

# Responsibility

## Corporate Responsibility Report 2009



## About this report

This edition of the Corporate Responsibility Report continues Merck's tradition of corporate social responsibility reporting that began in 1993. Following three Environmental Reports (in 1993, 1995 and 1997) and one "Responsible Care" report (in 2000), we have published a report every two years since 2003 on our responsibility for our products, our employees, the environment and the community. Our objective is to present our activities and progress transparently. The report also documents our progress within the scope of the UN Global Compact; an index on the ten principles of this agreement can be found on page 70. We plan to publish the next report in 2011.

The contents are organized in accordance with the sustainability reporting guidelines of the Global Reporting Initiative (GRI), version 3.0 (G3). An index at the end of the report specifies the GRI indicators used in it, and we have additionally provided GRI datasheets on our website for more detailed information on the indicators themselves. We have furthermore oriented the report to the SRI ranking criteria. The primary topics covered in this report were selected based not only on external reporting requirements, but also on materiality and strategic developments within the reporting period. In the assessment of materiality, we included the economic, ecological as well as social impacts of our entrepreneurial actions as well as stakeholder assessments of the relevant topics. In 2007, we held a materiality workshop that included members from the Committee for Corporate Responsibility and representatives from companies of the Merck

for Corporate Responsibility and representatives from companies of the Merck Group. Here, we incorporated our experience from interacting with various stakeholders, identifying and prioritizing the sustainability issues that are important to us. We furthermore evaluated how well positioned we are in terms of the individual topics. We adapted the resulting materiality matrix to the stakeholders' ever-evolving expectations; this matrix has served as the basis for our activities in the past two years and for selecting the main topics in this report. Highly relevant topics include those such as climate change, product safety, standards in the supply chain and access to pharmaceuticals. Topics of less importance or that we have covered in past Corporate Responsibility reports can be found on our website, which supplements the printed report with additional information.

Unless stated otherwise, the information pertains to all sites and employees of the Merck Group. The external requirements are primarily applied in the Facts and Figures section of this report and in the datasheets on our website. The reporting period covers 2007 and 2008. We have included any relevant information provided by the editorial deadline at the beginning of June 2009.

www.globalcompact.org

www.globalreporting.org

www.merck.de/responsibility >> GRI >> Datasheets

www.merck.de/responsibility

## Our values

## COURAGE opens the door to the future.

- » Courage requires trust in one's own abilities.
- » Courage leads to a healthy self-perception.
- » Courage supports the competence needed to execute decisions in change processes.
- » Courage means: We challenge ourselves.
- » Courage opens us to new ideas.

## RESPONSIBILITY determines our entrepreneurial actions.

- » Responsibility characterizes our behavior towards customers, employees, investors and service providers.
- » Responsibility means treating our natural resources with care and vigilantly protecting our environment.
- » Responsibility determines our business decisions, which we jointly endorse.
- » Responsibility means setting a good example.
- » Responsibility leads to recognition and acceptance of our business activities.

### INTEGRITY ensures our credibility.

- » Integrity is the cornerstone of what makes us credible to everyone.
- » Integrity enables us to do what we say.
- » Integrity obliges us to keep our promises.
- » Integrity also means being able to say no.
- » Integrity permits only those transactions and dealings that conform to our values.

## ACHIEVEMENT makes our entrepreneurial success possible.

- Achievement shapes individual and entrepreneurial ability.
- » Achievement challenges and promotes our people.
- » Achievement supports the personal development of our people.
- » Achievement can be measured by the results obtained.
- » Achievement ensures entrepreneurial independence.

### **RESPECT** is the foundation of any partnership.

- » Respect is based on the concept of humanity and human dignity.
- » Respect generates an atmosphere of esteem, fairness and recognition.
- » Respect requires open and honest communication.
- » Respect enables us to work successfully in different cultures and with different people.
- Respect means valuing achievement yesterday, today and tomorrow.

### TRANSPARENCY makes mutual trust possible.

- » Transparency is the involvement of all stakeholders through information.
- » Transparency makes our actions understandable.
- » Transparency supports goal-oriented behavior throughout the company.
- » Transparency creates reliability.
- » Transparency promotes the participation of everyone in the company.

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## Introductory message



Dr. Karl-Ludwig Kley Chairman of the Executive Board of Merck KGaA

## Dear Readers,

The current financial and economic crisis has clearly demonstrated to all of us the importance of sustainable business models in meeting corporate responsibility toward different groups of stakeholders.

Future viability plays a significant role in our considerations regarding the strategic direction of Merck as a pharmaceutical and chemical company. That is why we attach importance to a strong balance sheet and a cautious financial policy. It is why we pay attention to a good balance between risks and opportunities in the business fields in which we operate. As a result, we have been able to maintain a tradition that has made Merck special. A history spanning more than 300 years is also evidence of sustainably successful corporate management.

A product range that benefits customers and is accepted by society is key to the sustainability of an industrial company. The work performed by our researchers helps to meet global challenges faced in our core businesses. This includes new drugs for currently unmet medical needs, specialty chemicals for the generation and efficient use of energy, as well as analytical methods that help make food and water supplies for a growing world population safer. Every year, we invest more than EUR 1 billion in research and development in order to create innovations needed by society. A company can only succeed on a lasting basis if internal cooperation functions well. This requires competent and motivated employees who enjoy working with each other and are oriented toward common goals. The necessary scope calls for mutual trust and leadership based on a set of shared values. The more a company's culture is based on values that all employees identify with, the less inflated control mechanisms and bureaucratic processes are needed to run daily operations. This in turn makes it possible to sharpen our external focus on customers, shareholders and all our other stakeholders. We live by this principle, which enables us to create scope for entrepreneurial activity.

Especially in times of growing global criticism of business practices, with attempts to present the market and morals as opposing forces, corporate responsibility is more important than ever before. Not only do we run our businesses diligently, we also actively demonstrate our commitment to the communities in which we live and work. A prerequisite for economic activity and unrestricted entrepreneurship is a stable and intact society. Ultimately, that is one of the inherent interests of a company with a viable future.

This is why we are implementing the ten principles of the UN Global Compact. It is why we have intensified our Code of Conduct training efforts. And it is why we are engaged in the fight against schistosomiasis in African children. The following pages, which document our responsibility for our products, our employees, the environment and society, show that a company's market-oriented actions need not only target the short term. We want to find long-term, sustainable solutions.

Sincerely,

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www.merck.de/financialreports

## Company profile

Merck is a global pharmaceutical and chemical company – a deliberate diversification that helps to reduce risk while realizing long-term growth opportunities.

As of the end of 2008, 32,800 people worked for Merck in 59 countries and generated total revenues of around EUR 7.6 billion. This was 7% more than in 2007 despite a rapid-ly deteriorating economic environment. The full-year operating result rose 16% to EUR 1.1 billion, the highest amount in Merck's history.

Research and development spending totaled EUR 1.2 billion in 2008, 20% more than in the previous year. The vast majority (88%) of this amount is attributable to the researchdriven Merck Serono division for the development of innovative drugs to treat diseases with high unmet medical needs.

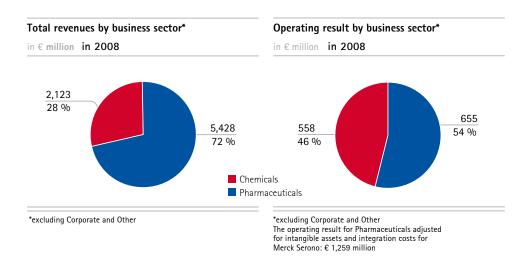
## Ambitious goals

Our objective is sustainable economic success. We want to achieve profitable growth. For this purpose, we are focusing on the development of new, innovative products and solutions as well as cooperative partnerships with our customers so that good ideas can become marketable products. This is our most important contribution to helping people lead healthier, safer and more pleasant lives.

With its unconditional commitment to quality, over the decades Merck has earned the reputation of a reliable and trustworthy partner. This has resulted in sustainable economic success that enables us to take on social responsibility beyond our business activities.

## Sustain. Change. Grow.

www.merck.de/company >> Mission statement, values, strategy The name of our strategy also refers to one of the secrets as to how a company could become 340 years old. We attribute our power to grow to the balance between the old and the new, between tradition and innovation.



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- We intend to sustain our local entrepreneurship, strict customer focus, as well as the loyalty of our employees, which makes us proud.
- Change takes place to the extent that we globalize our businesses, respond flexibly to customer requirements, modernize the required processes and realign our organizational structures.
- Our growth opportunities result from innovations, from strengthening our market presence in selected markets and from acquisitions.

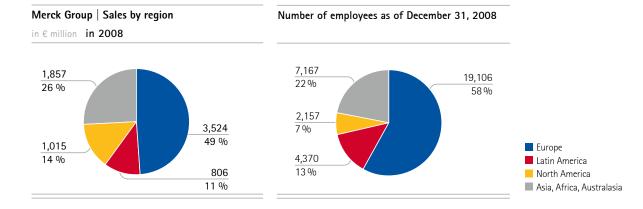
Our core competencies are the traditionally high quality of our products developed with the problem-solving abilities of a specialist, as well as special expertise in regulated markets. Understanding the needs of patients and our customers in the marketplace ensures long-term success based on trust.

### Management of the company

The operating businesses of the Merck Group are managed under the umbrella of Merck KGaA, a corporation with general partners headquartered in Darmstadt, Germany. Our shares have been listed on the Frankfurt Stock Exchange since October 20, 1995 and have been included in the DAX® since June 18, 2007. Merck is thus one of Germany's 30 largest stock corporations. In September 2008, Merck was admitted to the FTSE4Good Index.

Today, around 30% of the company's total capital is publicly traded, while the Merck family owns an interest of about 70% via the general partner E. Merck KG. As a result, the influence of the Merck family remains even though the company opened to the capital market with the public listing 327 years after it was founded.

We consider this ownership structure to be one of our particular strengths: Merck is operated as a publicly traded company and managed as a family-owned one. In addition, this enables us to combine two often contradictory qualities of entrepreneurial activity speed and sustainability. www.merck.de/company >> Management



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## History

Merck is the world's oldest pharmaceutical and chemical company. Its roots date back to the year 1668 when Friedrich Jacob Merck purchased what would later become the Angel Pharmacy in Darmstadt. The pharmacy is still owned by members of the family today.

Heinrich Emanuel Merck, who took over the pharmacy in 1816, made the first step from the pharmacy to a global company. He initiated the move to industrial-scale production. In pharmacy, he laid the foundations for the transition from a trade to a science. In the late 19th century, Merck established numerous subsidiaries abroad – the most

successful of which was set up in the United States by Georg Merck. The ties between Merck & Co., founded in 1891 in New York, to the parent company in Darmstadt ended with expropriation during World War I. Merck & Co. has been completely independent of the Merck Group since 1917.

The latest in a series of major corporate strategic changes was the purchase of the Swiss biotech company Serono in 2007, the largest acquisition in the company's history.

### Corporate structure

We manage our operating businesses in two business sectors – Pharmaceuticals and Chemicals, each of which consists of two divisions. Common to both is the focus on specialty products.

#### Merck Serono

The division for innovative prescription drugs generates two-thirds of the Merck Group's total revenues. Merck Serono discovers, develops, manufactures and markets innovative small molecules and biopharmaceuticals in order to help patients with unmet medical needs. The division focuses on specialist therapeutic areas and markets innovative prescription drugs of chemical and biotechnological origin in more than 150 countries. Its products are mainly prescribed by specialists. The product portfolio includes leading prescription drugs to treat cancer, multiple sclerosis, infertility, endocrine and metabolic disorders as well as cardiovascular diseases. Research activities are focused on Oncology, Neurodegenerative Diseases, as well as Autoimmune and Inflammatory Diseases. Regionally, Merck Serono is aiming to expand in the growth markets of the United States and Asia.

#### **Consumer Health Care**

The Consumer Health Care division offers consumers high-quality over-the-counter products for preventive health care and self-treatment of minor ailments. Our products focus on four health themes: Cough and Cold, Mobility, Everyday Health Protection and Women's and Children's Health. The main distribution channels are pharmacies, as well as retail chains and mail order in some countries. Partnerships will be used to establish a presence in the markets of Japan and the United States.

#### Liquid Crystals

www.merck.de/chemicals

www.merck.de/pharmaceuticals

Close cooperation in development and production of liquid crystals (LC) with the world's leading display manufacturers has made Merck the global leader in this market. Thanks to continuous investments in research and production, we are also the technology leader.

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Merck continually invests in research for new technologies, such as OLEDs (organic lightemitting diodes). In addition to the core business with materials for displays, in view of climate change and high energy prices we are also active in the relevant growth markets. These include the use of solar energy and the development of innovative light sources for energy-saving LEDs.

#### Performance & Life Science Chemicals

Global sites of the Merck Group

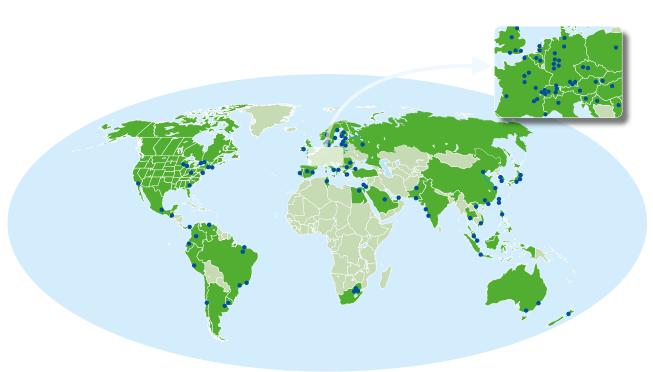
Top quality, diversity, research and product development along with extensive service characterize the second largest division of Merck. We utilize our expertise in application technologies, quality assurance and approval processes to benefit our customers in the food, plastics, coatings, printing, cosmetics and pharmaceutical industries. The fields of application for our specialty chemicals range from research laboratories to production and from universities to the pharmaceutical and food industries. They ensure dependable processes, reliable quality and consequently safe products and technologies. Consumers also benefit from this. Our goal is to further expand our expertise in regulated markets with high barriers to entry. In addition, we want to strengthen our position in key growth regions such as India and China.

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enefit from this. Our goal is to further expand our expertise in regulated markets igh barriers to entry. In addition, we want to strengthen our position in key growth s such as India and China.

www.merck.de/en/worldwide.html



## Leadership and values



The winning picture from an employee photo competition on the Merck values represents the value transparency.

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holders into account.

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Sustainability is the entrepreneurial compass that has guided us well for centuries. A corpo-

rate philosophy based solely on striving for profits can never be sustainable. It gives neither

We want to ensure that decisions are taken in agreement with our values. Our objective is to do "good" business, i.e. we want to operate successfully, while acting responsibly. By pursuing this objective, we see ourselves well positioned with our two business pillars

Through the strategy "Sustain. Change. Grow", the Mission Statement and the Merck

values form an integral whole that also takes the interests of a very wide range of stake-

- Pharmaceuticals and Chemicals - even in times of economic uncertainty.

customers nor employees the scope they rightfully deserve. Merck has therefore always placed special value on actions characterized by integrity and responsibility. Six values guide us in our daily work: Courage, Achievement, Responsibility, Respect, Integrity and Transparency. These values give us orientation, irrespective of the business or economic situation.

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> Mission statement, values, strategy

The Merck values, which were formulated in September 2007, apply to the entire organization. They define not only what we do at Merck, but also how we do it. Helping all employees to live this "how" at their own workplace is a task that our executives are responsible for. To support them in this task, in 2008 we launched a structured workshop format that was developed to promote a common understanding of the six values throughout Merck. Within the scope of workshops, managers reflected together with groups comprising six to fifteen participants on what it means to act in accordance with the values in daily business and how the values contribute to the success of a team. A Dialog Map was given to all the groups to structure the discussion. Starting with the Executive Board, it was cascaded for deployment to all the divisions and regions. All managers first attended a workshop moderated by their own managers. Afterwards, they themselves moderated a workshop with their teams. As of mid-2009, around 60% of employees had taken part in a Dialog Map workshop on the Merck values. By the end of the year, all employees will have attended.

In this way, we are not only communicating a common understanding of the Merck values and making clear to everyone what behaviors are expected at Merck. We are also ensuring that this is being done in connection with the contribution that every team and every individual makes in their daily professional life. Additionally, this dialog format is being used to ascertain how the group's performance can be improved if more attention is paid to the values.

See "Our goals"

### Continuous improvements in production and technical operations

Operational Excellence (OE) is our program for continuous improvement in production and technical operations. It consists of various bricks that together form the House of Operations. Its framework comprises the management of targets, production, supply chain, innovation and technology as well as people. Bricks such as employee development and training, environmental protection and occupational safety ensure that sustainable and responsible behaviors are continually developed further. The Merck values were added as a new brick in 2008.

OE is a continuous process, a program that consists of an annual cycle of four stages: self-assessment and analysis, goal-setting, best practice sharing and implementation of improvement measures. Merck Serono launched OE in 2006; the Chemicals business introduced it in 2007. Today, 24 production sites within the global Merck Serono network and 21 Chemicals production sites are part of the program.

As of March 2009, Merck Serono alone had activated 31 bricks – every single one a milestone for greater productivity, efficiency and transparency. The areas of focus are Lean & Six Sigma (process robustness), overall equipment effectiveness and best practice sharing. Out of more than 100 best practices submitted, 50 have been officially con-firmed for implementation at other sites. To promote cooperation between the sites even further, the division created the Best Practice Sharing Award and presented it for the first time in July 2008. With a total of eight successfully implemented "Global Best Practices", employees from the Aubonne site in France were the first to win the trophy.

