MERCK

RESPONSIBILITY

Corporate Responsibility Report 2011

KEY FIGURES

Total revenues by business sector and division

EUR million	2006	2007	2008	2009	2010
Total revenues	6,310	7,081	7,590	7,747	9,291
Pharmaceuticals	4,163	4,900	5,456	5,812	6,226
Merck Serono	1,938	4,480	5,014	5,345	5,754
Generics	1,825	-	-	-	-
Consumer Health Care	400	420	442	467	472
Chemicals	2,113	2,152	2,127	1,935	3,065
Liquid Crystals	895	916	878	-	-
Performance & Life Science Chemicals	1,218	1,236	1,249	-	-
Merck Millipore	-	-	-	929*	1,681
Performance Materials	-	-	-	1,006*	1,384
Operating result by business sector	1,105	976	1,131	649	1,113
Pharmaceuticals	524	417	655	403	579
Chemicals	641	631	558	324	624

* As a result of the acquisition of Millipore, the Chemicals business was reorganized. The previous year's figures have been adjusted.

Sales by region

EUR million	2006	2007	2008	2009	2010
Europe	2,124	3,322	3,524	3,374	3,747
North America	287	968	1,015	1,171	1,529
Latin America	508	700	806	942	1,081
Asia, Africa, Australasia	1,521	1,785	1,857	1,891	2,572

Employees by region

Number	2006	2007	2008	2009	2010
Europe	17,167	18,930	19,106	18,576	21,679
North America	2,703	2,034	2,157	2,051	4,909
Latin America	3,767	4,054	4,370	4,272	4,546
Asia, Africa, Australasia	6,362	5,950	7,167	8,163	9,428

ABOUT THIS REPORT

This fifth edition of the Corporate Responsibility (CR) 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), every two years since 2003 we have published a report on our corporate responsibility for our products, our employees, the environment, and society. Our objective is to present our activities, successes and challenges transparently. This report also documents our progress in implementing the principles of the United Nations' Global Compact ("Communication on Progress").

Reporting framework

The reporting period covers the fiscal years (calendar years) 2009 and 2010 and relates to the entire Merck Group with its Pharmaceuticals and Chemicals business sectors. Consequently, it also includes the sites added in 2010 due to the acquisition of Millipore, an international supplier to the life science sector. Any exceptions, such as site-specific figures or division-specific activities, are indicated.

Recording the data

The environment, health and safety data are input at the local level via LION, the Location Information Online Database of the Merck Group, and approved after review by a second person. Since 2005, Merck has used this system to record the data of all production sites, relevant warehouses and research sites over which Merck has operational control. When evaluating the relevance of sites, we consider both potential risks resulting from the sites' activities and the sites' sizes (number of employees). So we record data from all production sites, for example, even if they have only a few employees. Since 2010, the newly added Millipore production sites have also been fully included in the data collection process.

In 2009, we began including our commercial subsidiaries into the data collection process. This is expected to substantially improve the quality of the reported data related to accidents. We will continue this process in 2011.

We are continuously working to optimize our data collection processes and quality controls and standardizing them worldwide, even at small sites. To this end, in 2011 we will continue at the Group level to revise the existing standards, operating procedures and guidelines on reporting. We will also support the sites in optimizing their data collection processes and the related quality controls. We are intensifying our checks of the processes and the reported data, for example within the scope of the internal EHS audits.

The data on employees and social commitment refer to the entire Merck Group and, as of 2010, include Millipore. The master data on employees are continually updated in an SAP database. Other employee data, such as on ILO core labor standards, and the data on social commitment are requested annually. We are striving to increase the quality of the data received by improving the instructions for entering and checking the data for plausibility.

External verification

KPMG AG Wirtschaftsprüfungsgesellschaft audited the Group financial statements and management report and granted an unqualified audit opinion. In addition, Merck has received a Limited Assurance audit certificate from KPMG AG for both financial and selected non-financial figures (see Independent Assurance Report, p. 68).

Further information

This printed report cannot cover the entire range of information on the accomplishments and activities of the Merck Group. Further and more detailed information can be found on our website at www.merck.de/responsibility. We plan to publish the next Merck CR Report in 2013.

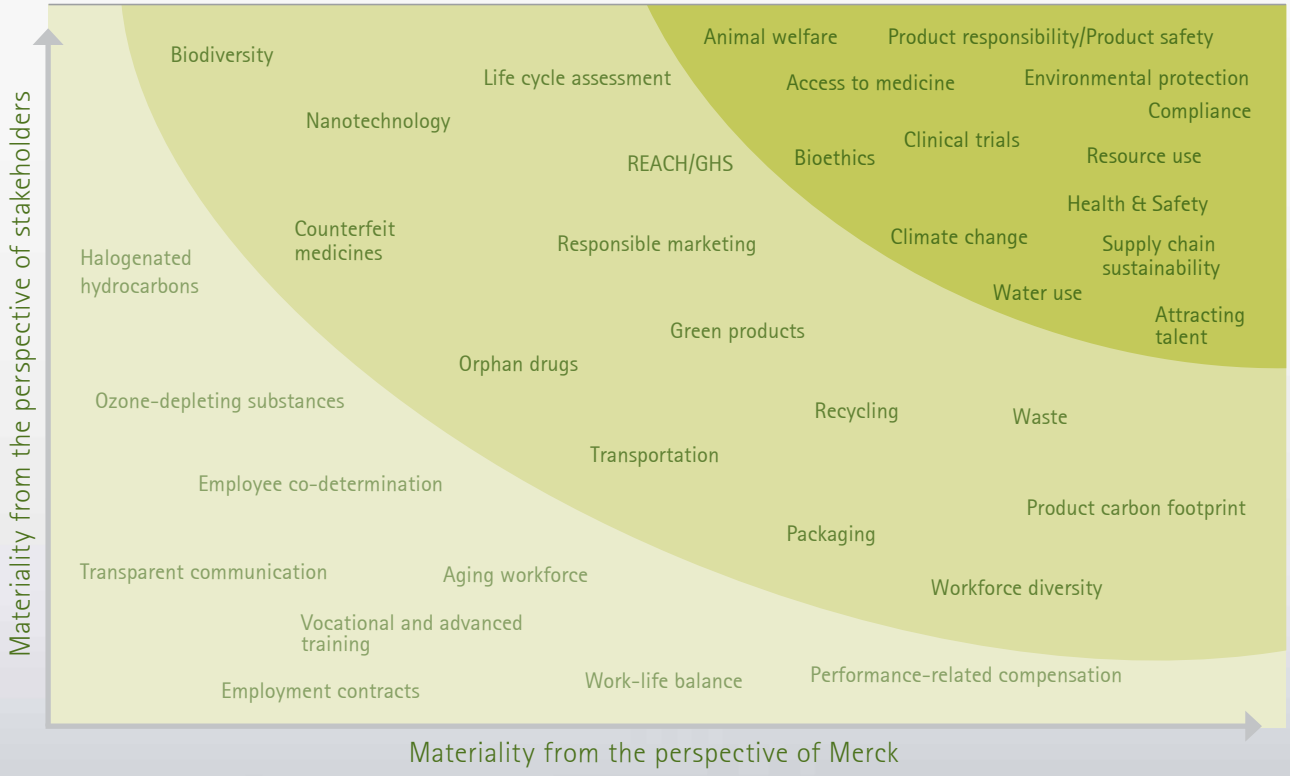
Determining the content of the report

Our reporting is based on the internationally recognized G3 guidelines of the Global Reporting Initiative (GRI) and internal guidelines whose definitions orient toward those of the G3 guidelines. Merck self-declares an Application Level of B+.

To determine which CR topics were material for our reporting, we conducted a materiality analysis in 2010. To that end, in August and September 2010 we surveyed 19 relevant stakeholders on their perception of Merck's CR activities and their opinion of which CR topics were material for Merck's Pharmaceuticals and Chemical businesses. We also conducted a sector analysis, and within the scope of this we analyzed the questionnaires of relevant CR rating agencies and the current CR topics addressed by politicians, NGOs and our competitors. We evaluated and prioritized the results according to their materiality for Merck at internal workshops.

From these results, we derived the structure for this CR report and the main contents. All topics identified as material in the materiality analysis are included in this report.

Materiality analysis



The reporting focuses on the topics shown in **dark green**; they have the highest relevance both to Merck and to our stakeholders. The **medium-green** topics have medium relevance and are also covered in depth. The **light green** topics are less relevant and are covered in less detail.

CONTENTS

INTRODUCTORY MESSAGE

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

Dear Readers,

The world is changing, and so is Merck. That makes it all the more important to have a reliable value compass to guide entrepreneurial actions. The financial and economic crisis has shown the negative consequences of not having such a compass – both for society and for companies themselves. We at Merck are taking a different path.

Our values are courage, achievement, responsibility, respect, integrity and transparency. They determine our actions each and every day.

Financial solidity and running our businesses judiciously are principles that enabled us to cope well with the crisis. Our actions are, of course, aimed at business success. At the same time, however, we respect and serve the interests of employees, customers and suppliers, investors and society. Only healthy companies that operate sustainably can contribute to a functioning society as employers, tax payers and corporate citizens.

During the crisis, we deliberately renewed our commitment to the United Nations Global Compact. We did so because social and environmental responsibility are not a luxury to us that we only uphold during boom years, but rather are an integral part of our corporate culture. The examples described in this report provide evidence of this.

We also take on responsibility for and with our pharmaceutical, chemical and life science products. Whether through innovative pharmaceuticals to treat disease, specialty chemicals to improve ways to harness and store renewable energy, or materials for biotech laboratories around the world – in order to address global megatrends we invest more than EUR 1 billion in research and development annually.

In early 2011, we decided to increase the share of women in management positions to between 25% and 30% by 2016. We are strengthening our efforts to advance talented employees in order to prepare them for future management tasks.

This is just one example among many of how Merck is demonstrating its commitment. Taken together, all of the examples show that responsibility is primarily about sustainability. Merck thinks in generations, not only in quarters. And that's what we intend to keep doing in the future as well.

Sincerely,

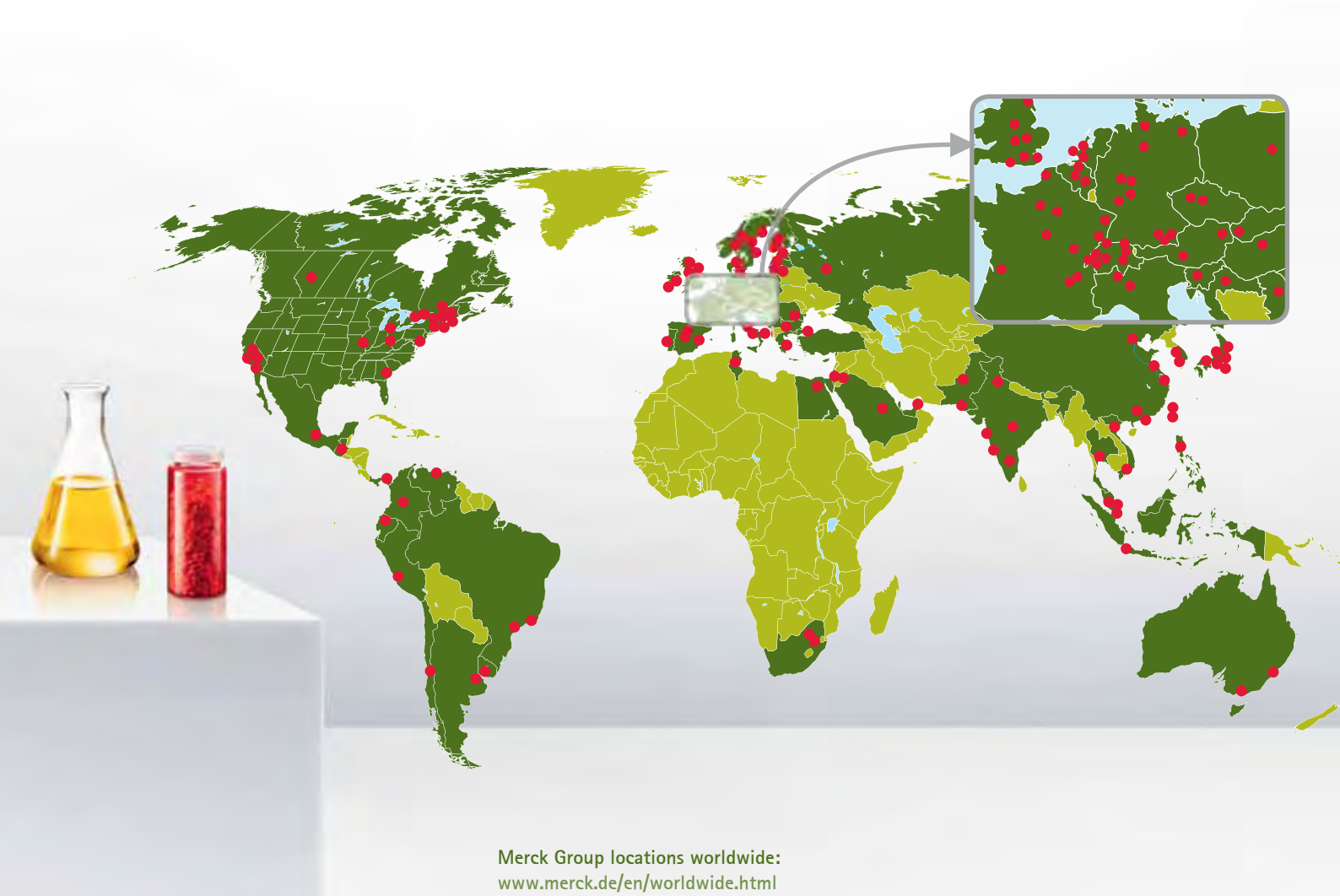
COMPANY PROFILE

Merck is a global pharmaceutical, chemical and life science company with approximately 40,000 employees in 67 countries. With the acquisition of the U.S. company Millipore and the resulting merger of our businesses, Merck has become a world-class, leading partner to the life science industry. In addition, our portfolio includes prescription drugs and over-the-counter pharmaceuticals, as well as specialty chemicals for the electronics industry and for manufacturers of coatings and cosmetics. In 2010, we achieved total revenues of EUR 9.3 billion.

Corporate strategy

www.merck.de
> Merck Group
> Mission Statement, Values, Strategy

Merck has a clear objective: profitable growth. Our strategy can be summed up in three words: Sustain. Change. Grow. It's a strategy that suits both our culture and our competencies. It strikes the right balance between the old and the new, between innovation and tradition, between pharmaceuticals and chemicals; it gives us the best possible preconditions for growth and makes it possible to fully unlock the entrepreneurial potential inside Merck in the future as well.



Merck Group locations worldwide:
www.merck.de/en/worldwide.html

Company management

www.merck.de
> Merck Group
> Management

30% of the company's total capital is publicly traded; the Merck family owns an interest of about 70%. Merck shares have been included in the DAX® 30, the blue chip index of Deutsche Börse, since 2007. In September 2008, Merck was admitted to the FTSE4Good Index, a leading global responsible investment index that measures the social, environmental and ethical performance of companies.

CORPORATE STRUCTURE

The pharmaceutical, chemical and life science businesses of Merck are organized into four divisions.

www.merck-serono.com

Merck Serono specializes in innovative pharmaceuticals. This division focuses on indications mainly treated by specialists as well as on diseases with high unmet medical needs.

Our leading prescription drugs Erbitux® and Rebif® help patients suffering from cancer or multiple sclerosis. In addition, the portfolio includes therapies to treat infertility and growth disorders, as well as cardiovascular and metabolic diseases. Research and development activities focus on three areas: oncology, rheumatology and neurodegenerative diseases.

www.merck.de/consumerhealthcare

Consumer Health Care offers over-the-counter products for preventive health care and the self-treatment of minor ailments. Here, we focus on four health themes: Mobility (e.g. Kytta®), Everyday Health Protection (e.g. Bion®), Women's (e.g. Femibion®) and Children's Health, as well as Cough and Cold (e.g. Nasivin®). The main distribution channels are pharmacies, as well as retail chains, drugstores and mail order in some countries.

www.millipore.com
www.merck-chemicals.com
www.merck-millipore.com

Merck Millipore was formed in July 2010 after the acquisition of the U.S. company Millipore had been completed. This division combined all Millipore businesses with the majority of Merck's former Performance & Life Science Chemicals division. With a range of 40,000 products, Merck Millipore is a leader in the life science market.

The product and service portfolio of the Bioscience business unit consists of protein research assays and reagents, cell culture solutions and drug discovery services for the biopharmaceutical industry. Lab Solutions offers a comprehensive range of laboratory chemicals used in research, quality, analytical and clinical laboratories. Process Solutions specializes in applications that are used in biotechnology as well as in the pharmaceutical and food industries.

www.merck-chemicals.com

The key products of **Performance Materials** are liquid crystals. They are used in the displays of televisions, notebooks, digital cameras, and mobile telephones. Close cooperation with the world's leading display manufacturers in developing and producing liquid crystals has made Merck the number-one company worldwide in this market.

Besides the core display materials business, Performance Materials also focuses on developing innovative materials for growth markets, such as the utilization of solar energy, or energy-saving lighting using LEDs (light-emitting diodes) and OLEDs (organic LEDs). Pigments for the plastics, printing and coatings industries, as well as for cosmetics applications, are an important part of the portfolio.

Our corporate culture is based on mutual respect, strong identification with the company, courage as well as the will to perform. This culture is the basis of our sustainable economic success and the driver of necessary change.

VALUES AND MANAGEMENT

Our corporate culture has always been characterized by responsible behavior – whether with respect to our products, our employees, the environment or society. Our approach and our behavior have evolved from a history dating back nearly 350 years and are shaped by a family of owners whose entrepreneurial creed begins with the sentence "Entrepreneurial success starts with people."

Mission Statement and Values

www.merck.de
> Mission Statement, Values, Strategy

The Mission Statement formulated in 1991 defines our self-image as a successful and responsible company. Our aim is to operate as a global company that creates added value for consumers, our market partners and the community. We endeavor to achieve positive recognition for Merck in society and have an obligation to operate safely and to respect the environment.

To us, transparent communication is a requirement for entrepreneurial activity that creates trust. The Merck Values were formulated in 2007: courage, achievement, responsibility, respect, integrity and transparency. They give us orientation, and they determine our business relationships and how we cooperate within the company.

