinces. GMAC regularly works with GM in supporting habitat builds such as townhouses in Gliwice, Poland, in 2000, and a "Spouses of the Executive Branch" build in Washington, D.C.

More than 30 employees from GM Indonesia joined Habitat for Humanity to build four houses for flood victims. Some 50 houses were to be built in the village of Sukatani using funds provided by GM Indonesia and Habitat for Humanity New Zealand. This contribution by GM Indonesia is part of a $50,000 agreement with Yayasan Mitra Mandiri to implement GM Cares, a community program created to assist underprivileged residents living in the vicinity of GM Indonesia in Bekasi.

GM's Powertrain Defiance Professional Managers Network builds a Habitat for Humanity House in Defiance, Ohio.

Support for education

During 2002, we continued relationships with universities through our Key Institution Program, which is made up of schools selected primarily for the quality of their engineering and business programs. Educational contributions totaled more than $7.8 million in 2002, with approximately 80% directed to science and engineering and much of the remainder supporting business education. This support has been primarily in the form of cash grants and equipment donations.

We also provide grants that match employee contributions through the GM Matching Contributions Program. In 2002, we matched more than $7.1 million representing more than 2,279 employee contributions to 710 accredited degree-granting institutions and libraries.

We also provide direct support to students. In 2002, we granted 1,000 scholarships, totaling more than $2.1 million to outstanding engineering, environmental, public policy and business students. Many participating students completed summer internships at our facilities.

GM, Sun Microsystems and EDS continued to demonstrate their commitment to education by donating computer-aided design, manufacturing and engineering (CAD/CAM/CAE) software, hardware and training with the retail/commercial value of $222 million to the Shanghai Jiao Tong University located in Shanghai, China. This contribution is the largest that the partners have made to date, and their first to an institution outside of North America.

Support for health and human services

Cancer research remains one of our key philanthropic priorities. We established the GM Cancer Research Foundation (GMCRF) in 1978 to honor scientists worldwide who have been selected by their peers for hallmark achievements in research on the causes, prevention and treatment of cancer. The awards – valued at $250,000 each – are considered among the most prestigious in medicine. Nine of the GMCRF award winners have subsequently won Nobel Prizes for their work. The GM Foundation contributed more than $2 million to the GMCRF in 2002 and has contributed more than $30 million since its inception. The GM Cancer Research Scholars Program provides $1 million per year to support ongoing research projects. The program is open to members of the 36 Comprehensive Cancer Centers designated by the National Cancer Institute.

In 2002 GM sponsored an HIV/AIDS awareness and education campaign in support of "A Closer Walk," a powerful documentary film that explores the global implications of the HIV/AIDS epidemic. This film represented an historic opportunity to engage the general public in the battle against AIDS. The film reveals the devastation AIDS has caused in four continents including in Africa, the Ukraine, the Caribbean, India and in the U.S. heartland. In the awareness and education campaign promoting the film, GM partnered with The Elizabeth Glasser Pediatric AIDS Foundation, The American Foundation for AIDS Research (AMFAR), the Academy of Friends, and the Global Health Council. Supporting "A Closer Walk" is just one of the ways GM is working to educate on, and prevent the spread of, HIV/AIDS globally. In addition, GM:

- Operates programs in South Africa, Kenya, Thailand, and India and is currently rolling out its program in Indonesia, China and the rest of its Asian operations providing employees with education, counseling, access to medical services and treatment tailored to national and cultural sensitivities.
- Supports community initiatives such as HIV/AIDS awareness training at health centers and high schools in India.
- Donated five new trucks that allow the Nelson Mandela Children's Fund in South Africa to help HIV-positive children.
- Funds an AIDS Hotline and educational initiatives in Thailand.
- Sponsored an HIV/AIDS seminar in India for 250 medical professionals and journalists.

From left, Glenn Close, actress and co-narrator of the film "A Closer Walk;" Robert Bilheimer, director/producer; Mathilde Krim, chairwoman, American Foundation for AIDS Research; Rod Gillum, GM VP Corporate Responsibility and Diversity; and Elizabeth Lowery, GM VP Environment and Energy.

Support for the arts and culture

For many years, the GM Foundation has been a major contributor to a variety of arts and cultural institutions. The GM Foundation continues to support these organizations to promote appreciation of the arts, recognition of diverse cultures and awareness of arts in education programs. In 2002, GM and the GM Foundation contributed more than $3.1 million to a diverse group of these organizations.

Few people ever get a glimpse of the GM Design Center in Warren, Michigan. But now, GM has opened the center to the public for the sake of art. The GM Design Center Gallery welcomed local artists and their work with an exhibit of fashion and architecture photography and abstract furniture designs. The exhibit demonstrates GM's commitment to the arts and gives design employees a more creative working atmosphere. It is open by appointment only.

Safety initiatives

GM has a long-standing commitment to motor vehicle safety, as evidenced by the many innovations we have introduced over the years, such as safety glass, energy-absorbing steering columns and side guard beams. Our goal is to save lives and reduce injury to all vehicle users, to remain at the forefront of safety advancements and build on our record of innovation and achievement.

We have consistently been a leader among contributors to organizations devoted to improving safety on the nation's highways.

National SAFE KIDS Campaign

SAFE KIDS BUCKLE UP (SKBU), the nation's leading private sector child passenger safety program, is a multimillion dollar program that was announced in 1996. This program is a partnership among the UAW-GM Center for Human Resources, GM and National SAFE KIDS Campaign.

Almost $31 million has been donated to the SKBU program to address the crucial issue of child passenger safety. The SKBU program has checked the installation of more than 400,000 child safety seats in communities across the United States, held more than 10,000 child safety seat checkup events and reached more than 13 million people with child safety messages.

SKBU has donated nearly 250,000 child safety seats. Many were donated to low-income families and at-risk children. Some were donated through a distribution program in partnership with the National Association for the Advancement of Colored People (NAACP) and the National Council of La Raza.

In 2001, together with the UAW, we recommitted to our support of SBKU by establishing 30 new permanent child seat inspections stations. The recommitment also continued funding to get child safety seats to families who may not transport their children safely and, working with local community organizations, to targeted low-income families and at-risk children.

In addition GM and the UAW donated 30 Chevrolet Express vans to local SAFE KIDS coalitions across the nation in 2002. The Express vans joined 51 Chevrolet Venture

vans donated by GM in 1999 to establish the nation's first-ever fleet of mobile car seat checkup vans. Now, every state and the District of Columbia have at least one SKBU mobile child seat checkup van, fully equipped with everything needed to hold a traveling child safety seat checkup event, including tents, traffic safety cones, and signage.