In the Chemicals business sector, the OE program is currently focusing on the following bricks: management systems, values, Lean & Six Sigma and productivity. Lean & Six Sigma has been introduced as a mandatory method to improve process quality at all 21 sites. One of the aims of the new Lean & Six Sigma projects is to boost production yields, thereby enhancing the utilization of the resources deployed. Other projects lower energy consumption or the extent to which wastewater is polluted.

A best practice sharing workshop on the Six Sigma and management systems bricks will be held in Darmstadt again in 2009. Participants from all Chemicals sites will present their projects and exchange experiences.

## Improving compliance by improving communication

The Code of Conduct, which is entitled "To do what is right", is the most important basic document on compliance for all Merck employees. It also describes the company's ethical standards, because not every decision made in daily business life can be governed by rules. A clear set of values helps employees in this respect, which is why we updated the Code of Conduct in August 2008 to include the Merck values.

The Merck Code of Conduct applies to all the activities of our employees, especially when dealing with third parties – independent of whether they belong to the public or private sector. Accordingly, the anti-corruption rules have been presented in the Code of Conduct even more clearly than before. It is now necessary for all offers and payments from third parties and to third parties to be transparent and well-documented. A new section on dealings with political parties has been added. Merck explicitly confirms that the company participates constructively in the political process and explains its position

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and perspectives. We do this especially by participating in business associations and engaging in direct dialog. However, we do not make financial contributions to holders of or candidates for political office, political parties or related organizations. This applies worldwide.

In order for employees to talk to someone about suspected breaches of the Code of Conduct, we established a speak-up line in 2008. Beyond reporting lines, any employee can report non-compliant behavior they have observed directly to the speak-up line by telephone in their respective mother tongue and free of charge. It is also possible to report incidents anonymously via this route. All reports made to the speak-up line are forwarded to the Corporate Compliance Officer, who investigates and documents the cases and, if necessary, notifies the Executive Board about them. We are currently working to implement the speak-up line globally.

During the reporting period, we expanded the compliance organization and increased the responsibilities held at the regions. Sixty local compliance officers are now working globally in the companies of the Merck Group. They are being supported in their work by staff working in the Compliance Office at headquarters. In 2008, a meeting of compliance officers proved beneficial in strengthening opinion and experience exchanges within the network.

The online compliance courses launched in 2006 were expanded in early 2009 to include new courses for employees working in pharmaceutical marketing and IT security. Overall, more than 10,000 online compliance training courses were completed from January 2007 to May 2009. In addition, the Compliance Office regularly conducts training events on the Code of Conduct.

In the reporting period, the Compliance Office worked with Corporate Auditing to investigate five cases in which serious violations of our Code of Conduct as well as pharmaceutical marketing rules were suspected. In three cases, personnel consequences were drawn and in the two other cases, company-internal processes were adapted.

An important topic in this connection is support for certain patient organizations. Our aim here is to fight disease, also through awareness and prevention. To enhance the transparency of patient awareness campaigns, Merck publishes all donations made to patient organizations in Europe. In this way, everyone interested can precisely ascertain the nature of the company's relationships with patient organizations.

## Implementing the Social Charter

In 2007, Merck enacted the Social Charter, which applies to the entire Merck Group. With the Social Charter, we are living our commitment to the UN Global Compact. It stipulates core principles in the areas of human rights and labor standards which we also expect our business partners around the world to comply with.

Our Social Charter reflects internationally recognized agreements and complies with the laws in force in nearly every country of the world. Some of the aspects it addresses are also included in the Merck Code of Conduct. Additionally, the Social Charter supplements the Code of Conduct in explicitly banning child and forced labor. Other topics dealt with in the Social Charter are occupational health and safety, compensation, working hours and equal opportunity as well as the prevention of discrimination, abuse and harassment at the workplace, and of bribery and corruption.

In April 2009, Merck was one of the first companies to join the Compliance Initiative of the German Federal Association for Materials Management, Purchasing and Logistics (Bundesverband Materialwirtschaft, Einkauf und Logistik – BME). Its objective is to promote compliance and social standards throughout the supply chain. To this end, the BME

www.merckserono.com >> Merck Serono >> Patient Organisations

www.merck.de/responsibility >> Guidelines >> Social Charter

www.bme.de/compliance

has issued a supplier code of conduct, to which Merck contributed significantly. We also see this as a reflection of the Merck value of integrity. The supplier code of conduct has created an international minimum standard that applies across different industries. It covers fundamental rules to fight corruption and child labor as well as minimum requirements regarding antitrust rulings and environmental protection by suppliers. The intention is to promote internationally sustainable and legally compliant behavior.

We are currently working to anchor these standards in our supplier management processes throughout the Merck Group. To date, we have already contractually obligated the suppliers of Merck KGaA in Germany to rule out forced and child labor and we have included anticorruption as well as environmental protection aspects in our supplier agreements.

### Good corporate management

The Executive Board comprises four personally liable partners who report regularly to the Supervisory Board of Merck KGaA and the Board of Partners of E. Merck KG. Owing to the increase in the size of the workforce in Germany, the Supervisory Board was enlarged to 16 members, eight of whom are employee representatives. They were newly elected in March 2009. The eight shareholder representatives are also members of the Board of Partners of E. Merck KG and thus form an important link to the Merck family.

One of the inherent tasks of the Executive Board is to anchor and manage responsible behavior throughout the company. Therefore, the Executive Board examines corporate responsibility topics twice a year. During the reporting period, these included the sustainability program, the further implementation of the Social Charter, the importance of sustainable investment to Merck and Group-wide corporate citizenship. By systematizing Internal Governance throughout the Group, we are ensuring that it becomes even clearer to everyone in the company as to which rules and processes are relevant to their own field of work and how the various regulations are related to each other.

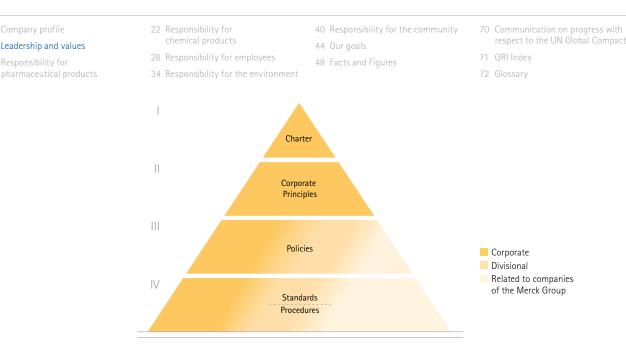
Every conscious business decision is based on weighing the associated risks and opportunities. Therefore, a targeted approach to handling opportunities and potentially negative developments is an integral component of value-oriented corporate management.

The risk management system of the Merck Group is described in detail in a guideline and reviewed regularly by Corporate Auditing. Standardized risk reports harmonize risk management worldwide and are submitted to the Executive Board every six months or, in special cases, on an ad-hoc basis. Moreover, the Financial Committee of the Board of Partners is informed about risks on a regular basis. The integral risk management system also covers the safety of sites, people and products as well as the protection of company intellectual property against abuse. Opportunities are identified, analyzed and managed in the respective divisions by means of suitable processes. In agreement with the Executive Board, it is ensured that opportunities are seized actively and in line with the corporate strategy.

See "Our Goals"

www.merck.de >> Company >> Management

www.merck.de/annualreport2008 >> Management Report >> Riskreport



Soon, Merck internal guidelines will benefit from a uniform structure. In creating this clear, consistent structure, we are providing employees with simplified access to the rules and processes that are relevant to their individual field of work. This structure likewise incorporates the guidelines for fulfilling our corporate responsibility. For example, our Code of Conduct and Social Charter are documents found at the charter level of this new system.

## Stakeholder dialog

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Our business operations affect the interests of many people. The Merck Mission Statement, values and strategy are aimed at ensuring Merck's position as an accepted member of society. We maintain a continuous dialog with numerous stakeholders: with our business partners, employees, the Merck family, investors, government authorities, associations, neighbors at our sites, non-governmental organizations and many more. Our relationships with various groups in society reveal how we live the Merck values and how we value others. It is our goal that the Merck way of doing things in all its activities will be recognized as the unique Merck culture.

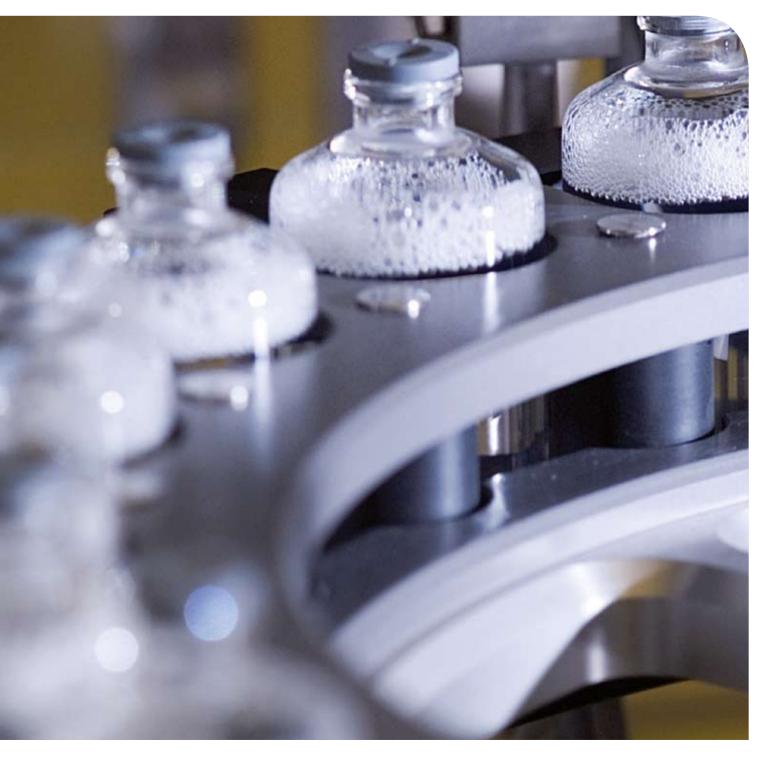
We want to maintain trust and - wherever possible - balance diverging interests. Very specific topics are concerned here - depending on the occasion and the location - for which we seek highly specific solutions and select the method best suited to the topic. For instance, discussion and information forums with the neighbors of large sites such as Darmstadt have been set up, and we conduct surveys of employees and customers. In addition, we seek to establish contact with many groups in society when conducting our daily business.

We learn from these exchanges, which take place throughout the entire organization. They help us to recognize changing requirements and to assess the impacts they have on the company - whether as opportunities or as risks. In this way, formal and informal interactions impact our decisions.

Examples of exchanges with our stakeholders can be found in all chapters as well as in the "Facts and Figures" section of this report.

www.merck.de/responsibility >> Guidelines

## Responsibility for pharmaceutical products



Erbitux<sup>®</sup> is used to treat different forms of cancer. Our high standards in research through to distribution enable us to reliably supply this drug.

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Merck discovers, develops, manufactures and markets pharmaceutical products, both innovative prescription drugs and over-the-counter products for self-treatment of minor ailments. We want to improve the quality of human life. In our pursuit of this objective, we follow a three-pronged approach comprising the development of pharmaceuticals with innovative treatment options for serious diseases, access to medicines and support for needy people via cooperative partnerships, and increased safety for doctors and patients through information and measures to combat inferior and counterfeit medicines.

## Pharmaceutical innovations to treat serious diseases

At Merck, the search for pharmaceutical innovations is reflected in our extensive R&D investments, which are high in an industry comparison. For example, over the past five years, R&D spending has more than doubled, amounting in 2008 to more than EUR 1 billion for the Merck Serono division alone.

One result of these efforts is our cancer drug Erbitux<sup>®</sup>, an antibody for the targeted treatment of tumor cells. This highly innovative drug is approved in metastatic colorectal cancer and for first-line treatment of head and neck tumors. Through our clinical development efforts, it is expected to become available for the treatment of a broader range of indications.

#### Following biotechnology into the future

Bioengineered active ingredients have been playing an increasingly key role in the treatment of complex diseases in the past years. Biomolecules such as proteins base their action on the body's own resources to combat difficult-to-treat diseases such as cancer or multiple sclerosis.

Merck is one of the leading companies in the development of such biological active ingredients. Biopharmaceuticals already account for more than 50% of our pharmaceutical sales. In order to further expand this position and respond to patients' needs, work started in 2008 to expand the Merck Serono Biotech Center, Europe's most modern biotechnology manufacturing facility, located in Switzerland. This project represents an investment of EUR 350 million, the largest in Merck's history. It will create about 200 jobs and will enable the production of Erbitux for the world market as of 2012.

The expansion of our U.S. research site in Billerica, Massachusetts in a planned USD 50 million investment will enable us to move forward with our objective to intensify our biotech research and development in the United States. Around 200 scientists and 50 employees specializing in process development and protein production will be working at the research center, which is scheduled to be completed by 2010. Together, they will search for new therapies to treat both cancer as well as autoimmune and inflammatory

www.merck.de/pharmaceuticals

www.merck.de/company >> Innovation >> Pharmaceuticals diseases with high unmet medical needs. The close proximity of protein production to research is expected to drive the rapid transition from research to manufacturing.

#### Close cooperation in scientific networks

All these areas of research have one thing in common: close cooperation with wellknown external institutes. To continue driving our research forward, we participate in scientific networks, such as the top biotech cluster in the Rhine-Neckar region, which is supported by the German federal government. Our researchers are involved in five subprojects in this cluster. In a joint effort with the German Cancer Center in Heidelberg, they are working on new therapeutic strategies for eliminating tumor stem cells.

Another good example of our research collaborations is the alliance between Merck Serono and the École Polytechnique Fédérale de Lausanne (EPFL) in the areas of neuroscience, oncology and drug delivery.

In the United States, Merck Serono fosters interactions with world-renowned cancer centers, such as Dana Farber Cancer Center (Boston, MA) for preclinical and clinical studies. We also have a collaborative partnership with Fast Forward, LLC, a wholly-owned subsidiary of the American National Multiple Sclerosis Society, to evaluate and fund promising multiple sclerosis (MS) research projects.

#### Treatment of orphan diseases

We are focused on the treatment of diseases with major unmet medical needs – cancer, multiple sclerosis, autoimmune and inflammatory diseases and infertility. In addition to this, Merck is also involved in developing orphan drugs, medications for the treatment of especially rare diseases. We are working together with our U.S. partner BioMarin to develop Kuvan<sup>®</sup>, which is used for the rare metabolic disorder known as hyperphenylalaninemia (phenylketonuria or BH4 deficiency). Kuvan<sup>®</sup> was granted marketing approval with orphan drug status in the United States at the end of 2007 and in Europe at the end of 2008. With Cyanokit<sup>®</sup>, which is approved in Europe, the United States and Japan, Merck offers an orphan drug that can be used to treat cyanide poisoning. With Serostim<sup>®</sup>, Merck provides another important product to the U.S. market. It is used to treat patients suffering from HIV-associated wasting, which is estimated to affect up to 8% of HIV-infected individuals.

In addition, Merck is pressing ahead with its "Compassionate Use" programs. They ensure that specific patient groups, due to humanitarian considerations, receive access to medicines that have not yet received regulatory approval but that have been extensively researched and show promise. As part of this program, doctors can therefore prescribe drugs (on a case-by-case basis) even before they are approved.

#### Transparency of research activities

It is a long journey from the discovery of a new, promising substance to the approval of a drug. Before a drug is available to all suitable patients, its efficacy and tolerability must be tested in clinical trials. Our quality standards follow the International Conference on Harmonization (ICH) Good Clinical Practice (GCP), and Good Publication Practice (GPP) guidelines to ensure compliance and transparency. In addition to the publication of research or clinical trial results in peer-reviewed scientific and medical journals, informa-

Information on our Research standards: www.merck.de/responsibility >> Products >> Pharmaceuticals

www.ich.org

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tion on clinical trials is also available for public access on Web databases for our products and development projects, as published by the pharmaceutical associations of Europe, Japan and the United States, together with the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA).

## Access to medicines and assistance for needy people

We want to give everyone access to our pharmaceutical innovations. We are convinced that whether in developing countries or in industrialized nations, nobody should be denied the best therapy or medicine available, the best medication. For this reason, we are working to promote better access to medicines. For example, in Africa we are cooperating with the World Health Organization (WHO) to combat the worm disease known as schistosomiasis. Merck is donating 200 million tablets containing the active ingredient praziquantel. This quantity is sufficient to sustainably treat 27 million children for schistosomiasis over a ten-year period.

For the various therapeutic areas in which we are active, we have developed patient support programs that go beyond the treatment itself and provide medical assistance to people in another way. One such example comes from the United States, where patients with multiple sclerosis can take advantage of free consultation from our U.S. organization, EMD Serono, and get advice from trained experts. A central resource center (MS LifeLines) provides those in need and their family members with an extensive help network; they can get information from specialists through the Web or on the telephone. This offer of consultation was likewise instituted for couples wishing to conceive, for HIV patients suffering from wasting and for people with growth hormone deficiency.

Merck is supporting a three-year program in China intended to provide the population with a health education. Our collaboration with the Chinese Ministry of Health, funded with around EUR 3 million, is focused on promoting research and education in the area of thyroid diseases and assists the authorities in handling biopharmaceuticals.

## Increased safety for doctors and patients

In medicine, quick and reliable information is particularly important; it could save lives. Our information policy for pharmaceutical products is therefore inextricably linked to product responsibility and does not stop at drug package inserts. Merck also provides information on clinical trials and study results relating to marketed products and R&D projects in special, publicly accessible databases.

As a pharmaceutical company, Merck is required to not only document side effects, interactions, misuse, addictive dangers, and other risks involved with drugs. We must also focus on drug safety by monitoring the relevant areas in a forward-looking manner. In addition, we regularly publish safety reports in line with the statutory regulations.

