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**Bibendum Forum & Rally**  
**June 8-9, 2005**  
**Kyoto – Nagoya, Japan**

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## **Bibendum Forum & Rally: Rallying Together Towards Sustainable Mobility**

On June 8 and 9, 2005, MICHELIN will organize the Bibendum Forum & Rally in Japan. In a continuation of the MICHELIN Challenge Bibendum, organized by the Group since 1998, and on the occasion of the 2005 World Exposition in Aichi, this unique event will pursue the promotion of new technological solutions for sustainable road mobility, reconciling the growing number of **vehicles**, **secure energy supply**, **safety** and **environmental stewardship**.

The **Bibendum Forum**, which will take place in the Kyoto International Conference Hall on June 8, will aim at raising Japanese and international public awareness about the key role played by new mobility developments in addressing worldwide environmental and energy issues, as well as traffic congestion and safety problems.

Organized on June 9, the **Bibendum Rally** will offer a unique opportunity to drive clean cars in real-world conditions on open Japanese roads in one of the most beautiful areas of Japan. Starting from Kyoto, the country's former capital, the rally will follow a mountain road along the shores of Biwa-ko, Japan's biggest lake and symbol of the country's commitment to protecting water resources. After taking a lunch break at Hikone, well known for its castle, a national treasure built in 1606, the rally will finish at the 2005 World Exposition in Aichi, dedicated to "Nature's Wisdom".

The **Bibendum Forum & Rally** will also be the occasion for the Group to present *Challenge Bibendum – The 2004 Report*. This highly instructive report summarizes the wealth of information gathered during the 6<sup>th</sup> MICHELIN Challenge Bibendum, held in Shanghai last October, charting the way forward to cleaner and safer road transportation.

The closing conference of the Bibendum Forum & Rally will also reveal the name of the country and city where the next MICHELIN Challenge Bibendum will be organized, in June 2006.

## MICHELIN Challenge Bibendum: From 1998 to Today

In 1998, the world-famous “MICHELIN man,” Bibendum, celebrated his 100<sup>th</sup> anniversary. To mark this historic milestone, MICHELIN decided to create an event that would spotlight the technological progress made by car manufacturers in developing environmentally-friendly vehicles, proven in real-world conditions. The result was the first Challenge Bibendum, a friendly competition running from Clermont-Ferrand, the site of MICHELIN headquarters in the center of France, all the way to the Champs-Élysées in Paris.

*The MICHELIN Challenge Bibendum is not designed to provide solutions, but rather to spotlight the most significant advances in sustainable mobility. Its objective is simple: to help people to understand the technologies involved, through practical demonstrations, and to see how each technology fits in the overall picture. The approach used is equally direct: give today’s opinion leaders, decision-makers and the media a clear, impartial, credible look at how the “state-of-the-art” in science and technology can pave the way to the development of appropriate – and sustainable – mobility solutions. A real commitment to progress in this crucial area will require decisions impacting all of society. Ultimately, everyone has a role to play, whether government, industry or consumers.*

*MICHELIN Challenge Bibendum was created to show that the automobile industry is working towards sustainable mobility, and that it already has the technologies needed to reduce pollution and improve safety, without compromising mobility.*

Substantial progress has been made over the last ten years in some areas. For example, 100 passenger cars in 2003 generated less pollution than a single car back in 1975. But we need to accelerate the introduction of the most effective solutions ... and the Challenge Bibendum is one way of assessing and publicizing them.

**2000:** the second MICHELIN Challenge Bibendum once again starts in Clermont-Ferrand.

Afterwards, the international event becomes annual and travels further afield.

**2001:** California, here we come!

**2002:** return to Europe, leaving from Germany and heading for Paris, with a stop at the European Parliament in Strasbourg.

**2003:** back to California, this time in Sonoma county, near San Francisco.

**2004:** From west to east, more precisely Shanghai, People’s Republic of China.

The next edition will be held in June 2006 in....surprise...! The venue is still a secret, but the country and city will be unveiled at the closing conference that will end the Bibendum Forum & Rally.

**Challenge Bibendum: A Better Way Forward, Together**

## The 2004 Report: Conclusions of the 6<sup>th</sup> MICHELIN Challenge Bibendum

The theme of *Challenge Bibendum – The 2004 Report* is “rallying together towards sustainable mobility.”

*The highly instructive, 165-page document summarizes the wealth of information gathered during the 6<sup>th</sup> MICHELIN Challenge Bibendum, organized in Shanghai, People’s Republic of China, in October 2004.*

Since the first event organized in 1998 in honor of Bibendum’s 100<sup>th</sup> anniversary, the MICHELIN Challenge Bibendum has showcased scientific and technological progress in area of sustainable mobility, for the benefit of government decision-makers, politicians, manufacturers and consumers.