SKBU also provides bilingual educational materials, a public service campaign, a toll-free hotline (800-441-1888) and millions of dollars in local grants to allow SAFE KIDS coalitions to take this most important service to the public.

Mothers Against Drunk Driving (MADD)

We continue our efforts to help rid America's highways of drunk drivers – the leading cause of traffic fatalities – through a multi-year commitment to Mothers Against Drunk Driving (MADD). GM's corporate sponsorship of MADD has a potential $2.5 million value. This year, GM's contribution helps fund MADD's victim support services programs. In an effort to continually remind our employees about the dangers of drunk driving, the GM Charitable Giving Campaign now includes MADD as a possible payroll deduction selection.

Other safety initiatives

- China is on its way to becoming the largest vehicle market on the globe, yet 48% of its motorists, including many first-time car buyers, don't buckle up. So, GM and the Shanghai, China, government is launching the first driver safety campaign of its kind, which includes information about safety belt use, traffic regulations, safe driving practices and vehicle safety features. Chinese officials estimate 77% of traffic deaths in China result from drivers who aren't following traffic rules, and anticipate this program will help reduce crashes significantly.
- Holden's driver training facility at Norwell, Queensland, educates motorists about their cars' capabilities and safe driving techniques. Qualified instructors conduct courses in a controlled environment. Holden also introduced a subsidized Junior Safety driver-training program in 2001 and since then some 720 students from schools, Technical and Further Education (TAFE) colleges and universities in northern New South Wales (NSW), the Gold Coast and Brisbane have completed the full-day course. Holden has also held clinics at the Jim Murcott Driving Centre in Melbourne for the past four years. The full-day, price-discounted clinics are targeted at newly licensed drivers to build on their limited knowledge of safe and defensive driving in an off-road environment. They attract around 1,500 participants each year.

Education

GM's K-12 educational initiatives

Few things in life are more satisfying than watching a child revel in excitement when learning something new. This is especially true when the subject of their delight is math and science. That's right, math and science.

GM strongly believes in supporting a comprehensive, diverse base of education programs for children in grades K-12. These include hands-on experiential education activities, math and science mentoring programs, technology curriculum dissemination to schools, and an educational web site for families. The site, which covers environment, energy and technology issues, has separate, age-appropriate sections for children in grades K-4, grades 5-8, and grades 9-12, and provides materials for classroom use.

The ultimate goal is to foster enthusiasm about these issues with a combination of innovation, technology and partnerships that support the following principles:

- Enlightenment: Help students develop an awareness of science, math and technology issues.
- Knowledge: Reinforce awareness with solid concepts and real-world applications.
- Attitudes: Help students personalize their relationship with the global environment.
- Action: Help students make a difference.

Since today's young people are tomorrow's stewards, we are committed to educational initiatives to help them find workable solutions to future challenges. We want to make sure students have the tools they need to succeed, and to do so, we must actively invest in their future. Here's how:

"Fuel Cells Driving the Future," a nationwide fuel cell education package developed by GM and Weekly Reader, has reached nearly 3.5 million middle school students. It provides science teachers with an engaging curriculum highlighting the fundamentals of hydrogen fuel cell technology.

"The Earth Day Way: Every Day," is a K-4 classroom program promoting environmental responsibility and energy conservation. GM and Weekly Reader partnered on this curriculum for children, teachers and parents.

"Technology: Inventing the Future," is a curriculum designed to inspire students' interest in science and a future in a science-based career. General Motors and Weekly Reader have teamed up for the third time to create an educational program that will teach students in grades 1-4 about some of the most promising technologies on the horizon, including the hydrogen powered fuel cell.

GM Tech Tour for Students, a middle school education component of the GM Technology Tour, which highlights GM's innovative vehicles and the technologies that will have a positive impact on the environment.

Society of Automotive Engineers' "A World in Motion," a program developed to pique student interest in math and science.

For Inspiration and Recognition of Science and Technology (FIRST), an organization that encourages young people to explore careers in science and technology.

Global Rivers Environment Education Network (GREEN), a program that teams up GM facilities, environmental groups, community leaders, educators and young people to protect water resources.

MATHCOUNTS, a U.S. middle school math enrichment volunteer program that helps prepare students for the working world by stimulating their interest in math and math-related careers.

Students from Soda Springs High School, Soda Springs, Idaho, win the "King of the Hill" competition. Soda Springs won by climbing an incline with a 44-degree angle. (Dennis Brack/U.S. Dept. of Energy via U.S. Newswire)

U.S. Department of Energy (DOE) National Middle School and High School Science Bowls, a competition that encourages student involvement in math and science and improves awareness of science and technology career options.

Detroit Area Pre-College Engineering Program (DAPCEP), a nationally acclaimed K-12 program designed to motivate and prepare minority youth for college and careers in engineering, math, science or technology.

Keystone Center's Sustainable Energy Curriculum, a module for teachers in which diverse groups review critical information and use scientific reasoning and processes to explore the energy issue.

Solar Schools, a partnership with the Great Lakes Renewable Energy Association to promote an education program about renewable energy.

The Science and Engineering Fair of Metropolitan Detroit program focuses on middle and high school students in Michigan and beyond.

Education in Action

- Kids love to dig into a project with both hands. So what better way to teach them about fuel cell technology than by having them build their own fuel cell models? Technology students in downtown Los Angeles' Virgil Middle School did just that during GM's Tech Tour for Students outreach program. The tour traveled to five U.S. cities as part of GM's Technology Tour program, which gives public policy and opinion leaders the chance to see advanced automotive technologies such as GM's Hy-wire vehicle, a drivable by-wire/fuel cell propelled vehicle.
- GM collaborated with the DOE to engage young minds on the need to balance environmental social, and economic issues by sponsoring the High School Middle Bowl. GM worked with the DOE to develop technical questions for the academic competition, supply curriculum on fuel cell technology to the teachers, furnish engineering and scientific mentors for the solar car race, and provide speakers on

technology and scientific information at the national event. In the high school arena, GM introduced hydrogen fuel cells and other advanced technologies to more than 300 high school students during the U.S. Department of Energy's National Science Bowl.

- Hard work and high achievement paid off for 10 young women who received $5,000 scholarships as part of the Chevrolet/ Michelle Kwan REWARDS scholarship program. The program, in its third year, honors female college-bound athletes in the United States, and has awarded $150,000 to young women who have demonstrated outstanding performance in academics, athletics, leadership, school/community activities and financial need.
- Helping students develop their technical skills is essential to GM's future. In 1995, GM launched the General Motors Youth Educational Systems (GM YES), the first large-scale effort to integrate high school classroom studies with on-the-job experiences. In 1996, the organization evolved to become an independent group with participation from other automakers. Today, called Automotive Youth Educational Systems (AYES), businesses, schools and educators teamed up to plac 4,400 students in automotive technician internships in 44 states.