Merck started setting up drug safety databases back in the late 1980s. In the event of an actual emergency, Merck informs the authorities, pharmacists, physicians and possibly also patients in accordance with the legal requirements in the respective countries about product recalls.

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www.mslifelines.com

The employees of Global Drug Safety at Merck work according to a standard operating procedure (SOP). This compulsory procedure is applied throughout the Merck Group and covers the entire chain of action: from recognizing an incident to obtaining and compiling feedback from all international levels up to making the decision on possible measures. All of these steps must take place within the shortest space of time – ideally within 24 to 48 hours of recognizing the incident.

#### Resolutely pursuing drug counterfeiters

The fight against counterfeit drugs, adulterated substances, misbranding and illegal imports is an extremely high priority for the pharmaceutical industry and government agencies because counterfeits endanger patients' health or even their lives. The World Health Organization (WHO) estimates that by 2010, counterfeit drug sales will reach USD 75 billion. Merck is pursuing a longer-term strategy against product piracy. An important element of this strategy is monitoring the supply chain. In the United States, for example, we have launched the Track & Trace program for exactly this purpose. Using a special ID, it can precisely track any drug package along the entire supply and distribution chain, from the production plant to the pharmacy. It will also enable us to implement the organizational structure needed for a rapid alert and response system. In conjunction with various associations, we are supporting the introduction of a 2D barcode in Europe that contains encrypted information on the respective drug.

We are members of industry associations such as the European Federation of Pharmaceutical Industry Associations (EFPIA) and the Pharmaceutical Security Institute (PSI), working together to promote clear legislation and resolute prosecution of violations. We do so in close cooperation with national and international authorities, and we furthermore monitor the market and report any counterfeit drugs found. The poor nations of the world, however, require urgent assistance. In some African nations, up to 50% of malaria drugs are counterfeit; their use is either ineffective or damaging and therefore often deadly. In third world nations, the most important pharmaceuticals can be tested locally for safety and effectiveness using the compact GPHF-Minilab® from the Global Pharma Health Fund e.V., an organization financed by Merck. 325 GPHF-Minilabs are already in use in 68 countries.

#### Fair marketing standards

In the advertising of its products, Merck complies with numerous legal regulations and its own Code of Conduct. Moreover, we also apply the IFPMA Code of Pharmaceutical Marketing Practices issued by the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA). The Merck Pharmaceutical Marketing Best Practices define internationally binding standards for areas such as product advertising and sponsoring.

We recognize the important role that patient organizations play in providing support and disseminating information to both patients and their care-givers. Therefore, Merck provides donations and sponsorships to various patient organizations to encourage them in continuing their work. We do not seek to influence or control the information that such organizations communicate. Since 2008, we have been publishing the donations we make to patient organizations across Europe on our website.

www.efpia.eu

www.psi-inc.org

See "Responsibility for the community"

www.gphf.org

www.merck.de/responsibility >> Products >> Pharmaceuticals >> Advertising

www.ifpma.org

www.merckserono.com >> Merck Serono >> Patient Organizations

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## NEWS

### Erbitux<sup>®</sup>: Targeted cancer therapy

In metastatic colorectal cancer, Merck has performed key studies on Erbitux® showing that tumor metastases are more likely to be reduced in patients without KRAS mutations than in patients with KRAS mutations. Likewise for lung cancer patients, we have demonstrated the benefit of a personalized therapeutic approach using Erbitux®. Through studies on targeted therapy, we are contributing to cost-efficient healthcare. In 2008, ASCO (the American Society of Clinical Oncology) twice singled out the drug Erbitux® as representing great clinical progress in cancer research for both colorectal and lung cancer.

#### New treatment form for multiple sclerosis

Merck is developing an innovative drug to treat relapsing-remitting multiple sclerosis, a disease of the central nervous system. Previous therapies require the patient to receive frequent injections. Cladribine, on the other hand, is a sub-stance that we are developing as a tablet for oral administration that only needs be taken 20 days a year, at a maximum. The clinical trial results are encouraging, showing a 55-58% reduction in annualized relapse rates versus place-bo. Based on these results, we are planning to apply for marketing approval for cladribine tablets in the United States and Europe in the third quarter of 2009.

### Hope for cancer patients: New trial center for oncology

With start-up financing from Merck, the Darmstadt Municipal Hospital has set up a trial center for performing clinical studies in oncology. In this center, studies will be conducted to clinically test new substances to treat cancer. Patients with malignant blood or lymphatic disorders will thus have an opportunity to access the latest forms of treatment.

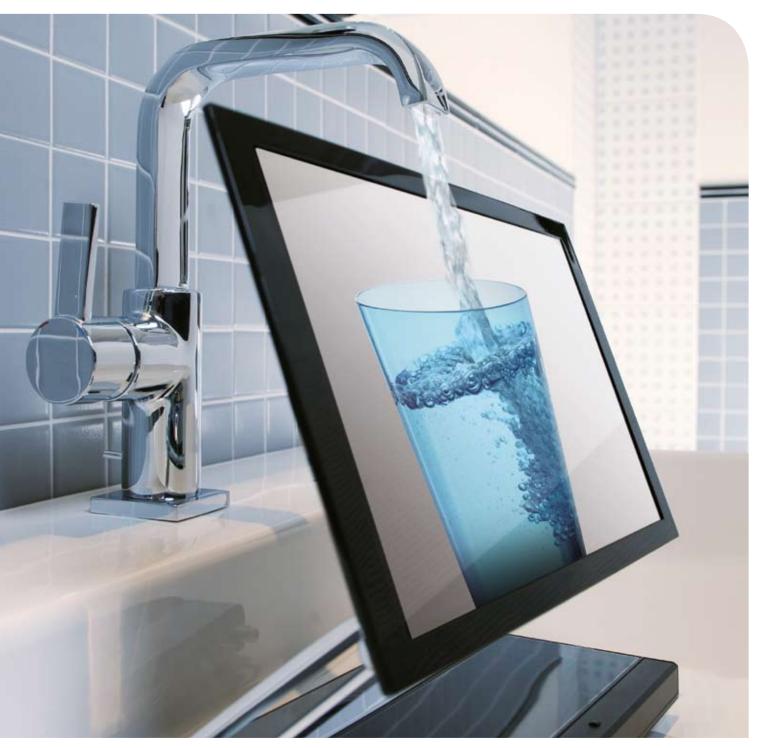
#### Marketing authorization for Raptiva® suspended: Safety first

The safety of patients is of utmost importance to Merck. Following three confirmed cases of Raptiva® patients who developed progressive multifocal leukoencephalopathy (PML), a rare and often fatal neurological disease that occurs mainly in people whose immune systems have been severely weakened, Merck initiated a close collaboration with the European Agency for the Evaluation of Medicinal Products (EMEA) to minimize the risk for patients. On the basis of the information supplied, the EMEA came to a negative benefit-risk assessment and recommended on February 19, 2009 to suspend the marketing authorization for the psoriasis treatment Raptiva. Merck Serono has also informed regulatory authorities outside the EU about the recommendation and the marketing authorization was suspended globally.

## Growth in China

Consumers are increasingly taking responsibility for their health and the self-treatment of minor complaints. Merck Consumer Health Care is addressing this trend with international brands that are trusted by consumers and backed by science. We focus on four health themes: Cough and Cold, Mobility, Everyday Health Protection and Women's and Children's Health. As part of our strategy, we are entering new markets including China and India. In January 2009, Merck launched an independent legal entity in China – the Merck Consumer Health Care Shanghai Trading Company. By the end of 2009, the number of employees is expected to increase to 200.

## Responsibility for chemical products



OLED materials are used in mobile phones, MP3 players and digital picture frames, and have been introduced in televisions. They are a key technology that will make it possible to decrease the energy consumption of lighting.

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In developing new chemical products, Merck is also responding to the diverse ecological and social challenges of a globalized world. Specialty chemicals from Merck contribute significantly to helping our customers save energy, develop new solar technologies or, for example, increase food safety. We attach great importance to the safe use of products.

The increasing scarcity of fossil resources and progressing climate change make it necessary to find new solutions for satisfying human needs using less energy. In our Liquid Crystals division, we are therefore developing liquid crystals for energy-saving displays that are used, for example, in televisions and computer monitors, as well as lighting materials for innovative, energy-efficient light sources. The rapid growth of the world's population and increasing urbanization are leading, for instance, to further industrialization and stricter regulation of food production. This requires efficient analytical technologies that are being developed by our Performance & Life Science Chemicals division.

## Merck products help to save energy

### Fast, energy-saving liquid crystal displays

With its licristal<sup>®</sup> products, Merck is the global technology leader in the liquid crystal business and the leading development partner to the global display industry. With our innovative materials for PS-VA technology (Polymer Stabilized Vertical Alignment), we have paved the way for the next generation of LCDs. This technology offers better energy efficiency because it significantly reduces the amount of backlighting needed, which is one of the most expensive components of manufacture, and also the largest power consumer during operation of the device. Apart from its ecological advantages, PS-VA technology also offers better picture quality thanks to more contrast and even faster switching times.

#### Light sources of the future

Conventional incandescent light bulbs consume far too much electricity. They have therefore already been banned in Australia, and the EU has also decided to phase them out. Modern light sources such as light-emitting diodes (LEDs) and organic light-emitting diodes (OLEDs) are key technologies that will make it possible to achieve lasting decreases in the energy consumption of lighting. LEDs are already used widely today for the backlighting of small- and medium-sized displays, for instance in mobile phones, navigation devices and computer monitors. Modern monitors with LED backlighting use up to 30% less energy. Step by step, LEDs will increasingly be used in general lighting applications. Experts expect that the widespread use of energy-saving bulbs, LEDs and OLEDs in general lighting applications will lead to energy savings of up to 80%.

Inorganic lighting materials are a key component of LEDs. They are responsible for converting the light color and are required for generating white light. Merck is developing and marketing highly efficient LED lighting materials under the brand name isiphor<sup>™</sup>. In addition, by acquiring a company specializing in the development and pro-

www.merck.de/chemicals

www.merck.de/company >> Innovation

>> Chemicals

www.merck.de/responsibility >> Products >> Chemicals

www.merck-chemicals.de >> Merck4LCDs & Emerging Technologies duction of ortho-silicate lighting materials, we have strengthened our knowledge base in this field.

OLEDs (organic light-emitting diodes) are already used in displays of mobile phones and MP3 players, where they stand out due to the brightness of the display and low power consumption. Since these new organic materials are applied by vapor deposition in extremely thin, flexible layers, they offer numerous new options for creating innovative products. One example is their application as lighting material. In comparison with energy-saving lamps, OLED lighting is extremely flat and lightweight, thus opening up new design possibilities – such as wallpaper lighting or semitransparent lighting windows. As part of the EU-funded OLLA project (Organic LEDs for Lighting Applications), Merck conducted research on these light sources of the future alongside 24 companies and research institutes from eight countries. The goal was to develop a new generation of lamps for the 21st century. Researchers succeeded in producing white organic light diodes at a size of 15 cm x 15 cm, an efficiency of 50 lumens per watt and a lifespan of more than 10,000 hours. These performance figures reach or surpass those of conventional lighting sources (incandescent bulbs, energy-saving lamps).

#### Electrolytes for the batteries of tomorrow

In the coming years, international climate protection efforts will generate a steep increase in demand for high-voltage and high-performance lithium-ion batteries. Hybrid vehicles as well as battery energy storage in combination with photovoltaic units place high demands on the batteries used and the corresponding battery materials. Merck is a member of several research consortia working to develop new electrolytic materials to improve the performance and service life of lithium-ion batteries, thereby significantly increasing the range of electric vehicles, among other possibilities.

#### Minatec®: Following the example of the polar bear

Minatec<sup>®</sup> 230 A-IR is a functional pigment produced by Merck. It can speed up the drying process of light-colored coatings, such as those used on refrigerators and washing machines. In a certain way, Merck has followed the example of the polar bear, which has white fur covering black skin. This means that it reflects visible light, but absorbs the radiation of infrared light, which enables it to survive the Arctic cold better. Minatec<sup>®</sup> 230 A-IR works on a similar principle. It absorbs heat radiation very effectively, but is very light in color. This speeds up the infrared drying process of light-coated products while consuming less energy.

## Energy from the sun: Growth market of photovoltaics

Photovoltaics is one of the most important fields of technology when it comes to sustainable energy generation. Merck is active in this field, offering modern material concepts and specialty chemicals for use by the solar industry. With isishape<sup>®</sup>, Merck has developed an etching paste concept that permits the efficient structuring of the substrate surface during the production of silicon solar cells. It reduces the number of process steps required in solar cell production, increases efficiency and pollutes wastewater only to a minimal extent. With Solarpur<sup>™</sup>, we have developed a surface coating for solar cells that

www.olla-project.org

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increases the broadband transmission of the protective glass on photovoltaic modules, enabling more light to be converted into electricity.

The aim of organic photovoltaics is to replace solar silicon, which is expensive and consumes a great deal of energy during production, with plastic. If this breakthrough is achieved, the production costs for solar cells could fall significantly and solar cells could become a mass product. We are developing and marketing printable, electrically conductive polymers under the brand name lisicon<sup>®</sup> for the production of lightweight, flexible and cost-efficient organic solar cells. Merck is participating in the research initiative "Organic Photovoltaics", an excellence cluster that was launched by the German Federal Ministry of Education and Research (BMBF). The aim is to achieve a significant increase in the efficiency of organic solar cells to at least 10% as compared to current approaches that only achieve efficiency rates of 3 to 4%. Initial economically viable results, for example to supply power to mobile devices or portable buildings, should be available by 2012. Merck is heading the consortium of industrial partners involved in this project.

## Food and pharmaceutical safety

The world population is growing – and with it the need for food, which is often produced by industrialized means and largely transported over long distances. Food quality demands are growing at the same time. The regulatory requirements are increasing also in emerging countries, thus increasing the need for innovative, reliable instruments for food, water and environmental analysis. Therefore, one focus of Merck's analytical products is on highly regulated markets.

Under the brand names Singlepath® and Duopath®, Merck sells a range of microbiological test kits that considerably facilitate quality assurance and quality control for customers - mainly food manufacturers, but also clinical laboratories. These compact yet highperformance test plates, which are several days faster than standard methods, reliably indicate whether a food contains coli bacteria, salmonella or their "waste products". This means that food gets to the market quicker and fresher, and thus has a longer shelf-life.

Contaminated infant formula in China made headlines at the end of 2008. The U.S. Food and Drug Administration (FDA) developed a method for detecting melamine and cyanuric acid in infant formula. It involves the use of the chromatographic column SeQuant<sup>™</sup> ZIC<sup>™</sup> HILIC from Merck. Thus even minute quantities of melamine and cyanuric acid can be precisely and simultaneously separated and detected. The recommendations of the FDA receive global attention and are often adopted by national authorities.

The pharmaceutical industry is also increasingly characterized by regulatory measures, which aim, among other things, to ensure that patients are not harmed by inferior quality of pharmaceutical raw materials. Further development of GMP (Good Manufacturing Practice) requirements and regulations passed by the European Parliament are also increasing the requirements for active pharmaceutical ingredients and excipients. With the EMPROVE® brand, Merck supports its customers by providing excellent product quality grades and comprehensive documentation for pharmaceutical raw materials that meet these increased requirements.

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www.bmbf.de

www.merck-chemicals.com >> Merck4Food

www.merck-chemicals.com >> Merck4Pharma

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## Diligence in product safety

We are committed to ensuring that no risk arises from our products if used correctly. Therefore, we supply our chemicals only to commercial users having the proven expertise, whom we inform and train in the proper usage of our products.

The EU regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is also aimed at further enhancing the safety of use of chemicals. It requires that all manufacturers and importers may only market chemical substances for which they provide evidence of their safe use. In 2008, we pre-registered all the relevant substances, thereby meeting the preconditions for final registration within the different transition deadlines. In addition, we made all preparations to implement the Globally Harmonised System of Classification and Labelling of Chemicals (GHS). The EU regulation, which is based on a UN agreement, entered into force on January 20, 2009 and is being implemented on. The new elements of the GHS hazard communication, such as hazard pictograms and signal words, are replacing the previous hazard symbols and phrases. Merck is the first company in the EU to have started with its implementation. Besides updating the labels and safety data sheets, we also actively inform our customers about GHS.

We want to go beyond fulfilling the requirements of REACH and GHS; here we also see a competitive advantage for ourselves: We can leverage our competence in regulatory affairs and our expertise in product documentation to provide our customers with important support. In addition, we have checked with our suppliers whether their chemicals also meet the requirements of REACH. Legal certainty is thus established for both Merck and its customers.

## Responsible use of nanotechnology

Nanotechnology involves the design, production and application of structures and materials of nanometer-scale dimensions – one nanoparticle being 50,000 times thinner than a human hair. Nanotechnology opens up new material properties that are not accessible otherwise, and is thus a highly innovative field of development for new products. It can be used in a variety of sectors, ranging from materials science, optics, medical technology and sustainable energy applications, through to computer technology.

Merck uses nanotechnology in order to improve both everyday and technical products and to give them entirely new properties. Nanotechnological products can be used to increase the efficient use of raw materials and energy as well as to reduce energy consumption and pollutant emissions. Examples are savings resulting from weight reduction or function optimization.