The “Shanghai Report” has two main objectives. The first is multifaceted, to:

- Give readers a glimpse of available technologies and their potential.
- Demonstrate the possibilities the market will offer in the next ten years.
- Present the expected changes in mobility over the decade 2015-2025... and the roadblocks along the way.
- Study government initiatives in various countries to prepare for the future.
- Promote a “roadmap” towards sustainable mobility.

The second objective is to get everybody moving in the same direction towards sustainable mobility.

The Report is divided into four parts:

- Progress under way: a review of the different technologies available: hybrid, electric, etc.
- Delving into state-of-the-art technology.
- Technology put to the test: 2004 Challenge Bibendum competition results.
- Looking ahead: solutions in 10 years; and sustainable mobility possibilities for 2025.

The report also asks a final question: “... and after Shanghai?”

The document is now available in Chinese, English and French.

## MICHELIN's Performance and Responsibility Process: Driving Progress Towards Sustainable Mobility Every Day

Launched in early 2002, the MICHELIN Performance and Responsibility process is now guiding every aspect of the Group's operations.

### The MICHELIN Performance and Responsibility Process

The Group's growth is driven by performance, both **technological performance**, which enables people to drive safely on MICHELIN tires, and **financial performance**, which underpins the company's long-term viability.

MICHELIN is dedicated to improving its performance in both of these areas by assuming its responsibilities. This means identifying the company's unique challenges and constantly striving to reduce the impact of MICHELIN products and operations on people and the environment, as part of a long-term vision.

**The process is designed to enable everyone across the MICHELIN organization to put five core values into practice:**

- **Respect for customers**

Serving customers is the core of MICHELIN's business, because the Group's long-term viability and growth depend on their satisfaction. In practical terms, this means always giving customers high-performance products, while maintaining solid, honest relationships.

- **Respect for people**

Respecting everybody with whom MICHELIN is in contact, including employees, industrial and commercial partners, public authorities, non-governmental organizations, the media, and the local communities where MICHELIN plants are located. In other words, nurture exchanges based on mutual trust and constructive dialogue.

- **Respect for shareholders**

MICHELIN's prime responsibility towards shareholders is to achieve good financial performance, because without sufficient profits the company cannot survive over the long term. However, while MICHELIN, like any other company, seeks financial performance, this must not compromise its concern for the environment or for people. In fact, these criteria are not only compatible, they are interlinked. For example, by opting for "clean" technologies as often as possible, MICHELIN consumes less energy and fewer raw materials – which in turn means lower costs, decreased expenditures and improved financial performance.

- **Respect for the environment**

For MICHELIN, respect for the environment is inseparable from mobility. That's why the Group gives the customers products and services that respect the natural environment, in particular tires with low rolling resistance, that reduce fuel consumption and therefore decrease harmful emissions. For trucks, we've developed tires whose tread can be regrooved and/or which can be entirely retreaded to increase their service life and therefore reduce the amount of raw materials and energy needed to manufacture new tires. Another important facet of the MICHELIN Performance and Responsibility program is to reduce the environmental impact of our plants. Today, 9 out of 10 MICHELIN tires are manufactured at plants certified to ISO 14001, the international standard for environmental management systems.

- **Respect for facts**

Respecting facts means recognizing that a problem exists, and acknowledging its impact, even when there is no obvious solution. It is this respect for facts, coupled with the ability to question its' own actions, that has enabled MICHELIN to make the most spectacular advances throughout its' history.

These five values are described in detail in the MICHELIN Performance and Responsibility Charter, which is widely distributed, in several languages, to MICHELIN employees in every host country.

The process is built around a commitment to finding a balance and driving win-win development. The idea is not to advance in one of the values while neglecting another. In the same way as MICHELIN refuses to improve tread life if it makes a tire less safe, MICHELIN doesn't want to increase respect for shareholders if it lowers respect for people and the environment. On the contrary, when a new product is introduced, for example to respond more effectively to customer demand for longer lasting tires, the Group also tries to make the tire more energy efficient, to lower fuel consumption.

When MICHELIN Performance and Responsibility was launched, an initial diagnostic review showed that for these values to be effectively applied, continuous improvement targets had to be defined, in order to correct certain weaknesses, or else to enhance the Company's strengths.

*Nine action plans are now underway:*

- *The responsible performance of MICHELIN products and services.*
- *The environmental impact of tire use.*
- *The recovery, reuse and disposal of end-of-life tires.*
- *Diversity among our teams.*
- *Our relationships with local communities.*
- *The quality of worklife on our sites.*
- *The environmental management of our sites.*
- *Industrial risk management.*
- *Our contribution to sustainable mobility.*

To track progress in implementing MICHELIN Performance and Responsibility, a report has been published every two years since launch. The latest version, covering 2003 and 2004, was released in May 2005.