A mentor and student working on automotive technology and repair through the GM AYES program.

A GM engineer explains to Selby Lane Elementary students from Atherton, California, how fuel cell technology works, using a fuel cell model car.

Product Safety

Safety Technologies

Motor vehicle crash avoidance and crashworthiness are complex issues. The following is a brief, high-level overview of these two topics with descriptions of a few applicable principles and technologies. Additionally, in application, considerations may need to be balanced, as technologies that advantage some occupant populations can disadvantage others. Good engineering judgment must weigh such mutually exclusive design features to provide operational systems that are optimized over the entire occupant population.

Vehicle-based strategies for saftey generally fall into two categories:

- Crashworthiness – technologies intended to mitigate the injury potential of a crash (sometimes called "passive safety").
- Collision avoidance – technologies that assist road users in avoiding potential crashes (sometimes called "active safety" technologies).

New product programs begin with an assessment of real-world collision data. We strive to make each new model safer than the one it replaces.

Crashworthiness

Vehicle crashworthiness is measured by analysis of real-world collision data and assessment of the likelihood of injury given a collision. Crashworthiness is provided by optimized vehicle structure and by vehicle restraint technologies.

In every collision, the kinetic energy of the vehicle (a function of vehicle mass and travel velocity) must be dissipated. Energy is dissplated by the deformation of the vehicle structure or by collision-related friction forces, such as the vehicle-to-ground contact points (usually the tires). In either case, structural performance affects the vehicle response. How a vehicle responds to collision forces influences the collision-related forces affecting occupants. These forces (along with human tolerance levels) affect occupant injury outcomes.

The "second collision" and occupant injury potential

In a crash there are two collision events. The first collision is between the vehicle and another object during which the vehicle's kinetic energy dissipates. The so-called "second collision" is between the occupant and the vehicle's interior or other external objects. During this "second collision," most of the kinetic energy of the occupant must be dissipated. At the basic level, the occupant's kinetic energy is absorbed by collision forces acting on the occupant's body over some distance. If the collision forces acting upon the occupant exceed the occupant's tolerance limit, injury results. Injury severity is generally a function of the level, and, in some cases, the duration and/or application rate of the forces applied in the "second collision" matched to the tolerance limit of the individual occupants. Interior systems are engineered to help manage these second collision forces.

Injury may also occur because of the high crash forces. As mentioned before, structural deformation is necessary to dissipate the

vehicle's kinetic energy during the collision. At some point, however, structural deformation may result in intrusion or trapping the occupants.

Vehicle structure

The vehicle structure is designed with these factors in mind: energy absorption capacity, occupant compartment integrity, mass efficiency, functional performance in non-safety-related domains (such as durability, noise transmission, vibration response), physical geometry, load-carrying capacity and manufacturing practicality. Sound vehicle structures provide the foundation upon which vehicle subsystems, including safety systems, can be mounted to produce a fully functional, integrated vehicle.

The Saturn VUE safety cage.

Interior energy-absorbing functions

Many interior surfaces help absorb energy by deforming under collision forces produced by the occupant "second collision," such as glazing, headliners, roof structures, instrument panels, steering columns, door trim, etc. Using safety belts and child restraints properly – every time, every trip – is the most important action for drivers and passengers to help reduce the risk of injury in a crash. This includes everyone of all ages riding in every front and back seating position. All GM vehicles sold today include safety belts in every seating position, with universal child restraint attachments in vehicles sold in the United States and Canada. There are also built-in child restraints in some vehicles.

Child restraint systems

In the mid-1990s, GM and its partners researched universal attachment systems for child restraints and shared results with the government, restraint system suppliers, and other auto manufacturers as part of their participation in the International Organization for Standardization (ISO) committee, which has developed universal child restraint anchorages. All our vehicles manufactured for sale in the United States and Canada are equipped with the top tether and lower anchorage components in the Lower Anchorages and Top tethers for Children (LATCH) system. The LATCH system is designed to help make installing a child restraint more convenient. In the United States and throughout global markets, a built-in child restraint for toddlers is available on some of our vehicles that are popular with families, and is another option to address convenience in properly installing and positioning the child restraint in the vehicle (although parents must still assure that the child is properly secured in the integral child restraint).

GM provides rear seat shoulder belt comfort guides. Elastic tethers attached to the safety belts in rear outboard seating positions move the torso part of the shoulder/safety belt away from the neck to help improve comfort for children too large for booster seats and other diminutive occupants.

Advanced restraint systems

Advanced restraint systems incorporate multiple technologies and features; some are discussed below. Many GM vehicles incorporate these advanced features.

Depowered air bags: In 1997, the National Highway Traffic Safety Administration (NHTSA) affirmatively responded to research and proposals that GM made to revise safety standards and improve air bag safety. For the 1998 model year, GM reduced air bag inflation authority consistent with the new rule. All subsequent GM frontal collision air bags have been engineered at these lower inflation levels.

Dual-stage air bags: These provide two levels of inflation levels tailored to collision severity. The system helps reduce the risk of air bag-related injuries in crashes when full-force air bags may not be necessary to supplement the safety belt system. The dual-level system inflates with a higher or lower pressure, depending upon crash severity and possibly occupant proximity to the air bag module. The system helps reduce the risk of air bag-related injury for some front seat occupants who fail to buckle seat belts.

Seat belt force limiting devices: In-belt webbing or retractor mechanisms to help lower peak belt forces on the occupants.

Seat belt pretensioners: Help tighten the seat belts at the beginning of a crash.

Side impact air bags: Optional on many GM vehicles. They provide additional energy-absorbing capability for side impact. Some are designed to provide protection for the head in side collisions. All of GM's side impact air bags systems have been designed to be safe for children. With the assistance of the Insurance Institute for Highway Safety and U.S. and Canadian government officials, GM's internal design guidelines for child-tolerant side impact air bags have been extended by an industry technical working group and have been adopted as a voluntary industry standard by members of the Alliance of Automobile Manufacturers.

Roof rail air bags: Provide side impact head protection for front and second seating row occupants. In fall 2001, Opel and Vauxhall in Europe made another significant addition to the comprehensive safety package in the current range by installing state-of-the-art, full-size curtain air bags on both sides of the vehicle. Developed by safety engineers at GM Europe's International Technical Development Center (ITDC), these air bags, with a volume of around 25 liters, inflate like a curtain along the side window area within 25 to 30 milliseconds. They help cushion the heads

Chevrolet supports the "Buckle Up, America!" campaign with print, broadcast and electronic advertising.

of the occupants from the effects of a lateral impact and significantly reduce injury risk. The full-size curtain air bags will initially be available for the Corsa, Astra and Zafira, with other models following later.

