

CORPORATE RESPONSIBILITY

Corporate Responsibility Report **UPDATE 2013**



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Corporate Responsibility Report Update 2013

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About this report

→ Every two years, Merck KGaA, Darmstadt, Germany, publishes an in-depth Corporate Responsibility Report detailing our sustainability achievements, most recently in our [2012 CR Report](#).

In this interim report, you will find key indicators and a selection of the progress we have made with our corporate responsibility efforts in 2013.

This PDF was created from the content of an online-version, which offers additional, interactive features. → <http://www.emdgroup.com/cr-report2013>



Progress

Corporate responsibility is a part of our daily conduct and a fundamental prerequisite for our business success. On the following pages we present a selection of our progress and activities in the area of corporate responsibility in 2013.

PROGRESS

Compliance

New process for the selection of business partners



With the introduction of the Global Business Partner Risk Management Policy, Merck KGaA, Darmstadt, Germany, made great progress in the field of compliance in 2013.

Merck KGaA, Darmstadt, Germany, applies a systematic, risk-oriented approach to the selection of sales-related business partners such as distributors, agents, and wholesalers. In essence, the greater we estimate the risk to be with regard to a certain country, region, type of service, etc., the closer and more carefully we examine the company before doing business with them.

Our Global Business Partner Risk Management aims to ensure that business partners are selected diligently in order to minimize the danger of adverse legal, reputational, and financial effects. This process is especially concerned with fighting corrupt practices. Adopted at the end of 2012, the Global Business Partner Risk Management Policy now constitutes a fundamental component of the selection process for business partners, along with their overall assessment. The implementation of this policy is leading to an auditable business partner selection process with system-based documentation of relevant partner and business information, approval and evaluation. Through this systematic process, we are both minimizing our risk as well as taking into account the modified requirements resulting from new anti-corruption legislation such as the UK Bribery Act.

This policy, which is in effect throughout Merck KGaA, Darmstadt, Germany, encapsulates the eight mandatory principles to be taken into account when selecting business partners.

The policy stipulates that we shall only collaborate with partners who comply with all applicable laws, who do not engage in bribery, who adhere to environmental, health and safety guidelines, and who refuse to tolerate discrimination. Furthermore, we require them to demonstrate a commitment to internationally recognized human rights and labor standards (ILO), as well as to our own compliance standards as defined in our Code of Conduct.

In order to train the relevant employees on the revised selection process, our Group Compliance function initiated a training campaign in 2013. "Train the Trainer" kick-off events were held in Darmstadt as well as other regions to spread awareness of the new policy. At these events, employees from our Group Compliance organization received training, which they then took back to their respective sites to share with those (sales and distribution) employees affected by the new policy.

PROGRESS

Human Rights Charter

Group-wide human rights charter adopted



Our corporate culture has always been characterized by responsible conduct – whether with respect to products, employees, the environment, or society. In line with this approach, Merck KGaA, Darmstadt, Germany, is committed to protecting human rights, as demonstrated by our participation in the UN Global Compact.

In 2012, we conducted an extensive human rights risk assessment in the course of implementing the Guiding Principles for Business and Human Rights, which were endorsed by the UN Human Rights Council in 2011. Based on the results of this assessment, Merck KGaA, Darmstadt, Germany, adopted a Group-wide human rights charter at the end of 2013, thereby achieving another milestone.

The charter underscores our commitment to respecting and protecting human rights. It brings together and complements other regulations and guidelines that pertain to human rights, such as our Code of Conduct, our Social Charter, our Environment, Health and Safety Policy, and our Charter on Access to Medicines in Developing Countries. The Human Rights Charter defines our company's expectations while increasing awareness of human rights within the company. It also allows us to more accurately assess Group-specific risks and to align our business operations with our Values.

In the course of drafting the charter, we asked external stakeholders what they thought of our approach to human rights. These stakeholders included experts for companies and human rights from various countries, trade unions, associations, and specialists in individual aspects addressed in the charter. This step was crucial as it allowed us to consider the situation from various perspectives.