## Michelin Innovations to Reduce the Environmental Impact of Using Tires

Without sacrificing safety, Michelin is constantly improving the performance of its tires by reducing **rolling resistance** (the energy lost as the tire flattens against the road), **extending tire life** and **reducing tire/road contact noise**. These three criteria play a significant role in the environmental impact of tire use.

- **Reducing fuel consumption**

Today, it is estimated that one tank of fuel out of five is needed to overcome rolling resistance. The rest of the fuel consumed is used to overcome air resistance (drag), to accelerate (inertia) and to drive uphill (gravity).

The lower the rolling resistance, the less fuel is used, which in turn lowers emissions of CO<sub>2</sub> and other pollutants. Analysis has shown that **more than 85% of a tire's environmental impact occurs during use**. In 1992, our research department came up with the idea of replacing carbon black with silica, which had the effect of reducing rolling resistance by 20%. The resulting environmental impact gain exceeded the total impact from raw materials production and tire manufacture combined. (*Source: European Association of the Rubber Industry Study, 2001 for four passenger car & light truck tires in Europe*).

A real-world example of our commitment is the **Energy** tire range developed by our R&D teams and brought to market in 1994. Since then, the line has gone through three generations, but each one has continued to deliver the Energy's characteristic low rolling resistance without sacrificing safety or resistance to wear and tear. The result has been a substantial 20 to 30% gain compared with the rolling resistance of conventional tires. This means that over the past ten years, the use of Energy tires around the world has saved 1.7 billion liters of fuel (equivalent to 5.6% of French fuel consumption) and has avoided the emission of 4.2 million metric tonnes of CO<sub>2</sub> into the atmosphere.

- **Attenuating noise pollution**

Over the past 20 years, noise emitted by vehicles has been reduced 2.3 times, to an average of just 4 dB(A) (A-weighted decibels measure low frequency noises, like traffic and cars). Through its constant efforts to control tire-road noise, Michelin has played an important role in this achievement. Tire-road noise accounts for a considerable proportion of the exterior noise generated by vehicles: at least 30% for a car driving at 30 kph in second gear, at least 50% at 50 kph in third gear and around 90% on highways at 130 kph.

While we've long since undertaken research into noise generated by our tires via measurements on soundproofed vehicles, the European Union has only recently issued a directive on tire-road noise (2001/43/CE). This directive will be implemented gradually until 2011, having started in 2003. It includes measures to limit tire noise on passenger cars to between 72 and 78 dB depending on the width and type of tire (coast-by tests at 80 kph, engine off). While continuing our own efforts to improve tire noise performance, we've entered into partnerships with the relevant experts in these fields, particularly road surfacing companies.

- **Increasing tire service life**

Increasing a tire's service life helps to reduce the number of used tires to be processed and disposed of. Longer life also has environmental benefits, since fewer raw materials need to be used to make new tires. The average mileage of a Michelin steering axle truck tire has been multiplied by 2.4 times since 1980, thanks to regrooving and retreading.

- **Optimizing goods transport**

The growing volume of goods shipped by road cannot be handled simply by putting more trucks on the road... and with them more traffic jams and more CO<sub>2</sub> and other harmful emissions. New solutions need to be developed, to ship greater tonnage with the same number of vehicles.

Michelin has already made significant contributions to optimizing current truck silhouettes thanks to Series 55, 60 and 70 tires, which allow the height of a semi-trailer coupling to be lowered, thereby increasing the volume of the trailer or semi-trailer by up to five cubic meters.

*In addition to technological improvements, MICHELIN is also taking a number of steps to help reduce the environmental impact of tire use*

- **Encouraging the use of the right tire pressure:** An under-inflated tire distributes pressure unevenly and alters the contact patch, thereby reducing grip, causing faster tire wear and increasing rolling resistance. A large number of drivers run on under-inflated tires without realizing it. In addition to safety-related considerations—every year around the world, some 1.2 million people die in automobile accidents and 50 million are injured—driving with an under-inflated tire increases overall fuel consumption and therefore CO<sub>2</sub> emissions.
- **Recovering and recycling end-of-life tires:** More than a billion tires are sold every year, all of which will eventually wear out and have to be processed for disposal. The recovery and recycling of these end-of-life tires is actively encouraged by international legislation. The related processes are the subject of intense research by tire makers, with Michelin leading the way.