These air bags considerably reduce impact force on the passengers, especially if the side of the vehicle collides with a post or tree. In tests carried out according to criteria set by independent safety assessors, the car is propelled sideways at 29 km/h into a rigid pole. Under these impact conditions, the risk of head injury may be substantially reduced. Saturn was the first vehicle in the U.S. small car segment to introduce a side impact head curtain.

Saturn head curtain air bag, deployed.

Seats and head restraints: Strong seat backs can help contain occupants in rear collisions, deformable enough to absorb collision energy. Head restraints should be placed to limit neck hyperflexion. Many GM seats have adjustable head restraints.

Passenger sensing system (PSS): An advanced passenger air-bag suppression system debuted on 2003 large-size sport utility vehicles and pickup trucks, designed to reduce the potential for inflation-induced injuries or fatalities to smaller occupants, including children, who may be seated improperly in front of an active air bag. The system determines whether the right front passenger air bag should deploy in a frontal crash. We were the first to market with this system, which is fully compliant with the U.S. advanced air bag standards.

Crash avoidance

Crash avoidance technologies are intended to assist road users to avoid potential collisions under various adverse environmental or operating conditions (e.g., lighting conditions, limit handling or braking).

Daytime Running Lamps

Daytime Running Lamps (DRLs) make it easier for vehicles to be seen. GM petitioned NHTSA rulemaking to enable DRLs in the United States. NHTSA granted GM's petition in 1993. In 1995, GM started installing DRLs as standard equipment on some vehicles in the United States and, by 1997, all new GM designed vehicles were delivered with DRLs as standard equipment. Some other manufactures have followed and now offer DRLs as standard equipment on U.S. vehicles.

Risk analysis of real-world collision data show that DRLs reduce the relevant daytime collision rate by about 5% and urban pedestrian collisions by about 9%. Based on this real-world data analysis, GM has petitioned NHTSA to require DRLs on the entire new vehicle U.S. fleet.

Vehicle handling systems

Vehicle Stability Enhancement Systems (VSES) help drivers maintain control of vehicles

during difficult driving conditions. We offer the system across our brands using several names: StabiliTrak, Precision Control and Active Traction.

Although it can't reverse the laws of physics, VSES helps the driver maintain vehicle control in sudden maneuvers, particularly in low-traction conditions, in emergency lane changes, and during collision avoidance actions. The system works by recognizing wheel-skid. Sensors detect the difference between steering wheel angle and the direction the driver is actually turning by "reading" the steering wheel position, the amount of sideways force in play, and the vehicle's response to steering wheel input. The system then uses the brakes to enhance control of the vehicle's direction and to help keep the vehicle on course. It automatically reduces the engine torque and applies precise amounts of pressure to front right or left brakes to help keep the vehicle "on track."

Additional vehicle control systems help drivers in challenging driving conditions. Traction Control helps drivers maintain traction when accelerating on wet or snow-covered roads by automatically applying brake pressure and reducing engine power when sensors detect wheel slippage.

Magnasteer uses an electronically controlled magnetic field to continually adjust the effort a driver feels when steering as a function of vehicle speed. The system makes parking easier, yet enables drivers to retain a firm, solid feel at highway speeds.

Tire pressure monitoring system (TPMS)

Currently, more than 2 million of our cars have tire pressure monitors – more than any other manufacturer.

The system uses either the antilock brake system (ABS) or separate sensors mounted in each wheel. A warning light on the instrument panel or message displayed on the driver information center, along with an audible warning, alerts the driver to check air pressure.

A survey of GM vehicles equipped with TPMS showed significantly better tire pressure levels than in those not equipped. Proper tire pressure reduces tire wear and maintains performance characteristics.

Our Tire and Wheel Systems Laboratory helps ensure that the tires on GM vehicles perform safely.

Tire Safety

In 1968, we opened a Tire and Wheel Systems Laboratory at the Milford (Michigan) Proving Ground. The research lab helps us ensure the original equipment tires on our vehicles perform safely and effectively.

Our focus on tire safety also includes warranty protection, our exclusive Tire Performance Criteria (TPC) system, and an ongoing working

relationship with tire suppliers. We cover original equipment tires under our bumper-to-bumper New Vehicle Limited Warranty. More than 25 years ago, we introduced the TPC specification system. The TPC specification number provides information on more than a dozen critical performance specifications, and allows us to specifically match tires to the vehicle on which they are installed.

Other technologies and features

OnStar

OnStar is a unique blend of cutting-edge technology and attentive personal service that provides an unparalleled level of safety, security and information. With this innovative service, an OnStar advisor is available at the touch of a button to contact emergency assistance. In a crash where the air bags deploy, OnStar will automatically send a call for help with the exact location of the car or truck to an OnStar Center, where trained advisors will immediately contact emergency services. If a vehicle is reported stolen, OnStar will assist the police in attempting to track it.

OnStar uses the Global Positioning System (GPS) satellite network and cellular technology to link vehicle and driver to the OnStar Center, where advisors are available 24 hours a day, 365 days a year. OnStar is a completely embedded system that relies on voice recognition and audio-based services and content. There are no screens or displays.

GM and OnStar have an ongoing commitment to motor vehicle safety. We have developed common-sense principles to help guide how information delivery systems are designed into our vehicles. The goal is to design systems that limit unnecessary or excessive attention demands on the driver while driving.

Currently, OnStar is active on about 2 million vehicles. Most of GM's 54 U.S. models will offer OnStar as either standard equipment or as part of a preferred equipment package.

OnStar system

Trunk anti-entrapment technologies

Our commitment to motor vehicle safety goes beyond crashworthiness and crash avoidance. We responded quickly to a cluster of child trunk entrapments. In only 17 weeks, with help from the National SAFE KIDS Campaign, we developed a child resistant trunk retrofit kit, which was safely tested by children.

Parking aids

Two new systems fitted on selected vehicles help drivers avoid collisions with objects while moving in reverse at very slow speeds. The Ultrasonic Rear Parking Assist helps warn drivers of stationary obstacles behind the vehicle. The system uses visual and audible methods to alert the driver of objects up to 5 feet behind the vehicle when the vehicle is moving at or below speeds of 3 mph.