We are not only addressing the opportunities, but also the risks of nanotechnology. We follow the precautionary principle and take safety issues of nanomaterials seriously. In manufacturing and processing products, we pay strict attention to compliance with all statutory regulations and other applicable standards, such as the guidelines of the German Federal Institute for Occupational Safety and Health (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin) as well as the German Chemical Industry Association (Verband der Chemischen Industrie). Within the scope of REACH, we handle the documentation of all information on our products for our customers. At the end of 2008, we implemented guidelines regulating the use of nanomaterials, which apply to the entire Merck Group. In addition, we are engaged in intense dialog about this topic with other chemical companies as well as industry associations and government authorities.

www.merck-chemicals.com /reach

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## NEWS

### Cosmetic pigments from Merck receive ECOCERT and NaTrue certification

ECOCERT and NaTrue are currently the most important internationally recognized certificates for natural cosmetics. Merck's cosmetic pigments and functional fillers of the brands Xirona®, RonaFlair™, Colorona® and Timiron® are certified according to the ECOCERT standard and also comply with the NaTrue requirements. To receive this certification, cosmetic ingredients must meet very strict requirements with respect to the source of the material, manufacturing process, purity and traceability of the material. Both certificates evaluate environmental protection throughout the entire production process as well as consumer protection and the use of high-quality ecological substances.

### Safety in the laboratory thanks to Workplace Safety Cards

In Germany and many other countries, all laboratory heads are obliged to ensure the safety of their staff and to create a Workplace Safety Card for every hazardous substance used in the laboratory. We help our customers to meet these requirements: Workplace Safety Cards can be individually generated with the help of the Merck Chemicals website, which features the software needed for generating automatic updates of changed data and for informing the customers of these.

### Best supplier in Korea

For the second time in succession, LG Display presented the "Best Supplier Award" to Merck in Korea for its outstanding contribution and strategic importance. LG Display is one of the world's leading producers of LCDs. LG Display evaluated Merck's performance based on a variety of criteria including technology, quality, responsiveness and delivery. Merck and LG Display have established a strategic partnership showing continuous growth in business volumes over the past years.

#### Counterfeit-proof tickets for the Olympics

Millions of people were trying to get hold of them: one of the red, yellow and white tickets for the Olympic Games in Bejing. Merck's security products contributed to ensuring that these tickets were counterfeit-proof. Overall, nearly seven million tickets were available worldwide for the Olympic competitions. Security features printed on the tickets guaranteed their authenticity.

### New plant for dehydrated culture media

In the Indian state of Goa, Merck invested EUR 800,000 in constructing a production plant for dehydrated culture media as a base for microbiological test methods. With the dehydrated culture media produced at this plant, Merck wants to effectively serve the need for microbiological tests with international quality standards in India and other Asian countries. Today, India is considered an important international center for research and production of pharmaceutical and biotechnological products, food and beverages, and biosciences. www.merck-chemicals.com/ workplace-safety-cards

## Responsibility for employees



To achieve our corporate goals, we need talented and committed employees. We create a fair, motivating work environment and also support our employees in achieving their personal career goals.

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Around the world, nearly 33,000 people work for Merck. Our objective is to offer them a globally uniform, transparent, promising and motivating framework. The results of the first global Merck employee survey "Pulse 2009" show that we are on the right track.

At the end of 2008, Merck was represented in 59 countries by 178 companies. The headcount increased to 32,800, 1,832 more than in 2007. But not just the numbers are increasing. As an employer, Merck is changing as well. The dynamic growth of the pharmaceutical business and the need to meet new challenges in the chemical industry means we need to become more competitive on a global basis – also when it comes to finding and retaining the most talented employees.

We want to attract the right talents to our company and to offer those who already work for Merck opportunities for further development within the company. We believe that by encouraging and rewarding performance, we can create the sustainable growth that provides a secure framework for employees and will enable us to offer highly qualified jobs in the future as well. By orienting these efforts with the Merck values, we aim to create a satisfying and challenging workplace. In October 2008, we received confirmation of our efforts from the renowned journal "Science", which ranked Merck Serono as number seven among the world's top 20 employers in the life science industry. Merck Serono received particularly high scores in three categories: social responsibility, employee loyalty, and alignment of work and personal values.

#### A global HR function

In order to succeed in increasingly global markets, we have for the first time implemented a global HR strategy. It is derived directly from the business strategy and the Merck values.

Our strategy includes a wide range of initiatives to increase the consistency and quality of HR offerings and support across the globe. Our HR organization offers services and solutions that support all employees in achieving their goals more effectively, thereby making a fundamental contribution to the implementation of our business strategy.

## Employee engagement: Employee survey Pulse

A component of the new HR strategy is "Pulse", the first company-wide employee survey. In January 2009, all employees had the opportunity to express their opinions of Merck as an employer, how motivated they feel, and how strongly they identify with the corporate strategy and the goals set by the Executive Board. The anonymity of the survey was ensured by the external consultancy that conducted it. By evaluating the study results with respect to how they relate to the Merck values, we are underscoring the central role they play in how we do things.

Eighty percent of our employees answered 80 questions in one of the 28 languages offered, an exceptionally high response rate and an initial indication of the high level of employee engagement. The results of Pulse 2009 will help us to further adapt to the

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needs of our employees. People are our most important asset, and our goal is to offer them the framework within which they can best contribute individually to the success of Merck. In order to ensure close follow-up, approximately 750 reports, detailing results by location and department were distributed.

#### Pulse 2009: The results

The results of Pulse 2009 show that the majority of employees identify strongly with the company, and are engaged to support the success of Merck. In many categories, Merck performs well both in comparison with industry benchmarks as well as with the high-performing companies benchmark – a group of companies from various sectors that stand out for their excellent financial results and high level of employee engagement.

The survey results show improvements in comparison with the results of a similar survey conducted by Merck Serono in March 2008. Employees now feel better informed about the strategy, they rate the leadership style of their supervisors more highly, and are happier with development opportunities than one year ago. The new data tell us whether the measures derived from last year's survey were worthwhile, and they help us to plan further improvements. In 2010, we will conduct another survey in order to measure our progress.

Employee satisfaction at Merck Serono is also reflected by the intense integration efforts of corporate and divisional Human Resources since the acquisition of Serono in 2007. In September 2008, Merck Serono was recognized by the Society for Human Resource Management (SHRM) with the 2008 "Strategic HR Leadership Award" as part of their annual Strategic Capital Leadership Awards. The Human Resources professionals played a key leadership role in the integration of the two businesses, successfully ensuring the company's performance and reputation. At the same time, excellent employment management supported the achievement of business targets.

## Key international HR topics

Our employees are increasingly planning their development at global level and are advancing their careers internationally. We have therefore globally graded positions to make their comparability transparent. When assigning a grade, we assess the professional knowledge, problem-solving skills and leadership requirements needed in the position, providing a ranking according to the contribution to the overall company success. By establishing comparable positions and transparent structures, global grading benefits both employees and the company. It gives employees more clarity about their international career prospects and increases Merck's attractiveness as an international employer. In addition, the results of this process simultaneously serve as the foundation for new compensation structures and other programs such as Performance Management and the Talent & Succession Management process. The global grading system has already been

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introduced for executives. In the course of 2009, the system is to be implemented for

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exempt positions within the German companies of the Merck Group. This will also apply to all positions in the companies outside Germany, within the requirements of local legal frameworks.

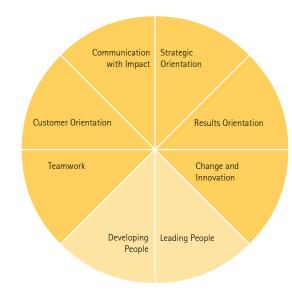
#### Performance Management

Performance management is critical for creating a satisfying work environment for employees as well as supporting our overall business success. Important elements of the process are setting clear objectives, creating a culture of honest feedback and differentiating the level of performance among employees. In addition, it is a key process to support the overall development of employees and in particular address the values. At Merck, it is not only important what employees achieve, but also how they have achieved it. While Performance Management clearly relates to the achievement of objectives, this must always be in line with all the Merck values.

In 2009, we started to harmonize the internationally different performance management processes. We began the rollout of a consistent, global performance management process to achieve our goals in a transparent way across our organization. This process is being complemented by the new Global Rewards Policy, which sets forth guidelines on how employees are to be compensated depending on their performance, their abilities and local labor market conditions. Performance Management and the Global Rewards Policy are a systematic way to put individual performance in the context of corporate goals as well as to make them comparable, to develop them further and to honor them.

#### **Competency Compass**

In order to translate the Merck values into the specific behaviors we expect from managers and employees, we have developed the Merck Competency Compass. This is a globally valid model that is used both to evaluate potential employees as well as determine areas for further development for existing employees. The competency framework translates the values into concrete behavioral examples we expect, both at the managerial and employee level. For every competence there are suggestions for what the behavior looks like in daily work environments and also concrete offers for training opportunities to improve the behavior. All behavior-related training (for example, leadership training) is



The Competency Compass defines eight competencies. "Developing People" and "Leading People" apply only to managers with personnel responsibility. The competencies are used to select seminars and personnel development measures, for performance management, assessment and feedback, as well as for employee recruitment.

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- >> Performance Management

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designed with the competencies in mind. Information regarding training offers of the major internal learning and development providers is accessible to employees via a global website. In addition, the local German learning platform, Platon, offers both online and classroom courses to more than 6,000 employees in Germany.

#### Developing a global workforce

Having the right employees at the right time for the right positions is essential to the long-term success of the company. The Talent and Succession Management program identifies employees with managerial potential across all locations and provides a clear process for their development and promotion.

We attach a high degree of importance to cross-divisional and international career opportunities. This not only expands the career opportunities available to talented employees, but also enables them to gain experience in other cultures. As they develop in their careers, this experience will allow them to recognize and make use of opportunities resulting from the diversity of our workforce. As an employer, Merck is committed to giving talented staff possibilities to pursue an interesting career and to offering them constant personal and professional development opportunities within the company.

Globalization is also creating new challenges for personnel recruitment. In 2009, we introduced a new online global recruiting system for internal and external applications called Taleo. This gives applicants from all countries transparency regarding job vacancies and possibilities of working at Merck.

### Showing responsibility in dealing with economic challenges

#### Economic crisis and recession

The economic crisis and the recession are presenting Merck with major challenges. The Pharmaceuticals business is proving to be relatively stable. By contrast, those areas of the Chemicals business operating close to end users have been suffering from the sharp decline in demand since the fourth quarter of 2008. This relates in particular to Pigments production, which is a direct supplier to the automotive industry, as well as the Liquid Crystals business.

We are aware of our responsibility toward our employees. It is our clear intent to master the crisis together with them. The "qualified hiring freeze" is an important measure. Accordingly, only those positions will be filled that are urgently required for the viability of the company. We will exploit all potential savings insofar as they do not pose a burden on our employees. Reduced working hours are being implemented at some sites as a way to deal with overcapacities in times of declining demand. Together with the works councils, we are examining ways to minimize the financial losses incurred by employees. When this report went to print, it was very difficult to predict how the crisis would develop. The extreme developments in the global marketplace could force us to reduce our workforce. Should this become necessary, we will act, as always, in accordance with our values in a transparent and respectful manner. We will make every effort to find solutions that are acceptable to both the company and the affected employees.

www.merck.de/responsibility >> Employees >> Equal Opportunity

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www.come2merck.com

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Structural measures

Local market situations have already required us to reduce headcount at certain locations. For example in 2008, due to the framework conditions for off-patent ethical drugs, we decided to continue the Primary Care business, i.e. sales of off-patent ethical drugs mainly prescribed by general practitioners, in Germany without our own sales force. We looked for alternatives together with employee representatives. As a result, in August 2008 around 130 sales representatives from Merck Pharma GmbH transferred to the German subsidiary of the Japanese pharmaceutical company Daiichi Sankyo on similar contract terms. This was so successful, we extended this model to our subsidiaries in markets with similar issues: the members of the Primary Care sales forces in Turkey, Ireland and France have also moved to Daiichi Sankyo.

In several countries, we merged previously independent legal entities. This applied above all to the United Kingdom, where the headcount declined by 140 in 2008. In addition, in both Spain and France we closed down pharmaceutical research sites in 2008. In 2009, we started to restructure our Chemicals business in the United States. Sites will also be shut down there and up to 300 positions will be eliminated over the next two years.

## Merck: A family-friendly company

In 2008, the charitable Hertie Foundation confirmed that Merck in Darmstadt is a familyfriendly company. We are therefore permitted to continue to use the quality seal of the "Family and Career" audit for a further three years. In 2005, Merck initially received the certificate for its commitment to improving family-friendly working conditions. We view this as recognition of our efforts to permanently anchor processes that reconcile the demands of a career and a family. The certificate shows that we are not only striving to create a family-friendly corporate culture, but also implementing and living it.

Within the scope of the recertification, the flexible childcare program offered by the Merck daycare center and the organization of external childcare services in Darmstadt scored points, in particular. The childcare services provided by the Merck daycare center were expanded by doubling the number of places available for children under the age of three, bringing the total to 24. For employees at the Gernsheim site, five places are available in a nearby daycare center. Our social services unit offers professional advisory assistance to employees and their relatives with topics such as parenthood and eldercare.

As of December 31, 2008, 234 employees at the German sites in Darmstadt, Gernsheim and Grafing were on parental leave, compared with 221 as of December 31, 2007. About 40% of them worked during parental leave.

Since March 2007, our Merck Serono division has offered an extensive range of childcare possibilities at its Geneva headquarters. This is sponsored by a foundation in which Merck Serono holds a 60% interest and the city of Geneva 40%. A total of 52 places are available for children between the ages of four months and four years, 35 of which are reserved for children of Merck Serono employees. Other Merck subsidiaries are also encouraged to offer family-friendly programs, as appropriate given the local situation. www.merck.de/responsibility >> Employees >> Social Benefits

## Responsibility for the environment



Our specialty chemicals for the solar industry are part of our answer to climate change. We have set an ambitious target for the reduction of our own emissions.

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Just under a quarter of the Merck workforce of nearly 33,000 is involved in the production of more than 30,000 different products at our 54 production sites. We therefore require a systematic, uniform process to manage and monitor safety and the effects on the environment. This process is based on the corporate policy known as "Principles and Strategies for Health, Safety and the Environment".

The central function Environment, Health, Safety, Security, Quality (EQ) uses internal audits to monitor the implementation of this guideline in the appropriate management systems and to oversee its application. Merck is also regularly audited and certified by third-party auditors so that the management systems conform to internationally recognized environmental and safety requirements.

## A uniform environmental management system

We have set ourselves the goal of having all production sites certified in accordance with the international environmental management standard ISO 14001. In doing so, Merck is aiming at an internationally applicable certificate valid for all of the Group's sites, rather than the individual certificates previously obtained. As of mid-2009, 28 of the production sites had been certified according to either ISO 14001 or the American equivalent, RC 14001.

This certification will be based on a globally consistent environmental management system operated by the central function EQ. The uniform management system fulfills the following requirements:

- Implementation of corporate environmental guidelines,
- Introduction of Group standards for all aspects that impact the environment,
- Verification of compliance with the requirements,
- Regular data collection,
- Regular reports to the Executive Board detailing the goals achieved so far.

The Group certificate recognizes the individual certifications that already exist. The audit requirements factor in specific differences between pharmaceutical and chemical production and thus reflect the heterogeneous nature of the Merck sites. Any companies new to the Merck Group will be integrated. In comparison to the individual certifications, the number of audits will decrease since only a representative number of sites will have to be audited. This requires particularly diligent collaboration among the sites since the Group certificate will only be granted if all sites from the audit sampling fulfill the certification criteria.

The uniform management system is being implemented step by step. In 2008, standards were defined and introduced at the sites, and reporting lines were set up between headquarters and the sites. In November 2008, the system for Darmstadt and another 11 sites was successfully audited, and Merck received its first Group certificate. We intend to

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www.merck.de/responsibility >> Environment

www.merck.de/responsibility >> Environment >> EHS Management

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have all production sites included in the Group certificate by the end of 2009. We had originally set this target for 2010, and we therefore expect the majority of production sites to achieve the objective ahead of schedule.

### Commitment to the Responsible Care Global Charter

Merck has committed itself to the Responsible Care Principles of the chemical industry and to the Responsible Care Global Charter. The ICCA (International Council of Chemical Associations) adopted the "Responsible Care Global Charter" in 2006, a document aimed at continually improving services for environmental protection, health and safety. Responsible Care focuses on volunteer cooperation with government authorities and other stakeholders that goes far beyond conforming to statutory regulations.

The Responsible Care Global Charter comprises nine principles. In implementing these principles, we at Merck place emphasis on the following three principles: advancing sustainable development, enhancing management of chemical products worldwide (product stewardship) and facilitating responsible care along our value chain.

The advancement of sustainable development includes sound management of chemicals by sharing expertise on the proper handling of chemicals. Using the new GHS (Globally Harmonised System of Classification and Labelling of Chemicals) classifications, Merck performs a risk analysis for all relevant substances in accordance with the EU regulation REACH (Registration, Evaluation, Authorization and restriction of Chemicals) and has set up a new IT infrastructure for this purpose. This structure incorporates systems for storing substance properties, for creating dossiers and for assessing risk. The information is made available to customers.

Product stewardship topics appear in the global SAICM regulations (Strategic Approach to International Chemicals Management), which are implemented at the EU level in REACH. Merck implements these requirements and uses safety data sheets to communicate the information acquired from the audit processes in all supply chains.

In the value chain, Responsible Care involves the commitment to increase dialog with business partners and other stakeholders. Merck provides comprehensive safety data sheets on the Web; it operates a telephone hotline and maintains global mail-in accounts to respond to questions about REACH and GHS, along with other questions. We furthermore host regular safety seminars for customers. Our employees are also given regular training on these topics. In 2008, 1,500 employees participated in the workshops.

Merck has furthermore been maintaining a dialog with a wide variety of interest groups for many years. We work together with organizations and governmental agencies in developing and implementing effective regulations and standards; we send delegates to national and international federations and committees, and discuss matters with residents and environmental groups on site.