There are basically two ways to reuse tires: as a source of materials and as fuel. **Materials recovery** allows the elasticity and strength of tire materials to be used for other purposes. **Cut-up** or **shredded** tires can be used as railway ballast or in roadway and public works applications. **Finely ground tire crumb** can be used to make surfacing materials for playgrounds and sports facilities. For the past ten years, Michelin has also been working on **using rubber powder to make new tires**. The challenge is to develop new formulations that deliver the same performance as the ones used in equivalent conventional tires. **Energy recovery** taps into a tire's relatively high heat value—about 30 megajoules per kilogram, comparable to good quality coal, and sufficient to light a 60W bulb for around 40 days. A tonne of tires produces the same energy as 0.7 tonne of oil. That's why many cement plants, which consume vast amounts of energy, use scrap tires as fuel. To provide outlets for used tires, Michelin has formed a large number of partnerships with cement makers. In 2001, for example a joint-venture was created with Lafarge in the UK, which over the past three years has burned some 50,000 tonnes of scrap tires as fuel.

## MICHELIN Dedicated to Road Safety

At MICHELIN, **safety** and **environmental protection** are two priorities that always work together—never at cross-purposes.

One compelling aspect of this dual focus on safety and environmental protection concerns tire pressure. An under-inflated tire distributes pressure unevenly and alters the contact patch, while making the car harder to steer. Under-inflation reduces grip, causes faster tire wear and increases rolling resistance (and therefore fuel consumption).

### *1.2 million traffic deaths a year*

*Every year, 1.2 million people are killed and 50 million injured in automobile accidents around the world (source: OECD Observer). Some countries are safer than others, however. In Russia, for example, there were 27.7 traffic fatalities per 100,000 people in 2000 (Russia is the second deadliest country in the world), while in the United States, there were 16.5, making the US the 12<sup>th</sup> deadliest place to drive. France ranked 19<sup>th</sup>, with 12.9 deaths per 100,000 people, while Japan was 24<sup>th</sup>, with “just” 10.5 fatalities (source: World Health Organization, 2000 statistics).*

*Although considerable progress has been made in recent years, the World Health Organization nevertheless made road safety the theme of World Health Day 2004.*

In addition to these irrefutable safety aspects, driving on an under-inflated tire increases fuel consumption. At a constant speed of 90 kph, a one bar difference in pressure leads to a 3 to 5% increase in consumption. For a vehicle that consumes eight liters in 100 kilometers, motorists can save up to 0.4 liters per 100 kilometers just by checking their tire pressure twice a month. However, despite “Fill Up On Air” initiatives organized by MICHELIN on highway service areas at vacation time (see below), a large number of drivers run on under-inflated tires without realizing it.

**In response, MICHELIN has worked with carmakers to develop pressure-monitoring systems that improve a tire’s safety and environmental performance.**

- **EnTire Solution: Direct Tire Pressure Monitoring Systems**

MICHELIN and US-based TRW Automotive have created EnTire Solution, LLC, an equally owned joint venture to develop, promote, market and guarantee direct tire pressure monitoring systems and related services for passenger cars and light trucks. The new company has won contracts with Honda, Hyundai/Kia, Fiat and General Motors. For example, the system has been fitted on Honda Acura MDX SUVs sold in North America since November 2003.

EnTire Solution sends a warning if one or more tires are under-inflated, thus enabling the driver to manage and resolve pressure-related incidents before it’s too late. Among the system’s many advantages are:

- An early warning system for pressure-related incidents, so drivers can correct the problem where and when they want, with no hassle.
- Innovative software that reduces the risk of false alarms.
- Related tools and services, including after-sales service, user training, and diagnostic systems.

- **The eTire System**

A major innovation developed by MICHELIN for trucks and **introduced in 2003 in North America, eTire™ System comprises a sensor mounted inside the tire that measures pressure and temperature data.** Wireless signals from drive-by or handheld readers collect the data and the tire's unique identification number, which are automatically transmitted to a computer and processed using purpose-designed software. The information from the reader is also uploaded to an Internet server, thus facilitating management of on-the-road and in-storage inventory, as well as retreading schedules and cost per kilometer analysis.

- **Free Tire Pressure Check Programs**

In every country, a very large number of fatal accidents are caused by under-inflated tires, which also increase fuel consumption. That's why MICHELIN launched the "Fill Up On Air" program, which **offers to check motorists' tire pressure and, if necessary, add air free of charge.** Organized on highway service areas in France, Germany, Italy, the United Kingdom, Sweden, Romania, Hungary and many other Eastern European countries, Turkey and the United States, **the initiative also provides an opportunity to raise drivers' awareness about the benefits of maintaining correct tire pressure.**

In April 2004, MICHELIN stepped up its commitment to road safety in general and correct tire pressure in particular by signing the **European Road Safety Charter**, with the aim of helping the European Commission meet its goal of **halving the number of traffic deaths in Europe by 2010.** As part of this commitment, MICHELIN has assured EU authorities that "Fill Up On Air" programs will have been conducted at least once in each of the 25 member countries by the end of 2005. Beginning in 2006, the program will be conducted in 20 of the 25 countries every year.