Commitment to external mission statements

Communication on progress in implementing the Global Compact principles, p. 64

In addition, Merck supports a number of external principles. In 2005, we joined the United Nations Global Compact to express our commitment to comply with the principles concerning basic human rights, labor standards and environmental protection and to fight corruption. In November 2010, Merck signed the Code of Responsible Conduct for Business, an initiative by German companies aimed at firmly establishing measurable standards with respect to fair competition, social partnership, merit and sustainability at the involved companies.

www.responsible-care.org
www.merck.de/responsibility
> Responsible Care

In 2006, Merck signed the Responsible Care Global Charter adopted by the International Council of Chemical Associations (ICCA). Within the scope of this voluntary initiative and the resulting guidelines of the German Responsible Care® Program, we have committed ourselves to applying standards in the areas of product responsibility, environmental protection, health, plant safety and security that go beyond legal obligations. In particular, Merck is currently focusing on product safety, environmental protection and occupational safety.

Corporate Responsibility organization

At Merck, responsible behavior is one of the basic principles of company management and is therefore also firmly established in our corporate strategy.

As the top executive body of the company, the Executive Board examines relevant corporate responsibility issues and their risks and opportunities for the company at least twice a year. During the reporting period, these included such issues as reduction of greenhouse gas emissions, access to medicine, compliance with environmental and social standards in the supply chain, and Merck's special responsibility as a research-based company.

The activities and measures are coordinated Group-wide by a Corporate Responsibility (CR) manager. With the goal of integrating CR issues into daily business practice, this manager works closely with employees from various units, including representatives from Human Resources, Environment, Health, Safety, Security, Quality (EQ), and the Compliance Office.

Merck plans to establish a Corporate Responsibility Committee in 2011. The goal is to better coordinate and steer the numerous individual responsible conduct topics, thereby firmly anchoring them in the company.

www.merck.de/responsibility
> Values & Management
> Operational Excellence

In 2006, we introduced our Group-wide Operational Excellence program to continuously improve entrepreneurial processes. The purpose is to achieve the most economic and most efficient level of operation in all our production facilities. With this program, we are also implementing various measures related to our corporate responsibility, for example for environmental protection, occupational health and safety, employee development and company management.

COMPLIANCE

To Merck, compliance means observing legal and company-internal rules and behaving according to the ethical principles anchored in the Merck Values.

www.merck.de/reponsibility
> Values and Management
> Compliance
> Merck Code of Conduct

In 2002, when Merck adopted the Group-wide Code of Conduct, it created a binding set of rules for all employees. Updated with the Merck Values in 2008, the Code of Conduct explains the principles for dealings with business associates, general partners, colleagues and employees, and in the communities in which we operate.

www.merck.de/reponsibility
> Values and Management
> Compliance
> Merck Code of Conduct

Consequently, it supports all employees in acting ethically – not only in their dealings with one another, but also outside the company. The Merck Social Charter, adopted Group-wide in 2007, supplements the Code of Conduct with globally valid core principles for compliance with human rights and the International Labour Organization (ILO) core labor standards. We also expect our business associates around the world to comply with these core principles.

Supplier Management, p. 19

Merck created the position of Group Compliance Officer (GCO) in 2002. This employee is responsible for setting up, maintaining and further developing our global compliance program. By taking appropriate measures, the GCO helps to lower the risk of serious legal violations, of for instance antitrust law or anticorruption rules. The role of the GCO is reflected in the subsidiaries by the approximately 80 local compliance officers, who ensure that compliance measures are implemented in the countries. This Group-wide network is used to steer the global compliance program. Regular regional and global compliance meetings are held to promote the exchange of information within the network. Newcomer training seminars were introduced in 2010 for newly appointed compliance officers. These seminars serve to build up compliance expertise and strengthen team building within the compliance organization.

A high degree of importance is attached to regular compliance seminars for employees, which are conducted as on-site events, as well as via web-based training courses. By presenting various training topics, in particular on corruption, antitrust and competition law, health care compliance

and the Code of Conduct, they serve to sensitize employees and management to the consequences of compliance violations and to show ways to avoid them. In the reporting period, numerous on-site events and around 11,000 and 33,000 web-based training courses were held worldwide in 2009 and 2010, respectively.

All employees are called upon to report compliance violations to their supervisor, Legal, HR or other relevant departments. A central reporting system (speak-up line) was set up, meaning employees can report compliance violations by telephone or via a web-based application, anonymously if desired. The reports received are individually reviewed by the GCO. If a compliance violation exists, corresponding corrective action is taken based on concrete action plans. If necessary, disciplinary measures are taken. These range from a simple warning up to the dismissal of the employee who violated a compliance rule. In 2009 and 2010, respectively, 14 and 21 compliance-related reports were received via the speak-up line. In three cases each year, the accusation of a violation of our rules of conduct was confirmed. This resulted in the dismissal of two employees and labor law-related measures against four other employees.

In connection with the reports received during the reporting period, the control and monitoring processes were analyzed, training courses and process optimizations were initiated, and measures were taken to minimize risk. In 2010 we started improving our Compliance Risk Monitoring & Reporting system by developing a concept for Compliance-internal risk analysis and evaluation. This system will be implemented in 2011. A generic compliance program was developed as a model for implementing a compliance framework in the subsidiaries. It places basic organizational and systemic requirements on the local units. Implementation will start in 2011.

In cooperation with Internal Auditing, the Compliance Office regularly reviews the implementation of Group-wide compliance measures at the subsidiaries within the scope of internal audits. The audits focus on the local compliance structure, the compliance measures taken, as well as the existence of corresponding compliance guidelines and processes. In addition, the sites are reviewed for violations of the Code of Conduct and, since 2010, of the Social Charter. In 2009 and 2010, respectively, 32 and 34 internal audits were carried out specifically to check for corruption; there were no findings of corruption. In addition, 26 sites in 23 countries were audited specifically on Social Charter topics in 2010. No violations of the Social Charter rules were found. The sites were selected based on a preceding risk analysis and the resulting country prioritization.

The Compliance function reports at least once a year to the Executive Board, informing it of the status of compliance activities, compliance risks as well as serious compliance violations. The Executive Board informs the supervisory bodies at least once a year about the key compliance issues. The significance of compliance is steadily increasing, and Merck continuously adapts its compliance systems to the increasing requirements.

STAKEHOLDER DIALOGUE

Our business operations affect the interests of many people. The Merck Mission Statement, Values and strategy are also aimed at ensuring Merck's position as an accepted member of society. We therefore maintain a continuous dialogue with the relevant groups in society, namely stakeholders such as our business associates, employees, the Merck family, investors, government authorities, associations, neighbors at our sites, non-governmental organizations (NGOs) 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. A wide variety of 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.

Discussion and information forums

Discussion and information forums with the neighbors of large sites have been set up. One of the goals of our public planning forum in Darmstadt is to create transparency about company developments at the site. In 2009 and 2010, discussions focused on the dismantling of existing buildings, remediation measures and the development of open spaces and green areas.

In the context of expanding our biotech production facilities in Corsier-sur-Vevey, Switzerland, discussions were held with NGOs and the local authorities to ensure the greatest possible transparency during the entire planning, construction and completion stages. For construction, Merck committed to implementing high environmental and safety standards extending beyond the legal requirements. The meetings, which will be held again in 2011, serve to provide an opportunity for regular discussions and reviews of the implementation of agreed measures. Because Merck presents the plans transparently and implements the agreed measures on schedule, trust was established, and the discussions were therefore very positive.

Stakeholder surveys

We survey our employees and customers regularly on how they view Merck as a company, also with regard to its corporate responsibility, and what expectations they have. In January 2010, all employees were asked for their feedback on Merck as an employer; 28,000 employees (representing 84% of the workforce at that time) participated in the survey. When the employer brand was designed, a survey was conducted among more than 1,000 people (employees, candidates, recruiters). In August 2009, as part of a reputation study 583 stakeholders were surveyed on their perception of Merck Serono in general and its corporate responsibility. In addition, 19 carefully selected stakeholders were interviewed in July and August 2010 to determine relevant CR topics for Merck. In 2010, Millipore also established a forum of its stakeholders, called the Stakeholder Advisory Group, to create the last Millipore sustainability report. This forum was based on the AA 1000 Stakeholder Engagement Standard.

Employee survey, p. 35

www.merck.de/responsibility >Values & Management > Stakeholder dialogue > Stakeholder Advisory Group

Subject-specific dialogues

We have contact with many groups in society through our daily work. The dialogues are mostly organized and held directly by the specialist departments at Merck. One example is the Bioethics Hearing Group, which met in November 2009. Bioethicists, physicians, researchers and Merck representatives discussed ethical and legal issues of research approaches for treating infertility.

Lobbying and working with associations

Part of our stakeholder dialogue is also to participate actively in the political process, where we become involved and present our positions and viewpoints – either in direct dialogue with politicians or via our work with associations.

Examples of important national and international industry associations of which we are position-holding members include the Verband der Chemischen Industrie (VCI, German Chemical Industry Association), the European Chemical Industry Council (CEFIC), the Verband Forschender Arzneimittelhersteller (VFA, German Association of Research-Based Pharmaceutical Manufacturers), the European Federation of Pharmaceutical Industries and Associations (EFPIA) and the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA).

www.vci.org
www.cefic.org
www.vfa.de
www.efpia.org
www.ifpma.org

Furthermore, Merck is active in numerous charitable organizations, such as the Goethe-Institut, the Remembrance, Responsibility and Future Foundation, and the World Environment Center (WEC). In addition, we participate in initiatives and projects whose other participants share our standards of entrepreneurial behavior. For instance, we support the Code of Responsible Conduct for Business.

www.wec.org

During the reporting period, intensely discussed topics in the scope of our work with associations included in particular Responsible Care®, the new chemicals legislation known as REACH, and counterfeit medicines.

GOALS

● achieved ● ongoing ● not achieved

Achievement of previous goals

Strategic goal	Actions	By when?	Status	
Systematize Business Continuity Management	- Development of a uniform, Group-wide method focused on the production flow - Creation and implementation of Business Continuity Plans at the sites concerned	2010	- The Business Continuity Management guidelines and procedures were published. - Pilot projects were carried out at various sites	●

New goals

Strategic goal	Actions	By when?
Improve the management of CR topics	- Establishment of a CR Committee	2011

Liquid crystals from Merck lower energy consumption of displays while offering high picture quality. Faster switching liquid crystals are making the 3D revolution possible.

RESPONSIBILITY FOR OUR PRODUCTS

Our success and our future are founded on innovative products that benefit people and help to improve quality of life. Responsibility for these products will always be at the core of our corporate responsibility.

Intensive R&D

Innovation is the driving force of scientific, technical and economic progress. Innovative strength is one of our core competencies: Identifying customer needs rapidly and translating these into innovative solutions is a core element of our business strategy.

Product analysis: Quality, benefits, safety and eco-efficiency

Merck products are tested extensively before being launched onto the market, for example in toxicological and clinical tests for drugs or toxicological and ecotoxicological studies for chemicals. The cornerstones are quality, the benefits and product safety for people and the environment. The analysis also includes reliable storage and the safe transport of products.

www.merck.de/responsibility
> Products
> Management approach

We summarize our approach to sustainable product development as "Design for Sustainability". One focus is to examine the impact of products on people and the environment over the products' entire life cycle. We want to become a pioneer of sustainable products in the life science industry.

In 2010, we performed a pilot assessment to determine the product carbon footprint of two product groups within our Performance Materials division. In 2009 and 2010, Merck Millipore carried out life cycle assessments for four products according to the international standards ISO 14040 and ISO 14044. Similar approaches are currently being developed for pharmaceutical products as well. The aim of these holistic analyses is to identify negative environmental impacts of the products and tap into potential for optimization.

Transparency and responsible marketing

We are committed to providing our customers and users with the highest possible degree of transparency and to informing them about the composition and effects of our products.

www.ifpma.org

When marketing our pharmaceutical products, we strictly comply with legal requirements, our own Code of Conduct (Merck Pharmaceutical Marketing Best Practices), and the IFPMA Code of Pharmaceutical Marketing Practices of the International Federation of Pharmaceutical Manufacturers & Associations.

We supply our chemicals only to commercial customers who have the proven expertise, in order to ensure careful handling. In addition, we provide customers with information on the safe handling and use of our products. To prevent the misuse of dual-use products, Merck has established an extensive safety net. Predefined, uniform export control guidelines are monitored by our own central Export Control & Customs Regulations unit as well as by trade and export control officers

at the local Merck companies. If we suspect misuse, we refrain from a business relationship for safety reasons.

Return and recycling, p. 29

Return and recycling of products

Our Chemicals divisions offer their customers possibilities to return and reprocess used and unused chemicals as well as packaging materials in an eco-friendly manner, thereby enabling proper and responsible recycling of the products.

PRODUCT SAFETY

Merck aims to ensure that no risks arise from its products during transport, use, storage and disposal or recycling if they are handled properly. We also provide users of our products with comprehensive information material that goes beyond the regulatory requirements.

In the research and development phase, we already perform a risk-benefit analysis on our product innovations to identify and minimize potential risks. This includes toxicological and eco-toxicological tests for the potential dangers of our products.

Comprehensive drug safety

We test the efficacy and safety of drugs extensively in clinical trials. We follow the Good Clinical Practice guidelines of the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH), a project being carried out by the regulatory authorities of the EU, Japan and the United States, as well as by the pharmaceutical industry. In addition, the Global Drug Safety unit is responsible for the safety of pharmaceutical products. It ensures drug safety monitoring – both during research and development and after marketing authorization (pharmacovigilance), in close contact with the health authorities. The purpose of ongoing and systematic monitoring of drug safety is to identify, evaluate and understand adverse effects so that we can take appropriate measures to minimize risk.

http://ichgcp.org

Following a suspected serious adverse reaction to Stimuvax®, we temporarily suspended the clinical study program in March 2010, but were able to resume it again three months later. In 2010, as a precaution we recalled batches of Vigantol® from pharmacies and wholesale distributors in some European markets due to an impurity.

www.merck.de/en > Products > Clinical Trials

Safe handling of chemicals

With the Merck Group Policy Product Safety Chemicals, we have established global processes to define, steer and implement product safety and the management structures to ensure the safety of products from the Chemicals business sector. A Group function is responsible for product safety at the global level. Furthermore, our sites and companies around the world bear local responsibility. In 2010, we also founded the Group Product Safety Committee with ultimate responsibility for all issues relevant to the product safety of our chemicals.

http://echa.europa.eu
> REACH

We currently face the challenge of implementing the European chemical regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) and the United Nations global labeling guideline GHS (Globally Harmonized System). By the first registration deadline on December 1, 2010, Merck had registered around 100 substances under REACH. Apart from the required substances in the initial registration phase, we also registered the ones with a later deadline. In addition, around 4,200 substances have been reclassified and relabeled under GHS and provided with new safety data sheets in line with the amendment of Annex II of REACH. At the beginning of 2011, we reported all imported and self-manufactured substances in the Classification and Labelling Inventory of the European Chemicals agency ECHA.

www.merck-chemicals.com

Since 2010, our customers have been able to clearly find all information on the uses of our products on our Chemicals portal.

In 2010, Merck developed the ScIDeEx® program based on the ECETOC TRA2 assessment tool recognized by the ECHA. With ScIDeEx® , users can calculate whether the use of a chemical can be assessed as safe in terms of exposure. This is important if their workplace conditions deviate from the exposure scenario of the safety data sheet. We will make this program publicly available on the Merck Chemicals portal in 2011.

www.icca-chem.org
> Priorities
> Global Product Strategy

Likewise in 2010, we committed ourselves to implementing the Global Product Strategy (GPS), which is based on a voluntary initiative of the International Council of Chemical Associations (ICCA) from 2006. As an integral part of the Responsible Care Global Charter, it aims to achieve a globally uniform standard for assessing product safety. At Merck, we are implementing the GPS by assessing the risks for our globally marketed products by the year 2020 and by compiling product safety summaries relevant to hazardous materials. Merck made the first data sheets available online in 2010.

www.merck-chemicals.de
> Service Center
> Safety
> Product Safety Summaries

With respect to the European guideline RoHS (restriction of hazardous substances), we provide our customers with suitable declarations and analytical reports so that they in turn can fulfill their legal obligations.

PRODUCT CARBON FOOTPRINT

A product carbon footprint quantifies the total amount of greenhouse gas emissions that a product causes throughout its entire life cycle. The purpose of this calculation is to generate transparency along the upstream and downstream supply chain, while at the same time identifying potential reductions and sensitizing producers and consumers to greenhouse gas emissions.

To date, there is still no uniformly systematic, generally accepted procedure in the industry. Numerous national and international initiatives aim to harmonize the methods in order to make the calculation and communication of a product carbon footprint comparable.

This and the associated uncertainty of what will happen with the results have made many companies hesitant to publish results on product carbon footprints.

Other challenges to the determination of product carbon footprints are the significant expense for the assessment and the breadth of Merck's product portfolio – we produce approximately 50,000 different products. Nevertheless, due to the growing importance of the topic at Merck for two product groups we have started pilot assessments of product carbon footprints to develop both a fundamental concept and a realistic approach for determining the footprint.

NANOTECHNOLOGY

Nanotechnology is a highly innovative field of development that researches and uses structures that are 50,000 times thinner than a human hair. Nanotechnology makes it possible to produce materials with completely new properties, benefits and functions for a wide variety of application areas. Because it is an emergent field of research, heated debate is taking place around the world on the opportunities and risks.

Merck is researching and developing nanomaterials. In Chemicals, the use of nanoscale materials makes it possible to improve products, develop products with new functionalities and properties, and increase efficiency in the use of resources and energy. In Pharmaceuticals, we are working with external partners to explore the use of nanomaterials to improve therapeutic options. Within the scope of European research projects, we are presently investigating the suitability of nanoparticles as vehicles for active pharmaceutical ingredients.

In addition to the opportunities that nanotechnology offers us, potential risks also deserve our particular attention. For this reason, we are engaged in intensive dialog on this topic with other companies, associations and the authorities. We follow the precautionary principle and take safety issues regarding nanomaterials seriously.

At the end of 2008, Merck implemented the Policy for Use and Handling of Nanomaterials. In 2010, we revised and refined this policy. This Group-wide policy governs the handling of nanomaterials, no matter whether in pharmaceutical and chemical laboratories, production, filling or warehouses.

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, BAuA) as well as the German Chemical Industry Association (Verband der Chemischen Industrie).

BIOETHICS

In the past few decades, biotechnological and biomedical research has developed rapidly. Bioethics deals with the impact and influence of precisely these developments on individuals and society. In particular, genetic engineering and methods of reproductive medicine are the subject of public debate from an ethical and moral viewpoint.

Merck has been using genetic engineering in medical research since the 1980s. Without genetic engineering, the foundation of biotechnology, the greatest advances achieved in treating a number

of serious diseases in recent years would not have been possible. Today, many of Merck's most important drugs are produced using this technology.