The Parallel Park Assist Mirror helps drivers who are operating a vehicle in reverse. The feature tilts the passenger side outside

rear-view mirror down to provide a curb view whenever the driver places the vehicle in reverse. When the vehicle is shifted out of reverse, the passenger side mirror returns to its original position.

Crash response

Saab, our Swedish subsidiary, has developed a unique command car capable of fast communications with units that are involved when major accidents and disasters occur. The car is being used by emergency services in the West Götaland region of Sweden.

The new command car, a converted and specially equipped Saab 9-5, is the most advanced mobile liaison center in Sweden. Its base is the West Götaland region's emergency unit, where experienced doctors and nurses specially trained to deal with disasters and to mount major medical operations are available round the clock, all the year round.

Saab 9-5 emergency command car.

The command car has ordinary two-way radio, communication radio on the VHF band, GSM and NMT 450 mobile telephony, portable radio, computers, GPS-based map-reading support and navigational systems. The car can be integrated into wireless networks, communicating with ambulances on the scene of the disaster. The screen of the navigational system can also be used as a television for monitoring the media. The command car can be transported by a Swedish Air Force Hercules to a disaster site where the command function needs reinforcement. Extra eyebolts have been welded onto the car so that it can easily be lashed down in the aircraft. It also has a connection point to take an external power supply, so that its equipment will work during the flight as well.

Safety

Motor vehicle crashes represent a significant public health challenge. In industrialized nations, motor vehicle crashes are often one of the most frequent causes of accidental death and injury. In developing economies, infrastructure limitations and uncontrolled traffic mix create the potential for high crash injury/fatality involvement rates. The science of motor vehicle safety is a search for:

- Understanding the nature of the public health challenge – in magnitude and by problem type.
- Prioritizing specific problem types as a function of societal harm – the human and economic cost consequent to collision injury.
- The invention, development and implementation of effective countermeasures.

This science has been subject to scholarly research for many decades. GM is proud to have been a leader of research, development, engineering design, product innovation and public policy initiatives to improve motor vehicle safety and reduce the societal harm occasioned by vehicle collisions.

The conceptual tools of motor vehicle safety are well developed and widely applied. They are fundamentally based upon a shared understanding among government, industry, academics and respected non-government organizations (NGOs) concerning the potential causes of motor vehicle crash injury and the scientific data that can be used to characterize, qualify or quantify specific problems – real-world collision data. Based on United States government research, we know the fundamental cause of most collisions is driver error. While there is clearly potential for harm reduction in improved vehicle performance in collision avoidance (to reduce the likelihood of a collision) and crashworthiness (to reduce this likelihood of injury given a crash occurrence), the most significant opportunities for societal harm reduction often call for improvements in driver behavior.

Our aim is to improve motor vehicle safety for customers and other roadway users with each new product we introduce. For many consumers, motor vehicle safety is a basic threshold when considering a vehicle for purchase. Our customers expect and demand vehicles that help them to avoid crashes and reduce the risk of injury when involved in crashes. We strive to exceed these expectations and, thereby, protect customers and their families while they are on the road.

Motor vehicle safety is a function of: the design of the vehicle, the manner in which it is operated, and the environment in which it is driven. We are committed to research and to the implementation of programs and technologies that enhance the safety of other occupants by assisting drivers in the operation of their vehicle in avoiding hazards, and helping to protect occupants in the event of a vehicle crash. We support public policy initiatives that encourage drivers and other vehicle occupants to take actions that help assure their safety when driving.

Our motor vehicle safety priorities are guided by analysis of "real world" safety, that is, the experience of our vehicles on the road in actual customer use. An understanding of injury risk and potential ways to reduce it are the main factors guiding us in setting safety policies, undertaking advanced safety research, and implementing product safety systems, features and public policy programs. Our public policy positions and partnerships are founded on a commitment to encourage governments and policy leaders to pursue safety policies and initiatives that are based on science and the real-world potential to reduce societal harm.

Responsible product use

Safer driving makes for safer roadways:

- Automotive markets with high safety belt and child restraint use generally have lower fatality rates than those with lower rates.
- Countries with strong drunk driving laws have fewer alcohol-related fatalities.
- Graduated licensing laws requiring teen-agers to learn to drive over time reduce the disproportionate fatality involvement of inexperienced drivers.
- Guidelines to help reduce distractions for drivers are intended to reduce crashes.

We support initiatives and programs encouraging safe driving behaviors.

Child restraint and safety belt use

We support a societal norm in which all occupants properly use restraints – every time, on every trip. In the United States, we're a founding member of the National Safety Council's Air Bag & Seat Belt Safety Campaign, which supports education on restraint use, strong restraint use laws and their enforcement.

Since 1996, child fatalities in the United States attributed to air bags have fallen by about 95%, as Campaign-led efforts urged families to secure children in rear seats, and rule changes permitted automakers to install lower-powered air bags. The Campaign also has helped pass primary (standard) enforcement safety belt laws, now enacted in 20 states, generally resulting in higher restraint use rates and lower fatality rates. The Campaign- and NHTSA-sponsored "Click It or Ticket" public health/belt use enforcement model has helped increase the U.S. safety belt use rate from 61 percent in 1996 to 75 percent in 2002, the highest ever.

In July 2003, the National Safety Council presented GM with its "Sustained Excellence in Highway Safety, 1996-2003" award, recognizing our "ongoing leadership and support in reducing air bag deaths, especially among children, and increasing seat belt use nationwide." The National Safety Council commended GM's initiative as a founding member of the Air Bag & Seat Belt Safety Campaign in 1996 and ongoing leadership.

Vehicle crashes are the leading cause of death for children. To help educate families, GM and the UAW-GM Center for Human Resources teamed up with the National SAFE KIDS Campaign to establish SAFE KIDS BUCKLE UP (SKBU), the nation's leading private sector child passenger safety program.

Almost $31 million has been donated to SKBU, which has inspected more than 400,000 child safety seats across the United States SKBU has held more than 10,000 checkup events and has reached more than 13 million people with its message.

One of the 30 donated Chevrolet Express vans donated to the SAFE KIDS/BUCKLE UP campaign.

SKBU also has donated nearly 250,000 child safety seats, many to low-income families and at-risk children. Some were donated through a distribution program in partnership with the National Association for the Advancement of Colored People (NAACP) and the National Council of La Raza.

In 2001, together with the UAW, we recommitted our support of SBKU by creating 30 new permanent child seat inspection stations and donated child safety seats to targeted low-income families and at-risk children.

In 2002, GM and the UAW donated 30 Chevrolet Express vans to local SAFE KIDS coalitions across the United States The vans joined 51 GM-donated Chevrolet Ventures to

create the nation's first fleet of mobile car-seat checkup vans. Now, each state and the District of Columbia have at least one SKBU mobile child seat checkup van, fully equipped with tents, traffic safety cones, signage and more.