Within the German Global Compact Network, Merck KGaA, Darmstadt, Germany, is a member of the Human Rights Peer Learning Group, a working group that facilitates best-practice sharing with regard to business and human rights.

PROGRESS

Diabetes awareness

Our Capacity Advancement Program (CAP):
Awareness and training on diabetes



The rising number of people with diabetes all over the world is a call to prioritize diabetes care and awareness. Merck KGaA, Darmstadt, Germany, is committed to improving the accessibility and quality of diabetes treatment.

Our Capacity Advancement Program (CAP), established in 2012, is a five-year program that aims to expand the professional capacity in Sub-Saharan Africa with a focus on diabetes in the following areas: R&D, clinical research, supply chain integrity and efficiency, pharmacovigilance, medical education for pre-med undergraduates and healthcare providers in rural areas, and community awareness. Merck KGaA, Darmstadt, Germany, is collaborating with ministries of health, healthcare institutions, communities, universities, local research institutes, diabetes patients associations, and media. The common goal is to raise awareness of diabetes by educating the public and supporting healthcare systems on ways to prevent, diagnose and manage diabetes effectively.

One of the key success factors of the CAP is the country-specific, long-term, partnership-based approach, featuring initiatives that are aligned with the national strategies of individual countries. In order to inform our CAP approach, we held 154 stakeholder meetings in Kenya, Uganda, Mauritius, Namibia, Mozambique, and Ghana. A wide variety of stakeholders has been involved in order to explore the countries' needs, thereby tailoring the learning materials and the CAP implementation to suit the local communities.

Under the Capacity Advancement Program, by the end of 2013 more than 500 medical students from the University of Nairobi, the University of Namibia and the Makerere University in Uganda had benefited from a

clinical diabetes management training program accredited in Europe, enabling them to act as diabetes ambassadors in rural and underserved regions. In 2014, the program will expand to Tanzania, Mozambique, Angola, Ghana, Nigeria, and Ethiopia; it aims to reach about 9,000 pre-med undergraduates by 2018.

The Merck KGaA, Darmstadt, Germany, community awareness campaign "Get Informed- Get Active- Get Healthier" has thus far reached more than 3,000 people in Kenya and Uganda, providing them with free screening and medical checkups. The campaign has been implemented in partnership with the Ministries of Health of both Kenya and Uganda, the Kenya Diabetes Management & Information Centre, the Uganda Diabetes Association, and universities located in the individual countries. Patient education materials were tailored in collaboration with local patient diabetes foundations. More than 50,000 leaflets and 4,000 posters have been distributed at supermarkets, healthcare centers and "Get Informed- Get Active- Get Healthier" training camps in order to reach community members. By 2018, up to 20,000 people will have received free screening and medical checkups.

PROGRESS

Smart windows

Smart windows improve the energy efficiency of buildings



Besides liquid crystals for displays such as televisions, monitors and tablets, Merck KGaA, Darmstadt, Germany, is also developing liquid crystals for new applications. For instance, we are working with architects, glass makers and facade manufacturers to create the windows of tomorrow. Our ambitious goal is to utilize smart windows to make buildings more energy-efficient. The idea behind these windows is that their properties can be modified at the touch of a button. They can be tinted darker or made more transparent depending on environmental conditions such as the season or the time of day, thereby allowing more or less light and/or warmth to enter the building. The windows thus help regulate the temperature in interior spaces; in winter, more light is let in, and in summer less.

Our smart energy glass technology is based on liquid crystal mixtures containing tailor-made rod-shaped dyes. When a small electric field is applied, the dye-doped liquid crystals change their orientation to absorb either more or less light. This makes it possible to control the transparency of the glass as desired. Within seconds, the window can be switched from a bright, transparent state to a defined colored, dark state. These windows boost the energy efficiency of buildings since they reduce HVAC costs. To protect people in buildings from glaring sunlight, it is also possible to adjust the window's level of tinting individually. The advantage here over external blinds is that the window is not completely darkened nor the outside view blocked. Consequently, lights need not be turned on during the day, and employees can still look out of their windows, resulting in a pleasant work environment.