## The Group's Sustainable Mobility Partnerships

- **The World Business Council for Sustainable Development's Mobility Project**

MICHELIN is involved in a variety of initiatives designed to drive progress in sustainable mobility. One example is the Group's support since 2001 for the **Mobility Project** led by the **World Business Council for Sustainable Development (WBCSD)**, a Geneva-based association of 170 international corporations committed to sustainable development.

Alongside eleven other transport-related companies (BP, DaimlerChrysler, Ford, General Motors, Honda, Nissan, Norsk Hydro, Renault, Shell, Toyota and Volkswagen), MICHELIN participated in the project from 2001 to 2004, when the final report, *Mobility 2030*, was published in July. The report presents a vision of sustainable mobility in 2030 and identifies pathways to get there for the stakeholders concerned, which include manufacturers, government authorities, associations and consumers.

After *Mobility 2030* was presented in Brussels, Detroit and Tokyo, MICHELIN and several other participating companies joined forces to immediately implement actions to improve road safety as part of the Global Road Safety Initiative launched by the Global Road Safety Partnership (*see below*).

### *Mobility 2030* suggests seven goals to make mobility more sustainable:

- Ensure that the emissions of transport-related conventional pollutants do not constitute a significant public health concern anywhere in the world.
- Limit transport-related Greenhouse gas emissions to sustainable levels.
- Significantly reduce the total number of road vehicle-related deaths and serious injuries from current levels in both the developed and the developing worlds.
- Reduce transport-related noise.
- Mitigate traffic congestion.
- Narrow the "mobility opportunity divides" that inhibit the inhabitants of the poorest countries and members of economically and socially disadvantaged groups within nearly all countries from achieving better lives for themselves and their families.
- Preserve and enhance mobility opportunities for the general population of both developed and developing-world countries.

To find out more about WBCSD, visit [www.wbcd.org](http://www.wbcd.org)

- **The UNEP Mobility Forum**

MICHELIN is also involved in the **United Nations Environment Programme's Mobility Forum**. The UNEP was created by the United Nations in 1972 to establish and promote the principles of sustainable development, defined as development that combines economic growth, environmental balance and social progress. In particular, its role is to inform people and raise their awareness of such issues as the need to respect ecosystems, the impact of global warming and the effects of changing weather. MICHELIN has also participated in the preparation of a report on sustainable development in the automobile industry.

To find out more about PNUF, visit [www.unep.org](http://www.unep.org)

- **The Global Road Safety Partnership**

In July 2003, MICHELIN joined the Global Road Safety Partnership (GRSP), a program initiated by the World Bank and hosted by the International Federation of Red Cross and Red Crescent Societies. Participating partners include international institutions, governmental organizations, donor organizations and large multinational corporations. GRSP is committed to promoting and coordinating actions to improve road safety in developing and transitional countries, by conducting programs adapted to local conditions. In 2004, MICHELIN organized a driver awareness program in Thailand and deployed other actions in Romania, Poland and Hungary.

To find out more about GRSP, visit [www.grsproadsafety.org](http://www.grsproadsafety.org)

MICHELIN is also participating in two eco-friendly car races, the *World Solar Challenge* and *Shell Eco-Marathon*. The first involves solar vehicles in Australia and the second is won by the car that travels the farthest on a liter of fuel.

## MICHELIN Innovations for Improved Mobility

MICHELIN is dedicated to offering a better way forward. That's why the Group is constantly developing new tires that deliver improved performance and make mobility more sustainable.

Meeting this double challenge means that MICHELIN has to explore a wide variety of technological possibilities that extend far beyond the core tire business, and to discover the revolutionary innovations that will drive true breakthroughs.

- **MICHELIN Hy-Light: An Eco-Friendly Prototype E-Vehicle**

The MICHELIN Hy-Light, shown below, is an **electric vehicle** designed both to meet the needs of society and address environmental concerns. **It is powered by a fuel cell, which doesn't create any pollution.** It's also a real car, with superior comfort and safety features. And it is fully consistent with a commitment to sustainable development, to limit greenhouse gas emissions and leave the planet cleaner for future generations.



*The MICHELIN Hy-Light is a four-seater weighing only 850 kg. It can accelerate from 0 to 100 kph in less than 12 seconds and reach a top speed of 130 kph. At a constant speed of 80 kph, it has a range of around 400 km.*

MICHELIN Hy-Light incorporates advanced environmental protection technologies. It is an example of what a clean car might look like over the medium term—light-weight, powered by renewable energy and therefore non-polluting, safer and more comfortable, thanks in particular to its chassis stability system.

The Hy-Light was developed by MICHELIN in partnership with the Paul Scherrer Institut (PSI), a Swiss-based research center with a worldwide reputation for its work on energy and the environment. MICHELIN Hy-Light represents both a synthesis of the technologies that will come to market in around 10 years and a real-world approach to what the car of the future might be.