SKBU also offers bilingual educational materials, a public service campaign, a toll-free hotline (800-441-1888) and millions of dollars in local grants to allow SAFE KIDS coalitions to take this most important service to the public.

Standard enforcement safety belt use laws correlate with high young driver safety belt use. We encourage enactment and equitable enforcement of these laws by supporting the Air Bag & Seat Belt Safety Campaign. Following our lead, other U.S. manufacturers have initiated child safety programs. We support the actions of all auto manufacturers in helping to encourage all occupants to be properly secured on every trip, every time.

Drunk driving

Alcohol is a factor in more than 17,000 U.S. fatalities annually, or 41% of all traffic fatalities. We have supported Mothers Against Drunk Driving (MADD) for many years. This year, GM's funding supports MADD's victims' services programs.

Focus on occupant compartment and trunk anti-entrapment

In 1999 and again in 2001, we led the auto industry in conducting research on technologies to help prevent children from dying or suffering injuries when trapped in the trunk or the vehicle cabin. We launched public awareness efforts, produced a brochure, "Trunks Are For Elephants" and distributed hundreds of thousands of copies through GM dealerships and public health organizations. In 2001, we produced the brochure, "Never Leave Your Child Alone," which is available on our web site and is being distributed through local SAFE KIDS coalitions and public health and traffic safety organizations.

Focus on young drivers

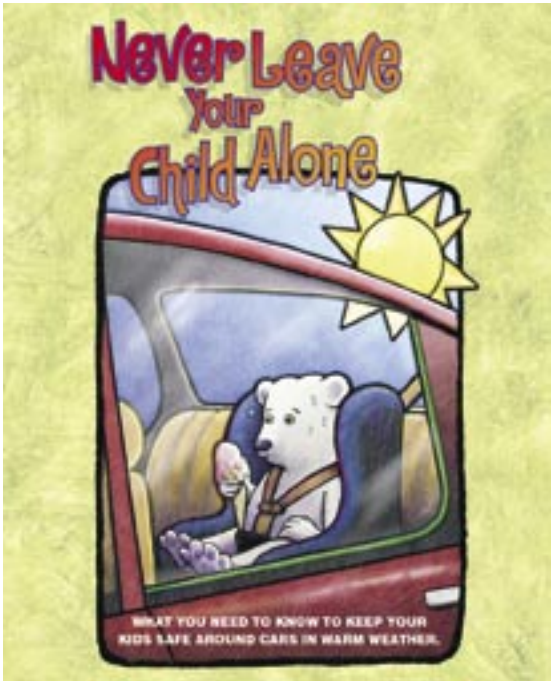
In many countries, young drivers are disproportionately represented in crash fatalities and injuries. Enactment of graduated driver's licensing laws (GDLs) in several automotive markets is proven to reduce young driver crashes. We support the passage of graduated driver's license laws.

In November 2002, GM joined the National Safety Council, National Highway Traffic Safety Administration (NHTSA), and Nationwide Insurance in sponsoring the "Symposium on Graduated Driver Licensing: Documenting the Science of GDL." Research pointed to the important role of restrictions on night driving and presence of passengers in helping reduce crash risk for young drivers.

The symposium identified areas for continued research, including the potential effect of GLDs on long-term crash risk and the role of parental supervision.

Since young motorists have the lowest restraint use rates of all age groups, and some underage drivers drink alcohol and drive, the symposium also recommended that states link belt use and underage drinking laws with the provisions and penalties of GDL laws. GM encourages families to voluntarily implement the GDL elements such as mandatory

restraint use and zero-tolerance for under-age alcohol use, restrictions on numbers of passengers and nighttime driving, and on-the-road driving practice with adult supervision.



GM sponsors the public awareness campaign "Never Leave Your Child Alone" to remind parents that leaving children unattended in a vehicle can have deadly consequences. At least 40 children died in the summer of 2003 after being left unattended in hot, parked cars.

Focus on distracted driving

We are conducting research on distracted driving and already have established a common-sense guide for the development and implementation of telematic and information delivery systems in our vehicles. Our principles are:

- Minimize hands-off-wheel and eyes-off-road time.
- Minimize the number of steps required to complete any given task.
- Create common interface (look and function) systems.
- Limit availability of particularly demanding tasks while driving.

Various international industry organizations are adopting these principles as a basis for discussions on voluntary standards, and other manufacturers are following GM's lead in applications.

Public research identified the potential benefit of increased driver awareness and education to help reduce and eliminate actions that contribute to driver distraction. In March 2001, we launched the SenseAble Driving program in the United States The program is intended to help address public misinformation and increase drivers awareness of situations that contribute to distraction. The SenseAble Driving program includes an interactive computer demonstration on our web site, www.gmability.com, a poster and video initially displayed in State of Michigan motor vehicle licensing offices, and a brochure on driving safety tips.

Focus on vehicle operation

GM urges drivers and passengers in all vehicles to buckle up properly in safety belts and appropriate child restraints. GM also urges occupants to designate a non-drinking driver and to never ride with someone who's been drinking.

The owner's manual in each GM vehicle includes information on vehicle operation – towing, loading, handling, maintenance, and use of other technologies specific to each vehicle. GM urges drivers to operate the vehicle in a prudent manner and follow the guidelines in their GM vehicle owner's manual.

Advanced Technology

Advanced technology strategy

From saving fuel by making engines work smarter to smoothing transmission function for better performance and efficiency, GM is using technology to improve the internal combustion engine even while working toward the hydrogen future.

We designed our propulsion system strategy to build capability for increased power, energy efficiency and reduced emissions with a long-term vision of transitioning to hydrogen fuel cell-powered vehicles. This technology development focuses on fuel cell power systems, hydrogen production (electrolysis and fuel processing), electric drive control and system integration, and hydrogen storage and affordability. Hybrid-electric powertrains provide a mid-term commercial opportunity and a technical bridge to fuel cell vehicles through advancing electric drive components and controls. Advances in engine technology for power, energy efficiency and reduced emissions proceed in parallel with the focus on variable valve trains (displacement-on-demand, variable valve lift and cam phasing), homogeneous charge compression ignition (HCCI), direct and multiple-timed injection, and advanced after-treatment for ultra-low emissions.

We offer a wide variety of vehicles that deliver low emissions and world-class fuel economy. These currently include a range of "interim technologies," such as alternative fuel vehicles and clean diesels. We will focus considerable resources on producing affordable and effective gas-electric and diesel-electric hybrid technologies.