In 2010, Merck Serono generated around 61% of its sales with its five top-selling biopharmaceuticals. In medical biotechnology, Merck has research sites in Darmstadt, Geneva and Boston. To expand its leading position, Merck is currently expanding Europe's most modern biotechnology manufacturing facility in Corsier-sur-Vevey, Switzerland.

In Chemicals research in Darmstadt, genetically modified organisms are also used as tools to manufacture complex molecules. These molecules are produced exclusively in a special safety area (in accordance with the German Genetic Engineering Act, Gesetz zur Regelung der Gentechnik, GenTG). However, the genetically modified organisms are not contained in an end product since they are deactivated during the cleaning process and disposed of as biological waste.

All biotechnological activities at Merck are subject to strict legal regulations around the world, and biological safety officers monitor compliance with these regulations. In our work in this area, we adhere to clearly specified limits, which are based on both our respect for the life and dignity of people, and on legal requirements and restrictions.
Merck is strongly opposed to genetic engineering of the human germline and the reproductive cloning of human embryos and is therefore not involved in these research areas. In 2010, Merck confirmed its position, especially regarding stem cell and fertility research, in two guidelines that were approved by the Executive Board (Merck Stem Cell Policy, Merck Fertility Research Policy). The guidelines define how Merck conducts discovery and development and does business, and specify which limits apply. In this way, they create a balance between ethical and legal issues, between the benefits and the risks.

To ensure that the company meets its own high standards, we will establish a Merck Bioethics Advisory Board in 2011, which will act in an advisory capacity on bioethical issues.

In the public debate, Merck supports stem cell research within clearly defined ethical and legal limits since this research can provide great benefits for human health and improve the quality of life.

ANIMAL PROTECTION

Chemical and pharmaceutical companies are legally obliged to perform animal tests for developing new drugs, for ensuring the product safety of biological preparations, and in connection with REACH. Animal tests are crucial for making scientific statements on efficacy and safety. Therefore, international law requires that they be performed prior to testing the effect of new drugs in humans, or prior to marketing chemicals on a large scale.

Merck has committed itself to implementing and actively promoting the 3R principles of animal protection (reduction, refinement and replacement). This applies especially to developing and using methods and techniques to further replace testing in animals, to reducing the required number of animals, and to minimizing the stress placed on them before, during and after testing.

The "Merck Serono Policy Use, Care and Welfare of Laboratory Animals" was implemented in 2008. In addition to the treatment of laboratory animals, the policy also describes, for example, the

requirements for commissioning third parties to perform animal tests. A Group-wide guideline is in preparation. Independently of this, animal testing is coordinated and controlled by animal care and welfare officers or comparable units at all sites and in all business sectors.

Merck is actively participating in researching alternatives to animal testing. Our researchers are developing methods that can replace animal testing in certain experiments, such as in vitro tests or computer-based methods. They have received several awards for this in the past years:

2005: Gerhard Zbinden Eurotox Young Scientist Award (N. Zidek)

2006: Deutscher Forschungspreis für Alternativmethoden zum Ersatz oder Reduktion von Tierversuchen (German Research Prize for Alternative Methods to Replace or Reduce Animal Tests) (S. Simon, S. O. Müller)

2007: Hessischer Forschungspreis für Alternativmethoden zum Ersatz oder Reduktion von Tierversuchen (Hessian Research Prize for Alternative Methods to Replace or Reduce Animal Tests) (F. Busquet, T. Broschard)

2008: Eurotox Bo Holmstedt Young Scientist Award for Alternative Test Strategies according to the 3R Principles (J. Hrach)

2009: Gerhard Zbinden Eurotox Young Scientist Award (K. Böhme)

2010: IUTox Bo Holmstedt Award for Alternative Test Strategies according to the 3R Principles (B. Lauer)

www.epaa.eu.com
www.vci.de
www.vfa.de

In addition, Merck is a member of organizations such as the EPAA (European Partnership for Alternative Approaches), which aim to develop alternative methods. Via the Verband der Chemischen Industrie (VCI - German Chemical Industry Association) and the Verband der Forschenden Arzneimittelhersteller (VfA - German Association of Research-based Pharmaceutical Manufacturers), we support the SET Foundation, a German organization dedicated to finding and developing new alternatives and complementary methods to reduce animal testing.

At all Merck sites where animals are kept or animal tests are performed, in accordance with national requirements as well as on a voluntary basis we have established units (e.g. animal care and welfare officers, institutional animal care and use committees). These assess and assure the quality of the respective animal keeping. The activities are coordinated at Merck Serono by the global organization "Animal Science & Welfare".

All employees working with laboratory animals at Merck receive continual advanced training. The nature and scope of this is governed by the national and international legislation as well as local requirements. Merck offers online programs such as "3R at Merck" and online training on "Animal Science and Welfare at Merck Serono" and on the accreditation standards of the AAALAC (Association for Assessment and Accreditation of Laboratory Animal Care). The training is documented. In addition, employees are also offered external advanced training by authorized institutions for achieving and maintaining the required qualifications.

www.aaalac.org

As a pharmaceutical manufacturer, in compliance with regulatory and legal requirements we are obliged to perform animal tests to prove the quality, efficacy and safety of our products prior to clinical testing. International and national laws govern the type and scope of the data to be

submitted to the authorities. Animal tests are justified by the obligation to save human lives and alleviate human suffering. As a sign of compliance with the strictest animal protection standards, in June 2010 we attained full AAALAC accreditation for our research center in Geneva and in February 2011 for our Institute of Toxicology in Darmstadt; further accreditations at other sites are being prepared and are expected in the next few years.

For our chemicals, the EU chemicals regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) that came into force in 2007 specifies that all substances manufactured in or imported to the EU must be registered and evaluated in accordance with certain requirements. Depending on the amount of chemicals in question, this includes animal tests to determine the risk potential. Also in our own interest, we reduce the number of animal tests to a minimum by cooperating with other manufacturers, importers and users. We also participate in the Substance Information Exchange Forum (SIEF) to share data and jointly register substances.

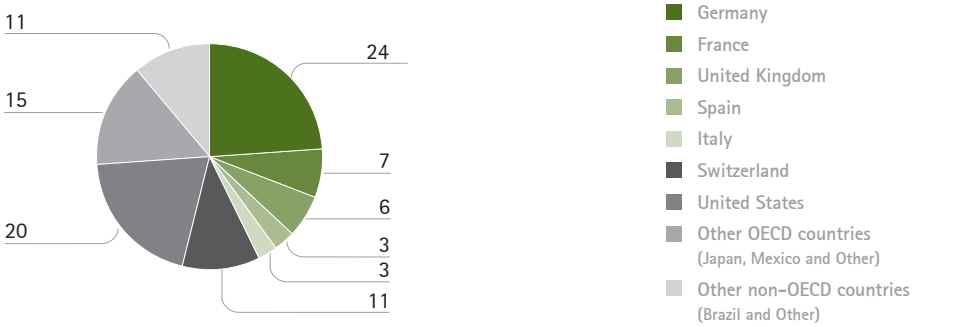
Merck Millipore does not perform animal tests itself, but relies on animals to produce antibodies. In this process, standards are complied with to prevent stress and pain for the animals. Merck Millipore works continuously to minimize the number of animals used.

SUPPLIER MANAGEMENT

Merck is a global company. We purchase raw materials for chemical and pharmaceutical production, packaging materials, technical goods and components, and services around the world. The purchasing volume in 2010 was around EUR 4.5 billion. We obtain our goods and services from approximately 130 countries; 74% of the purchases (in value terms) comes from suppliers headquartered in the EU, Switzerland and the United States, and the rest from suppliers based in other OECD and non-OECD countries.

Global purchases by Merck in 2010 I Total EUR 4.5 billion

in % in 2010



We place the highest demands regarding compliance with social and ecological standards not only on our own processes, but also on our suppliers. Consequently, we are working on optimizing our supplier management system. The aim is to improve the supplier portfolio by implementing a new evaluation system that includes social and ecological criteria in addition to qualitative criteria. Furthermore, our own Code of Conduct and the Social Charter are an integral part of the terms and conditions of business at Merck KGaA. To implement the Code of Conduct of the German Association Materials Management, Purchasing and Logistics e.V. (Bundesverband für Materialwirtschaft, Einkauf und Logistik e.V., BME), we incorporated the commitment to the Merck Code of Conduct and the Merck Social Charter into our supplier management system. Merck joined the BME in 2009, and the BME Code of Conduct contains international minimum standards that apply across industries. We therefore expect our suppliers to comply with fundamental rules, such as rules to fight corruption and child labor, and we set minimum requirements regarding work standards. We required a supplier self-disclosure from our first suppliers in 2010. We will expand this process to more suppliers in 2011.

www.bme.de

www.merck.de/responsibility
> Values & Management
> Compliance
> Merck Code of Conduct and Merck Social Charter

Our Group Code of Conduct and Social Charter are integral elements of the Merck KGaA terms and conditions of business. In the future, we plan to implement our new supplier management system in our subsidiaries abroad. The overriding goals are to secure long-term supplier relationships, boost quality and use resources more efficiently.

In addition, owing to identified weaknesses we conducted a risk assessment of our raw material suppliers in 2010, taking into account country risks, product risks as well as our sales with the respective suppliers. This assessment focuses on aspects such as environmental risks, occupational health and safety risks, and social risks. Suppliers are added to the sustainability audit system based on this risk matrix. We will begin conducting these audits in various countries in 2011.

Procurement itself is reviewed several times during the year. In addition to internal audits, annual ISO (re)certification audits will take place. Group Procurement is certified to ISO 9001 and ISO 14001. The company-wide regulations and guidelines, such as the Code of Conduct and Social Charter, will be communicated within the company and employees will be suitably trained centrally by the Compliance Office via Web-based learning units.

GOALS

● achieved ● ongoing ● not achieved

Achievement of previous goals

Strategic goal	Actions	By when?	Status	
Establish a globally uniform hazard and risk communication system for all relevant Merck chemicals in the supply chain, incorporating the principles of prevention	**Implementing REACH** - Registering the substances with a registration deadline of 2013/2018 by the relevant deadlines and registering non-phase-in substances - Publishing the ScIDeEx® calculation program on the Merck Chemicals portal in 2011 - Creating new safety data sheets for all mixtures in accordane with REACH annex II by December 1, 2012 **Implementing GHS/CLP** - Classifying mixtures and sets according to the CLP regulation by June 1, 2015 **Implementing GPS** - Providing product safety summaries within GPS for all hazardous substances registered under REACH by 2020 **Hazard communication projects** - Updating safety data sheets for non-hazardous substances; - Expanding the production of safety data sheets to a globally uniform standard	2020	**Implementing REACH** - Around 100 substances were registered by the Dec. 1, 2010 deadline under REACH - Publication of the use portal online for communication in the supply chain **Implementing GHS/CLP** - Around 4,200 substances were reclassified and labeled under CLP and provided with new safety data sheets under REACH - All imported and self-manufactured substances were reported in the Classification and Labelling Inventory of the European Chemical Agency (ECHA) by the Jan. 3, 2011 deadline **Implementing GPS** - Commitment made to support the Global Product Strategy (GPS) and first product safety summaries published online **Hazard communication projects** - Implementation of a new IT environment and new processes aimed at achieving globally uniform hazard communication - Information material on REACH and GHS created for customers	●
Implement the criteria of our Social Charter and of the BME Supplier Code of Conduct	- Anchoring the rules of the Social Charter and BME Supplier Code of Conduct in the Group-wide supplier management processes	2010	- The criteria are already a binding element of the supplier self-disclosure for the first suppliers. - Sustainability criteria integrated into the global supplier evaluation system of Merck.	●

New goals

Strategic goal	Actions	By when?
Sustainability in the supply chain	- Rollout of the supplier management system in the most relevant subsidiaries	2012

PHARMACEUTICALS

CLINICAL TRIALS

Merck discovers and develops innovative drugs in therapeutic areas with high unmet medical needs. A key element of the development process for safe and effective drugs is clinical trials, which are used to test the safety and efficacy of new active ingredients in the relevant patient group.

In addition, we also carry out clinical trials after marketing authorization is received to further evaluate the safety of our drugs (pharmacovigilance). All of these trials are strictly regulated by law and must be approved by the competent authorities and ethics committees.

Since patient safety is Merck's top priority, we conduct our trials according to the highest medical and ethical standards. We comply with the respectively applicable principles of the Declaration of Helsinki and with the guidelines and applicable regulations on Good Clinical Practice (GCP) of the International Conference on Harmonisation (ICH). They apply to the various stages of clinical development, thus for studies both prior to and following the receipt of marketing authorization.

http://ichgcp.org

Our researchers develop the scientific structure of a study, whose entire progression is then monitored by the clinical development and drug safety departments at Merck. Our clinical trial monitors keep a close watch on the course of the study on site at the trial centers, while our global Clinical Quality Assurance unit checks the adherence to quality standards on a random basis.

Every patient is informed in detail, both verbally and in writing, about the purpose of the clinical study, the experimental nature of the planned therapy, the potential benefits for participants of the study, as well as the possible risks and side effects. The investigator may commence the study only after receiving written consent from the patient.

For maximum transparency, when clinical trials begin we publish information about the study design, the participating centers, and the patient population. In addition, the public has access to the trial results via online databases one year after the study has been completed.

www.merck.de/en
> Pharmaceuticals
> Clinical Trials

In this way, physicians treating patients, scientists planning research, and patients wishing to inform themselves can obtain the current state of knowledge about a particular drug or a therapeutic area. We also publish the results of research and studies in peer-reviewed scientific and medical journals.

ACCESS TO MEDICINE

Merck aims to improve quality of life with its products. We are implementing this claim in three ways: First, we are developing drugs with innovative treatment options for serious diseases. Second, we are committed to ensuring that needy people also have access to our medicines. Third, we are committed to finding treatments for neglected diseases in developing countries.

Products for treating serious diseases

Our main focus is on the research and development of drugs for treating serious diseases with high unmet medical needs. Our portfolio currently contains drugs to treat cancer (Erbitux®, cetuximab), multiple sclerosis (Rebif®, interferon beta-1a), infertility (Gonal-f®, follitropin alfa), endocrine disorders (Saizen® and Serostim®, somatropin) as well as cardiometabolic diseases (Concor®, bisoprolol; Glucophage®, metformin).

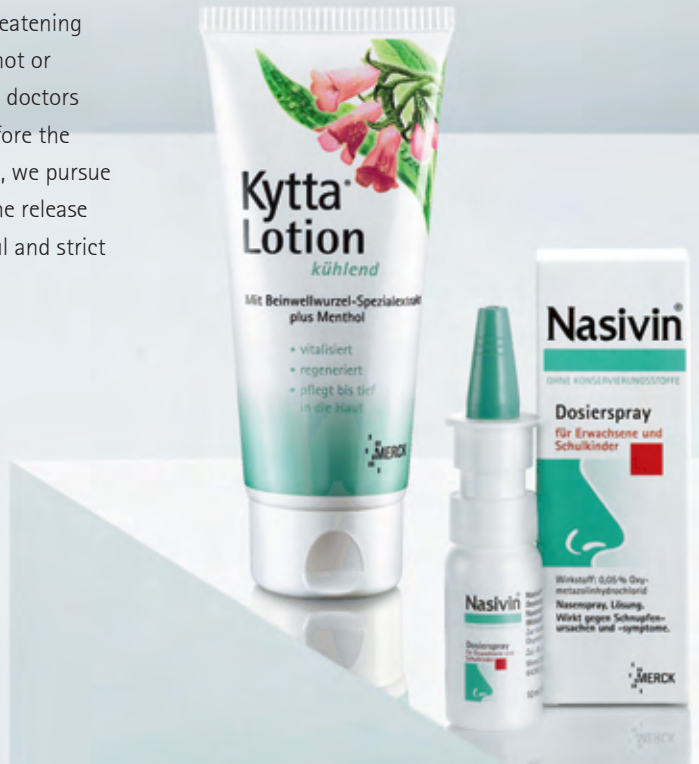
In addition, we are also committed to the research and development of orphan drugs – drugs to treat especially rare diseases. In 2009, Kuvan® was approved as an orphan drug (to treat hyperphenylalaninemia).

Merck Serono: Sales by therapeutic area

EUR million in 2010

Programs for patients

Through compassionate use programs, for humanitarian reason we allow certain patient groups, and in cases of closely legally defined exceptions, access to medicines that have not yet received regulatory approval but have been extensively researched and show promise. For example, in life-threatening situations or for serious diseases that cannot or can no longer be treated in any other way, doctors may use drugs in individual cases even before the drugs have been approved. When doing so, we pursue proactive safety management and make the release of a particular drug dependent on a careful and strict risk-benefit analysis.



For the various therapeutic areas in which we are active, we have also developed patient assistance programs that go beyond treatment and physician consultations. For example, patients are supported with information on the basic condition or living with the disease. One example comes from the United States, where patients with multiple sclerosis can take advantage of free consultation from our U.S. subsidiary, EMD Serono.

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 via the Web or on the telephone. This type of consultation offer was likewise instituted for couples wishing to conceive, for HIV patients suffering from wasting, and for people with growth hormone deficiency.

Commitment to neglected diseases: schistosomiasis, malaria and sleeping sickness

Important therapies or drugs should not be withheld from any person. However, many people in developing countries do not have sufficient access to effective medical treatment. Merck is therefore involved in different areas to help find a solution to the problem. Since 2007, we have been working together in Africa with the World Health Organization (WHO) in the fight against schistosomiasis, a tropical disease transmitted by worms.

Merck Praziquantel Donation Program, p. 48

As part of the Merck Praziquantel Donation Program (MPDP), by 2017 Merck will donate around 200 million tablets containing the active ingredient praziquantel (Cesol® 600) in order to sustainably treat around 27 million school children against schistosomiasis. Since the project started, 10.2 million school children have been treated.

http://apps.who.int/tdr/

Additionally, within a partnership with the Tropical Disease Research (TDR) program of WHO, we are involved in the discovery and development of new treatment methods to fight malaria, African sleeping sickness and schistosomiasis.

We are driving the scientific exchange in this area, for example by organizing in 2009 a conference on infectious diseases (BioAlps Networking Day) at Merck Serono headquarters in Geneva. The event attracted 350 participants from leading international organizations, NGOs and scientific institutions. Also, through our participation in the Geneva Health Forum 2010 or in the stakeholder's meeting of the African Network of Drugs and Diagnostics Innovation (ANDI), we are taking part in the public debate.