The Hy-Light is an electric vehicle powered by a fuel cell using pressurized hydrogen and oxygen. The gases are produced in a stationary electrolysis unit, powered by solar cells. The vehicle thus runs entirely on renewable energy.

- **The MICHELIN Concept: the Car Without a Gearbox or Clutch**

Because MICHELIN is committed to constantly improving the mobility of people and goods, the Group is exploring issues far removed from simply designing better tires. One example is the MICHELIN Concept, shown below, which offers a comprehensive solution for the mobility of tomorrow.



*MICHELIN Concept is a demonstrator equipped with active transmission and suspension systems. Its electricity is supplied by a moto-alternator (an internal combustion engine driving an alternator), but could be supplied by any other energy source, such as a battery or a fuel cell.*

With no clutch, no gearbox, no differential, no vertical drive shaft, no universal joints, no anti-roll bar and no shock absorbers, MICHELIN Concept seems at odds with the very idea of a car. Yet that's just what it is, a prototype car fitted with the revolutionary MICHELIN Active Wheel.

The main innovative feature of MICHELIN Concept is the **MICHELIN Active Wheel**, each of which has its own motor and suspension system. In other words, there's no longer any link between the powerplant and the wheels—thereby eliminating the need for standard mechanical subassemblies, like the clutch, gearbox, vertical drive shaft, universal joints, antiroll bar and shock absorbers. A car fitted with four wheels of this kind is capable of running on two or four driving wheels.

- **The MICHELIN Proxima: The Tire With Very Low Rolling Resistance**

To help improve fuel economy, MICHELIN has conducted in-depth research to develop a range of tires with very low rolling resistance. One result has been the Proxima concept tire, which weighs 20% less than the green tires in the MICHELIN Energy range and has 25% less rolling resistance, at just 6.5 kilograms per tonne (compared with 25 kg/t for the first pneumatic tire in 1897!).

These features enable a sharp reduction in fuel consumption and CO<sub>2</sub> emissions, without any loss in the tire's traditional handling, traction, grip, comfort and treadwear performance.

In partnership with Volkswagen, the Proxima was first tested in April 2002 on the CCO concept car, designed to run 100 kilometers on a liter of gas. Fitted with Proxima tires, the CCO recently achieved a record 100 kilometers on 0.89 liters of gas.

- **MICHELIN OnWay: 24/7 Service**

Drivers are faced with a variety of potential on-the-road mishaps. Tires blow out, fuel runs low when no service stations are nearby, and people simply get lost. To help get them through these difficult situations and back on the road, the Group created the OnWay program, which offers a range of free services with each purchase of a MICHELIN tire in Austria, France, Germany and Switzerland.

From anywhere in Europe, **at any time of day or night**, drivers of a MICHELIN-tired vehicle who have registered with MICHELIN OnWay can phone a MICHELIN advisor, who will provide information and assistance in three areas:

- **The tire damage guarantee** covers punctures. Damaged tires are repaired free of charge if possible or replaced by a new tire that is reimbursed in proportion to the former tire's wear. If the damaged tire is relatively new, the driver may pay nothing for the replacement.
- **With tire assistance**, MICHELIN promises a service call within an hour after notification of the MICHELIN OnWay call center. If the spare tire is useable, it will be mounted for free; if not, the vehicle will be towed free of charge to the nearest repair center. In addition, MICHELIN will either repatriate the driver and passengers, or else pay up to 100 euros per person for their accommodations.
- **SOS direction** is a phone-based navigational service dedicated to helping travelers find their way, select a hotel or restaurant, or locate the nearest service station. The service enables customers to benefit from the combined expertise of the MICHELIN Guide and the ViaMICHELIN travel planner.

## MICHELIN Travel Services

- **The MICHELIN Guide: A Selection of European Restaurants and Hotels**

For more than 100 years, the **MICHELIN Guide** has offered travelers a selection of hotels and restaurants in each comfort and price category, to make their journey even more pleasant. MICHELIN is the only European publisher to offer such a broad, consistent range of addresses across Europe, based on the same principles and methods. With **12 guides** (Germany, Austria, Benelux, Spain/Portugal, France, Great Britain/Ireland, Italy, Portugal, Switzerland, Main Cities of Europe, Paris, London) and **45,000 addresses**, MICHELIN helps people travel anywhere on the continent and discover a host of local specialties. In 1997, the Group launched “Bib Gourmand”, focusing on typical regional restaurants combining elegance and moderate prices (€35 euros in Paris and €25 euros outside of Paris, without drinks). Now, MICHELIN has enhanced our selection criteria with Bib Hotel, to help travelers discover reasonably priced hotels (doubles for less than €80 euros in large cities and major tourist destinations, and less than €65 euros elsewhere, not including breakfast).

The big news for the Guide this year is that it is crossing the Atlantic, with plans to publish the first **MICHELIN Guide New York City 2006** in November.