Our smart energy glass technology can also make the windows self-powering. Part of the light absorbed by the dyes is channeled to the glass edges, where solar cells embedded in the frames convert it into electricity to power the windows. Merck KGaA, Darmstadt, Germany is collaborating with the Dutch company Peer+ to develop this concept. The first set of pilot projects were initiated in the Netherlands in 2013 and have proven successful. These windows will also be installed in the innovation center under construction at Merck KGaA, Darmstadt, Germany headquarters in Darmstadt, which is scheduled for completion by the end of 2014.

Our smart energy glass technology boosts the energy efficiency of buildings, conserves energy, and increases people's sense of well-being – a sustainable and innovative solution for the future.

PROGRESS

Design for Sustainability

Design for Sustainability: Improving product properties and reducing environmental impacts



Design for Sustainability (DfS) is an approach to product development at our life science tools division that looks to minimize the environmental and health impact at each stage of the product life cycle from manufacturing through use to disposal. At the same time, we look to maximize features that improve product performance and ease of use.

We incorporate sustainability considerations early in the design process before impacts of design decisions are locked in, and we use a set of criteria for major impact areas like materials, energy and waste to measure improvements. These approaches help reduce energy and water consumption, create more productive processes that minimize waste, streamline packaging, and potentially reduce associated costs. The benefits come both during the manufacturing process at our life science tools division as well as during product usage for the customer.

A cross-functional DfS working group including R&D, Marketing, Quality, EHS (Environment, Health and Safety), and Operations (packaging) has worked to develop the DfS processes and criteria as well as propose that the process be a formal part of our product development. Starting in 2014, the DfS process is being applied to our life science tools division product development projects.

Design for Sustainability principles in action:

Clarisolve® Depth Filters, used in cell culture processing, were launched in 2013. With reduced pre-flushing requirements of the product as an important goal of the design, we completed a Life Cycle Assessment to quantify this reduction and other environment-related improvements. The results show that significant progress has been achieved, especially for the use phase of the product. Compared to the alternative product (Millistak+ Pod depth filter) for producing one batch at the customer, Clarisolve® is characterized by 63% reduction in

use-phase energy consumption, which is equivalent to avoiding emissions from 21 gallons of gas, by a 46% reduction in use-phase water consumption, and by a 24% reduction in solid waste mass at the user facility. This lowers the environmental burden and helps customers to meet their own sustainability goals.

Also in 2013 the EZ-Fit Manifold for laboratory filtration was launched. During the design process, the DfS approach was followed, leading to improved handling, reduced energy use in autoclave, and reduced waste from materials, packaging and disposal (compared to the predecessor Hydrosol Manifold). The 38% reduction in emissions from shipping one unit to a typical customer location is equivalent to saving 240 hours of light bulb use (75 watt incandescent bulb).

EXAMPLE

EZ-FIT™ MANIFOLD FOR UNIVERSAL LAB FILTRATION



- Simplified handling, easy cleaning
- Reduced energy use in autoclave
- Reduced waste from materials, packaging and disposal

MATERIALS

47%

weight reduction, cutting raw material consumption and shipping emissions

EMISSIONS & ENERGY

91%

less emissions from autoclaving

PACKAGING

100%

recyclable corrugated packaging

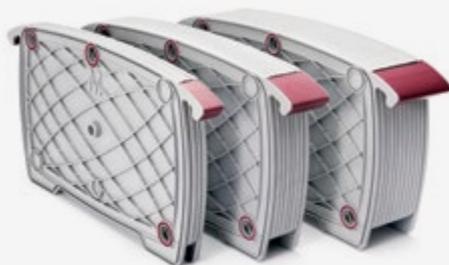
END-OF-LIFE

99%

of the product can be recycled

EXAMPLE

CLARISOLVE® DEPTH FILTER



- Reduced operating costs
- Reduced energy and water consumption
- Reduced waste from materials