To rise to the complex challenges of improved access to medicine and to address them globally, Merck intends to set up an internal task force in 2011. This team will identify and prioritize action areas in 2011. We are taking into account the recommendations of the Access to Medicine Foundation, which created the Access to Medicine Index (ATM Index) in 2008 to rank the world's 20 largest pharmaceutical companies every two years based on their efforts to ensure or improve the offer of and access to medicines for people in developing countries

www.accesstomedicineindex.org

COMBATING COUNTERFEIT MEDICINES

The World Health Organization (WHO) estimates that 10% to 30% of pharmaceuticals available on the market in developing countries are counterfeit or of inferior quality. In the EU, the United States, Canada or Australia, the share of counterfeit medicines is only about 1%. Counterfeit medicines are a serious threat to health care worldwide. They represent a significant social and economic problem and are a huge challenge for the global pharmaceutical industry. Patients and medical staff must be certain that the Merck products originating from reliable sources are genuine and safe to use.

Merck is pursuing a long-term strategy against product piracy. We are utilizing technical possibilities to increase product safety through counterfeit-proof packaging and tracking options (for example, the Track & Trace program in the United States). In addition, we are involved in numerous industry associations, support industry-wide initiatives to promote clear legal regulations and resolute prosecution of violations, and work closely with the responsible authorities in Germany and abroad.

GPHF-Minilab to combat counterfeit products, p. 48

Moreover, Merck funds the Global Pharma Health Fund (GPHF), whose purpose and aim is to promote health care as part of development assistance – in particular to fight counterfeit pharmaceuticals.

With their characteristic color properties, Candurin® pearl effect pigments help our customers in the pharmaceutical industry make their tablets and capsules more difficult to counterfeit.

RESPONSIBLE MARKETING

In order to ensure professional and transparent conduct in our Pharmaceutical Marketing operations, we comply not only with numerous statutory regulations but have also defined our own code of conduct. In addition, the industry rules of the international umbrella organization (IFPMA – International Federation of Pharmaceutical Manufacturers & Associations), the European umbrella organization (EFPIA – European Federation of Pharmaceutical Industries and Associations) as well as the local industry associations apply. The Merck Pharmaceutical Marketing Best Practices define internationally binding standards, for example for product advertising and sponsoring. In addition to the international standards, countries have their own specific regulations.

www.ifpma.org

www.efpia.org

We recognize the important role that patient organizations play in providing support and disseminating information to patients and their caregivers. We therefore support the educational work of various patient organizations with donations and sponsorships, encouraging them to continue their efforts. Merck explicitly does not seek to exert influence or control over the information that the organizations communicate to their members. For comprehensive transparency, we publish our donations to European patient organizations on our website and update the information annually.

www.merckserono.com
> About us
> Responsibility
> Patient Organizations

CHEMICALS

INNOVATIVE PRODUCTS

When developing innovative chemical products, Merck addresses the diverse environmental and social challenges of a globalized world. Merck supplies specialty chemicals that play a key role in helping our customers save energy and resources, enabling them to help protect the climate and the environment.

www.merck-chemicals.com

Information and communication

The liquid crystals in computer monitors and televisions not only ensure high picture quality – they also consume less energy per unit of surface area than cathode ray tube devices and plasma screens. With our innovative materials for PS-VA technology (polymer stabilized vertical alignment), we have paved the way for the next generation of liquid crystal displays (LCDs). This technology offers even better energy efficiency, as the backlighting can be significantly reduced.

Since 2010, we have been offering customers of the Liquid Crystals business unit a comprehensive package under the Green³ concept. We develop innovative, eco-friendly materials for energy-efficient displays. We help our customers design eco-friendly production processes and we support them in producing eco-friendly LCDs. For example, we have developed eco-efficient and WEEE-compliant (EU Waste Electrical and Electronic Equipment Directive) recycling processes for used LCDs. An integral part of this concept is our Green Product Policy, with which we commit ourselves to complying with all international and country-specific laws and regulations (REACH, RoHS) and also with voluntary bans on substances and self-imposed restrictions of certain industries or individual customers, such as the halogen-free policy. At the same time, our voluntary safety policy bans the use of acutely toxic, mutagenic or otherwise hazardous substances that remain in the end product.

http://ec.europa.eu
> Environment
> Waste
> Waste streams

The Green³ concept is also to be expanded to the cosmetics business within Performance Materials in 2011.

Light sources

Modern light sources such as light-emitting diodes (LEDs) and organic light-emitting diodes (OLEDs) are key technologies that will make it possible to decrease the energy consumption of lighting. In addition, the "Go green" products equipped with LEDs do not contain mercury – a significant contribution to environmental protection.

Photovoltaics

In the future, the slogan "Working with Sunshine™" will stand for all activities at Merck related to photovoltaics. We would like to strengthen our efforts in this important field of sustainable energy generation in the future.

With Solarpur®, Merck has developed a coating that increases the transmission of the protective glass on photovoltaic modules, enabling more light to be converted into electricity. In organic photovoltaics we are aiming 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 develop-

ing and marketing printable, electrically active polymers under the brand name lisicon® for the production of lightweight, flexible and cost-efficient 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 (Bundesministerium für Bildung und Forschung, BMBF). The aim is to achieve a significant increase in the efficiency of organic solar cells.

Energy storage

Energy storage is a key aspect in the utilization of renewable energies and new technologies for generating energy. In the future, international climate protection efforts will lead to a steep increase in demand for high-voltage and high-performance lithium-ion batteries. It is estimated that by 2020, about 15% of all vehicles in Germany will be powered by electricity.

Stationary energy storage in combination with photovoltaic units, as well as hybrid vehicles, place high demands on the batteries used and the corresponding battery materials. Merck participates in various research consortia working to develop new electrolytic materials. The aim is to improve the performance and service life of lithium-ion batteries, thereby significantly increasing storage capacities.

Together with the University of Freiburg, in November 2010 we launched a project to develop and produce new battery materials. In a jointly run concept laboratory, we are working to develop fundamentally new conductive salts for lithium-ion batteries to power hybrid and electric cars.

In 2010, Merck joined the research initiative "IL-WIND development of ionic liquid-based lubricants for wind turbines" launched by the German Federal Ministry of Education and Research. The challenge here is to develop innovative lubricants for wind turbines based on ionic liquids to

increase their performance. As the project consortium leader, Merck is contributing its extensive expertise in the development of ionic liquids.

Life science

In 2010, Merck Millipore launched the Sustainable Protection campaign, which applies to the division's wide range of activities. We are focusing on user safety, careful handling of resources, and environmental protection. The core concept of the campaign is to continually reduce the ecological footprint of our chemical products.

In addition, we are investigating the use of bioplastics, which are fully biodegradable and compostable. Bioplastics are already used for the EcoStand® test tube holder. In 2011, we will complete our eco-efficiency analysis of various plastic types and test further possibilities for use in our products.

PACKAGING

Packaging plays a key role for our products in two ways: First, it protects our products from external influences and ensures that they arrive at the customer's site undamaged, and second, packaging ensures that the environment is not adversely affected in any way. Packaging must be safe over the entire life cycle of the products: during transport and storage, use and disposal.

For this reason, when we develop packaging, we proceed just as carefully as when we develop our products. One example is the Safebreak bottle, a glass bottle coated with plastic, which prevents chemicals from escaping if the glass breaks.

Besides the safety of packaging, we also always make sure to use resources efficiently so that we can provide optimum packaging solutions for our products, our customers and the environment. For this purpose, we identify optimization potentials and implement measures for resource protection. These include, for example, reducing the packaging size and using eco-friendly materials. We supply some of our products in reusable packaging, such as stainless steel drums or barrels. For our water purification systems, we have partly replaced PE foam by carton packaging. We continue to use recycled filling material for transport packaging. We cooperate with customers and suppliers to develop and use recyclable packaging.

TRANSPORT SAFETY

Transport safety is our top priority when we deliver products to our customers and subsidiaries worldwide. We want to ensure that our products reach customers without damage and with the correct labeling and documentation.

Some substances are classified as dangerous goods. This applies especially to laboratory products and specialty chemicals, whereas pharmaceuticals generally need not be transported as dangerous goods.

There are numerous regulations and agreements concerning the transport of dangerous goods by road, rail, air and sea, e.g. with regard to packaging, securing of loads, labeling and transport.

Merck strictly adheres to comprehensive regulatory requirements and legal specifications worldwide, such as the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

RETURN AND RECYCLING

We view return concepts and eco-friendly disposal and recycling of chemicals and packaging as part of our corporate responsibility.

In Germany and some other countries, Merck set up its own system called Retrologistik® more than 20 years ago. Its aim is to create eco-friendly and safe disposal systems for used packaging and chemicals. It is a long-established service that customers value and appreciate. Yet there are many more examples that demonstrate how seriously we take our global responsibility: In early 2010, Merck and Gesellschaft für technische Zusammenarbeit (GTZ; now called Gesellschaft für internationale Zusammenarbeit, GIZ) entered a strategic alliance that focused on establishing the Retrologistik® concept in Thailand, Indonesia and the Philippines. At the same time, the aim was to increase environmental awareness and to change how hazardous substances are handled in these countries. The transfer of Merck technology and knowledge plays a crucial role here. With this project, we want to build knowledge and competencies for the eco-friendly storage of chemicals as well as help our project partners to properly classify, transport, and dispose of or recycle the resulting waste.

Merck developed two processes in 2005 for recycling liquid crystal displays in an eco-friendly manner. For the first time, the processes permit an effective and legally compliant means of recycling nearly all of the material at economically acceptable costs.

In a pilot project at the production site in Jaffrey, New Hampshire, USA, Merck Millipore recycles cartridges and other plastic components from the production process. In 2010, approximately 16 tons of plastic waste were recycled in this way. Merck Millipore hopes to expand the program in 2011 in order to offer its customers a return and recycling service for used cartridges.

The Mediathek has adopted the motto "re-experience learning" and is offering employees a broad range of electronic and print media to encourage lifelong learning.

RESPONSIBILITY FOR OUR EMPLOYEES

In 2010, approximately 40,000 people worked for Merck at 236 companies in 67 countries. The increase in the number of employees by nearly 7,500 is primarily attributable to the acquisition of Millipore, a life science company based in the United States.

Our human resources (HR) strategy stems directly from Merck's global business strategy. It is based on strategic partnership with the business sectors as well as on standardized HR systems and tools, which we are using to achieve greater efficiency and effectiveness.

For instance, Merck has implemented uniform HR programs worldwide, including the Performance Management Process, Global Rewards Policy, and Talent & Succession Management Process. These aim to develop a performance culture based on the strategic direction of the company, establish a performance-related, market-oriented compensation structure, fill positions with the right people, and attract and retain talented people. In 2010, Merck sharpened its employer brand and is now positioning itself in the global job market using the motto "Make great things happen".

HR is currently decentralized at Merck. This means that each division has its own HR function, and local HR managers report to the local management. Our HR Council, the Human Resources management team, ensures that Group-wide guidelines and programs are as consistent as possible. Effective April 1, 2011, Kai Beckmann took over responsibility for a newly created global Human Resources department as a General Partner and Member of the Executive Board of Merck KGaA. The divisional HR managers, Corporate Human Resources and the HR department in Darmstadt, our largest site, will report directly to Kai Beckmann. In 2011, we will conduct a project to define the strategic direction and additional parameters for the new global organization. The aim of the restructuring will be to strengthen the effectiveness and efficiency of HR and therefore its strategic partnership with the organization.

Currently, in addition to integrating Millipore employees into our company, our biggest challenges include attracting the right talent to the company. To ensure that we avail ourselves of all potential talents and ensure a productive and motivating work atmosphere, we also will be renewing our commitment to the diversity of employees at the company. This especially includes the promotion of women to management and executive positions as well as offering equal opportunities to employees of different nationalities and ages.

ATTRACTING TALENT

With a business model built on innovation, we rely on talented and well-educated employees. At nearly all sites, Merck faces the challenge of attracting and retaining the necessary talent for the company.

Especially in Europe and the United States, the situation will intensify in the medium and long term due to demographic changes and the resulting shortage of qualified experts. In emerging economies, we face the challenge of high turnover rates and rapidly changing framework conditions. Merck is continually seeking chemists, engineers, IT specialists, management experts, pharmacologists, physicians, biostatisticians and biochemists.

In 2010, we launched a campaign to position Merck as an attractive employer in all markets. The campaign is entitled "Make great things happen," and is aimed at establishing Merck as an employer that provides opportunities to work on interesting, innovative products while pursing a variety of career opportunities in an international, motivating and respectful work environment.

In addition, the campaign is also intended to reflect our strong social responsibility and our commitment to reconciling the demands of a career and a family as well as work and leisure. So that the company addresses the right topics, Merck conducted a systematic analysis of the interests, views and demands of employees and potential applicants working in the key strategic fields that will be most needed in the coming years.

In 2008, we had already started introducing a global electronic recruiting platform. In 2009 and 2010, this platform was rolled out in China and Mexico, and the integration of Merck Millipore began. At the end of 2010, nine countries covering 37% of employees were working with this platform; by the end of 2011, the scope will increase to 20 countries with about 57% of employees.

The selection of new employees is based on the Merck Competency Compass, which we use to identify and attract outstanding employees – both internally and externally. We offer experts, for example research scientists, the opportunity to pursue special career paths.

At the end of 2010, we developed a more comprehensive approach to strategic manpower planning. In addition to filling vacancies, we will plan our long-term personnel needs. We will identify suitable employees internally and externally and maintain contact to them in order to able to deploy them. This approach will be further developed in 2011 and implemented throughout the organization.

EMPLOYEE DEVELOPMENT AND QUALIFICATION

For the long-term success of our company, it is important not only to attract and retain new talented employees, but also to offer existing employees opportunities. As an employer, our focus is on encouraging development and further career opportunities within the company.

One important element of employee development is strong, global performance management. In 2008, we started introducing a uniform global performance management process. Introduction is proceeding successively for the 23 different functional groups (global grades or GG) within the company, which we are using used to assess individual positions. In 2009 all employees in positions assigned to GG 15 and higher were included. In 2010, positions as of GG 13+ as well as all exempt employees in Darmstadt followed, corresponding to around 7,000 employees. In 2011, positions as of

GG 10+ will be included, then bringing the total to 25,000. Each local organization has the option to decide whether the process should also be rolled out for employees in positions assigned to GG 9 and below, as these positions are often covered by collective agreements and affected by country-specific legal regulations. Merck Millipore will also be integrated in this process in 2011.

Performance management at Merck should measure not only employee performance, but also whether the performance conforms with the Merck Values. Based on the Merck Values, the Merck Competency Compass defines eight core competencies for developing employees. The model is being used internationally to assess employee performance and identify areas for development.

The assessment based on the Compass is used to identify individual advanced training opportunities and also to design our seminar offers. In addition, we offer professional advanced training seminars. For example, we ensure that our employees achieve "good working practice" qualifications, also known as GxP training, by regularly completing training courses.

Our employees have access to all advanced training opportunities via a global intranet site. In addition, the Platon learning platform offers online courses as well as on-site courses to more than 10,000 employees in Germany. A global platform is scheduled for launch in 2011. In 2009 and 2010, we invested an average of EUR 1,102 and 1,152 per person respectively for employee development activities.

COMPENSATION AND BENEFITS

Competitive salaries and social benefits not only increase Merck's attractiveness as an employer; they also help the company to motivate employees and to retain them. Compensation at Merck is based exclusively on market analyses in the respective field, on an employee's degree of responsibility, expertise and performance. Initial analyses of the ratio of men's and women's salaries have revealed no significant differences for employees working at the same level.

The Global Rewards Policy, which applies to the entire Merck Group, specifies the framework for compensation and benefits at Merck. In 2009, we analyzed the status at our CMGs. We began implementing the Global Rewards Policy in the companies based on the results of this analysis. By the end of 2010, this policy had been implemented in the majority of the companies, and implementation will be completed in 2011.

Like salary components, social benefits orient toward legal requirements and local market conditions. They include benefits such as sick pay and retirement benefits.

EMPLOYEE DIVERSITY

As an international company, Merck endeavors to achieve a good balance between different cultures and nationalities, between different age groups, and between male and female employees. Since we are convinced that workforce diversity contributes to the company's entrepreneurial success by promoting better team performance, we intend to develop these measures further in 2011.

Ratio of men and women

As in 2009, women represented 43% of the workforce in 2010. The ratio varies among individual business sectors, functions and regions. In the Pharmaceuticals business sector, 47% of all employees are female, in Chemicals 33%, and in Group functions 21%. In North America, 47% of all employees are female, in Europe 46%, in Latin America 43%, and in Asia 33%. Women make up 55% of the workforce in research and development, which is the highest percentage, followed by 50% in administration. The lowest percentages of women are in production (32%) and the infrastructure departments (28%). Merck has set itself the goal of increasing the percentage of female employees wherever they are underrepresented.

Internationality

At Merck 74% of all employees come from countries other than Germany. One of our basic principles is to hire and develop employees from the respective countries of our business operations. The company's decision to locate the divisional headquarters of Merck Serono in Geneva, Switzerland and of Merck Millipore in Billerica, Massachusetts, USA, also contributes to the internationality of the workforce, which we want to further intensify.

Age structure

Demographic change is not equally noticeable in all countries in which we operate. We must adapt to the aging of the population, particularly in Germany, some other EU countries as well as the United States. In these countries, the average age of our employees already exceeds 40 – and we assume that this figure will increase further. In Europe, we are using various programs to address these demographic challenges. These include adapting workplaces to the needs of older employees and establishing a health management program to maintain their ability to do their job. We also want to analyze how we can attract young employees to the company and motivate them to pursue a career at Merck.

Management positions

The percentage of women in management positions, meaning Global Grade 14 and higher, is currently 22% calculated across the entire company (excluding employees who joined Merck as a result of the Millipore acquisition, since the global grading system has not yet been implemented for them). The percentage is higher at the subsidiaries than at corporate headquarters in Darmstadt; it is also higher in the Pharmaceuticals business sector than in Chemicals. The ratio of women in management positions is lower in certain Group functions, such as IT. Merck wants to further increase the percentage of women in management positions. Besides the local measures that are already in place – such as the cross-company mentoring program and opportunities to help employees reconcile the demands of career and family – we intend to develop further programs during 2011. We set ourselves a global objective of increasing the percentage of women in management positions to 25% to 30% by 2016. Effective April 1, 2011, we created the function of Chief Diversity Officer to support implementation.

At Merck 57% of all management positions (global grade 14+) are held by persons of non-German nationality – altogether 55 different nationalities are represented in such positions. The internationality of our management levels reflects the global nature of our business activities.

LABOR-MANAGEMENT RELATIONS

We foster employee participation, co-determination and dialogue in our company so that employees will be motivated and committed to contribute to the success of our company.

The Merck Euroforum is the Merck employee representative body at the European level and also serves as the information and advisory platform for direct dialogue between employees and senior management up to the Executive Board level. Regularly discussed topics include the economic and financial situation of the Merck Group in Europe, the employment situation and substantial changes within our company. In addition, there are other forms of employee representation at the sites. In 2010, employer and employee representatives in Germany concluded a joint declaration on a "culture of performance and trust", based on openness, transparency and shared responsibility.