- **MICHELIN Lifestyle: Accessories for Everybody**

Launched in October 2000, MICHELIN Lifestyle Limited (MLL) was fully up and running in 2002. It was founded to develop, via a licensing program, a market for derivative products, such as practical accessories for cars and bicycles (snow chains, pumps, jacks, windshield wipers, bike carriers, etc.), and sports, leisure and work items (sports shoes, pencils, gloves, etc.). In all, the catalogue now offers some 450 products. By the end of 2004, over a million MICHELIN branded products had been sold at 15,000 outlets in 34 countries.



MICHELIN and Bibendum products are especially popular in Asia and particularly Japan, where they are handled by some 500 outlets. Other MLL spinoff products should shortly be distributed in Japan, as soon as a licensee has been selected.

To find out more, visit [www.michelin.com](http://www.michelin.com)

## MICHELIN: A Better Way Forward For More Than a Century

In 1891, a cyclist showed up at the MICHELIN factory on Place des Carmes in Clermont-Ferrand to see if someone could repair one of his canvas-wrapped Dunlop bicycle tires. To fix the reinforced tire glued to the wheel rim, mechanics had to work for three hours and let it dry overnight. This is when Edouard MICHELIN, who two years earlier had become the managing partner of MICHELIN et Cie, realized what kind of future the tire could have if it could just be easily repaired. It was the start of an extraordinary history and a major success that continues to this day.

**More than 100 years later**, the world's leading tiremaker employs more than 127,000 people, including over 4,000 researchers across the globe. Our core businesses are tire manufacturing and related services, such as distribution and user support, which together generate 98% of total sales (€15.69 billion in 2004). Suspension systems, mobility support services, travel publications (19 million maps and guides published in 2004) and MICHELIN Lifestyle products account for the remaining 2%.

**In 2004, MICHELIN made more than 194 million tires in 74 plants in 19 countries.** Designed by Technologies Center located on three continents (North America, Europe and Asia), the tires are sold in more than 170 countries. They deliver the lowest cost per kilometer on the market, providing superior return on the investment in the energy and raw materials required to make them.

**For more than 100 years, MICHELIN's mission has been "to help improve mobility"—the kind of mobility that is respectful of people (particularly through safer products) and the environment.**

## MICHELIN 2004 Facts and Figures

For more than a century, MICHELIN has dedicated all its expertise and innovation to enhancing the mobility of motorists around the world.

### MICHELIN Milestones: Driving Greater Mobility and Innovation For More Than a Hundred Years

1889: Creation of MICHELIN et Cie  
1891: MICHELIN files its first patents for removable and repairable tires  
1898: Birth of “Bibendum”, the MICHELIN Man  
1900: First MICHELIN Guide published  
1905: Introduction of the “MICHELIN Tread” with stud to improve tire grip and durability  
1910: First 1/200 000-scale MICHELIN road map published  
1913: MICHELIN invents the removable steel wheel  
1923: First low pressure car tire  
1926: MICHELIN creates its first tourist Green Guide  
1930: MICHELIN files patents for the integrated tube tire  
1946: MICHELIN invents the radial tire  
1979: The MICHELIN radial tire is the Formula 1 champion  
1981: The MICHELIN Air X is the first radial aircraft tire  
1989: MICHELIN launches the first online travel itinerary service, on France’s Minitel teletext network  
1993: MICHELIN invents the new C3M tire manufacturing process  
1994: MICHELIN Energy low rolling resistance tire introduced  
1995: The space shuttle lands on MICHELIN tires  
1996: MICHELIN invents a revolutionary concept: the vertically anchored PAX System tire  
1998: The first annual Challenge Bibendum, the world’s leading clean vehicle competition  
1998: Centennial of Bibendum, elected logo of the century  
2003: Launch of MICHELIN brand automotive accessories  
2004: New corporate signature introduced: “MICHELIN, a better way forward”

### MICHELIN Key Figures

<b>Date created:</b>	1889
<b>Production base:</b>	74 plants in 19 countries
<b>Number of employees:</b>	Nearly 127,000 worldwide
<b>Technologies Center:</b>	More than 4,000 researchers on three continents, North America, Asia and Europe
<b>Annual R&amp;D budget:</b>	4.6% of net sales
<b>Rubber plantations:</b>	Six in Brazil and Nigeria
<b>Production:</b>	194 million tires and 19 million maps and guides sold in more than 170 countries
<b>2004 net sales:</b>	€15.69 billion
<b>Racing Wins:</b>	5 Formula One Championship titles (3 Drivers’ titles and 2 Manufacturers’ titles), 36 World Rally Championship titles (17 Drivers’ titles and 19 Manufacturers’ titles), 13 consecutive MotoGP World Championship titles, 7 consecutive wins at the Mans 24 Hours