MATERIALS

24%

reduction in product material mass*

EMISSIONS & ENERGY

63%

less use-phase energy consumption*

WATER

46%

less use-phase water consumption*

WASTE

24%

less solid waste mass at user facility*

* Compared to EMD Millipore's process-scale Millistak+ Pod depth filter

PROGRESS

Supply chain

Social and environmental standards further incorporated into supplier management process



In 2013, Merck KGaA, Darmstadt, Germany, revised its procurement strategy to take into account corporate responsibility (CR) aspects. The aim was to further improve adherence to internationally recognized compliance, environmental, and social standards along supply chains, as well as to prevent violations of those standards.

Throughout the world, Merck KGaA, Darmstadt, Germany, procures raw materials, products and services from several thousand business associates, who in turn have their own suppliers and sub-suppliers. It is therefore an enormous undertaking to ensure that supply chains comply with CR standards. Our activities focus on our direct business partners.

Through our Group Procurement Policy, updated in 2013, we are ensuring that our procurement processes adhere to CR standards, which includes the selection, assessment and management of suppliers. This procurement policy reflects numerous internal and external guidelines, such as our Code of Conduct, our Social Charter, our EHS policy, and ISO standard 14001. Standard operating procedures for Group Procurement have been revised to reflect this policy.

To complement our procurement policy, we drafted our Responsible Sourcing Principles and integrated them Group-wide into our general terms and conditions in 2013. These principles define what we require of our suppliers with regard to responsible conduct, highlighting the responsibility of our suppliers to apply our corporate responsibility standards to their upstream value chain.

A key element of our optimized supplier management is reviewing and monitoring the CR standards applied by our suppliers. In addition to requiring supplier self-disclosures from both new and existing suppliers, Merck KGaA, Darmstadt, Germany, conducts annual sustainability audits based on the potential risk posed by a supplier. In 2013, we conducted 22 audits. We found four suppliers with critical flaws, and 20 suppliers with major defects. We demanded that these suppliers provide us with a corrective action plan (CAPA), which describes the course of action needed to address the issues. Auditors will be reviewing their progress. Particularly when it comes to critical flaws, we consider the option of terminating business relations if the problems are not sufficiently corrected.

PROGRESS

Climate protection & energy efficiency

EDISON – our program for climate protection and energy efficiency



Being a responsible company, we are resolute in our quest to help reduce greenhouse gas emissions. Merck KGaA, Darmstadt, Germany, has set itself the goal of reducing its greenhouse gas emissions by 20% by 2020 (relative to the 2006 baseline).

While our energy-related emissions remained largely stable in 2013, we recorded an increase in our process-related emissions¹. Although we reduced process-related emissions per product unit by 21%, overall total emissions rose due to a significant increase in production volume. Overall CO₂eq emissions in 2013 totaled 524 metric kilotons (2012: 502 metric kilotons).

Our climate protection program EDISON consolidates all climate protection and energy efficiency activities of Merck KGaA, Darmstadt, Germany. In 2013, we once more identified a number of projects to help us achieve our CO₂ reduction targets. We are now conducting around 300 individual projects under the auspices of EDISON. Around two-thirds of these have already been launched, or are in the process of being implemented. Larger projects include the construction of carbon-neutral biomass power plants in Jaffrey, New Hampshire (USA) and Goa, India. Approved in 2012 respectively 2013, they are scheduled to go on line in autumn 2014 and will reduce CO₂ emissions by around



Progress 2013

Reduction of greenhouse gas emissions by around 1%, relative to the 2006 baseline

¹ At Merck KGaA, Darmstadt, Germany, process-related emissions are released during a certain production process.



3,500 metric tons per year in Jaffrey, and 11,500 metric tons per year in Goa. Through the cogeneration plant at our Gernsheim site in Germany that went on line in mid-2013, we are saving around 6,000 metric tons of CO₂ per year.