Our divisions have adopted independent approaches to promote dialogue. Merck Serono hosts information and dialogue forums several times a year under the headings of "Merck Serono in Focus" and "Function in Focus". In the Chemicals business sector, the "ChemForum" is an instrument for dialogue for employees across all levels and functions. In total, nine events were held in 2009 and 2010. Especially against the backdrop of integrating the Merck Millipore employees, it becomes clear how important regular, open and timely communication is. In order to handle the integration process, we launched a systematic change management process and communication campaigns. The integration process and its progress are addressed and discussed in the newsletter "pro Integration" published every two weeks, on the intranet and in special online forums.

Since 2009, we have conducted the Group-wide Pulse employee survey annually. In this context, our employees have the opportunity to evaluate Merck as an employer and to communicate their needs to us. Concrete measures are derived from the results, discussed and implemented. The results of the second Pulse survey conducted in January 2010 fortunately showed that the majority of our employees identify with our company and are committed to helping us succeed. Altogether, 84% of all employees participated in the survey. After the 2009 survey, we resolved to become better in the areas of "Values and Ethics", "Leadership" as well as "Performance and Development", and we initiated corresponding improvement actions. The employees' ratings in these fields were better in 2010 than in 2009.

WORK-LIFE BALANCE

Merck attaches great importance to being a family-friendly company and helping employees reconcile the demands of work and leisure. In Germany and many other countries, for example, we offer employees the possibility to work part-time and to telecommute. In addition, we offer special programs for mothers and fathers (parental leave). However, flexible working hours greatly depend on an employee's individual position, field and degree of responsibility. The options are handled individually at the sites in line with local needs.

At our German sites in Darmstadt, Gernsheim and Grafing, 426 employees were on parental leave on December 31, 2010. In 2008, the charitable Hertie Foundation confirmed that Merck in Darmstadt and Gernsheim is a family-friendly company. As a result, we are permitted to use the quality seal of the "Family and Career" audit for a further three years.

In 2011, the Euroforum will deal with the topic of work-life balance and develop strategies for sustainable forms of work, working hours and working conditions.

OCCUPATIONAL SAFETY AND HEALTH PROMOTION

As an employer, it is Merck's responsibility to prevent workplace-related illnesses and accidents. For the occupational safety and health of our employees, throughout the Group, we are aiming to achieve minimum criteria oriented to the standards of the International Labor Organization (ILO) and the Responsible Care® program of the chemical industry. Since 1995, the "EHS Policy" (Principles and Strategies for Health, Safety and the Environment) has applied throughout the Merck Group; it is updated on a regular basis. A "Company Agreement on Workplace Safety and Health Protection" has been in effect for our German sites since 1997. Our goal, redefined in 2010, is to reduce the Lost Time Injury Rate (LTIR – the number of workplace accidents resulting in lost time per one million working hours) to 2.5 by 2015. We want to achieve this goal primarily by reducing the number accidents caused by improper actions.

www.ilo.org
> Labour Standards

www.merck.de/responsibility
> Employees
> Health & Safety
> EHS Policy

Occupational safety is an integral element of our EHS management system. As part of this system, we carry out internal audits at the sites on a regular basis. Data are collected monthly via LION, the Merck-specific data management system, and published on the intranet. All companies of the Merck Group are required to report relevant accidents ad hoc to Darmstadt via the Rapid Incident Report System. The accident causes are evaluated centrally, and other potentially affected sites are informed about precautions to prevent similar accidents. Particularly for accidents involving chemicals, there are instructions for emergency medical treatment.

In 2010, we reduced the number of workplace accidents per one million working hours to 3.0 (2009: 3.4). This shows that we are continually making progress in the area of accident prevention through our targeted measures. Despite our efforts to prevent accidents, one accident resulting in death occurred in 2010 – a sales force member in Colombia died of the injuries she sustained in a car accident.

In 2009/2010, we launched the "Safety Confidence" program in Darmstadt and Gernsheim. Employees and supervisors are further sensitized to potential accidents and risks through training and campaigns. The goal is to further strengthen our safety culture. Comparable programs will be carried out at sites around the world. One example is the site-based safety competitions held in Latin American companies such as in Brazil and Mexico. Moreover, in the regional EHS Forums in Europe, Asia and North America, lively exchanges took place on occupational safety, especially on the safety culture and safe behavior. In 2009, nine pharmaceutical production sites received an award for zero accidents per one million working hours. This Safety Excellence Award went to 24 sites in 2010.

Beyond occupational safety, we offer our employees an in-house program to promote preventive health care. Ergonomic evaluations of the workplace are a task of our worldwide EHS Management organization. We rely on employees' personal responsibility and support their health awareness through local programs. These include fitness programs, information on healthy nutrition such as "Fit@Merck" in Germany, and early screening measures for diseases such as diabetes or cancer.

GOALS

● achieved ● ongoing ● not achieved

Achievement of previous goals

Strategic goal	Actions	By when?	Status	
Introduce a performance management system	- Implement performance management for all employees with target-setting, feedback and coaching	2013	Introduced globally for around 88% of employees. In Darmstadt, nearly all employees are covered by Performance Management. Around 25% of them – or 2,200 employees – are subject to the globally consistent Performance Management Process using the ET Web. The remaining 6,800 are included in other performance management processes.	●
	- Introduce development plans for all employees with performance evaluations, target-setting, feedback and coaching	2013		●
	- Introduce development plans for all managers as part of the Performance Management Process	2012	This goal, which was set in 2009, relates to Merck managers, excluding the managers from Millipore. The development plans were introduced for all managers.	●
	- Introduce development plans for all managers of the Millipore Corporation, which was acquired in 2010	2011	The managers of Merck Millipore have development plans, which will be transferred to the Merck system by the end of 2011, excluding the managers from Millipore.	●
Talent & Succession Management: Fill at least two-thirds of grade 16+ positions with internal applicants	- Identify suitable employees with management potential in the Talent & Succession Management process - Define a process for targeted development and promotion of these employees	continually	76% of vacant management positions were filled by internal candidates in 2010.	●
Create a common understanding of our company values among all employees	- Participation of all employees in a Dialog Map workshop	2009	By the end of 2010, nearly all employees had taken part in a workshop.	●
Employee management: Evaluate the satisfaction and motivation of our employees	- Pulse surveys are conducted regularly	not defined	The Pulse survey was conducted in 2009 and 2010 and the results were presented to employees. Pulse surveys will continue to be conducted regularly. The survey process has been established, the Pulse survey will be conducted in 2011 and thereafter on a regular basis every two years.	●
Increase the percentage of women in management positions		not defined	Percentage of women in top management (global grade 16+) was 11% in 2009, and 13% in 2010. Our new goal (see below) related to all women in management positions and no longer exclusively to women in top management.	●
Reduce workplace accidents in the entire Merck Group (Lost Time Injury Rate = 5.0)	- Stabilize level achieved by focusing on select sites, such as with safety awards and safety culture assessments	2010	- In 2009, the LTIR was 3.4 - In 2010, the LTIR was 3.0	●
Adhere to the Merck standards defined in the Social Charter	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 quality; these figures will include in future data on all of the Merck Group employees.	continually	Since 2010, Internal Auditing has audited our companies with respect to adherence to the criteria of the Social Charter. In 2010, 26 sites in 23 countries were audited; no violations of the Social Charter rules were found. The quality and completeness of figures were improved further; the 2010 data already include the Millipore sites acquired in 2010.	●

New goals

Strategic goal	Actions	By when?
Increase the percentage of women in management positions (global grade 14+) to at least 25% to 30%	- Increase the share of women through numerous initiatives to promote women as managers	2016
Reduce workplace accidents in the entire Merck Group (Lost Time Injury Rate = 2.5)	- Implement the "Safety Confidence" program, conducting EHS "Safety Behavior Change" forums	2015

The use of solar energy as an energy source is increasing. Merck is supporting this development by supplying innovative materials and formulations for next-generation solar cells.

RESPONSIBILITY FOR THE ENVIRONMENT

Merck manufactures more than 50,000 different products at 70 sites. We aim to prevent negative environmental impact caused by the production of pharmaceuticals, chemicals and laboratory products, and to provide our employees with a safe work environment. For this reason, we steer all environmentally relevant processes with our internal environmental management system, which was recertified in 2010.

Our responsibility to protect the environment derives from the Merck Values and corporate strategy. The basis for steering environmental protection activities is the Corporate EHS Policy with its principles and strategies for the environment, health and safety. The EHS Policy is implemented through internal guidelines and instructions for compliant behavior, such as the Merck Group EHS, Security and Quality Manual. They describe how employees must take the EHS principles into account in their daily work at the sites. Our guidelines are oriented toward the key elements of the Responsible Care Global Charter developed in 2005 by national and international associations of the chemical industry.

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

www.responsible-care.org

We want to continually improve our performance and use energy, water and materials economically and efficiently. We are doing this to reduce our impact on the environment, but also to achieve cost savings derived from efficiency. We are currently focusing on climate protection: By 2020, we aim to reduce our total direct and indirect greenhouse gas emissions by 20% – measured on the basis of 2006 levels.

www.merck.de/reponsibility
> Environment
> Management approach
> Organizational chart

The Chairman of the Executive Board, Karl-Ludwig Kley, is responsible for the environment, health and safety at Merck. The Group function Environment, Health, Safety, Security, Quality (EQ) is responsible for managing all environmental protection measures worldwide. Operating units at all Merck sites attend to environmental protection matters. EQ conducts internal and external audits to ensure that regulatory requirements, standards and business requirements are adhered to and implemented. The Group-wide electronic data management system LION is used to record environment, health and safety data at the sites and transmit them to headquarters on a regular basis – a majority of the data annually, some semiannually, and some on a monthly basis.

In 2009, 54 production sites were certified for the first time in accordance with ISO 14001:2004, the international environmental management standard. At that time, these were all the production sites of the Merck Group. The Group certificate was confirmed in 2010 by the annual certification maintenance audit, which takes place each November. The audit covered eleven sites representative of the entire Group. The review by the certifiers showed that all requirements of the ISO 14001:2004 standard are being fully met.

One of our greatest challenges at this time is integration of the 15 new Millipore production sites into our Group-wide EHS organization. In 2011, we plan to include the former Millipore production sites into the Group certificate in accordance with ISO 14001:2004. For this purpose, we are currently working on harmonizing the structure and processes, as well as harmonizing reporting.

Our spending on environmental protection, health and safety totaled EUR 140 million in 2010. This figure includes depreciation of property, plant and equipment, as well as operating costs.

In January 2011, Millipore Corporation paid USD 526,500 in civil penalties to settle allegations by the U.S. Environmental Protection Agency (EPA). According to the EPA, Millipore Corporation, which was acquired by Merck in 2010, distributed and sold an unregistered pesticide and imported pesticides and pesticide devices without submitting the required forms to the EPA in the period from September 2005 to October 2008.

When Millipore first became aware of EPA's concerns in 2008, it stopped importing the unregistered chlorine tablets and has since imported pesticide devices in compliance with the applicable regulations of FIFRA (U.S. Federal Insecticide, Fungicide, and Rodenticide Act).

PROCESS SAFETY

Process safety is a high priority at Merck. If the safety systems in the production processes fail, any chemicals released can impact the environment to widely varying degrees.

Process safety comprises the planning, construction, proper operation, change and shutdown of production facilities and warehouses. Our global Plant and Process Safety standard, which we adopted in 2008, specifies that relevant EHS issues must be taken into account for the entire life cycle of a plant. This concept includes an overview of potential risks and the corresponding protective measures. For self-manufactured products, the global Merck standard entitled Management of Documents for Manufacturing also defines the documentation of environmental protection measures and risk analyses. The Group-wide operating procedure Risk Management Process specifies how to identify, evaluate and handle risks.

In 2009, we established process safety indicators to continually improve the level of process safety and to be able to observe and define trends in development. An initial evaluation of the indicators showed that our focus on inspection, selection of suitable safety systems for processes and employees, as well as employee training is the correct approach. Process safety is an interaction of people and machines. For this reason, Merck places very high value on providing employees with training and regular advanced training.

Environmentally related events did not occur during the reporting period.

ENERGY USE, GREENHOUSE GAS EMISSIONS AND CLIMATE PROTECTION

We aim to reduce greenhouse gas emissions and contribute to global climate protection not only by developing innovative products, but also by increasing energy efficiency in production, research and administration. For this purpose, we set ourselves an ambitious goal in May 2009: By 2020, we aim to reduce our direct and indirect greenhouse gas emissions throughout the entire Group, including the new Millipore sites, by 20% – measured on the basis of 2006 levels.

In 2010, greenhouse gas emissions totaled 574 kt CO_2eq. This was 14% more than in the previous year (2009: 505 kt) due to an increase in production. The figure includes both energy-related emissions and process-related emissions.

Our total energy requirement for 2010 was 1,474 GWh. It increased by almost 9% compared to the previous year (2009: 1,352 GWh) as a result of commissioning new plants and higher production volumes. At Merck, energy is primarily used in the production processes and for heating and cooling. Our primary sources of energy are natural gas and electricity. We purchase most of our required energy from external suppliers.

In addition, Merck also operates its own plants to generate electricity and/or steam, such as the gas turbine power plant in Darmstadt and the heating plant in Gernsheim. These two plants are subject to the CO_2 emissions trading started throughout Europe in 2005. Merck was allocated 540,000 certificates for the second trading period from 2008 to 2012. From today's perspective, these certificates are sufficient, which precludes the need to purchase more. Approximately 29% of total greenhouse gas emissions by the Merck Group in 2010 can be attributed to the Merck sites in Darmstadt and Gernsheim.

www.ghgprotocol.org

The basis for calculating greenhouse gas emissions is Scope 1 and Scope 2 of the internationally recognized Greenhouse Gas Protocol, an initiative of the World Business Council for Sustainable Development and of the World Resource Institute. Scope 1 comprises the direct emissions generated by the company itself by burning fossil fuels. Scope 2 comprises the indirect emissions from purchased energy, such as electricity and distance heating. Scope 3 emissions are those generated from activities for the production and transportation of raw materials, products and wastes, and by employee business travel. With the exception of CO_2 emissions generated by employee air and rail travel, the scope 3 emissions have not been calculated yet due to the complexity and lack of available data.

Climate protection measures in 2009 and 2010

To reach our climate protection goal, we are focusing our measures on our largest emitters of greenhouse gases, which generate around 80% of greenhouse gas emissions of the Merck Group. The largest emitters in 2010 included the Darmstadt and Gernsheim sites in Germany, the Mollet del Vallès site in Spain, the Jaffrey, NH and Savannah, GA sites in the United States, the Onahama site in Japan, and the Taicang site in China.

In 2010, we conducted energy conservation audits at the production sites in Darmstadt, Gernsheim, Onahama and Atsugi. At the Onahama and Atsugi sites in Japan, we identified measures that resulted in average energy savings of 15% to 20%.

In the reporting period, the Bari site in Italy was the first pharmaceutical production site to receive certification in accordance with EN 16001, the international energy management standard. The new pharmaceutical research center in Billerica, Massachusetts, USA, received the gold standard according to LEED (Leadership in Energy and Environmental Design), the U.S. classification system for planning energy-efficient, eco-friendly buildings. Moreover, in 2010 the Merck Millipore sites in Massachusetts and New Hampshire carried out 57 measures to improve energy efficiency, including installation of better temperature control systems and optimized control of the exhaust system. Overall, around 3,600 MWh of electricity and natural gas were saved.

In February 2011, the Merck Millipore site in Billerica was awarded the Energy Star designation from the U.S. Environmental Protection Agency for outstanding energy performance of the building. Only those buildings that use 35% less energy overall and therefore generate fewer greenhouse gas emissions than conventional buildings earn this designation. At other sites as well, Millipore is committed to implementing energy-saving measures to reach its goal set in 2008, namely to reduce greenhouse gas emissions by 20% by the end of 2011. Reducing the emissions released during processes will play an important role in reaching this goal. We are optimizing processes to reduce these emissions and working on methods that no longer use these gases.

At the same time as we adopted our climate protection goal, we launched EDISON, the Group-wide climate protection program, at more than 120 sites in May 2009. The program includes production sites, relevant warehouse and laboratory sites, and some commercial subsidiaries. The objective is to identify examples of best practice in energy use and transfer them to the other sites. Various tools include energy checklists and energy-saving ideas. These are available via a central intranet site to support the mutual exchange of information and learning.

Using alternative energy sources

We also use renewable energy to reduce the greenhouse gas emissions caused by our energy requirements. However, at about 1% of the total energy consumption, the overall share of energy from renewable sources is still low. At the Merck Millipore site in Billerica, Massachusetts, around 12% of the electricity requirements in 2010 were covered by its own photovoltaic systems. The sites in Molsheim, France, and Bedford, Massachusetts, also use photovoltaics to generate power. In 2011, we plan to commission photovoltaic systems at the sites in Tel Aviv, Israel, and Rome, Italy.

At our site in Geneva, Switzerland, we use water from Lake Geneva for heating and cooling via heat exchangers. Water from the lake covers around 70% of the site's energy needs. Together with electricity from hydroelectric power stations, 70% of the required energy comes from renewable energy sources.

Sensitizing employees

To sensitize our employees to climate protection, we publish information about our EDISON climate protection program on the intranet, in the employee newspaper and in newsletters. This includes background information, current measures, a greenhouse gas emissions balance, and a list of the largest emitters of greenhouse gases. In addition, steps that employees can take themselves to save energy are explained, such as taking local public transportation, using energy-saving lamps, driving in a fuel-efficient manner, and saving energy and water at the workplace.

We launched the Merck Serono Goes Green initiative at the Geneva site in 2009. Employees are called upon to save energy and resources and can take part in a competition by contributing their own ideas. Some of the ideas have already been implemented, such as better lighting control and installation of energy-efficient hand dryers.

Merck Millipore also informs its employees about ways to save energy both at the workplace and at home. For example, employees in the United States who have an energy check carried out in their homes are assisted by Merck Millipore.

WATER AND WASTEWATER

Water scarcity is the main challenge of the 21st century in some regions of the world. The United Nations currently estimates that nearly 900 million people –17% of the world population – do not have access to clean drinking water.

At Merck, the greatest water demand is attributable to production, for example for cooling, as process water or for exhaust air purification. Our aim is to use water as efficiently as possible, to reuse it if possible through circulation and, if necessary, to feed wastewater into the public sewer system pretreated in accordance with legal requirements.