#### Local commitment to the environment

The commitment to handle natural resources responsibly does not apply to corporate headquarters alone. In addition to the Group requirements, many sites are pursuing their own ambitious goals. In 2008, Merck in Bogotá, Colombia, was distinguished as an "elite company" for the sixth consecutive time for its environmental protection program.

www.icca-chem.org >> Initiatives >> Responsible Care

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Due to its exemplary dedication and expertise, our local subsidiary is one of the official advisors of Colombia's environmental protection agency. In the last several years, EMD Serono in Boston, Massachusetts, has consistently expanded recycling processes and technologies. In 2008, around 47 metric tons of solid material was recycled; almost 10% less power and 34% less water was used, and special waste was reduced by 12%. At the new facility for injection solutions in Quetta, Pakistan, wastewater from the cooling process reaches temperatures of  $85^{\circ}$ C. This pre-heated water is then fed directly into the site's heating system – a contribution to energy-saving heating and to reducing CO<sub>2</sub> emissions.

At the Gernsheim site in Germany, we began in 2008 to remove the hexachlorocyclohexane (HCH) located under a parking lot, properly disposing of it using external incinerators. The HCH originated from the production of lindane, a pesticide that was produced at the Gernsheim site from 1954 until 1972. When it was built, the parking lot was backfilled with HCH as part of its construction; at that time, this was a standard practice approved by the regional administrative authority. Back then, the residue was not considered to be hazardous. We perceive it as our social duty to use our technical and financial means to eliminate these HCH deposits. This is why we began in 2008 to decontaminate the parking lot, a multi-phase process that will cover a period of six years and end up costing around EUR 27 million.

# **Climate protection**

Climate protection has become a hot topic worldwide. All signs indicate that increasing emissions from climate-relevant gases are contributing to atmospheric change. Merck is also addressing this topic, applying its efforts towards climate-friendly production. In continuously developing and implementing measures for climate protection, we have the chance to save on energy costs, which makes it an economically sensible course of action.

#### Group targets for reducing CO<sub>2</sub> by the year 2020

For its contribution to climate protection, Merck has set an ambitious goal. By 2020, we intend to have reduced our entire (direct and indirect)  $CO_2$  emissions by 20%, measured against the 2006 level. As a point of comparison: The European Union is aiming to lower  $CO_2$  emissions by 20% relative to the 1990 level. Direct emissions are those emissions that a company itself releases by burning fossil fuels for steam or power generation, or through the production process. Indirect emissions are those emissions that are released in the generation of purchased energy, such as electricity, natural gas or district heating. In 2008, Merck's total emissions worldwide amounted to 332,000 metric tons of  $CO_2$ , 184,000 metric tons of which were direct emissions. Since 2008, Merck has been recording both direct and indirect  $CO_2$  emissions according to GHG protocol (GHG=green house gas), a recognized system that was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

In order to achieve our climate target by 2020, we are focusing on 15 sites, which together account for more than 80% of our total global emissions. In doing so, Merck can build on experience from past years. In 2002, we set out to reduce direct  $CO_2$  emissions by 10% by 2010. We have reached this target ahead of schedule, partly attributable to increasingly energy-efficient production processes.

www. merck.de/responsibility >> Environment >> Climate protection

See "Our Goals"

www.ghgprotocol.org

respect to the UN Global Compact

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#### Reducing CO<sub>2</sub> emissions and conserving resources

The enerCare program has made it possible to lower energy consumption at our two largest production sites – Darmstadt and Gernsheim – by more than 5% within two years (2007/2008). This was primarily achieved by upgrading the heating and cooling systems, by modernizing ventilation systems and by increasing the efficiency of pressurized air generation. All employees can participate in enerCare, whether with ideas for saving energy, or directly by taking actions that actually conserve energy.

Both sites also use waste management to operate in both an energy-efficient and climate-friendly manner. The waste is analyzed to ascertain its potential energy; it is then sorted into different waste streams that are delivered to special waste incinerators to produce power. In 2008, more than 15,000 metric tons were incinerated at the Darmstadt site alone. The situation is similar at our Japanese production site in Atsugi. Up until 2008, this site used waste incinerators to dispose of around three metric tons of waste per month. In the meantime, 2.7 metric tons of this are being processed in a thermal treatment plant and converted into power.

Our power plants in Darmstadt and Gernsheim furthermore participate in emissions trading in accordance with the relevant EU directive. As the situation currently stands, the emissions rights allotted for the 2008-2012 period are sufficient, which precludes the need to purchase more. If there are surplus certificates, they can be sold or transferred to the next period.

Merck Serono headquarters in Switzerland utilizes water from Lake Geneva for cooling in summer and heating in winter. Water is pumped from pipes that reach deep into the lake, where the temperature remains a constant 6-9°C all year long. Other buildings in the neighboring district are connected to the system. The lake water covers around 50% of the site's energy requirements; in combination with power from hydroelectric power plants, Merck Serono derives 70% of its power from renewable resources.

At EMD Chemicals in Norwood, Ohio, a waste heat recovery system was installed during the construction of a finished goods warehouse. This system is lowering power consumption and  $CO_2$  emissions by 70%.

#### **Carbon Disclosure Project**

The world of finance is also increasingly perceiving climate change as a potential economic threat. The Carbon Disclosure Project, an initiative representing more than 475 institutional investors, works with major companies worldwide to disclose their greenhouse gas emissions and climate protection strategies. Merck is a participant in this program. Our data are published on the CDP's website.

www.cdproject.net

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# Engaging in a dialog to enhance safety and environmental protection

The Merck Serono division is currently expanding its Biotech Center in Corsier-sur-Vevey, Switzerland, transforming it into a large-scale biotech plant. Construction is scheduled for completion in 2010, and the plant should receive certification from the health authorities by 2012. While the current plant is already certified according to ISO 14001, the new expansion exceeds the standard requirements for environmental management. The project not only minimizes the environmental impacts, but is also being conducted with the highest degree of transparency during the entire planning, construction and completion stages.

#### A global environmental approach

A voluntary environmental impact study helped identify key areas that required particular attention. For example, we conducted a study on the biodiversity in the immediate vicinity of the biotech plant, devised a plan to protect the native plant species and then launched landscaping measures accordingly. Particularly attention was paid to monitoring the temperature of the water released into the River Veveyse in order to avoid harming the native trout population. The plant is also being equipped with a customized wastewater treatment facility with differentiated loops so that wastewater from various areas can be treated specifically based on its degree of pollution.

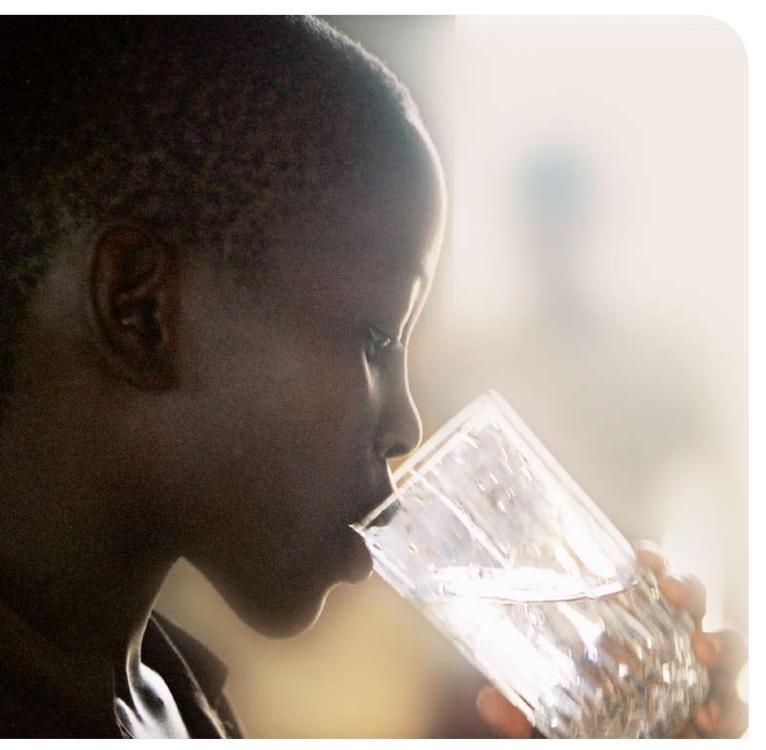
To minimize the traffic volume from the additional 200 employees who will be working at the new plant, parking availability for personnel will be limited. We have already set up a shuttle bus service between the train station and the site and additional measures are currently being developed to help employees to get to work more easily in an environmentally friendly way.

#### Dialog with interest groups

Since the very earliest planning stages, Merck Serono has placed great importance on continuous, open dialog with environmental organizations, local authorities and neighboring residents. At a series of six information sessions and dialog meetings, Merck Serono precisely explained its plans and openly addressed concerns. These included the fear that the water in Lake Geneva could be contaminated with genetically modified organisms. We clarified that the microorganisms, by their classification, presented a very low risk and would not be able to survive in a natural environment. Other concerns such as safety in the event of an accident, the visual impact on the landscape, or the preservation of rare animal and plant species were raised, many of which were taken into consideration and incorporated into the planning. For instance, three ponds and a protected area were created for amphibians. For many issues, Merck Serono reached a compromise acceptable to both parties. Open communication was decisive in persuading potentially critical stakeholders to accept the project. We intend to continue this dialog with environmental groups on an annual basis to ensure transparency with regard to potential environmental impacts. The expanded Biotech Center will count among the most advanced plants of its kind serving patient needs in an environmentally friendly way.

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# Responsibility for the community



Just a few tablets containing the active ingredient praziquantel will enable children to grow up free of the tropical disease schistosomiasis. The Merck-Praziquantel Donation Program is working together with WHO to fight this worm disease.

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Merck sees itself a part of the community, not only at its individual locations, but also globally. In the context of our business activities, we play an important role in the community at our respective locations. We create jobs and invest in the qualification and social security of our employees. Many companies supply us locally with their goods and services. Our specialty chemicals are geared to the needs of our customers and help them to be successful in their competitive environment. Our pharmaceuticals help patients and their families. We cooperate with universities and thus share our knowledge.

We view this business activity as a main field of our entrepreneurial responsibility. In addition, we engage in charitable activities – in many cases together with our employees.

Merck defined the roles and responsibilities for its corporate social responsibility actions in 2007. We divided the activities up into "Global Responsibility" and "Local Responsibility" projects. The projects entailing a global commitment have an international focus and have been approved by the Executive Board. The diversity and long tradition of the local commitment by our subsidiaries abroad will continue to remain the responsibility of these local Merck companies. To ensure that the projects reflect our values and produce sustainable results, we have defined criteria for selecting the projects.

In 2007, Merck conducted its first global survey to ascertain how social commitment is distributed at the regional level, where the focus and objectives lie, and how it has developed over the years. We have since conducted this survey annually. One of our aims here is to improve our knowledge of the impact of the projects on the project participants, the company and on society. We are aware that assessing the impact on society is especially challenging. We are therefore taking part in intercompany discussions concerning the evaluation of corporate citizenship activities.

The assessment of social commitment does not include activities that primarily serve to market our products. Donations to patient organizations are also documented separately and published on our Web site.

In 2008, Merck invested nearly EUR 8 million in corporate citizenship activities, which is equivalent to 1.4% of our profit before tax.

#### Global Responsibility projects

The Merck-Praziquantel Donation Program is one of the core projects under this heading. Here, we are working together with the World Health Organization to fight the worm disease schistosomiasis, mainly in African school children. Another is the Global Pharma Health Fund to combat counterfeit drugs in developing countries and emerging markets, an initiative that Merck is supporting on its own. Both of these projects support our corporate objective of helping people in need to gain access to effective and high-quality pharmaceuticals. www.merck.de/responsibility >> Community

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www.merckserono.com

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<sup>6</sup> Company profile

The third project with a global focus is the Merck Philharmonic Orchestra, a musical ambassador of the company. Merck thus stands not only for science and progress to the benefit of society, but also for culture and education.

#### Combating schistosomiasis

More than 200 million people in Africa suffer from schistosomiasis, a tropical disease caused by parasites. The health hazard lies in freshwater, where parasitic worm larvae infect people while swimming, fishing or washing laundry. They penetrate human skin and enter the blood vessels, affecting the colon, bladder, spleen or liver. The victims suffer from fever, fatigue and anemia. In children, the infection can also stunt growth. Many people experience recurring infections. In Africa, more than 200 million people are infected. Every year, around 200,000 people die from this insidious disease. Children are particularly threatened by it. Second only to malaria, schistosomiasis is one of the biggest health risks to African children.

In 2007, Merck entered into a partnership with WHO, known as the Merck-Praziquantel Donation Program. According to the agreement, by 2017 Merck will donate 200 million tablets of Cesol® 600 containing the active ingredient praziquentel worth approximately USD 80 million. The active ingredient praziquantel is the most effective therapy to date for schistosomiasis infections – often even after just one dose – and it is well tolerated. It is therefore on the WHO list of essential drugs. Praziquantel was jointly developed by Merck and Bayer in the 1970s. Our site in Mexico produces Cesol® 600, and WHO handles local distribution.

The 200 million donated tablets will make it possible to treat 27 million children for schistosomiasis in the most severely affected countries of Africa. Over a ten-year period, the children will be treated multiple times so that the measure has a lasting impact. The first 14 million tablets were distributed in Nigeria, Benin, Madagascar, Cameroon, Sene-gal, Yemen, the Central African Republic and Angola in 2008.

#### Protection from counterfeit drugs

Counterfeit drugs are a serious threat to health care. WHO assumes that 10-30% of the drugs offered worldwide are either counterfeit or of deficient quality. This applies to blood pressure tables, HIV drugs and malaria treatments just as it does to diet and potency pills. At best, they have no effect; at worst, the consequences are fatal. The countries of Africa and Asia are especially affected by counterfeit drugs since the legal foundations for effective drug control are often insufficient in many countries.

The charitable Global Pharma Health Fund (GPHF) offers support here. Merck bears the overall costs of the GPHF and also performs some of its management tasks. The objective of the organization is to promote health care within the scope of development assistance, especially with respect to the fight against counterfeit drugs through the use of the GPHF-Minilab<sup>®</sup>. With the help of the Minilab<sup>®</sup>, it is possible to rapidly identify drug active ingredients and to immediately detect inferior or ineffective drugs. So far, test methods for 43 different basic drugs are available. A further five to eight are to follow by 2010.

www.merck.de/responsibility >> Community >> Schistosomiasis

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www.who.int

www.merck.de/responsibility >> Community >> GPHF-Minilab

www.gphf.org

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The deployment of 48 GPHF-Minilabs in the countries through which the Mekong River flows – namely Cambodia, Vietnam, Laos, Thailand, Burma and China – made it possible to quickly and reliably determine the quality of malaria drugs offered locally. Counterfeit products not containing active ingredients were removed from circulation. Additional forensic methods were used to determine the origins of the fake drugs and to enable the arrest of those responsible.

Worldwide, 325 GPHF-Minilabs<sup>®</sup> are in use in 68 countries to date. The vast majority are provided at cost via WHO and other organizations such as Management Sciences for Health (MSH) and the International Technical Alliance of the USP DQI.

Thanks to support from Merck, two compact laboratories were donated for deployment in Burundi and Haiti in 2008.

#### The Merck Philharmonic Orchestra: A special kind of cultural promotion

Merck has a long tradition of cultural commitment. Classical music plays a special part in this tradition; being a universal language, it acts as a unifying ambassador that conveys the values of a society, or even of a company. Our musical ambassador is the Merck Philharmonic Orchestra. With around 80 professional musicians and a very diverse concert repertoire, the orchestra is an integral part of the cultural life in the vicinity of our corporate headquarters in Darmstadt; it also tours internationally. The concerts are highly popular, attracting around 20,000 people every year. Special events for children and adolescents as well as cooperation with schools are intended to encourage young people to develop a taste for classical music.

In addition, we finance and organize a "Musical Autumn" in Darmstadt every two years. Internationally renowned orchestras, ensembles and soloists complement the concerts of the Merck Philharmonic at this musical festival.

The orchestra's popularity extends well beyond the region. For example, the Merck Philharmonic performs at events marking the anniversaries of our subsidiaries. In recent years, the orchestra went on concert tours to the locations of our subsidiaries in Mexico, Brazil and India. The Merck Philharmonic thus helps to present the corporate culture to employees, customers and many other people.

#### Local Responsibility projects

We have combined the many charitable activities that the companies of the Merck Group undertake locally and independently under the heading "Local Responsibility (Corporate Citizenship)".

In accordance with our corporate values, all Merck sites are called upon to support the communities in which they operate. However, the executive bodies of the Merck Group need not mandate this in detail: The Merck subsidiaries engage in an open dialog with their neighbors and therefore know where Merck can make the most valuable contributions. Group-wide "Roles and Rules" give them orientation for their corporate responsibility activities, which focus on supporting socially disadvantaged people, promoting culture and sports in the vicinity of the sites, as well as supporting education and science.