Energy management plays a key role in our efforts for sustainable energy efficiency and climate change mitigation. Our production sites in Darmstadt and Gernsheim account for around 40% of our global energy consumption. In 2012, both of these sites qualified for ISO 50001 – Energy Management System certificates, which were reaffirmed in 2013. Our Taoyuan site in Taiwan received the ISO 50001 certificate in 2013 for the first time. Counting the Bari and Tiburtina sites in Italy, that makes five of our production sites that have a certified energy management system.

In 2013, we furthermore revised our company car policy and defined a reduction goal. By 2020, we intend to decrease the Group-wide CO₂ emissions of our company car fleet by 30% relative to the 2012 baseline. Our vehicles will be more fuel-efficient and emit less CO₂, which will enable us to contribute to climate change mitigation and cut down costs.

CASE STUDY: Getting energy from a nutshell

At our site in Goa, India, we are currently constructing a power plant that will utilize climate-neutral biomass as fuel.

http://emdgroup.com/emd/responsibility/case_studies/environment.html

PROGRESS

Diversity and inclusion

Increased success through a diverse workforce



A diverse workforce can boost innovation, team performance, and business success, as well as make a company highly attractive as an employer.

We want to benefit from the opportunities offered by a heterogeneous workforce, which is why we established the Diversity Council in 2013. Consisting of executive managers from all divisions as well as from select Group functions, this council is responsible for developing and elaborating our diversity and inclusion strategy. Our current focus areas are internationality, demography, and the gender ratio.

In 2013, 25% of the management positions at Merck KGaA, Darmstadt, Germany, were held by women, which means that we reached our strategic goal of raising this percentage up to 25% to 30%. And we intend to further increase this ratio by 2016. Fiscal 2013 was the first time that a woman was appointed as head of a Merck KGaA, Darmstadt, Germany, Group division.

Since we are an international global player, one of our fundamental principles is to recruit employees from the countries in which we operate and offer them career development opportunities. Currently, people from 114 nations work at Merck KGaA, Darmstadt, Germany.



Progress 2013

25% of the management positions held by women

In Europe and the United States particularly, we are addressing demographic change through various programs; this includes adapting workplaces to the needs of older employees as well as establishing a health management program to maintain their ability to do their jobs.

Manager and employee conduct represents a key success factor in the implementation of our corporate strategy. In 2013, we developed a new competency model describing the type of conduct that supports our strategic alignment and fosters business success. The types of behavior represented in the six competencies promote diversity and inclusion within the company; they provide a crucial basis for all development activities, for assessing performance, and for recruiting new employees.

THE 6 CORE COMPETENCIES SUPPORT DIVERSITY & INCLUSION



CUSTOMER-FOCUSED

"Establishes a culture of foreseeing customer and consumer needs and realizing organizational offerings"



RESULT-ORIENTED

"Establishes a culture of setting and achieving challenging goals that take overall business needs into consideration"



GLOBAL

"Owns the alignment of embracing diversity and inclusion as well as working with people from diverse backgrounds and cultural differences"



EFFICIENT

"Establishes a culture of handling ambiguity in the organization"



INNOVATIVE

"Establishes a culture of the implementation of new work routines within own area of responsibility while considering overall business needs"



ENGAGED

"Establishes a culture of building collaborative networks across the organization and creating an open, positive atmosphere at work"

In order to foster diversity and inclusion within the company, we engage in numerous activities both Group-wide and at the local level. These include mentoring programs and special advanced training on topics such as leadership skills and self-marketing. Diversity and inclusion at Merck KGaA, Darmstadt, Germany, is also furthered by internal networks initiated by our employees, such as the International Community and Women at Merck KGaA, Darmstadt, Germany, each of which represents the interests of a different group. In addition, we are also supporting external networks that work toward diversity and inclusion in the professional world. For instance, in October 2013, Merck KGaA, Darmstadt, Germany, hosted the European summit of the Healthcare Businesswomen's Association (HBA) in Darmstadt. There, attendees discussed the development and advancement of leadership skills for professionals in the health industry – in particular pertaining to women.