In 2010, we used 17.9 million m^3 of city water (2009: 15.9 million m^3). The increase is attributable to positive economic developments. Furthermore, the volume of surface water that is used at Merck Serono in Geneva to generate energy increased. In addition, Merck Millipore's water consumption was included in the figures for the first time in 2010. We conducted studies of the water consumption at two sites in Massachusetts. By analyzing the pattern of water use at the sites, we identified savings potential of 26%.

We get 30% of our fresh water from ground water, 49% from surface water and 21% from the public water supply. The largest share (85%) was withdrawn in Europe, 8% in Asia, Africa, Australasia, 6% in North America and 1% in Latin America.
Merck produced a total volume of wastewater of 10.2 million m^3 (2009: 8.9 million m^3).

MATERIAL AND WASTE

As an important contribution to protecting natural resources, and therefore the environment, Merck aims to use materials in production economically and efficiently.

With respect to the purchased materials that are used in our products, we can quantify the weight or volume for 74% of the total amount spent on these materials. In 2010, we used 318 kt and 63,340 m^3 of materials. In addition to this are materials that can be determined in numbers of units only, such as folding boxes, glass bottles, ampules or applicators.
The materials used also include items such as chemical and pharmaceutical raw materials, packaging materials and consequently everything that goes into the products. They do not include operating supplies such as energy or lubricants.

Already in the process development phase, we pay special attention to making sure that the processes are efficient and result in as little waste as possible. We work to ensure that the materials used are as safe as possible.
For the existing production processes, we are working in interdisciplinary teams on process optimization as part of our Operational Excellence program. Using resources efficiently is an important goal, also for cost reasons.

The amount of waste produced in the Merck Group increased to 193 kt in 2010 (2009: 162 kt). The increase was due to higher production volumes owing to the improved economic situation, an increase in waste resulting from construction and remediation measures, and the inclusion in the calculation of waste from the acquired Millipore sites.

The share of hazardous waste was 39% in 2010. The amount of recycling waste rose from 96 kt in 2009 to 120 kt in 2010. A total of 20 kt of that waste was converted into energy in 2010 (2009: 17.5 kt). In 2010, 46% of waste was construction, excavation and demolition waste (2009: 47%); these types of waste also strongly influence the recycling rate, which was 62% in 2010 (2009: 59%).

LAND USE AND BIODIVERSITY

For soil protection, production facilities must be safeguarded so that any chemicals released despite all precautions cannot reach the soil. Therefore, our production sites are normally located in established industrial and commercial zones. In order to ensure soil protection, it is often not possible to unseal surfaces.

However, since our sites also provide a habitat for numerous species of plants and animals, we aim to increase the share of unsealed surfaces as far as possible.

We already developed a green space concept for the Darmstadt site in 1995. Green spaces presently cover approximately 30% of the site premises. Depending on where they are located on the site and on their respective function, the green spaces are designed to improve the functionality of plant operating areas and to enhance the ecological value of open spaces. In 2008, we signed a contract with the city of Darmstadt that set the framework for taking nature conservation more into account. This applies to the industrial use of the site and its better integration into the urban surroundings. The agreed planning guidelines require, for example, a higher share of native plants.

When planning new sites and facilities, we consider environmental aspects, such as aeration, land use structures that contribute to a favorable microclimate, and energy-efficient building concepts. When planning the expansion of our site in Corsier-sur-Vevey, Switzerland, we conducted a biodiversity study. To protect the bordering alpine meadows, we developed a landscape plan; the maintenance is carried out by a local farmer.

When acquiring and divesting sites, we examine them for any environmental pollution. We assume responsibility for any pollution we cause.

GOALS

● achieved ● ongoing ● not achieved

Achievement of previous goals

Strategic goal	Actions	By when?	Status	
Achieve ISO 14001:2004 group certification	- Certification of all 54 production sites in accordance with ISO 14001:2004	2010	In 2009, all 54 sites were successfully certified, and recertified in November 2010.	●
	- Certification of the 15 Millipore production sites acquired in July 2010	2011		●
Reduce the Merck Group's direct and indirect greenhouse gas emissions by 20% (Scopes 1 and 2) (based on 2006 levels)	- Systematic analysis of energy consumption at the sites - Improvement of economic energy-saving potentials - Reduction of process-related emissions	2020	In 2009, greenhouse gas emissions decreased by 9% compared to 2006 levels. In addition to achieved savings, e.g. 4% at the two largest sites – Darmstadt and Gernsheim – the decline was also attributable to the global economic crisis. In 2010, greenhouse gas emissions rose by 14% compared to 2009, by 4% compared to 2006 levels. This was primarily due to the positive economic trend and the resulting increase in production volumes.	●
Increase the waste recycling rate (proportion of recycled waste to total waste) by 20%, to at least 57%	- No special actions were defined	2010	- Recycling rate in 2009: 59%. - Recycling rate in 2010: 62%. The recycling rate is strongly influenced by construction and remediation measures. In 2010, we found that when collecting the data, excavation waste that was recycled at landfills (surface cover and design) was incorrectly classified as waste for disposal instead of as waste for recycling (non-hazardous excavation waste; 2010: 12,700 t, 2009: 26,700 t). We have corrected this retroactively to 2006. As a result, the goal of a recycling rate of > 57% was subsequently achieved.	●

The World Health Organization (WHO) estimates that 10% to 30% of all medicines worldwide are either counterfeit or of deficient quality. With the GPHF-Minilab®, a mobile compact laboratory, Merck is supporting the fight against counterfeit medicines.

RESPONSIBILITY FOR SOCIETY

Merck views its corporate responsibility toward society not only in terms of paying taxes and creating or maintaining jobs. Rather, we are convinced that we can make an important contribution to society with our knowledge, our skills and our products.

Our corporate social responsibility activities are primarily focused on those areas in which we have specific expertise stemming from our core businesses. For example, we participate in health care projects for socially disadvantaged people. We support education, specifically in the natural sciences, and promote culture and sports in the vicinity of our sites. We also provide disaster relief if an emergency should arise, especially in those regions in which we operate.
To increase the effectiveness of our projects, we have consolidated our resources into three global lighthouse projects:

- Within the scope of the Merck-Praziquantel Donation Program, we are partnering with the World Health Organization (WHO) to combat the worm disease schistosomiasis in African school children.
- The Global Pharma Health Fund is a non-profit initiative funded by Merck to fight counterfeit medicines in developing and emerging countries.
- The Merck Philharmonic Orchestra is the musical ambassador of our company.

In addition, our subsidiaries carry out local projects in which they actively participate. We have defined criteria for selecting projects; the decisions concerning certain projects are made by our subsidiaries locally. The Group function Corporate Communications in Darmstadt is responsible for coordinating the global lighthouse projects. The Executive Board receives regular reports on the progress of the projects.

To ascertain the regional breadth of our social commitment, to determine the goals and focus as well as to track the development thereof over time, we conduct annual global surveys. The first one took place in 2008 and related to the activities of 2007. In 2010, we invested a total of EUR 6.9 million in corporate social responsibility activities. This figure does not include activities that primarily serve to market our products. We document donations to patient organizations in Europe separately and publish this information on our website.

www.merck-serono.com
> About us
> Responsibility
> Patient Organizations

Of the total monetary and non-monetary donations by our subsidiaries abroad in 2010, 37% were made in Asia, 29% in Europe, and 17% each in Latin America and North America.

Since 2008, we have also been collaborating on the Corporate Social Responsibility project of the Bertelsmann Foundation. A method to measure and evaluate social responsibility has been developed in order to better estimate the impact of projects. We have applied this method to our donation program to combat schistosomiasis and can evaluate the progress of the project in the evaluation model.

GLOBAL RESPONSIBILITY PROJECTS

Praziquantel: Combating schistosomiasis

Over 200 million people in Africa suffer from the widespread tropical worm disease schistosomiasis. Every year, more than 200,000 people die from this insidious disease. The consequences of an infection are particularly serious for children, since schistosomiasis stunts growth and cognitive development and leads to anemia.

www.who.int

Since 2007, we have been supporting the World Health Organization (WHO) in combating this disease. Within the scope of our donation program, by 2017 we will have distributed 200 million tablets of Cesol® 600 containing the active ingredient praziquantel, primarily to school children. These tablets will make it possible to treat 27 million children for schistosomiasis in the most severely affected countries of Africa. Praziquantel is well tolerated and the most effective therapy to date for schistosomiasis. It is therefore on the WHO list of essential drugs.

WHO figures show that more than 55 million praziquantel tablets had already been donated by the end of 2010 and more than 10.2 million school children have been treated since the project began. In addition to the tablets, people in the project regions are to receive information about the disease and possible ways to prevent it. For this reason, since 2010 we have also been involved in developing educational material in the form of posters and information brochures. When the partnership with WHO began, we put the value of the praziquantel donation at USD 80 million. In 2010, WHO issued new guidelines for donations of medicines. Based on these guidelines, the resulting value is USD 19 million (including logistics costs, which are also borne by Merck).

Minilab: Fighting counterfeit medicines

Counterfeit medicines are a serious threat to health care. WHO estimates that 10% to 30% of all medicines worldwide are either counterfeit or of inferior quality. The Global Pharma Health Fund

www.gphf.org

(GPHF), a Merck-funded initiative, provides help in this context: The GPHF-Minilab® is a compact mobile laboratory that makes it possible to quickly and inexpensively test whether a medicine is genuine.

On average, one Minilab was provided for the local projects – mainly in Africa, Asia and the western Pacific region – every week during the reporting period. By the end of 2010, a total of 394 Minilabs were already being used in more than 70 countries. The test methods are continually being expanded; the GPHF-Minilab® currently provides test methods for a total of 52 active pharmaceutical ingredients.

In 2011, the GPHF plans to develop test methods for an additional five active ingredients and to add the descriptions of the new test methods to the instruction manuals.

Cultural ambassador: Merck Philharmonic Orchestra

We also have a long tradition of cultural commitment. In particular, we view classical music both as a universal language that connects people and as an important part of our culture.

www.philharmonie-merck.de

Our musical ambassador is the Merck Philharmonic Orchestra. The concerts of this professional ensemble are highly popular, attracting more than 20,000 people every year.

Furthermore, we finance and organize the "Musical Autumn" festival in and around Darmstadt every two years. Special events for children and adolescents as well as cooperation with schools, such as the orchestra workshop that was held for the first time in 2010, aim to encourage young people to develop a taste for classical music.

LOCAL RESPONSIBILITY PROJECTS

www.merck.de/responsibility
> Community
> Local projects

It is also imperative to show responsibility at the local level: In accordance with the Merck Values, we call upon all the companies of the Merck Group to take on responsibility for their local communities. The individual companies can orient themselves toward our Group-wide framework, which covers the investment of time, expertise and resources.

We actively support local charitable causes as well as education at schools and universities, and award scholarships to talented students.

In 2010, our subsidiaries abroad participated in more than 100 projects. Examples include supporting an HIV/AIDS hospice in South Africa as well as constructing and running a hospital on the island of Baba Bhit in Pakistan. The companies in India and China award scholarships that allow young people to receive a good education that they could not afford without support. In Brazil and Spain, Merck is participating in efforts to integrate people with disabilities into society. Employees at our subsidiary in Guatemala are building houses for needy people in collaboration with a charitable organization. Moreover, we provided disaster relief, including for victims of the flooding in Pakistan and the earthquake in Chile.

GOALS

● achieved ● ongoing ● not achieved

Achievement of previous goals

Strategic goal	Actions	By when?	Status	
Combat the worm disease schistosomiasis	- Donation of 200 million tablets containing the active ingredient praziquantel valued at approx. USD 19 million to treat 27 million African school children	2017	2009: Donated 25 million tablets in 13 African countries. 2010: Donated 22.5 million tablets in 10 African countries. Since the start of the project, 10.2 million school children have been treated.	●
	- Develop educational material (posters, information brochure)	2011		●
Fight counterfeit medicines	- Provide and further develop the compact mobile laboratory GPHF-Minilab® -Develop new test methods -Provide training on the use of the GPHF-Minilab®	2010	2009: Two training courses conducted on using the GPHF-Minilab® with ten participants in Germany and eight in Gambia. Donation of two Minilabs to Gambia. 2010: Four training courses on using the GPHF-Minilab®. Donation of one Minilab to Cameroon. Development of nine new test methods.	●
	- Develop new test methods for five active ingredients - Expand the manual to include descriptions of the new test methods	2011		●
Establish an annual reporting system to document and assess the local activities of the companies of the Merck Group	- Implement an electronic questionnaire for the companies of the Merck Group - Conduct plausibility check of the input and assessment of individual projects based on their conformity with the requirements in force Group-wide since 2007 - Corporate Communications to steer actions as needed	2010	All actions have been implemented. A data collection report will be written for the Executive Board and for publication in the employee newspaper. The Millipore sites have been fully integrated into the Group-wide data collection for 2010.	●

FACTS AND FIGURES

Information on the reporting framework can be found inside the cover flap.

The corresponding references to the Global Reporting Initiative (GRI) indicators for sustainability reporting are found in the margins.

24 sites with no workplace accidents

40,562 employees

5.9 % vocational training rate

62 % of waste recycled

< 1 % turnover

EUR **6.9** million invested in corporate social responsibility activities

FINANCIALS AND CORPORATE GOVERNANCE

[EC1] ## Net value added statement

Net value added statement

EUR million	2006	2007	2008	2009	2010
Total revenues	4,460	7,057	7,590	7,747	9,291
Other income	542	151	142	135	221
Financial income	65	62	37	36	40
Corporate result	5,067	7,270	7,769	7,918	9,552
Cost of materials	-874	-1,045	-1,089	-1,052	-1,246
Other purchased services/expenses	-1,381	-2,372	-2,681	-3,075	-3,298
Gross value added	2,812	3,853	3,999	3,791	5,008
Depreciation/amortization of purchase price allocation	-303	-1,658	-1,215	-1,004	-1,258
Net value added	2,509	2,195	2,784	2,787	3,750

Distribution of net value added

EUR million	2006	2007	2008	2009	2010
Employee compensation/personnel expenses	1,412	1,933	2,015	2,129	2,597
Financial expenses	115	373	194	171	291
Taxes on income	176	-23	196	110	220
Profit after tax	806	-88	379	377	642
Net value added	2,509	2,195	2,784	2,787	3,750

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. Financial expenses increased by 70% over 2009 owing to higher financing costs for the acquisition of Millipore. Taxes on income increased by 100% due to the higher level of profit before tax. Accordingly, profit after tax increased by 70%.

Research and development expenses

Research and development expenses

EUR million	2006	2007	2008	2009	2010
Pharmaceuticals	482	891	1.091	1.203	1.192
Chemicals	133	137	143	141	205

Compliance

[SO2] **Internal audits pertaining to corruption and the Social Charter**

Number	2006	2007	2008	2009	2010
Audits pertaining to corruption	31	40	36	32	34
Audits pertaining to Social Charter topics	--	--	--	--	26

[SO3] **Employee training on the Code of Conduct (incl. anti-corruption)**

Number	2006	2007	2008	2009	2010
Online courses completed	8,000	8,806	556	6,400	8,600

The low number of online courses completed in 2008 is attributable to a system changeover.

EMPLOYEES

[LA1] Employee structure

Employees

Number	2006	2007	2008	2009	2010
Total employees as of Dec. 31	29,999	30,968	32,800	33,062	40,562

In 2010, the total number of employees increased by 23% over 2009. The change in the number of employees was mainly a result of the acquisition of the life science company Millipore, which Merck completed in July 2010.

Employees by region

Number	2006	2007	2008	2009	2010
Europe	17,167	18,930	19,106	18,576	21,679
thereof Germany	8,734	9,097	9,431	9,562	10,340
North America	2,703	2,034	2,157	2,051	4,909
Latin America	3,767	4,054	4,370	4,272	4,546
Asia, Africa, Australasia	6,362	5,950	7,167	8,163	9,428

While the numbers of employees declined slightly in Europe, North America and Latin America in 2009 compared with 2008 due to the economic situation, we experienced growth of 14% in Asia, Africa, Australasia. The reason for this was the expansion of the pharmaceutical business in China and India, the acquisition of pigment producer Suzhou Taizhu Technology in China, and the acquisition of the bioscience firm Bangalore Genei in India (455 and 288 new employees, respectively). In North America, the number of employees declined by 4% owing to the closure of the site in Madison, Wisconsin with 243 employees. In Latin America the number decreased by 2%, because two sites – in São Luís and Barra do Corda, Brazil – with a total of 117 employees were divested. In 2010, all regions experienced growth due to the acquisition of Millipore: Europe: 17%; North America: 139%; Latin America: 6%; and Asia, Africa, Australasia: 15%. The greatest increases in the number of employees related to this acquisition were in the following countries: United States (2,712), France (1,323), Ireland (484), India (272), Japan (204), China (188), the Netherlands (153) and Brazil (105).

Age structure *

Number	2006	2007	2008	2009	2010
Under 21 years	429	445	413	60**	54**
21 to 30	1,438	1,518	1,564	1,368	1,441
31 to 40	2,493	2,507	2,428	2,305	2,237
41 to 50	2,703	2,907	3,059	3,215	3,308
51 to 60	1,413	1,532	1,571	1,620	1,743
Over 60 years	72	74	92	90	100
Average age (years)	39.6	39.7	39.9	41.5	41.7

* Pertains only to the Darmstadt, Gernsheim and Grafing sites in Germany (around 22% of the employees of the Merck Group in 2010).
** The low number of employees under the age of 21 is due to the fact that since 2009 apprentices are no longer included in the count.

Working hours

in %	2006	2007	2008	2009	2010
Full-time employees	94	92	94	94	94
Part-time employees	6	8	6	6	6

[LA2] ## Employee turnover

Employee turnover

	2006	2007	2008	2009	2010
Turnover rate*	1.33	1.27	1.76	1.43	0.99

* Pertains only to the Darmstadt, Gernsheim and Grafing sites in Germany (around 22% of the employees of the Merck Group in 2010).

The turnover rate is calculated in accordance with the BDA formula: Departures x 100/average workforce in %, adjusted, i.e. excluding departures due to retirement, death, temporary contracts or transfers to subsidiaries (BDA: Federal Association of German Employer Associations).

Basic principles of the International Labour Organization (ILO)

Compliance with ILO labor standards

	in %	June 30 2006	Dec. 30, 2007	Dec. 30, 2008	Dec. 30, 2009	Dec. 30, 2010
	Full-time employees (standard contract, excluding exempts) with contractually agreed working hours of maximally 48 hours per week[1]	95	99	99	99	99
	Full-time employees (standard contract) with at least 15 vacation days/year[2]	87	93	93	95	94
	Women with access to maternity leave programs[3]	92	79	89	97	100
[LA4]	Employees with the right to collective bargaining[4]	84	61	78	76	96*
	Sites that rule out child labor as defined by ILO Convention 138	100	100	100	100	100
	Age of youngest employee, excluding vocational trainees (years)	18	18	17	17	17

[1] 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)
* In 2010, Merck recorded the percentage of employees who principally have the right to collective bargaining. By contrast, in previous years, the percentage of employees covered by collective bargaining was recorded. Therefore, figures for 2006–2009 are not comparable with the figure for 2010.