## MICHELIN in Japan: 2004 Facts and Figures

1964	Michelin entered the Japanese market when its steel radial “X” tires were installed on the then newly-built monorail connecting between Hamamatsu-cho and Haneda Airport.
1975	Based on the development of tire market and sales network achieved over the previous ten years, Mitsui established Nihon X Tire in Tokyo
1978	From Mitsui, Michelin purchased all of the stocks of Nihon X Tire which became a wholly-owned subsidiary of Michelin.
1989	Michelin Okamoto Tire Co. was established for the purpose of manufacturing both Michelin and Okamoto brand (Riken) tires.
1991	Michelin Okamoto Tire Co. launched production of the first Michelin tires within Japan.
1991	Michelin Research Asia BV was established as Michelin’s R&D Center in Asia.
1993	Michelin introduced MXGS Green, a new-generation tire that provided a high level of basic performance with increased fuel efficiency.
2000	Purchased remaining share of the joint venture operations, Michelin Okamoto Tire Corp., from Okamoto Industries and made it into Group Michelin’s wholly-owned subsidiary.
2003	Nihon Michelin Tire Co., Michelin Okamoto Tire Co., and Michelin Tire Sales Co., Ltd. were integrated into <b>Nihon Michelin Tire Co., Ltd.</b>

### Key Figures for Michelin in Japan

<b>Headquarter:</b>	1-6-1, Fujimi, Chiyoda-ku, Tokyo, 102-8176
<b>Production facilities:</b>	One plant in Ota city, Gunma Pref.
<b>Products:</b>	The plants produce passenger car and light truck tires
<b>Brands marketed:</b>	Michelin, BFGoodrich and Riken
<b>Customer Satisfaction:</b>	* Michelin ranked three years in a row (2002, 2003 and 2004) highest in the J.D. Power Asia Pacific Japan Original Equipment Tire Customer Satisfaction Index (TCSI) Study * Michelin ranked highest in the J.D. Power Asia Pacific 2004 Japan Winter Tire Customer Satisfaction Index Study
<b>Environment:</b>	Nihon Michelin Tire’s Ota site was certified “ISO14001” on Sep. 2003
<b>Quality:</b>	Nihon Michelin Tire’s Ota site was certified "ISO/TS16949" on Jan. 2004

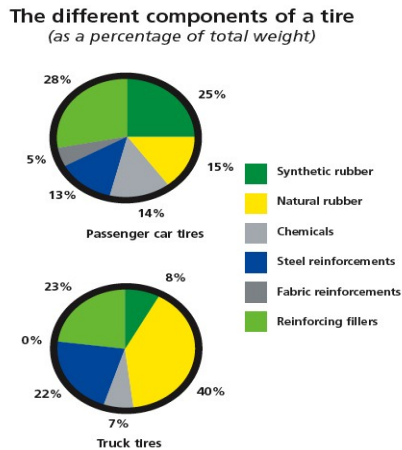
## Appendix 1: What’s In a Tire

## Modest on the Outside – Sophisticated on the Inside

A tire is made of more than 200 constituent parts, which are of different origin:

- Some come from plants (natural rubber and rayon).
- Some are mineral in origin (silicon, metal cords).
- Others are petroleum-based (synthetic elastomers, carbon black, chemical additives).

All of these materials play a decisive role in a tire's performance, including properties that contribute to passenger and driver safety, a fundamental criteria for every tire produced by MICHELIN.



## Appendix 2: The Global Tire Market

**Today, the global tire market enjoys long-term growth potential.**

Driven by trends in the global marketplace over the past 20 years, the tire industry has consolidated around a small number of key players, led by MICHELIN. In 1981, for example, the market was dominated by ten companies, whereas today there are only three world-class tiremakers:

- MICHELIN (20.1% of the global market),
- Bridgestone (18.4%),
- Goodyear (16.9%).

In 2004, these three companies accounted for an aggregate 55% of the world's tire sales, while seven mid-sized regional manufacturers accounted for 22%. The remaining 19% were generated by local tiremakers or niche players (source: *Tire Business* – August 30, 2004).

In 2004, MICHELIN derived 53% of its net sales from Europe, 33% from North America and 14% from the South America, Asia, the Middle East and Africa.

Geographically, the market is fairly evenly spread between Europe (28%), North America (29%), South America (6%), Africa-Middle East (7%) and Asia-Oceania (30%).

**Together, Europe, North America and Japan account for nearly 70% of global demand** (source : LMC 2004 and MICHELIN estimations, in tones).

The after-market represented 75% of sales. In both the original equipment and after-market, some 994 million car and light truck tires and 140 million heavy truck tires were sold in 2004.

In value, the global tire market has more than doubled in the past twenty years, to USD80 billion in 2003, the last year for which figures are available. Nearly 85% of demand concerns car and light truck tires and heavy truck tires.