Fuel cell propulsion is inherently much more efficient than all other propulsion systems. New important society benefits can be realized from this concept, such as renewable energy and minimal emissions. Our reliance on foreign oil will also be reduced.

We are committed to increasing vehicle fuel economy and reducing emissions, and we are executing a comprehensive advanced technology plan that includes advanced internal combustion engines, new transmissions and hybrids that will form the bridge to our long-term vision for hydrogen fuel cell vehicles.

Fuel cells

At GM, we believe the ultimate vision for an environmentally sustainable future is the hydrogen economy and fuel cell-based transportation.

The fuel cell uses the reaction between hydrogen and oxygen to produce electricity. It takes its oxygen from the air we breathe. Hydrogen and oxygen combine in the reaction, the end products being electricity and water. The electricity can be used for running an electric motor that propels the car.

Hydrogen can be made in various ways from natural gas, renewable energy, gas, coal or nuclear reactors. It has the potential to become a fundamental underpinning of our society. Hydrogen is interchangeable with electricity since hydrogen can be made from electricity via electrolysis and electricity from hydrogen via a fuel cell.

Hydrogen can be derived from a mix of sources including hydrocarbons and from

any source of electricity. In the first case, hydrogen is extracted from petroleum, natural gas, or a renewable hydrocarbon such as ethanol via a reformer that catalytically decomposes the hydrocarbons into hydrogen and carbon dioxide. Electricity can come from conventional power plants or renewable power such as hydro, wind or solar sources.

Eventually, we want to use a method that is renewable and has no adverse environmental impact.

Looking into the future, we expect reforming technology will be followed by electrolysis, using electricity from conventional power plants or advanced nuclear plants, or from renewable energy sources such as biomass or hydro, solar, wind or geothermal power.

The HydroGen3, based on the Opel Zafira, runs on compressed hydrogen and has a range of about 250 miles.

HydroGen3

Building on the success of GM's HydroGen1 fuel cell prototype, we are demonstrating the HydroGen3, our next-generation fuel cell prototype also based on the Opel Zafira minivan. With more power, a simpler start-up procedure, and a more compact fuel cell stack, the HydroGen3 demonstrates how fuel cell propulsion can be adapted to today's vehicles and packaged as a single unit. With a range of about 250 miles, the car has the same load space as the conventional Zafira in 5-seater mode, and a top speed of 100 mph.

AUTOnomy

The AUTOnomy concept vehicle, first shown at the North American International Auto Show in 2002, was the first vehicle designed from the ground up around a fuel cell propulsion system and the first to combine fuel cells with by-wire technology. Discarding the restrictions of conventional vehicle design based around the internal combustion engine, the vehicle consists of an innovative, skateboard-like chassis that contains the fuel cell, electric drive, hydrogen storage system, computer control module, heat exchangers and wheel motors. The flexibility of the chassis accommodates multiple interchangeable "snap-on" body styles that can be customized to meet customers' various lifestyles, from a two-seater sports car to an SUV or minivan.

An international jury of 41 automotive writers recently voted the AUTOnomy "Engine of the Year – Best Concept" in the prestigious Engine Technology International Awards. Graham Johnson, jury president and editor of the publication, said of AUTOnomy: "At last a purpose-design fuel cell car, AUTOnomy shows that the space-age propulsion system can be attractive."

Hy-wire

Building on the AUTOnomy concept, the GM Hy-wire, the world's first drivable fuel cell and by-wire concept vehicle, was introduced to international press at the Paris Motor Show in

The AUTOnomy skateboard design demonstrates the many possibilities available when building a car with fuel cell and by-wire technology.

2002. All of the touring sedan's propulsion and control systems are contained within an 11-inch-thick skateboard-like chassis, maximizing the interior space for five occupants and their cargo. There is no engine to see over, no pedals to operate – merely a single driver-control unit that is easily set to either a left or right driving position.

Working in partnership

To further fuel cell development, we have established equity partnerships with leading companies, including General Hydrogen Corp., Giner Electrochemical Systems, L.L.C., Hydrogenics Corp., and QUANTUMTechnologies Worldwide, Inc. We are also collaborating with Suzuki Motor Corp. and Toyota Motor Corp. on fuel cell technology development, and BP Amoco, ExxonMobil, ChevronTexaco and Shell on fuels research.

In March 2003, GM and Shell Hydrogen announced a joint demonstration program in Washington, D.C., designed to be a real-world test of GM's HydroGen3 fuel cell vehicles and hydrogen fueling infrastructure technology in the Washington, D.C., area. The demonstration will feature the nation's first hydrogen pump at a Shell retail gas station to support a GM fleet of HydroGen3 fuel cell vehicles.

GM is also working with the California Fuel Cell Partnership, a collaboration of auto companies, fuel providers, fuel cell technology companies and government agencies that is placing fuel cell electric vehicles on the road in California.

FreedomCAR

FreedomCAR (Cooperative Automotive Research) is a partnership between the U.S. Council on Automotive Research (USCAR) companies (GM, Ford and DaimlerChrysler) and the U.S. Department of Energy to aggressively advance the timing of research for scientific breakthroughs needed to ensure technical feasibility and broad affordability of energy-efficient powertrains and lightweight vehicle structures. FreedomCAR focuses on a broad portfolio of technologies, but with the primary emphasis on enabling the transition to hydrogen fuel and fuel cell vehicles.

Other fuel cell initiatives

- GM is equipping 235 new buses in the Seattle area with clean hybrid technology for an annual fuel savings equal to replacing more than 8,000 internal combustion engine cars with hybrid electric vehicles. The hybrid buses will produce 90% fewer particulates and hydrocarbon and carbon monoxide emission and 60% fewer oxides of nitrogen than the buses they replace.
- The streets of Japan now feature the HydroGen3 fuel cell vehicle. In June 2003, FedEx began operating HydroGen3 several days a week on its regular Tokyo delivery route. GM will collect data from FedEx and will provide all vehicle engineering and maintenance.

- Dow Chemical soon will use 500 GM hydrogen fuel cells to help power its Freeport, Texas, operations. If all goes well, the cells could generate up to 35 megawatts for Dow, enough electricity to power 25,000 homes for a year and more than 15 times larger than any other known fuel cell transaction. The test will run through 2005, with plans to commercialize starting in 2006.
- Scandinavia kicked off the hydrogen age for road transportation by opening its first public hydrogen filling station in the Swedish city of Malmo, and the first vehicle at the pump was GM/Opel's HydroGen3 prototype with fuel-cell propulsion system. The HydroGen3 has a range of 270 kilometers. An on-board fuel-cell stack of 200 individual cells provides energy for the 60-kW/82 hp electric engine.
- GM, along with the U.S. Department of Energy and other industry organizations, will co-sponsor a new competition series to challenge college engineering students throughout North America to re-engineer crossover vehicles to achieve better fuel economy and lower emissions. This Challenge X competition launches in the 2004-2005 academic year as a three-year program and will closely follow current real-world automotive design and engineering practices and better equip students with the tools to improve vehicle designs. GM will partner with The MathWorks and National Instruments to provide teams with the hardware, software and technical support they need to approach this engineering challenge.