Around two-thirds of our subsidiaries that employ 100 to 500 people supported charitable projects in 2008. Of those companies with more than 500 employees, well over 75% undertook local corporate citizenship activities. Numerous initiatives are either supported or even started by employees. In 2008, 2,000 employees strengthened corporate citizenship at Merck by making donations or volunteering to support charitable activities. U.S. Pharmacopeia www.usp.org

www.merck.de/responsibility

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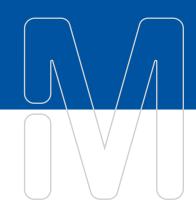
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# Our goals



Our goals*		
Goal	Status 2008	Measures/explanations
Product responsibility		
Establish a globally uniform hazard and risk communication system by 2020 for all relevant Merck chemicals in the supply chain, incorporating the prin- ciples of prevention	New goal	We reached our previous goals of "recording the material quanti- ties and relevant material data for all chemicals manufactured or imported within the Merck Group in Europe" and "specifying and establishing uniform global hazardous material information." In the new goal for product responsibility, these issues will be ad- dressed through uniform substance data; the area of application has been expanded from Europe to the whole world. Further- more, we have made additions to the risk assessment aspect.
Supply chain		
Implement the criteria of our Social Charter and of the BME Supplier Code of Conduct	New goal	Anchoring the rules of the Social Charter and BME Supplier Code of Conduct in the Group-wide supply management processes.
Employees		
Draft development plans for all executives by 2012	New goal	Creating development plans as part of the performance manage- ment process.
Introduce performance manage- ment for all employees by 2013	Introduced for about 80% of the approx. 9,000 employees at the Darm- stadt site; Group-wide status not cur- rently recorded.	Introducing a performance management system with features such as target agreements, performance evaluations, feedback and coaching.
Fill at least two-thirds of grade 16+ positions with internal applicants	More than 150 employees in the Group-wide Talent & Succession Ma- nagement process nominated as talent for grade 16+ positions.	Talent & Succession Management Process at all sites, identifying those employees who are candidates for executive positions and defining a process for their development and promotion.
Create a common understanding of the Merck values among all employees	As of mid-2009, around 60% of employees had taken part in a workshop.	All employees will have attended a Dialog Map workshop by the end of 2009.
Document employee engagement	The results from the Pulse 2009 survey are available (see "Responsibility for employees", p. 32) and have been pre- sented to the employees.	Regular surveys (conducted either once a year, or every other year).
Increase the percentage of women in executive positions	Percentage of women in top management (grade 16+): 11%	By redefining the executive positions included in the survey from "managing director of a Merck company and next man- agement level" to "grade 16+ positions" (which is uniformly understood throughout the Group), half of the positions previ- ously included in this figure no longer meet the definition, thus significantly reducing the total.
Adhere to the Merck standards defined in the Social Charter	See Facts and Figures, p. 58.	Adhering to the Social Charter is an integral part of the job of the managing directors of our companies. We have made the recorded key figures more complete and improved their qual- ity; these figures will include in future data on all of the Merck Group employees.

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Goal	Status 2008	Measures/explanations
Reduce the number of workplace accidents with lost time per mil- lion working hours (Lost Time Injury Rate) to 5.0 for the Merck Group by 2010.	In 2008, the LTIR was 3.9.	Stabilization of the level achieved by focusing on select sites, such as with safety awards and safety culture assessments.
Environment		
Attain an ISO 14001 certificate for the Merck Group by the end of 2010	Group certificate for Darmstadt and 11 other sites (November 2008)	By the end of 2009, 90% of all production sites will have been included in the Merck Group certificate.
Systematize the business conti- nuity management by 2020	The systematization process is being executed in planned stages.	
Reduce the Merck Group's direct and indirect $CO_2$ emissions by 20% (scope 1 and 2) by 2020 (relative to the levels in 2006)	New goal	Adapting the data collection method to conform to the Greenhouse Gas Protocol, thus expanding the reporting limits – direct and indirect $CO_2$ emissions will be taken into account. The reduction measures focus on the 15 sites that jointly produce over 80% of Merck's total emissions worldwide.
Increase the waste-recycling rate by 20% (recycled waste to total waste), to at least 57%, by 2020	2008 recycling rate: 50%.	This is a decline relative to the recycling rate of previous years, which is attributable to the great quantities of waste for disposal resulting from soil remediation activities.
Social commitment		
Combat the worm disease schis- tosomiasis: donation of 200 million tablets of praziquantel by 2017, worth around USD 80 mil- lion, to treat 27 million African school children.	In 2008, 14 million tablets were distrib- uted in eight African nations.	In 2009, Merck is providing 25 million tablets to be distributed in 13 African countries according to WHO planning.
Combat counterfeit medicines by providing and refining the mobile GPHF-Minilab®	Provision of new manuals in Spanish and French.	Development of eight new testing methods by the end of 2010. Two training courses conducted in 2009 on using the GPHF- Minilab® with ten participants in Germany and eight in Gambia. Donation of two Minilabs to Gambia.
Establish a Group-wide report- ing method to record and assess the local commitment of the companies of the Merck Group.	Data on the commitment of the com- panies of the Merck Group were col- lected in 2007 and 2008; the results are described in the Facts & Figures section of this report.	The data are collected on a yearly basis. Using the data, the com- mitment will be evaluated based on how well it conforms to the requirements that have been in force Group-wide since 2007; if necessary, corrective action will be taken.

\*In this report, we have included in our CR program only those goals that apply to the Merck Group as a whole. In contrast to previous CR reports, the goals of the headquarters in Germany have not been detailed here. Those goals are being pursued at local level.

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The information on the following pages relates to all sites and employees of the Merck Group. Exceptions are indicated. More information on the management systems and indicators in accordance with GRI is available in the data sheets on our website at www.merck.de/responsibility >> GRI.



# Key economic figures

# (01) Key financial figures

www.merck.de/financialreports

Key financial figures					
in EUR million	2004	2005	2006 <sup>1</sup>	2007 <sup>2</sup>	2008
Total revenues <sup>3</sup>	5,994	5,865	4,460	7,057	7,558
Pharmaceuticals <sup>3</sup>	3,579	3,885	2,314	4,877	5,428
Merck Serono	1,597	1,797	1,914	4,458	4,987
Generics	1,625	1,712		-	-
Consumer Health Care	357	376	400	420	442
Chemicals	1,694	1,905	2,112	2,150	2,123
Liquid Crystals	589	741	895	916	877
Performance & Life Science Chemicals	1,105	1,163	1,217	1,235	1,246
Laboratory Distribution <sup>4</sup>	582	-	-	-	-
Intragroup Laboratory sales	-62	-	-	-	-
Corporate and Other	200	76	34	29	7
Generics (Discontinued Operations) <sup>3</sup>	-	-	1,824	1,395	0
Profit before tax <sup>3</sup>	961	893	982	-111	575
Profit after tax⁵	672	673	1,001	3,520	379
Free cash flow⁵	1,889	657	-1,073	-1,473	438
Return on sales in percent <sup>3</sup> (ROS: Operating result / total revenues)	13.2	15.3	17.9	13.8	15.0

<sup>1</sup>As of 2006, the way in which certain customer rebates are reported was changed in order to harmonize accounting practices

<sup>2</sup> After the Swiss biopharmaceuticals company Serono was acquired, it was merged with Ethicals into the Merck Serono division

<sup>3</sup> The Generics division was divested in October 2007 and is therefore reported separately as a discontinued operation. Its revenues for 2006 and 2007 have already been adjusted

<sup>4</sup>Business was divested

<sup>5</sup> 2006 and 2007 still include Discontinued Operations (Generics)

Total revenues of the Merck Group rose by 7.1% to EUR 7,558 million in 2008. Merck thus largely met the guidance it provided at the beginning of 2008 despite a continually worsening situation.

The Pharmaceuticals business sector increased its total revenues in 2008 by 11% to EUR 5,428 million, putting it within the forecast range of 7-11% growth.

In February 2008, Merck expected total revenues in the Chemicals business sector to grow between 5% and 7%. Owing to negative currency effects and the worsening economic situation, we did not achieve this objective; total revenues declined by 1.3% to EUR 2,123 million; on a currency-adjusted basis, they increased by 4.7%.

In the past, in addition to ROS, Merck also used return on capital employed (ROCE) as a key indicator of its current financial condition. In line with its financial strategy, in the third quarter of 2007 Merck replaced this indicator by free cash flow, which is more transparent and meaningful with respect to the financial situation.

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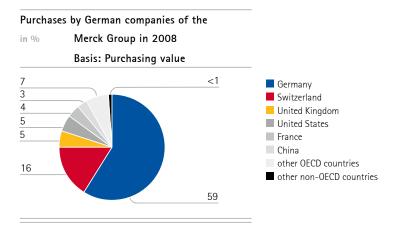
## (02) Sales by region

Sales by region					
in EUR million	2004	2005	2006	2007	2008
Europe	2,666	2,709	2,891	3,322	3,524
North America	1,142	840	889	968	1,015
Latin America	381	464	542	700	806
Asia, Africa, Australasia	1,671	1,756	1,937	1,785	1,857

Accounting for nearly half of sales, Europe is Merck's largest market, followed by Asia, Africa, Australasia as well as North and Latin America. Within Europe in 2008, France continued to lead with sales of EUR 779 million, followed by Germany with sales of EUR 722 million. The 2004 divestment of the laboratory distribution company VWR led to a decline in sales in the North American market, but since 2007, this market has significantly gained importance thanks to the acquisition of Serono. In Asia, our sales are traditionally attributable to liquid crystals.

### (03) Purchases by German companies of the Merck Group by country

In terms of value, the German companies of the Merck Group place around 97% of their orders with suppliers based in OECD countries, the vast majority of which are themselves headquartered in Germany. The criteria used to assess suppliers include quality, price, delivery reliability, service and environmental certification. In our contracts, we have furthermore obliged suppliers to abstain from forced and child labor, to combat corruption and to engage in activities to protect the environment.



# (04) Net value added statement

#### Net value added statement in EUR million 2006\* 2007\* 2004 2005 2008 Total revenues 5,994 5,865 4,460 7,057 7,558 Other income 463 300 542 151 142 Financial income 17 31 65 13 62 Corporate result 6,474 5,067 7,270 6,196 7,713 Cost of materials -1,599 -874 -1,045 -1,089 -1,849 Other purchased services/expenses -1,636 -1,739 -1,381 -2,372 -2,649 Gross value added 2,989 2,858 2,812 3,853 3,975 Depreciation/write-downs of purchase price allocation -375 -290 -303 -1,658 -1,215 2,614 2,568 2,509 2,195 Net value added 2,760

Distribution of net value added					
in EUR million	2004	2005	2006*	2007*	2008
Personnel expenses	1,554	1,581	1,412	1,933	2,015
Financial expenses	99	94	115	373	170
Taxes on income	289	221	176	-23	196
Profit after tax	672	673	806	-88	379
Net value added	2,614	2,568	2,509	2,195	2,760

\*Excluding the Generics division

Value added is a measure of the economic strength of a company and indicates how the corporate result is achieved and for what it is used.

The corporate result, i.e. the sum of total revenues, other income and financial income, amounted to EUR 7,713 million in 2008. After deducting the costs of materials as well as other purchased services and expenses, the net value added statement shows a rise in gross net value added to EUR 3,975 million. Following the deduction of write-downs, which were very high due to the purchase price allocation for the Serono inventories, net value added amounted to EUR 2,760 million for 2008.

The majority (73%) of net value added went toward personnel expenses, i.e. salaries, social security contributions and pension expenses. In 2008, financial expenses dropped significantly following an increase in 2007 due to the Serono acquisition. Profit before tax and income tax were higher than in 2007, both of which were strongly impacted by the Serono acquisition. In 2006, net income was also responsible for an especially large share due to the exceptional gain of EUR 378 million on the sale of Merck's shareholding in Schering AG.

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# (05) Non-current liabilities

Non-current liabilities					
in EUR million	2004	2005	2006	2007	2008
Pension expenses	103	88	97	122	93
Present value of all pension commitments (Dec. 31)	1,301	1,491	1,607	1,666	1,586
Financial liabilities (Dec. 31)	216	654	614	1,047	1,080

The fair value of our pension commitments has increased. Pension expenses for former employees in retirement have remained virtually constant.

## (06) Shareholders of Merck KGaA

The shareholder identification survey conducted in August 2008 identified over 54 million shares and thus more than 80% of the bearer shares in free float. With 45%, U.S. investors continue to hold the majority of Merck shares in free float (2007: 49%), followed by investors residing in the United Kingdom (21%) and Germany (10%).

As of December 31, 2008, institutional investors with holdings ranging between 5 and 10% included Barclays Bank PLC, London (United Kingdom), Capital Group Companies, Los Angeles, California, and Sun Life Financial Inc., Toronto (Canada). Fidelity International Ltd., Hamilton (Bermuda) and Templeton Investment Counsel LLC, Fort Lauderdale, Florida held a 3-5% interest.

Merck continues to aim for a more balanced regional distribution of shareholders with a targeted Investor Relations Program, concentrating primarily on long-term investors.

### (07) Regional aspects

Investments in infrastructure and service primarily for the well-being of the community The companies of the Merck Group invest in the infrastructure of their sites and create numerous jobs. Investments in infrastructure that primarily serve the community are made in special cases only.

Special mention should be made of the wastewater treatment facility at the Gernsheim site in Germany. In accordance with the wastewater agreement entered into by Merck and the neighboring town of Biebesheim in 1999, the company is responsible for the central treatment of the wastewater and precipitation water occurring in Biebesheim. The disposal services performed by Merck include in particular wastewater treatment and the provision of the required conduit system. The site's fire and security departments are furthermore closely involved with the emergency services of the surrounding area. Our emergency services were deployed three times more often off-site than for situations on site in Gernsheim.

Another example can be seen in Baba Bhit (Pakistan). In 2007, Merck Marker set up a 12-bed clinic and maternity hospital there and has assumed the responsibility of financing, organizing and managing the clinic.

# Key product figures

# (01) Research and development expenses

Research and development expenses					
in EUR million	2004	2005	2006	2007	2008
Pharmaceuticals	491	580	482	891	1,091
Chemicals	108	132	133	137	143

#### www.merck.de/financialreports

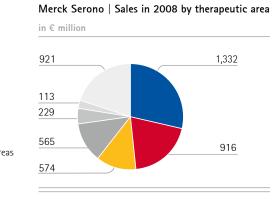
Merck is a research-based company; in 2008, we spent EUR 1,234 million Group-wide on research and development. This corresponds to an increase of 20% over 2007 and a research ratio of 16% relative to total revenues. Of our total R&D expenses, 88% are attributable to the Pharmaceuticals business sector. The R&D expenses are broken down by country and region in the segment reporting section of the Merck annual reports.

# (02) Key product groups

#### Pharmaceuticals business sector

Merck Serono discovers, develops, manufactures and markets innovative small molecules and biopharmaceuticals in highly specialized therapeutic areas such as neurodegenerative diseases, oncology, fertility and endocrinology, and in new therapeutic areas potentially resulting from our research and development in autoimmune and inflammatory diseases. In 2008, six innovative biotech products generated around 60% of the total sales of the division. The key growth drivers include Erbitux<sup>®</sup> (oncology) and Rebif<sup>®</sup> (multiple sclerosis).

The Merck Consumer Health Care portfolio comprises over-the-counter products to alleviate cough and colds, drugs to support mobility, drugs and supplements to boost everyday health and special health products for women and children. The top-selling brands of Merck Consumer Health Care are Nasivin<sup>®</sup> with sales of EUR 46 million in 2008, BION<sup>®</sup>3 with sales of EUR 44 million in 2008, and Seven Seas<sup>®</sup> with sales of EUR 42 million in 2008.



- Neurodegenerative diseases
- CardioMetabolic Care
- Oncology
   Fertility
- Endocrinology

New specialized therapeutic areas

Other

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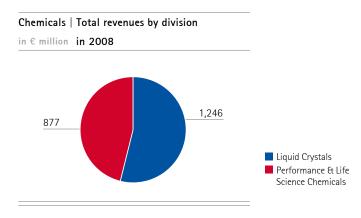
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Chemicals business sector

The most important products from the Liquid Crystals division are the licristal<sup>®</sup> liquid crystals and mixtures for displays. We have maintained our market and technology leadership in liquid crystals. Merck continues to do most of its business with major display manufacturers in Asia. In 2008, total revenues of the Liquid Crystals division decreased by 4.2% to EUR 877 million. Apart from market correction due to overcapacities, negative currency effects and the economic downturn also played a major role.

The Performance & Life Science Chemicals division operates in the Laboratory Products, Life Science Solutions and Pigments segments. The division offers analytical reagents, test kits, products and services for the pharmaceutical and biotech industry, and effect pigments for the coatings, printing and cosmetics industries. Laboratory Products recorded a slight decline in sales compared with 2007. The Pigments business, which accounted for around one-fifth of the division's total revenues, was the first to feel the effects of the financial crisis. The automotive coatings business was particularly impacted by declining production in the automotive industry. By contrast, Life Science Solutions, which is less dependent on consumption cycles and accounts for around one-third of the division's total revenues, achieved an increase in sales.



### (03) Product information

The products manufactured by both business sectors are supplied to customers together with detailed information on their specific application areas and side effects (Pharmaceuticals) or eco-toxicological risks (Chemicals). This information complies with the legal requirements, even often exceeding them. Hence, for example, the safety data sheets for our catalog products are freely available on the Web in more than 20 different languages. Following the introduction of the Globally Harmonised System of Classification and Labelling (GHS), we are the first company in the EU to have begun implementing it. Besides updating the labels and safety data sheets, we also actively inform our customers about GHS. www.merck.de/chemicals

www.merck.de/responsibilty >> Products

>> Pharmaceuticals

>> Preclinical

Fund for the Replacement of animals in Medical Experiments http://www.frame.org.uk

European Centre for the Validation of Alternative Methods http://ecvam.jrc.it

European Partnership on Alternative Approaches to Animal Testing www.epaa.eu.com

The number of experimental animals used in the Merck Group has largely remained at a constant level in recent years. We were able to maintain this level despite the increase in research activities and the number of substances that require testing. Since the acquisition of Serono in 2007, research and development expenses have risen by 20%.

www.merck.de/pharma

>> Pharmaceuticals

>> Information on clinical trials

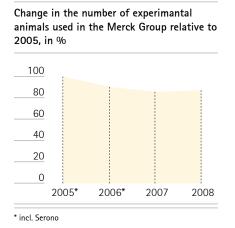
#### (04) Product development

Before a manufacturer can launch a drug onto the market, it must first prove the drug's safety and efficacy. International and national laws regulate the type and scope of the data to be submitted to the authorities; they also stipulate that animal experiments must be carried out. In the pharmaceutical industry, such experiments are justified by the obligation to save human lives and alleviate human suffering. Without animal experiments, we would not be able to develop improved drugs. Animal experiments are also prescribed by chemicals legislation to identify any potential risks of substances and enable their safe handling. Animal experimentation is strictly monitored by animal welfare officers and by the responsible authorities.