[EC5] ## Local minimum salary

Local minimum salary

in %	2006	2007	2008	2009	2010
Percentage of sites guaranteeing a minimum salary above the local minimum salary	99	92	94	94	100

[LA7] ## Occupational safety

Workplace accidents

	2006	2007	2008	2009	2010
Lost Time Injury Rate (per 1 million working hours)	6.9	4.7	3.9	3.4	3.0
Number of deaths	0	3	1	0	1

When the indicators were determined, Merck employees were recorded. Supervised employees of external companies and independent contractors are not taken into account.

The LTIR has been continually reduced through targeted measures in the area of accident prevention (e.g. training and campaigns to strengthen the safety culture). In 2008, one fatality resulted from an explosion at the Darmstadt site. In 2007 and 2010, a total of four sales force members in Venezuela and Colombia were killed in car accidents.

Continuing education and training

[LA10] ### Employee training expenses

EUR	2006	2007	2008	2009	2010
Average training costs per employee	1,103	1,643	1,064	1,102	1,152

Apprentices

in %	2006	2007	2008	2009	2010
Percentage of employees who are apprentices*	6.2	5.7	5.6	5.7	5.9

* Pertains only to the Darmstadt, Gernsheim and Grafing sites in Germany (around 22% of the employees of the Merck Group in 2010).

[LA13] ## Diversity in the workforce

Women by business sector and Group function

in %	Pharmaceuticals	Chemicals	Group function
Percentage of women	47	33	21

Ratio of men and women

in %	2006	2007	2008	2009	2010
Percentage of women	41	42	42	43	43
Percentage of women in management positions (grade 14 and higher)*	Not recorded	Not recorded	Not recorded	17	22

* The figures do not include the employees of the Millipore Corporation acquired in July 2010, since the Global Grading system has not yet been implemented there.

Internationality

	2006	2007	2008	2009	2010
Number of nationalities*	Not recorded	Not recorded	117	111	128
Number of nationalities in management positions (grade 14 and higher)*	Not recorded	Not recorded	Not recorded	56	55
Share of non-Germans in management positions (grade 14 and higher)* in %	Not recorded	Not recorded	Not recorded	58	57

* The figures do not include the employees of the Millipore Corporation acquired in July 2010, since the Global Grading system has not yet been implemented there.

Merck works with the Global Grading system from Towers Watson to evaluate positions. A total of 23 different global grades are available for evaluating all the positions of the Merck Group to create comparability of the positions throughout the Group.

Employees with disabilities

in %	2006	2007	2008	2009	2010
Employees with disabilities*	3.8	3.8	4.2	4.0	3.6

* Pertains only to the Gernsheim and Grafing sites in Germany (around 22% of the employees of the Merck Group in 2010).

[EC3] Benefit obligations

Long-term benefit obligations

EUR million	2006	2007	2008	2009	2010
Present value of all benefit obligations on December 31	1,607	1,666	1,586	1,878	2,356

The present value of all benefit obligations increased by 25% in 2010; pension obligations make up a large share of the total. The present value of these obligations can be significantly increased or decreased by changes in the relevant valuation parameters, e.g. the interest rate, salary increase rate or death probabilities. Pension obligations are evaluated regularly, at least annually, based on external actuarial valuations.

Retirement pensions

in %	2006	2007	2008	2009	2010
Pension expenses EUR million	97	122	93	98	132
Percentage of employees who are obliged to contribute to the statutory pension system	71	80	87	90	89
Percentage of employees in a company pension plan (also in addition to the statutory pension plan)	80	66	70	67	68
Percentage of employees whose dependents are entitled to a surviving dependent's pension	46	43	71	67	71

Benefits in the event of illness

in %	2006	2007	2008	2009	2010
Percentage of employees with company accident insurance	94	90	99	97	100
Percentage of employees with statutory health insurance	72	77	82	78	88
Percentage of employees with employer-funded health insurance	94	81	82	82	88

Reconciling the demands of a career and a family

Working hour regulations*

in %	2006	2007	2008	2009	2010
Percentage of part-time employees	10.6	10.7	10.9	10.9	11.2
Employees on parental leave as of Dec. 31 (number)	211	221	234	162	426
Share of employees who work during parental leave	35	42	38	40	34

* Pertains only to the Darmstadt, Gernsheim and Grafing sites in Germany (around 22% of the employees of the Merck Group in 2010).

The number of employees on parental leave increased sharply by 163% in 2010. This can be attributed to attractive changes in parental leave legislation in Germany.

ENVIRONMENT

[EC3] [EC4] Energy consumption by primary energy sources

Direct and indirect energy consumption*

in GWh	2006	2007	2008	2009	2010
Total energy consumption	1,489	1,492	1,480	1,352	1,474

* portfolio-adjusted

In accordance with the Greenhouse Gas Protocol, the total energy consumption for all previous years (until 2006 as the baseline year) was adjusted retroactively based on the current corporate structure of reporting year 2010 and for acquisitions and divestments of companies or businesses (portfolio-adjusted). The Millipore data are integrated in the figures for the years 2006-2010.

In 2010, the total energy requirement rose by nearly 9% compared with 2009. This can be attributed to the commissioning of new plants and higher production volumes.

Purchased energy*

	2006	2007	2008	2009	2010
Gas in millions of m^3	77.9	75.8	79.0	72.7	78.2
Light heating oil in kt	7.8	9.5	8.8	6.7	8.6
Heavy heating oil in kt	0.7	0.9	0.6	0.2	0.3
Electricity in GWh	533	536	513	472	511

* portfolio-adjusted

In accordance with the Greenhouse Gas Protocol, purchased energy for all previous years (until 2006 as the baseline year) was adjusted retroactively (portfolio-adjusted). The Millipore data are integrated in the figures for the years 2006-2010.

[EN16] Greenhouse gas emissions

Direct and indirect CO_2eq emissions* (eq= equivalent)

in kt	2006	2007	2008	2009	2010
Total CO_2eq emissions	553	611	528	505	574
Direct CO_2eq emissions	321	374	307	304	352
Indirect CO_2eq emissions	232	237	221	201	222

* portfolio-adjusted

In accordance with the Greenhouse Gas Protocol, greenhouse gas emissions for all previous years (until 2006 as the baseline year) were adjusted retroactively (portfolio-adjusted). The years shown, 2006-2010, include the Merck Millipore data.
In 2010, greenhouse gas emissions rose by 14% compared with 2009. In addition to energy-related emissions, these figures include process-related emissions, which occur especially in the produc-

tion processes of Millipore Corporation acquired in July 2010. The increase in direct and indirect emissions by 16% and 10%, respectively, can be attributed to the increase in production.

[EN17] Other relevant greenhouse gas emissions

Other relevant CO_2 emissions

	2006	2007	2008	2009	2010
From air travel* in kt	Not recorded	Not recorded	35	34	29
From rail travel** in t	Not recorded	Not recorded	147	138	160

* Recorded globally (around 70-85% coverage). Since 2010, the AirPlus Information Manager Green Report calculation module has been used to track and analyze CO^2 emissions related to air travel.
** Recorded for Germany. The data are provided by Deutsche Bahn AG.

[EN19] Other air emissions

Emissions of ozone-depleting substances

in t	2006	2007	2008	2009	2010
Total emissions of ozone-depleting substances	0.8	1.1	1.3	0.8	0.7

[EN20] Other air emissions

in kt	2006	2007	2008	2009	2010
VOC (volatile organic compounds)	1.8	1.9	1.9	0.2	0.2
Nitric oxides	0.3	0.2	0.2	0.1	0.1
Sulfur dioxide	0.07	0.03	0.05	0.03	0.03
Dust	0.02	0.02	0.02	0.02	0.02

Overall, the level of air-polluting substances emitted by the companies of the Merck Group is low. The sharp reduction in VOC emissions in 2009 was due to the divestments of the Brazilian sites in Barra do Corda, São Luís and Terra Rica.

[EN8] Water consumption

Water

in millions of m^3	2006	2007	2008	2009	2010
Total water consumption	17.6	20.0	21.1	15.9	17.9
Surface water (rivers, lakes)	6.3	10.8	11.3	7.6	8.7
Groundwater	6.4	5.8	6.4	5.4	5.4
Drinking water supply	4.8	3.4	3.4	2.9	3.8
Rain water and other sources	0.02	0.02	0.02	0.02	0.02

In 2009, total water consumption decreased by 25% compared with 2008. This is explained by a general decline in production. In 2010, total water consumption increased by 13% compared with 2009 due to the increased production volume. In addition, Merck Millipore's water consumption was included in 2010 for the first time. Furthermore, the volume of surface water that is used at Merck Serono in Geneva to generate energy increased.

[EN21] Wastewater

Wastewater

	2006	2007	2008	2009	2010
Total wastewater volume in millions of m^3	8.3	8.2	9.3	8.9	10.2
Chemical oxygen demand COD in t of O_2	1,789	1,846	1,441	745	993
Phosphorus in t	7.6	9.6	8.7	5.8	8.7
Nitrogen in t	55.2	52.3	51.5	47.9	61.5
Zinc in kg	653	525	703	808	283
Chromium in kg	33	32	31	18	20
Copper in kg	42	28	30	38	40
Nickel in kg	60	52	50	38	39
Lead in kg	52	48	45	32	38
Cadmium in kg	9	15	9	8	10
Mercury in kg	1	2	2	1	1
Arsenic in kg	9	5	7	8	7

The wastewater volume increased by 15% in 2010 compared with 2009. This can be explained by the increase in water consumption. The chemical oxygen demand (COD), a water pollution indicator, decreased by 48% in 2009 due to the divestment of a site in Brazil. In 2010, the COD increased by 33% compared with 2009. This primarily resulted from the integration of the Millipore sites.

[EN22] Waste

Waste

in kt	2006	2007	2008	2009	2010
Total waste	188	189	215	162	193
Recyclable waste	100	107	137	96	120
Hazardous waste disposed	52	52	56	45	47
Non-hazardous waste disposed	37	30	22	21	27
Recycling rate in % of total waste	53	57	64	59	62

The 25% decrease in the amount of waste in 2009 was due in part to the general decline in production. In 2010, the amount of waste generated in the Merck Group rose by 19%. The reason for the increase was the higher production volume due to the improved economic situation, an increase in the waste produced as a result of construction and remediation measures, and the inclusion in the figures of waste from the acquired Millipore sites.

In 2010, 46% of the total amount of waste was excavation, construction and demolition waste (2009: 47%). In 2010, we determined that when recording the data, excavation waste that was recycled at landfills (surface cover and design) was classified as waste for disposal instead of as waste for recycling. The figures were therefore corrected retroactive to 2006.

In 2009 and 2010, waste totaling 17.5 and 20 kt, respectively, was converted into energy.

Transport of finished products

Means of transport*

in %	2006	2007	2008	2009	2010
Truck	Not recorded	68	63	60	58
Ship	Not recorded	29	32	35	36
Plane	Not recorded	3	5	5	6

* relates to goods shipped from German sites

[EN30]

Spending on environmental protection, health and safety

EUR million	2006	2007	2008	2009	2010
Spending	115	122	131	131	140

SOCIAL COMMITMENT

[EC8] ## Social commitment

Spending on social commitment

EUR million	2006	2007	2008	2009	2010
Total expenses	Not recorded	Not recorded	5.3*	6.2	6.9

* Figure was corrected owing to a new calculation of the the praziquantel donation

Spending on social commitment by region*

in %	2006	2007	2008	2009	2010
Europe	Not recorded	Not recorded	52	56	29
Asia, Africa, Australasia	Not recorded	Not recorded	31	15	37
Latin America	Not recorded	Not recorded	13	18	17
North America	Not recorded	Not recorded	4	11	17

* excluding lighthouse projects

Focus of social commitment*

in %	2006	2007	2008	2009	2010
Aid to socially disadvantaged people	Not recorded	Not recorded	41	33	35
Support of education and natural sciences	Not recorded	Not recorded	23	19	21
Support of culture and sports near our sites	Not recorded	Not recorded	20	15	14
Disaster aid	Not recorded	Not recorded	5	6	3
Other	Not recorded	Not recorded	11	27	27

* excluding lighthouse projects, basis: number of projects

Motives of commitment

Motives of social commitment

in %	2006	2007	2008	2009	2010
Charitable activities	Not recorded	Not recorded	57	58	56
Company investments	Not recorded	Not recorded	27	23	24
Community investments	Not recorded	Not recorded	16	19	20

Basis: time and money spent

We assign the motives of our commitment to criteria based on the model established by the London Benchmarking Group (LBG) and on the Bertelsmann Foundation's guideline for the social commitment of companies. Projects that primarily aim to make improvements within the community

are categorized as community investments. Projects that are mainly intended to have an impact on company-relevant factors such as image or employee acquisition are categorized as company investments. 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.

GLOBAL COMPACT

Communication on progress in implementing the ten principles of the Global Compact in 2011

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 (www.unglobalcompact.org).

The following table presents those measures that Merck took in 2009 and 2010 to support and enact the principles of the Global Compact.

Principle	Actions in 2009 and 2010	GRI Indicator	Reference, page
Principle 1: Protecting human rights	- Anchoring Social Charter topics in internal audits - Entry into the BME Compliance Initiative - Optimizing supplier management	EC5, LA4, LA6-9, LA13-14, HR1-9, SO5, PR1-2, PR8	8-9, 19-20, 21
Principle 2: Ruling out human rights abuses	- Anchoring Social Charter topics in internal audits - Entry into the BME Compliance Initiative - Optimizing supplier management	HR1-9, SO5	8-9, 19-20, 21
Principle 3: Upholding the freedom of association	- Anchoring Social Charter topics in internal audits - Euroforum activities - Entry into the BME Compliance Initiative - Optimizing supplier management	LA4-5, HR1-3, HR5, SO5	8-9, 19-21, 35, 54
Principle 4: Elimination of all forms of forced and compulsory labor	- Entry into the BME Compliance Initiative - Optimizing supplier management	HR1-3, HR7, SO5	8-9, 19-21, 35
Principle 5: Abolition of child labor	- Entry into the BME Compliance Initiative - Optimizing supplier management	HR1-3, HR6, SO5	8-9, 19-20, 54
Principle 6: Elimination of discrimination	- Anchoring Social Charter topics in internal audits - Corporate goal to increase the percentage of women in management positions	EC7, LA2, LA13-14, HR1-4, SO5	8-9, 19-20, 33-34, 37
Principle 7: Precautionary approach to environmental challenges	- Group certificate to ISO 14001 - Process safety/Plant safety - Measures to ensure product safety (e.g. REACH, GHS, Global Product Strategy)	EC2, EN18, EN26, EN30, SO5	13-15, 21, 39-40
Principle 8: Initiatives to promote greater environmental responsibility	- Climate protection program "EDISON" - Performing energy-conservation audits - CO_2 reduction target: 20% less compared with 2006 - Energy waste recovery	EN1-30, SO5, PR3-4	40-42, 43
Principle 9: Diffusion of environmentally friendly technologies	- Energy-saving liquid crystal displays - Energy-saving lighting materials for LEDs and OLEDs - New electrolytes for battery technology - Organic photovoltaics - Exploring nanotech applications	EN2, EN5-7, EN10, EN18, EN26-27, EN30, SO5	16, 26-28
Principle 10: Anti-corruption measures	- Expanding the global Compliance network - Speak-up line - Code of Conduct training courses - Performing internal audits - Optimizing supplier management - Setting up "Compliance Risk Monitoring & Reporting"	SO2-6	8-9, 19-20, 21

GRI INDEX

Our CR Report is oriented to the guidelines of the Global Reporting Initiative (G3) (www.globalreporting.org).

The following table gives an overview of the required indicators and and how they are addressed.
Merck self-declares an Application Level of B+.

●●●	This indicator is fully reported	www	www.merck.de
●●	This indicator is not fully reported	AR	Merck Annual Report 2010
●	This indicator is currently not reported	light gray	Indicators shown in light gray are additional indicators and may be addressed optionally.