Hybrids

We have developed hybrid power systems capable of powering many of the vehicles in our various vehicle classes. Hybrid electric propulsion systems combine internal combustion engines and electric drives to dramatically increase fuel efficiency and reduce vehicle emissions. Plans announced for production include buses (Allison Hybrid System), and full-size pickups (PHT). The biggest gains in fuel savings from hybrid technology are in the largest vehicles with the highest fuel consumption. By focusing on these vehicles first we can make a greater impact on emission reductions and fuel economy.

Hybrid trucks

The hybrid powertrain is one of a wide range of technologies we are using to maintain our leadership in light truck fuel efficiency. We are planning to introduce a hybrid pickup truck which features a conventional powertrain and driveline with an electric motor integrated between the engine and transmission. The engine provides the same performance as today's V-8 Vortec engines but improves fuel efficiency by 10-15%. Full-size pickups with parallel hybrid technology – versions of the Chevrolet Silverado and GMC Sierra – will be available in 2004.

Hybrid buses

Our Allison Transmission Division is currently developing a hybrid electric drive system for the North American transit bus market.

The state-of-the-art transit bus is powered by an advanced hybrid-electric powertrain, developed by Allison, which dramatically

reduces vehicle emissions – an environmental plus in smog-challenged Southern California and other metropolitan locations across the United States Referred to as the E^{P} System, the hybrid-electric powertrain is a "strong" parallel hybrid architecture that is scaleable for various medium- to heavy-duty vehicle platforms.

The E^{P} System can offer up to a 60% improvement in fuel economy over a conventional diesel system in a transit bus application. The technology also can reduce soot particulate by 90%, hydrocarbons by 90%, carbon dioxide by 60% and nitrous oxide by 50%. These results are based on the Central Business District-14 (CBD-14) operating cycle.

There are about 13,000 transit buses in service in the nine largest U.S. cities. If those buses were replaced with ones featuring the hybrid system, the country would use nearly 40 million fewer gallons of diesel fuel every year – the equivalent fuel savings of 584,000 small cars with hybrid propulsion systems.

Alternative fuels

Alternative fuels in today's motor vehicles offer environmental benefits while helping bridge the transition from the internal combustion gasoline-powered vehicle to tomorrow's advanced technology vehicles. The use of alternative fuels, especially those made from renewable sources, can reduce greenhouse gas emissions. We offer vehicles in the United States that operate on either E85 ethanol or gasoline fuel or any blend. In the United Kingdom, the government pays for 75% of the cost of the liquefied petroleum gas (LPG) option on our Vauxhall DualFuel vehicles.

Together with British Petroleum (BP), we are working on several joint projects to encourage the development of clean fuel technologies and clean fuel infrastructure. For example, the two companies have agreed to have E85 fuel available at a southeastern Michigan fueling station to enable refueling, among others, of our expanding E85 truck fleet (a portion of our Product Evaluation Performance [PEP] fleet must be refueled with E85). In the United Kingdom, Vauxhall is working with BP to encourage the introduction of LPG at filling stations.

The benefits of E85

E85 is a renewable fuel comprised of 85% ethanol and 15% gasoline, with price and performance similar to regular gasoline. Today, ethanol is made primarily from corn, but in the future it could also be produced using waste wood, sawdust or grasses or any cellulose-containing materials.

The market for E85 has increased tenfold during the past five years, to about 10 million gallons a year.

GM produces more than a third of the more than 3 million E85 flexible fuel vehicles on American roads; in fact, GM is the largest producer of E85 flexible fuel vehicles (FFVs) capable of operating on E85, conventional gasoline or any combination. All 2002 and newer Chevrolet and GMC full-size SUVs equipped with the Vortec 5300 engine are E85-capable, including the Chevrolet Tahoe and Suburban; and the GMC Yukon and Yukon XL produced at GM's Janesville assembly plant. Specially equipped Chevrolet Silverado and GMC Sierra full-size pickups also are available with E85 capability.

GM and the National Ethanol Vehicle Coalition (NEVC) have launched a five-state initiative to promote greater use of corn-based ethanol fuel, E85, as an alternative to gasoline. Participating states include Colorado, Illinois, Minnesota, Missouri and Wisconsin. The public awareness effort is part of a two-year partnership with the non-profit NEVC focused on increasing E85 use in FFVs, which can use either E85 or gasoline. The direct-mail program, called "I Fuel Good," targets owners of 2002 and 2003 model year GM flexible fuel vehicles by giving them a $40 debit card that can be used to purchase E85 fuel. Owners also will receive E85 informational literature, a list of E85 refueling stations in their area, a window sticker and a T-shirt. Additionally, participating GM dealers will receive assistance in educating customers about the benefits of using E85.

The E85 GMC Yukon can use either an ethanol mixture or gasoline in its Vortec 5300 engine.

CNG and Dual Fuel Vehicles

In the United States, we continue to make available full-size pickups, full-size vans and Chevrolet Cavaliers that are capable of bi-fuel compressed natural gas (CNG)/gasoline operation, as well as dedicated CNG full-size vans.

Opel builds versions of its Zafira and Astra models that are powered by natural gas only – making the greatest use of the environmental benefits of this fuel.

DualFuel Petrol/LPG Powered Vehicles

Vauxhall DualFuel vehicles can use Liquefied Petroleum Gas (LPG) or conventional gasoline fuels. With LPG, emissions of CO2, oxides of nitrogen (NOx) and particulates are much lower than standard gasoline vehicles. Vauxhall registered 2,390 DualFuel vehicles during 2002, representing more than 47% of a growing factory-fitted LPG car market and further demonstrating Vauxhall's five-year leadership in promoting the use of cleaner-burning gas.

To strengthen this lead, the DualFuel range is being extended in 2003 to include the Corsa and Meriva. Vauxhall's LPG vehicles satisfy the stringent EURO 4 emissions standards, due in 2005, and qualify for funding under the U.K. government's Powershift program, which aims to encourage the use of cleaner fuels. At the end of 2002, there were around 1,200 LPG filling stations in the U.K.