Merck follows the 3Rs principle (reduction, replacement, refinement) for animal experiments. The prime objective is to minimize the number of experimental animals or, when there is no alternative, to design the experiment to minimize the stress placed on them.

Merck is actively investigating alternatives to animal experimentation. Our researchers have therefore developed methods that can replace animal experimentation, methods that have been distinguished on multiple occasions for their success. Furthermore, Merck is active on national and international committees. We support initiatives such as FRAME and are members of organizations that aim to develop alternative experimentation methods, such as ECVAM and EPAA.

The Merck Serono policy entitled "Use, Care and Welfare of Laboratory Animals" was adopted in 2008. This policy governs the treatment of test animals and specifies aspects such as the requirements for hiring third parties to perform animal experiments and for training employees involved in animal experimentation. It applies to all animal experimentation that is performed at Merck Serono or contracted out to external providers.



Mice and rats constitute 99% of the experimental animals used in the Merck Group. Other animal species are only used when preliminary scientific testing and experience shows the results from experiments on rats and mice to be invalid. Legal regulations require drugs in development to be safety tested on a rodent species (rats or mice) and on a non-rodent species (dog, pig, monkey). In this way, potential side effects can be identified and included in the benefit-risk assessment of a substance prior to first-inman use. In all experiments, the safety of human beings is our top priority.

Since July 2005, Merck has been publishing information on and the results of the most important clinical trials (except for exploratory trials). This information can be found on dedicated Web pages that provide physicians and anyone interested with an insight into our principles, our product development phases and the regional distribution of our studies. In April 2009, these pages contained information on 33 clinical trials in progress.

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Key personnel figures

We collect personnel figures partly through our global personnel database and partly through an annual survey. We can thus track the status and progress of the individual performance indicators.

The data from 2005 to 2008 are only comparable to a limited extent in the tables marked with an \* (02, 04, 05, 06 and 07). The reasons for this are:

- divestments and acquisitions of businesses that influence the measurement basis;
- a data basis that does not yet include all employees (around 80% in 2005, 2006, and 2007); and
- business growth in countries with different legislation and restrictions.

As a result, the ability to analyze a trend is limited. The tables can, however, be used to interpret the situation in the respective year.

The data for 2008 pertain to all employees of the Merck Group.

# (01) Structure of the workforce

Structure of the workforce					
	2004	2005	2006	2007	2008
Employees (no. of people on Dec. 31)	28,877	29,133	29,999	30,968	32,800
Number of full-time employees (in %)	not recorded	95	94	92	94
Number of part-time employees (in %)	not recorded	5	6	8	6
Employees by region					
Europe	16,120	16,696	17,167	18,930	19,106
North America	2,901	2,745	2,703	2,034	2,157
Latin America	3,331	3,504	3,767	4,054	4,370
Asia, Africa, Australasia	6,525	6,188	6,362	5,950	7,167
Age structure (Germany <sup>1</sup> )					
Under 21	412	420	429	445	413
21 to 30	1,197	1,284	1,438	1,518	1,564
31 to 40	2,654	2,486	2,493	2,507	2,428
41 to 50	2,358	2,537	2,703	2,907	3,059
51 to 60	1,305	1,351	1,413	1,532	1,571
over 60	98	90	72	74	92
Average age (years)	39.7	39.7	39.6	39.7	39.9

<sup>1</sup> Relates only to the Darmstadt, Gernsheim and Grafing sites (around 28% of the employees of the Merck Group in 2008)

Demographic change will lead to an aging population particularly in Germany, where it will impact the availability of young employees. A balanced age structure in the company

is advantageous because it combines the creativity and ambition of young employees with the experience and certainty of older staff. The age structure of the Merck workforce in Germany is balanced, and the average age is constant at around 40. In the short term, this value will increase only slightly. However, in 15-20 years, we expect it to rise sharply.

#### (02) ILO labor standards\*

See "Our goals"

	June 30, 2005	Dec. 31, 2006	Dec. 31, 2007	Dec. 31, 2008
Percentage of full-time employees (standard contract, excluding exempts) with contractually agreed working hours of maximally 48 hours per week'	100	95	99	99
Percentage of employees with at least 15 vacation days per year <sup>2</sup>	93	87	93	93
Percentage of women with access to maternity programs <sup>3</sup>	98	92	79	89
Percentage of employees covered by collective agreements <sup>4</sup>	61	84	61	78
Percentage of sites that rule out child labor as defined by ILO Convention 138	99	100	100	100
Age of the youngest employee (excluding apprentices)	17	18	18	17

'See the explanation on page 57 on the comparability of data from different years

<sup>1</sup>ILO: Hours of Work (Commerce and Offices) Convention, 1930 (No. 30);

 $^2$  ILO: Holidays with Pay Convention (Revised), 1970 (No. 132);  $^3$  ILO: Maternity Protection Convention (Revised), 1952 (No. 103);

4 ILO: Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)

The basic principles of the International Labour Organisation (ILO) relate to employees' freedom of association and the right to negotiate collectively, the eradication of forced and child labor as well as the ban on discrimination in respect of employment and occupation. The international community has laid down these fundamental rights in eight core labor standards. The relevant governments have implemented them in national law. Without exception, Merck complies with core labor standards wherever they are national law. The aim of our Social Charter, which we enacted in 2007, is to ensure compliance with the core labor standards at all sites, regardless of the local legal requirements.

# (03) Number of workplace accidents and lost-time days

Workplace accident and lost-time days					
	2004	2005	2006	2007	2008
LWDR					
(per 1 million working hours)	131	114	72	85	-
LTIR					
(per 1 million working hours)	7.1	8.0	6.2	4.8	3.9
Number of deaths	0	1	0	3	1

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The LTIR (Lost Time Injury Rate) describes the number of workplace accidents resulting in lost time per one million working hours. The declining number of workplace accidents indicates the progress we have made in workplace safety management. The LTIR is the authoritative international accident index, which is why the LWDR (Lost Working Day Rate) will cease to be applied as of 2008.

Despite all our efforts to prevent accidents, fatal accidents have occurred in the past years.

In February 2008, a deadly workplace accident resulted from an explosion at the Darmstadt site. In 2007, three sales force members were killed in a car accident in Venezuela. In 2005, a sales force member was a victim of the tsunami in Indonesia.

# (04) Benefits in the event of illness\*

Benefits in the event of illness*				
	2005	2006	2007	2008
Percentage of employees with company accident				
insurance	91	94	90	99
Percentage of employees with statutory health				
insurance	71	72	77	82
Percentage of employees with employer-funded				
health insurance	86	94	81	82

See the explanation on page 57 on the comparability of data from different years

From 2005 to 2007, we recorded for over 80% of our workforce the benefits paid to employees in the event of illness; since 2008, we have been collecting this information for all employees. More than 80% can rely on statutory health insurance. Merck offers company benefits exceeding the state benefits to more than 90% of its employees. We no longer report the percentage of employees with company medical care. This type of health care is only possible at very large sites, meaning that there are many Merck employees to whom it does not apply.

# (05) Benefits in the event of a loss of pay and minimum salary\*

Benefits in the event of a loss of pay and minimum salary						
	2005	2006	2007	2008		
Percentage of employees whose dependents are entitled to a survivor's pension	62	46	43	71		
Percentage of employees who are obliged to contribute to the statutory pension system	79	71	80	87		
Percentage of employees on the company pension scheme (in addition to the statutory pension scheme)	74	80	66	70		
Percentage of sites guaranteeing a minimum salary above the local minimum salary	93	99	92	94		

See the explanation on page 57 on the comparability of data from different years

Employee benefits not only increase Merck's attractiveness as an employer. They also help the company to motivate employees and to retain them. Apart from government social security systems, Merck therefore offers its employees additional benefits. The most important ones are listed here. The aim is to adequately support our employees while encouraging them to take on more responsibility for their financial security. Secure longterm financing of the additional company benefits is a prerequisite here. The additional salary components offered by subsidiaries take into account country-specific benefit systems and are suitably comparable to local standards. Nevertheless, Merck employees continue to remain responsible for contributing to any additional plans required to attain their desired level of benefits on retirement or in the event of occupational disability.

#### (06) Diversity and equal opportunity\*

Diversity and equal opportunity in the workplace has an inspiring and motivating effect. At the same time, we can only defend our international leadership positions if we succeed in attracting the best people to work for our company. At 13.4, the average number of years of service at the German sites (2008) is evidence of our attractiveness as an employer. Nevertheless, a lot remains to be done, such as increasing the proportion of women in the top management of the Merck Group. In our top management, 30 nationalities are represented, and 11% of managers in this group are women.

2005	2006	2007	2008
41	41	42	42
21	24	not recorded <sup>1,2</sup>	not recorded
not recorded	not recorded	not recorded	11 <sup>1</sup>
not recordedt	not recorded	not recorded	117
not recordedt	not recorded	not recorded	30
not recorded	not recorded	not recorded	50
3.95	3.80	3.82	4.21
	21 not recorded not recordedt not recordedt not recorded	41     41       21     24       recorded     recorded       recordedt     recorded       not     not       recordedt     recorded       not     not       recordedt     recorded       not     not       recordedt     recorded	41     41     42       21     24     not recorded       recorded     recorded     recorded       not     not     not       recordedt     recorded     recorded       not     not     not       recorded     recorded     recorded

See the explanation on page 57 on the comparability of data from different years

<sup>1</sup>In 2008, the definition of top management was changed to restrict it to those positions with a global grade of 16 or above. This reduces the number of positions covered under this definition to around 250. In terms of percentages, 1% of the total employees occupy top management positions rather than 2%.

<sup>2</sup>In the course of integrating Serono, multiple changes were made to the organizational structure in 2007. For this reason, no data on executives were collected that year.

<sup>3</sup>Relates only to the Darmstadt, Gernsheim and Grafing sites (around 28% of the employees of the Merck Group in 2008).

As regards compensation at Merck, the compensation received by all employees is exclusively based on the degree of responsibility, expertise and performance.

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### (07) Personnel development\*

2007	2008
1,643	1,064
1.27	1.76
5.7	5.6
-	1.27

\* See the explanation on page 57 on the comparability of data from different years

<sup>1</sup> Relates only to the Darmstadt, Gernsheim and Grafing sites (around 28% of the employees of the Merck Group in 2008). Calculated in accordance with the BDA formula: Departures x 100/average workforce in %, adjusted, i.e. excluding departures due to retirement, death, limited contracts or transfers to subsidiaries (BDA: Federal Association of German Employer Associations).

<sup>2</sup> Relates only to the Darmstadt, Gernsheim and Grafing sites (around 28% of the employees of the Merck Group in 2008), proportion of all employees at the three sites who are vocational trainees.

Promoting talented employees is a precondition for the success of Merck. In this area, we apply a globally uniform personnel development process. For learning and development, Merck is planning to establish a global platform that will allow all Merck employees to access internal and external training. As a first step, the offerings of major internal learning and development providers across the Merck Group have been linked to a common website to enable employees to inform themselves of training courses and programs offered worldwide. The local German learning platform known as Platon is currently used by more than 6,000 employees. Here, on-site courses as well as e-learning programs are offered mainly to Merck employees based in Germany.

In Germany, Merck trains people in many different occupations. Our range includes chemistry and biology laboratory technicians, office communication assistants, business information technology specialists, and many more.

In both 2007 and 2008, 170 new vocational trainees were hired for the Darmstadt, Gernsheim and Grafing sites.

### (08) Working hour regulations at German sites

Working hour regulations				
	2005	2006	2007	2008
Percentage of part-time employees1	10.5	10.6	10.7	10.9
Employees on parental leave as of Dec. 311	189	211	221	234
Percentage of employees who work during				
parental leave <sup>1</sup>	27	35	42	38

<sup>1</sup>Relates only to the Darmstadt, Gernsheim and Grafing sites (around 28% of the employees of the Merck Group in 2008).

Merck is committed to a family-friendly personnel policy. In 2005, Merck in Germany participated in the "Career & Family" audit conducted by the charitable Hertie Foundation and received a certificate confirming the company's status as a family-friendly company. Following another audit, Merck was recertified in November 2008.

Full-time and part-time models are presented in table [02], ILO Labor Standards.

For employees of Merck KGaA (with the exception of senior executives), the company and the entire works council signed a company agreement on annual working hours in 2000. This agreement enabled more flexible working hours that can be more easily adjusted according to operational fluctuations; it aims for tasks to be completed in a targeted fashion while allowing employees to structure their working hours as flexibly as possible.

# Key environmental figures

The environment, health and safety data are input at the local level via LION, the Location Information ONline System from the Merck Group, and approved after review by a second person. This system has been used since 2005 to survey all relevant sites; in 2007, the newly added Serono sites were also integrated. The key environmental figures are collected for the following purposes:

- to improve performance and define environmental objectives
- for external reporting (Annual Report, Corporate Responsibility Report)
- for internal and external comparisons
- to prepare for audits

# (01) Energy

Energy					
	2004	2005	2006	2007	2008
Energy consumption (MWh)	1,202,389	1,160,000	1,220,000	1,208,000*	1,376,000
Energy raw materials purchased					
Light heating oil (t)	3,609	5,503	5,537	4,778	4,235
5, 1	3,609	5,503	5,537	4,778	4,235 4,673

The energy consumption published in the 2007 report "Responsibility for Employees, the Environment and the Community" did not completely include the Serono sites and was adjusted.

The total energy consumption of the Merck Group from 2004 to 2008 rose by 14%. This particularly reflects higher production output. The 2007 integration of the Serono sites likewise led to higher energy consumption. Since 2008, we have been calculating energy consumption according to the Greenhouse Gas Protocol, an initiative of the World Resource Institute and the World Business Council for Sustainable Development. Previously, energy consumption was analyzed directly at the individual sites. The energy consumption in 2008 also includes energy used from burning biomass (wood, 84,000 MWh).

www.ghgprotocol.org

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In 2008, the Merck Group procured 389,000 MWh of electricity. The primary energy sources utilized here are not available to the entire Group. In many countries, renewable energy is also included in the standard energy blend from power suppliers. In 2008, 16% of the power at our German sites consisted of renewable energy. These sites also utilized around 23,000 MWh of electrical power from renewable sources.

# (02) Emissions

Emissions					
in t	2004	2005	2006	2007	2008
Direct CO <sub>2</sub> emissions	148,000	146,000	149,000	162,000	184,000 <sup>1</sup>
Indirect CO <sub>2</sub> emissions	_2	_2	_2	_2	148,000
Dust	21	27	30	24	22
VOC	1,901	1,906	1,784	1,932	1,874
Nitrogen oxides	207	272	265	240	213
Sulfer dioxide	158	88	60	28	55

See

<sup>1</sup> First report in accordance with he GHG Protocol. In the Merck Annual Report for 2008, CO<sub>2</sub> emissions were reported to total 164,000 metric tons. Owing to subsequent reporting and necessary corrections, this value has been updated.

<sup>2</sup> not completely recorded

Our largest production site in Darmstadt, Germany switched fuel from coal to natural gas, which caused a significant drop in direct  $CO_2$  emissions from 2002 to 2003. In 2007, emissions rose due to the integration of the Serono sites. Since 2008, we have been reporting  $CO_2$  emissions according to the Greenhouse Gas Protocol; they are based on the consumption values input by the individual sites. Previously, the  $CO_2$  emissions themselves were reported directly by the sites. This change has standardized reporting, increasing its consistency by applying figures such as predefined emissions factors; transparency is improving. The reporting limits have also been changed, with reports now incorporating aspects such as indirect  $CO_2$  emissions (until 2007, reports only took direct emissions into account).

We have set ourselves the goal of reducing all emissions by 20% by the year 2020, meaning both direct and indirect  $CO_2$  emissions. The reduction will be measured against the direct and indirect emissions levels in 2006. This baseline will be retroactively calculated to include the emissions from the sites that have belonged to Merck since the 2007 acquisition of Serono.

To ensure a solid basis of data, the data from 2006 and 2007 are verified. This baseline especially includes the data from the 15 sites that together produce 80% of Merck's emissions worldwide and is calculated according to the Greenhouse Gas Protocol.

The level of other air-polluting substances emitted by the companies of the Merck Group is low.

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#### (03) Water

#### Water

Water					
	2004	2005	2006	2007	2008
Water consumption (million m <sup>3</sup> )	15.1	15.3	15.3	20.1	21.2*
Surface water (rivers, lakes)	not recorded	not recorded	5.4	10.8	11.3
Groundwater	not recorded	not recorded	7.1	5.8	6.4
Drinking water supply	not recorded	not recorded	2.8	3.5	3.4
Wasterwater volume (million m³)	8.8	8.1	7.8	9.3	8.8
Chemical oxygen demand (COD in t of oxygen)	2,231	2,372	1,789	1,846	1,441
Biological oxygen demand (BOD, in t of oxygen)	1,171	1,195	990	1,108	572
Phosphorus (in kg)	7,217	6,920	7,581	9,557	8,703
Nitrogen (in kg)	70,499	64,573	55,199	52,350	51,540
Zinc (in kg)	554	496	652	525	703
Chromium (in kg)	76	19	33	32	31
Copper (in kg)	71	51	42	28	30
Nickel (in kg)	64	63	60	52	50
Lead (in kg)	83	37	52	49	45
Cadmium (in kg)	5	9	9	15	9
Mercury (in kg)	1	1	1	2	2
Arsenic (in kg)	4	5	5	5	7

\*In 2008, 0.1 million m<sup>3</sup> rainwater was also used.