Organization and Report Profile

No.	Aspect	Comments	Degree of fulfillment	Reference/Page
1.	Strategy and Analysis			
1.1	Statement from the Chief Executive Officer about the relevance of sustainability		●●●	3
1.2	Impact of business activity and risks as well as opportunities for the company		●●●	3
2.	Organizational Profile			
2.1	Name		●●●	4-5
2.2	Primary brands, products and services		●●●	4-5
2.3	Operational structure		●●●	4-5
2.4	Location of headquarters		●●●	4-5
2.5	Countries where the organization operates		●●●	4-5
2.6	Nature of ownership and legal form		●●●	4-5
2.7	Markets served		●●●	4-5
2.8	Scale of organization		●●●	Cover flap, 4-5
2.9	Significant changes regarding size, structure or ownership		●●●	Cover flap, 4-5
2.10	Awards received		●●●	5,18,36,42
3.	Report Parameters			
3.1	Reporting period		●●●	Cover flap
3.2	Date of publication of the most recent reports		●●●	Cover flap
3.3	Reporting cycle		●●●	Cover flap
3.4	Contact person for questions regarding the report		●●●	Publication contributors
3.5	Process for defining report content		●●●	Cover flap
3.6	Boundary of the report		●●●	Cover flap
3.7	Specific limitations on the scope or boundary of the report		●●●	Cover flap
3.8	Organizational units included in reporting		●●●	Cover flap
3.9	Data measurement techniques and the bases of calculations		●●●	Cover flap
3.10	Explanation of any restatements of information		●●●	Cover flap
3.11	Explanation of changes to the report parameters		●●●	Cover flap
3.12	GRI Index		●●●	current pages
3.13	External assurance of the report		●●●	68-69
4.	Corporate Governance, Commitments and Engagement			
4.1	Governance structure of the organization, including committees		●●●	AR 108-111
4.2	Independence of the Chief Executive Officer		●●●	AR 108-111
4.3	Independent members of the Executive Board		●●●	AR 108-111
4.4	Mechanics for shareholders and employees to provide recommendations and directions		●●●	AR 108-111
4.5	Linkage between compensation for members of the Executive Board and executive employees and the organization's performance		●●●	AR 111-115
4.6	Processes in place to ensure conflicts of interest are avoided		●●●	AR 121-122
4.7	Qualification and experience of members of the Executive Board		●●●	www (Merck Group> Management > Executive Board)
4.8	Internally developed statements of mission or values, codes of conduct and principles		●●●	7
4.9	Procedures of the Executive Board for overseeing and controlling the organization's sustainability performance		●●●	AR 108-109
4.10	Processes for evaluating the performance of the members of the Executive Board		●●●	AR 108-109
4.11	Explanation of how the precautionary approach is addressed		●●●	7-8
4.12	Externally developed charters, principles or initiatives		●●●	7
4.13	Memberships in associations and advocacy organizations		●●●	11
4.14	Stakeholder groups engaged by the organization		●●●	10-11
4.15	Basis for selection of stakeholders		●●●	10-11
4.16	Approaches to stakeholder engagement		●●●	10-11
4.17	Topics and concerns of stakeholders		●●●	10-11

Organization and Report Profile				
No.	Aspect	Comments	Degree of fulfillment	Reference/Page
Economic				
Management Approach			●●●	4-5, 7-8
EC 1	Direct economic value generated and distributed		●●●	Cover flap, 51
EC 2	Financial implications for the organization's activities due to climate change	Detailed monetary studies about the financial implications of climate change for the Merck Group are not available. Information on the opportunities and risks that we see as a result of climate change can be found in our reply to the Carbon Disclosure Project.	●●	(www.cdproject.net)
EC 3	Company retirement pension		●●●	56
EC 4	Financial assistance received from government	These data are currently not recorded in full.	●●	AR 171
EC 5	Local minimum wage	According to the Merck Social Charter we pay wages that are at least equivalent to the statutory minimum levels. Data on the relationship between standard starting salaries and local minimum wage are currently not recorded.	●●	54
EC 6	Locally based suppliers	This indicator is not applicable to Merck, as raw material sourcing must take place globally based on availability and supply. Transport costs, among others, play a role in the selection of suppliers.		19-20
EC 7	Local hiring		●●	33-34, 53
EC 8	Investments in public infrastructure	Investments in infrastructure that primarily serve the community are only made in rare cases (e.g. the wastewater treatment plant at the Gernsheim site, Germany; the maternity hospital in Baba Bhit, Pakistan).	●●●	
EC 9	Indirect economic impacts		●●	47-49
Environmental				
Management Approach			●●●	39-40
EN 1	Materials used		●●●	43-44, 58, 59
EN 2	Percentage of materials used that are recycled input materials		●	
EN 3	Direct energy consumption		●●●	40-42, 58
EN 4	Indirect energy consumption		●●●	40-42, 58
EN 5	Energy savings and energy efficiency		●●●	40-42
EN 6	Energy-efficient products and services		●●	26-27
EN 7	Initiatives to reduce indirect energy consumption		●●	40-42
EN 8	Total withdrawal of water		●●●	43, 59
EN 9	Water sources		●●●	43
EN 10	Water recycled and reused	These data are currently not recorded.	●	
EN 11	Land in protected areas and areas of high biodiversity value	These data have not been recorded for the Merck Group. Our production sites are usually located in declared industrial and commercial areas and not in protected areas, or areas that were formally protected.	●●	44
EN 12	Impacts of products and services on protected areas	These data are currently not recorded.	●	44
EN 13	Habitat protected or restored	These data are currently not recorded.	●	44
EN 14	Strategy, objectives and actions for managing biodiversity		●●	44
EN 15	Endangered plant and animal species	These data have not been recorded for the Merck Group. Our production sites are usually located in declared industrial and commercial areas and not in protected areas, or areas that were formerly protected.	●●	44
EN 16	Direct and indirect greenhouse gas emissions		●●●	40-42, 58-59
EN 17	Other relevant greenhouse gas emissions		●●	59
EN 18	Reduction of greenhouse gas emissions		●●	40-42
EN 19	Emission of ozone-depleting substances		●●●	59
EN 20	NOx, SOx and other significant air emissions		●●●	59
EN 21	Total water discharge		●●●	43, 60
EN 22	Total waste and disposal method		●●●	43-44, 60-61
EN 23	Significant spills	As in previous years, there were no significant spills in either 2009 or 2010.	●●●	
EN 24	Transport of hazardous waste	All hazardous waste is transported and disposed of in compliance with the regulations.	●●●	61
EN 25	Waters and habitats significantly affected by discharges of water and runoff	These data are currently not recorded. As in previous years, there were no discharges into waters significantly affecting these either in 2009 or 2010.	●●	
EN 26	Initiatives to mitigate environmental impacts of products and services		●●	13-15, 26-28
EN 27	Reclaim and recycling of product packaging	Group-wide data are currently not recorded. Within the Merck Group, return concepts for used packaging and chemicals are in place or are being developed.	●●	29
EN 28	Fines and sanctions for non-compliance with environmental laws and regulations		●●●	40
EN 29	Environmental impacts of transportation	These data are currently not recorded systematically. Merck complies with regulatory specifications for transport safety worldwide.	●●	28-29
EN 30	Total environmental protection expenditures and investments		●●●	39-40, 61
Product Responsibility				
Management Approach			●●●	13-14
PR 1	Analysis of the health and safety impact of products and services		●●●	13-14, 14-19, 22
PR 2	Incidents of non-compliance with regulations on health protection and safety	As in previous years, there were no incidents of non-compliance either in 2009 or 2010.	●●	AR 86-94

Organization and Report Profile				
No.	Aspect	Comments	Degree of fulfillment	Reference/Page
PR 3	Labeling of products and services		●●●	14-15
PR 4	Non-compliance with regulations concerning labeling of products and services	As in previous years, there were no incidents of non-compliance either in 2009 or 2010.	●●	AR 86-94
PR 5	Measurement of customer satisfaction and results		●●	10
PR 6	Responsible marketing		●●●	13, 25
PR 7	Non-compliance with regulations on marketing	As in previous years, there were no incidents of non-compliance either in 2009 or 2010.	●●	AR 86-94
PR 8	Total number of substantiated complaints by customers regarding breaches of data protection	As in previous years, there were no breaches of data protection either in 2009 or 2010.	●●	AR 86-94
PR 9	Fines and sanctions for non-compliance with laws and regulations	As in previous years, there were no incidents of non-compliance either in 2009 or 2010.	●●	AR 86-94
Practices and Decent Work				
	Management Approach		●●●	31-32
LA 1	Total workforce		●●●	53
LA 2	Rate of employee turnover		●●	54
LA 3	Benefits provided		●●	33, 56-57
LA 4	Employees covered by collective bargaining agreements		●●	54
LA 5	Minimum notice periods regarding significant operational changes	Employees are informed about significant operational changes in a timely and thorough manner, in compliance with the legal information requirements and in accordance with the Merck Values. For this, Merck cooperates in partnership with the employee representatives, placing importance on mutually acceptable solutions.	●●	
LA 6	Workforce represented in health and safety committees	The employees of the sites in Germany (Darmstadt, Gernsheim, Grafing), who account for 22% of the total workforce, are fully represented in health and safety committees. The data are currently not recorded Group-wide.	●●	
LA 7	Injuries, occupational diseases, lost days, days of absence and work-related deaths		●●	36, 55
LA 8	Health care and counseling		●●●	36
LA 9	Health and safety agreements with trade unions	For our sites in Germany, there is a company agreement on workplace safety and health protection.	●●●	36
LA10	Average annual further training per employee	This indicator is not reported by Merck. Instead, we report on the average annual further training costs per employee.	●●	32-33, 55
LA 11	Skills management and lifelong learning		●●●	32-33
LA 12	Employee performance and career development reviews		●●●	32-33
LA 13	Composition of governance bodies and breakdown of employees by diversity criteria		●●●	33-34, 55-56
LA 14	Ratio of basic salary of men to women	First analyses of the ratio of basic salary of men to women show no significant differences at the same hierarchy level.	●●	
Human Rights				
Management Approach			●●●	8-9, 19-20
HR 1	Investment agreements that include human right clauses		●	
HR 2	Suppliers that have undergone screening on human rights and actions taken		●●	19-20
HR 3	Employee training on human rights		●	
HR 4	Number of incidents of discrimination and actions taken	In accordance with the Code of Conduct, Merck does not tolerate any discrimination.	●●	8-9
HR 5	Risk to the right to exercise freedom of association and collective bargaining in business activity	With the Social Charter, the freedom of association and the right to collective bargaining are guaranteed throughout the Merck Group worldwide.	●●	8-9, 19-20
HR 6	Risk of child labor in business activity	With the Social Charter, child labor and forced labor are prohibited throughout the Merck Group worldwide.	●●	8-9, 19-20
HR 7	Risk of forced or compulsory labor in business activity	See HR6	●●	8-9, 19-20
HR 8	Security personnel trained in aspects of human rights		●	
HR 9	Incidents of violations involving rights of indigenous people	This indicator is not applicable to Merck.	●	
Society				
Management Approach			●●●	8-9
SO1	Programs that assess the impact of operations on society	Through active, open and objective dialogue with our stakeholders, we are in constant exchange with the community in which we operate. This includes assessing and discussing the impact of our operations on society.	●●	10-11
SO 2	Analysis of risks related to corruption at business units		●●	8-9
SO 3	Training in anti-corruption	Anti-corruption is an integral part of our online training on the Code of Conduct.	●●	8-9, 52
SO 4	Incidents of corruption and actions taken		●●	8-9
SO 5	Political positions and lobbying		●●	10-11
SO 6	Contributions to political parties and politicians		●	
SO 7	Number of legal actions as a result of anti-competitive behavior	As in previous years, there were no legal actions in either 2009 or 2010.	●●	AR 86-94
SO 8	Fines and sanctions for non-compliance with laws and regulations	As in previous years, there were not incidents of non-compliance in either 2009 or 2010.	●●	AR 86-94

INDEPENDENT ASSURANCE REPORT[1]

To the Management of Merck KGaA, Darmstadt

Introduction

We were engaged to perform a limited assurance engagement on selected Corporate Responsibility indicators including explanatory notes of the Corporate Responsibility Report 2011[2] ("the report") (for the years 2010 and 2009) of Merck KGaA, Darmstadt ("Merck"), as listed under Scope below.

Management's responsibility

Management is responsible for the preparation and presentation of the Corporate Responsibility indicators including the explanatory notes in the report. This responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the report and the selection and application of appropriate methods to prepare the report.

Auditor's responsibility

Our responsibility is to perform our assurance engagement and, based on the work we performed, to issue a report with limited assurance on the Corporate Responsibility indicators and explanatory notes listed under Scope.

Standards and reporting criteria

We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. Amongst others, this standard requires that our staff members have appropriate knowledge, skills and professional qualifications to understand and evaluate the Corporate Responsibility indicators in scope, and that we comply with the requirements of the IFAC Code of Ethics for Professional Accountants to ensure our independence.

Merck applies the Sustainability Reporting Guidelines Vol. 3 (G3) of the Global Reporting Initiative as well as internal corporate guidelines for reporting, as outlined by Merck in the introductory part "About this report". We believe that these criteria are suitable in view of the purpose of our assurance engagement.

Scope

Our engagement was designed to provide limited assurance on whether the Corporate Responsibility Indicators including the explanatory notes of the chapter "Data and Facts" (Reporting periods 2009 and 2010) in the Merck report as listed below are not prepared, in all material respects, in accordance with the Criteria of the Sustainability Reporting Guidelines Vol. 3 (G3) of the Global Reporting Initiative as well as internal corporate guidelines for reporting:

- Figures relating to the structure of the workforce
- Employee diversity
- Occupational safety
- Energy consumption
- Greenhouse gas emissions
- Other air emissions
- Spending on environmental protection, health and safety

Work undertaken

According ISAE 3000 we have to plan and perform the assurance engagement such that we are able to express our conclusion as to whether any matters have come to our attention that cause us to believe that the Corporate Responsibility indicators and explanatory notes have not been prepared, in all material respects, in accordance with the Sustainability Reporting Guidelines Vol. 3 (G 3) of the Global Reporting Initiative. In a limited assurance engagement, the procedures for gathering evidence are less comprehensive than in a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement.

This assurance engagement is limited primarily to inquiries of company employees, especially such that are responsible for preparing and reporting those indicators and explanatory notes outlined under Scope and analytical evaluation and therefore does not provide the assurance attainable in an audit. In particular we carried out the following procedures:

- Inquiries of staff responsible for the analysis and reporting of the data and accompanying notes for these indicators;
- Assessment of the systems, processes and the internal controls on data processing at corporate and site level;
- Site visits in Darmstadt (Germany) and Gernsheim (Germany) to assess the data collection and reporting processes and the reliability of the reported data;
- Assessment of the plausibility of the reported data and of the internal data validation processes on corporate and site level.
- Inquiry of data trends (and discussions with management thereto);
- An evaluation of the overall presentation of the indicators and explanatory notes within our scope.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the Corporate Responsibility indicators and explanatory notes as listed under scope are not prepared, in all material respects, in accordance with the criteria of the Sustainability Reporting Guidelines Vol. 3 (G3) of the Global Reporting Initiative and internal corporate guidelines for Corporate Responsibility, as outlined in the introductory part entitled "About this report".

Frankfurt am Main, March 25, 2011

KPMG AG
Wirtschaftsprüfungsgesellschaft

Fischer
Wirtschaftsprüferin

ppa. Dr. Wisniewski

[1] Translation of the independent assurance report, authoritative in German language.
[2] Our engagement applies to the German version of the Corporate Responsibility Report 2011.

GLOSSARY

3

3R principle
The 3R principle applies internationally as the guiding principle for all animal testing. By using methods to replace animal experiments (replacement), reducing the required number of animals (reduction), and improving the test methods (refinement), the number of laboratory animals used as well the stress placed on them before, during and after testing are to be kept to an absolute minimum.

A

AAALAC
The Association for Assessment and Accreditation of Laboratory Animal Care International is a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs.

Access to Medicine Index
The index is a ranking of world´s 20 largest pharmaceutical companies on their efforts to increase access to medicine for societies in need. It is published every two years by the Access to Medicine Foundation.

Audit
An audit is a process performed by a trained auditor to monitor a management system.

B

Biodiversity
The term is used to describe the diversity of ecosystems, habitats and landscapes on earth, the diversity of the species and the genetic diversity within a biological species or population.

C

CO_2eq
(CO_2-equivalent) Indicates how much a specified quantity of a specific greenhouse gas contributed to the greenhouse effect. Carbon dioxide serves as the comparable value.

E

EHS
(Environment, Health and Safety) This abbreviation describes environmental management, health protection and occupational safety throughout the company.

G

GHG Protocol
The Greenhouse Gas (GHG) Protocol is a globally recognized tool that is used to quantify and manage greenhouse gas emissions.

GHS
(Globally Harmonised System of Classification and Labelling of Chemicals). The United Nations GHS provides a uniform global classification of chemicals and their labeling on packages and in safety datasheets. The European CLP regulation (Regulation on Classification, Labelling and Packaging of Substances and Mixtures) is based on the GHS.

Global Compact
The Global Compact is an initiative set by the United Nations 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 Grade
Merck is working with the Global Grading System developed by Towers Watson, a market-focused method to evaluate company positions.

Global Reporting Initiative (GRI)
The GRI is a global network of stakeholders and experts that has created guidelines for producing sustainability reports with the aim of achieving comparability among these reports. The GRI G3 is the third generation of the guidelines. Apart from information on planning, contents and quality of reporting, it contains a list of the required data on management approach and indicators that are to be communicated as part of sustainability reporting.

I

ICH
The aim of the "International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use" (ICH) is to promote uniform assessment criteria for the product registration in Europe, the United States and Japan. The ICH makes recommendations toward achieving greater harmonization in the interpretation and application of technical guidelines and requirements for pharmaceutical product registration. This includes, for instance, Good Clinical Practice (GCP) guidelines for clinical trials of pharmaceuticals and Good Manufacturing Practice (GMP) guidelines for flawless manufacturing.

International Labour Organization (ILO)	The ILO is a specialized agency of the United Nations. Its work focuses mainly on drawing up and realizing international labor and social standards, especially ILO core labor standards, social justice for fair globalization, as well as creating decent work as a precondition for fighting poverty.
ISAE 3000	(International Standard for Assurance Engagements other than Audits or Reviews of Historical Financial Information) Issued by the International Auditing and Assurance Standards Board (IAASB), ISAE 3000 is currently the most widely used standard for Corporate Responsibility auditing internationally.
ISO 14001	ISO 14001 is an international environmental management standard that defines globally recognized requirements for environmental management systems.

L

Life Cycle Assessment	(also known as ecobalance) A life cycle assessment is a systematic analysis of the environmental impact of products throughout their entire life cycle.
Life Science	The term life science is used to denote research activities involving the scientific study of the processes or structures of living organisms. Apart from biology, it also includes related fields such as medicine, biomedicine, biochemistry, molecular biology, biophysics, bioinformatics as well as biodiversity research.

O

Orphan Drugs	Orphan drugs are medicines to treat rare diseases. In the EU, rare diseases are defined as those affecting fewer than 5 people per 10,000 inhabitants.

P

Product Carbon Footprint	A product carbon footprint quantifies the total amount of greenhouse gas emissions that a product causes throughout its entire life cycle, making transparent to what extent a product adversely affects the climate.

R

REACH	(Registration, Evaluation, Authorisation and Restriction of Chemicals) This EU regulation, which was enacted in 2007, is aimed at further improving the safety of chemical use.
RoHS	(Restriction of Hazardous Substances) This EU directive, which was adopted in 2002, serves to limit the use of certain hazardous materials, such as lead and cadmium, in the manufacture of various types of electrical and electronic equipment in the European Union.

S

Security	The term stands for technical, organizational and personnel measures to avoid dangers that occur knowingly and willingly. This serves to protect employees and the environment as well as company knowledge.
Stakeholder	Stakeholders are people or organizations that have a legitimate interest in a company, entitling them to make justified demands. Stakeholders include people such as employees, business partners, neighbors to sites or shareholders.

V

VOC	(Volatile Organic Compounds) A collective term for organic chemical compounds which evaporate readily and are gaseous even at low temperatures.

INDEX

Note regarding forward-looking statements

The information in this document contains "forward-looking statements." Forward-looking statements may be identified by words such as "expects", "anticipates", "intends", "plans", "believes", "seeks", "estimates", "will" or words of similar meaning and include, but are not limited to, statements about the expected future outcome or timing of the transactions described above. These statements are based on the current expectations of management of Merck KGaA and E. Merck KG, and are inherently subject to uncertainties and changes in circumstances. Among the factors that could cause actual results to differ materially from those described in the forward-looking statements are factors relating to changes in global, political, economic, business, competitive, market and regulatory forces. Merck KGaA and E. Merck KG do not undertake any obligation to update the forward-looking statements to reflect actual results, or any change in events, conditions, assumptions or other factors.

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