In past years, the Merck Group decreased its total water consumption despite increased production. The increase in 2007 can be attributed to the integration of the Serono sites. The quantity consumed in 2008 can be broken down as follows: 30% groundwater, 54% surface water and 16% from the public drinking water supply.

The data include the approximately 5 million m<sup>3</sup> of water to irrigate the fields on the Barra de Corda farm in Brazil and for safety measures at the Gernsheim site. This water is fed directly back into natural circulation The water consumption of 13.8 million m<sup>3</sup> of water published for 2007 did not include the water taken from Lake Geneva (6 million m<sup>3</sup>) for cooling and heating the Merck Serono headquarters in Geneva (see p. 38). This has been adjusted accordingly in above table.

The wastewater volume includes indirect discharge, as well as direct discharge and seepage, into both Merck-owned and public wastewater treatment plants. The wastewater volume does not include the quantities taken from Lake Geneva (around 6 million m<sup>3</sup>) that are exclusively used for cooling and heating the Merck Serono headquarters in Geneva and then fed directly back again. Water used for irrigating (such as the 4-5 million m<sup>3</sup>/year at the Barra do Corda farm in Brazil) does not qualify as wastewater and is therefore not included in the wastewater volume. This has been correspondingly adjusted in the wastewater data for 2007.

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(04) Soil and landscape protection

Merck has numerous production and administrative locations that also offer habitats for a large number of plants and animals. Neither protected areas nor areas that were protected and then directly used afterwards by Merck exist. The cultivation of medicinal plants at our farm in Barra de Corda in Brazil, which was divested at the end of 2008, follows ecological principles (e.g. pest control using emus, fertilization using plant remains).

# (05) Waste

Masta

2004	2005	2006	2007	2008
171,977	170,506	167,813	183,731	210,024
83,176	89,332	93,936	90,941	106,052
60,351	33,731	43,273	50,646	56,415
28,450	47,443	30,603	42,144	47,556
48	52	56	49	50
	171,977 83,176 60,351 28,450	171,977         170,506           83,176         89,332           60,351         33,731           28,450         47,443	171,977         170,506         167,813           83,176         89,332         93,936           60,351         33,731         43,273           28,450         47,443         30,603	171,977         170,506         167,813         183,731           83,176         89,332         93,936         90,941           60,351         33,731         43,273         50,646           28,450         47,443         30,603         42,144

From 2004 to 2008, total waste quantities increased by 22%. This increase was caused partially by production increases and partially by the demolition, construction and remediation activities predominantly at the Darmstadt and Gernsheim and sites that created great quantities of construction rubble and excavation waste.

In 2008, the recycling rate was 50%, and thus on a similar level as in 2007 following the continuous increase up to 56% in 2006. This decline is attributable to the large quantities of waste to be disposed of following soil remediation activities in 2007 and 2008, involving the disposal of 32,200 metric tons of soil waste in 2007 and 51,300 metric tons in 2008.

### (06) Logistics and transport

Sixty-three percent of the goods sent from the German sites are transported over land; 32% are shipped by sea freight, and the remaining 5% are shipped by airfreight.

Data on transportation methods are not recorded at the Group level.

### (07) Production incidents

The Merck Group sites use the Rapid Incident Report System to report to headquarters in Darmstadt any occurrences such as accidents and releases of substances that may significantly impact the environment.

In addition to quickly informing headquarters, the Rapid Incident Report System aids in prevention and learning; information on preventive measures to be taken is immediately sent to any other sites where similar incidents could occur.

# Key social figures

### (01) Human rights

"Merck does not tolerate discrimination based on gender, race, color, nationality, age, religion, sexual orientation, disability or on any other basis prohibited by law." This is stipulated in the Code of Conduct and the Social Charter of the Merck Group. We recruit, hire, train and promote employees based on this principle. The Charter also stipulates that the Merck Group does not tolerate child or forced labor.

# (02) Corruption

Corruption			
	2006	2007	2008
Number of audits	68	71	68
- Number of audits pertaining to corruption	31	40	36
Online Code of Conduct courses completed	8,000	8,806	556

In accordance with our Code of Conduct and Social Charter, no employee or member of his or her family may demand or accept from suppliers, customers, or governmental institutions, or mutually distribute, any money or gifts for personal gain. The Code of Conduct furthermore states, "If regular social interaction between business partners requires invitations or small gifts, then giving or receiving such benefits is permitted, to the extent and as long as the legal requirements are met, and such benefit does not cast any doubt on the employee's or recipient's motives." As part of its annual audit program, Corporate Auditing and Risk Management audits corresponding procedures at international sites and company headquarters. There were no indications of potential cases of corruption.

# (03) Social commitment

In 2007, the Executive Board defined the roles and responsibilities for social commitment, dividing activities into Global Responsibility and Local Responsibility projects.

The Global Responsibility projects and their current status are described in the chapter entitled "Responsibility for the community".

On the level of Local Responsibility, Merck realized worldwide Corporate Citizenship projects and assessed them for the second time in 2008.

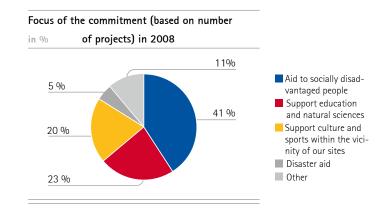
The activities are generally oriented towards the local or regional area of the sites; a quarter of the projects have a national focus.



13 %

25 %

The Group-wide "Roles and Rules" provide focus areas for the corporate citizenship activities of our companies. The graph shows how the projects are distributed among these areas.

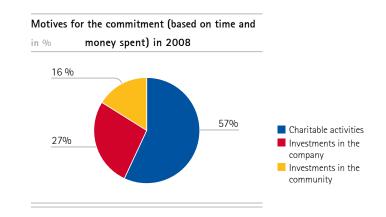


52 %

Europe Asia

Latin America
 North America
 Other

To make the motives of our corporate citizenship activities transparent, we have allocated the reported projects to one of three motive categories. Here, we have followed the model set forth by the London Benchmarking Group. "Investment in society" summarizes all projects that primarily aim to make improvements within the community. "Companyrelated commitment" includes all projects that have an obvious impact on company-relevant factors such as image, customer relationships, employee acquisition or personnel development. "Charitable activities" include all other projects that benefit a charitable organization, but cannot be assigned to either of the other two categories due to their limited scope or absence of reliable data.



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# (04) Stakeholders

The following table lists our most prominent stakeholders; it also presents a selection of topics that we discuss with our stakeholders and describes some of the awards that Merck received during the reporting period.

Stakeholder	Topic / awards
Customers	<ul> <li>Thanks to the continuous exchange with customers from our Chemicals divisions, we are able to develop materials and technologies that allow our customers to maintain their competitive edge.</li> <li>In 2008, the University of Bremen, Germany, and BBDO Consulting ranked companies according to their market orientation, placing Merck fourth out of about 300 companies.</li> <li>In the same year, the Liquid Crystals division received the Frost and Sullivan Leadership Award for unceasing commitment to researching and developing liquid crystal materials.</li> <li>With our innovative materials for PS-VA technology (Polymer Stabilized Vertical Alignment), we have paved the way for the next generation of LCDs. Owing to this innovation, we received the Silver Honor for the Display Component of the Year Award at the SID Display Week in San Antonio, Texas.</li> <li>At the beginning of 2009, the laboratory distributor VWR honored Merck for the second consecutive time as the best supplier in Europe. At the award ceremony, VWR particularly praised Merck's innovative, creative support in marketing and sales as well as its reliable delivery service.</li> </ul>
Employees	The Group-wide employee survey Pulse was conducted for the first time at the beginning of 2009 (see "Responsibil- ity for employees"). Previously there were different versions of the employee survey within the Chemicals and Phar- maceuticals divisions. Under the heading of "Merck Serono in Focus" and "Function in Focus", Merck Serono regularly hosts information and dialog forums for employees. In addition to this, the Merck Serono management team regularly invites em- ployees to join them for lunch, with the intention of openly discussing current issues and learning something about employees' views across all levels of the company. The "ChemForum" aims to support open, dialog-oriented communication with employees across all levels and functions. As part of this, the Chemicals business sector utilizes events at an international and local level where people can participate virtually or face-to-face. The Merck Euroforum, the European employee representative body, is an informational and advisory platform at European level that promotes dialog through direct contact with senior management up to the Executive Board level. Topics include, among others, the economic and financial situation of the Merck Group in Europe, the employ- ment situation, and also the substantial changes within the organization.
Company owners and the financial market	In 2008, we webcasted the Annual General Meeting for the first time, thereby reaching a broader target group. Furthermore, in the same year, more than 500 individual talks were held with institutional investors, and visits were made to events of the Deutsche Schutzvereinigung für Wertpapierbesitz e. V. (German Association of Private Share- holders) and of the Schutzgemeinschaft der Kapitalanleger e.V. (German Association for the Protection of Investors) in order to increase the base of private investors in Germany. We took part in conferences and roadshows in Ger- many, the United Kingdom, France, Switzerland, Ireland, Italy, Scandinavia, and the Benelux countries, as well as on the U.S. west and east coasts, in Canada, Japan and Singapore. Since 2008, we have been participating in the Carbon Disclosure Project; our responses have been published on the CDP's website (www.cdproject.net). In September 2008, Merck was admitted to the FTSE4Good Index.
Suppliers	We also maintain an open dialog with our suppliers. In this dialog, we share with them our opinion of their services and where we think they could improve. This promotes continuous improvement in their services and indicates other potential benefits.

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Stakeholder	Topic / awards
Authorities	<ul> <li>In 2006, Merck worked together with the Gesellschaft für Technische Zusammenarbeit (GTZ) (German Association for Technical Cooperation) to launch a program in Indonesia aimed at making Indonesian authorities, companies and laboratories more aware of managing hazardous chemicals and biomaterials in a safe, environmentally friendly manner, and at training them in handling such materials.</li> <li>The environmental protection agency in Bogotá (Colombia) distinguished Merck for its excellent achievement in the area of environmental protection and management. Due to its exemplary dedication and expertise, the company there is one of the official advisors of Colombia's environmental protection agency.</li> </ul>
Politics, associations and non-governmen- tal organizations	We participate actively in the political process, presenting our position and point of view. We accomplish this either through a direct dialog with politicians or through federations in which we are position-holding members. We thus actively take part in national and international industry associations such as the Verband der Chemischen Industrie (VCI) (German Chemical Industry Association), the Verband Forschender Arzneimittelhersteller (VFA) (German Association of Research-Based Pharmaceutical Manufacturers) and the global IFPMA (International Federation of Pharmaceutical Manufacturers & Associations). During the reporting period, Dr. Karl-Ludwig Kley, Chairman of the Executive Board, and Hubertus Schmoldt, Chairman of the German Industriegewerkschaft Bergbau, Chemie, Energie (Mining, Chemical and Energy Industrial Union), held multiple talks to define mutual interests and then represent these jointly.
The public and local residents	<ul> <li>Since 2006, at the company headquarters in Darmstadt – likewise Merck's largest production site – Merck has been conducting a dialog with neighboring residents, led by an independent moderator. During these annual planning meetings, the participants discuss the development of Merck in Darmstadt. Representatives of the city of Darmstadt, the Regierungspräsidium Darmstadt (regional administrative authority), citizens of the neighboring Darmstadt sub-urb and Merck all take part. Critical issues are also addressed directly between these annual meetings. Neighboring residents are regularly invited to a public citizens' meeting and informed of important developments on the site.</li> <li>While planning the expansion of the Biotech Center in Corsier-sur-Vevey (Switzerland), Merck likewise established an open dialog with environmental organizations, local authorities and neighboring residents (see "Responsibility for the environment").</li> <li>Furthermore, numerous sites have open house days on which they invite neighbors and other interested parties.</li> <li>In manager magazine's "Good Company Ranking 2009", Merck ranked 18 out of 90 of the largest European stock corporations; among the DAX 30 companies, we hold seventh place. This ranking assesses achievement in the areas of community, employees, environmental protection and economic performance.</li> <li>In Thailand, Merck was honored by the Pinnacle Group with the Global CSR Leadership Award 2009. More than 30 organizations and companies around the world were nominated for the award.</li> </ul>
The scientific community	To continue driving our research forward, we participate in scientific networks. Examples of this are mentioned at various points in this report (pages 20, 26 and 27).

# **Global Compact**

#### Communication on progress in implementing the ten principles of the Global Compact

The Global Compact (GC) is a UN initiative founded in 2003. The signatories to the initiative commit themselves to ten principles based on key UN conventions regarding human rights, labor standards, environmental protection and corruption prevention. At the same time, the compact obliges the signatories to actively engage themselves in propagating the principles within their own sphere of influence. You can find information on the GC at www.unglobalcompact.org (international site) or www.globalcompact.de (German GC network). The following table indicates the guidelines and management systems we advocate for the GC goals and which measures we have implemented within the reporting period.

Principle	Measures
Principle 1: Protecting human rights	- Implementation of the Social Charter (p. 13, 66) - Entry into the BME Compliance Initiative (p. 13)
Principle 2: Ruling out human rights abuses	– Implementation of the Social Charter (p. 13, 66) – Entry into the BME Compliance Initiative (p. 13)
Principle 3: Upholding the freedom of association	- Implementation of the Social Charter (p. 13) and refinement of monitoring process (p. 58) - Activities of the European employee representative body known as the Euroforum (p. 68)
Principle 4: Elimination of all forms of forced and compulsory labor	– Implementation of the Social Charter (p. 13, 66) – New requirements in German supplier contracts (p. 14, 51) – Entry into the BME Compliance Initiative (p. 13)
Principle 5: Abolition of child labor	- Implementation of the Social Charter (p. 13, 58, 66) - New requirements in German supplier contracts (p. 14, 51) - Entry into the BME Compliance Initiative (p. 13)
Principle 6: Elimination of discrimination	- Implementation of the Social Charter (p. 13, 58, 66) - Corporate objective to increase the percentage of women in top management positions (p. 46, 60) - Refinement of the monitoring process (p. 60)
Principle 7: Precautionary approach to environmental challenges	<ul> <li>Program "Operational Excellence": Lean &amp; Six Sigma projects (p. 12)</li> <li>Stakeholder dialogs to identify environmental risks (see GRI indicators 4.14 to 4.17)</li> <li>ISO 14001 certification for the Group (p. 35-36)</li> <li>Implementation of the Responsible Care Global Charter (p. 36)</li> </ul>
Principle 8: Initiatives to promote greater environmental responsibility	<ul> <li>Examples on pages 36-39, 64</li> <li>CO<sub>2</sub> reduction target: 20% lower relative to 2006 levels (p. 37)</li> <li>Program "enerCare" (p. 38)</li> <li>Energy waste recovery (p. 38)</li> <li>Specific environmental goals (p. 47)</li> </ul>
Principle 9: Diffusion of environmentally friendly technologies	<ul> <li>Power-saving liquid crystal displays (p. 23)</li> <li>Power-saving LED and OLED light sources (p. 23-24)</li> <li>New electrolytes for battery technology (p. 24)</li> <li>Organic photovoltaics (p. 24-25)</li> <li>Research into applications for nanotechnology (p. 26)</li> </ul>
Principle 10: Anti-corruption measures	<ul> <li>Code of Conduct updated and compliance organization expanded (p. 13)</li> <li>Speak-up line set up (p. 13)</li> <li>Training courses continued for Code of Conduct (p. 13, 66)</li> <li>Audits conducted on corruption (p. 66)</li> <li>New requirements in German supplier contracts (p. 14, 51)</li> <li>Entry into the BME Compliance Initiative (p. 13)</li> </ul>

# **Global Reporting Initiative Index**

www.globalreporting.org

Application level for the Merck Corporate Responsibility Report for 2009: Self-assessment Level B

Aspect: Materials

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Specific limitations on the scope or boundary of the reportAbout this report
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AR	=	Annual	Report	IOL	2008	

\* = no complete information in accordance with GRI criteria, for an explanation see www ww = more information on the GRI Index is available at www.responsibility.merck.de

All the key indicators are listed. Gaps in numbering are due to the fact that supplementary GRI indicators are not listed in the index.

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none

# Glossary

#### Hazard pictogram

In line with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), which uniformly classifies chemicals and their labeling on packages and in datasheets, new pictograms were created to indicate hazards such as corrosive or flammable substances.

#### Global Compact (GC)

The GC is a UN initiative founded in 2003. Its signatories commit themselves to ten principles on human rights, labor standards, environmental protection and corruption prevention, based on key UN conventions.

#### Global Reporting Initiative (GRI)

The GRI is a worldwide network of stakeholders and experts that uses a participatory procedure to create guidelines for producing sustainability reports. The objective is to make it possible to compare these reports.

#### FTSE4Good Index

Created by the FTSE Group, the FTSE4Good Index is one of the leading international stock indices for responsible investing. To be included in this index, a company must fulfill certain criteria such as effective environmental protection, adherence to human rights and support thereof.

#### ISO 14001 and RC 14001

ISO 14001 is an international environmental management standard that defines globally recognized requirements for environmental management systems. RC 14001 is the U.S. equivalent.

#### Sustainable investment/Socially responsible investment (SRI)

Sustainable investment or SRI means monetary investments that take into account ecological or social factors in addition to the classical financial analysis.

#### London Benchmarking Group (LBG)

The LBG is a conglomerate of over 100 companies. LBG's assessment model should be used to survey and assess a company's social commitment. It is also intended to clearly indicate the benefit for the company and society resulting from voluntary service.

#### Stakeholder

Stakeholder indicates a person or organization that has an interest in a company. Stakeholders include people such as employees, business partners, site neighbors or shareholders.

#### Strategic Approach to International Chemicals Management (SAICM)

SAICM's objective is to minimize negative impacts on the environment and human health caused in the course of a chemical's life cycle.

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