PROGRESS

Occupational health and safety

Number of accidents lower in 2013 as well



Merck KGaA, Darmstadt, Germany, considers the prevention of work-related illness and workplace accidents to be a matter of course for any responsible employer. We therefore set ourselves the goal of reducing the lost time injury rate (LTIR – workplace accidents resulting in missed work per million work hours) to 2.5 by 2015.

In 2013, as in previous years, we again outperformed this goal, achieving an LTIR of 2.2. We are now working to maintain this level, although our top priority is of course to prevent any and all accidents.

In 2013, Merck KGaA, Darmstadt, Germany, presented the Safety Excellence Award for the fourth time, which recognizes those production sites with no workplace accidents on record for the year. More than half of all our production sites achieved this goal in 2013, with 38 out of 63 sites having received the award.

The consistent reduction in the accident rate is particularly attributable to the BeSafe! program, which was initiated in 2010. Since its launch, numerous



Progress 2013

In 2013, we achieved an LTIR of 2.2.

accident prevention and occupational safety measures have been implemented at our sites throughout the world. We are focusing heavily on our production sites and on training the employees there on the prevention of behavior-related accidents. Nevertheless, our goal is to reduce the accident rate across all of our sites.

BeSafe! is a Group-wide program with harmonized standards; local modules allow the program to be adapted to fit the particular needs and preconditions of the individual sites. For instance, our sites each take a different approach to engaging managers in the safety culture and building their buy-in; they have their own methods of reinforcing a sense of personal responsibility among staff as well as increasing employee awareness.

In 2013, we continued to sensitize our employees worldwide to workplace hazards through numerous initiatives, activities and awareness campaigns, and we also conducted training programs. For instance, newly minted EHS (Environment, Health, Safety) managers now take part in the EHS StartUp! training seminar on occupational health and safety. Furthermore, regional EHS forums in North America, South America, Europe, and Asia promote best-practice sharing and educate employees on new topics. In September 2013, 26 EHS managers attended the EHS Forum hosted by the Poseung site in South Korea.

Our site in Bari, Italy held the third EHS Best Practice Sharing Meeting in December 2013. The more than 50 participants included EHS managers from various Merck KGaA, Darmstadt, Germany, sites, as well as representatives of local and international companies, representatives from the Italian manufacturing and service company association Confindustria, and representatives from the Polytechnic University of Bari. In addition to a presentation on the theory of behavior-based safety, attendees also shared best practices pertaining to safety.

PROGRESS

Schistosomiasis

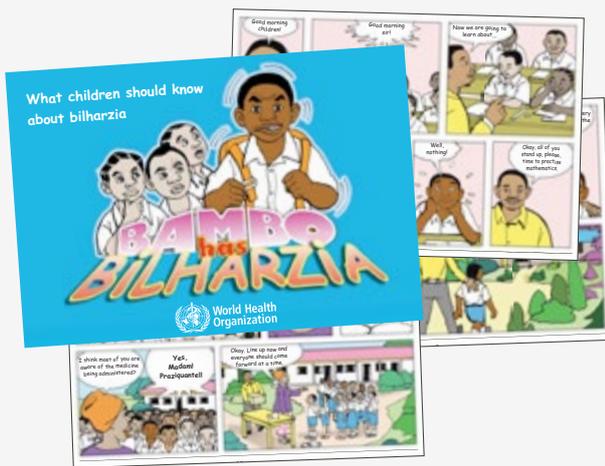
Working together to fight schistosomiasis in Africa



Since 2007, Merck KGaA, Darmstadt, Germany, has been supporting the World Health Organization (WHO) in the fight against the worm disease schistosomiasis in Africa. This ailment is highly prevalent in Africa, Asia and Latin America and is the most commonly occurring tropical disease in Africa. Although our Praziquantel Donation Program was originally intended to run for a limited duration, Merck KGaA, Darmstadt, Germany, is continuing the fight until the parasitic disease schistosomiasis has been eliminated in Africa.

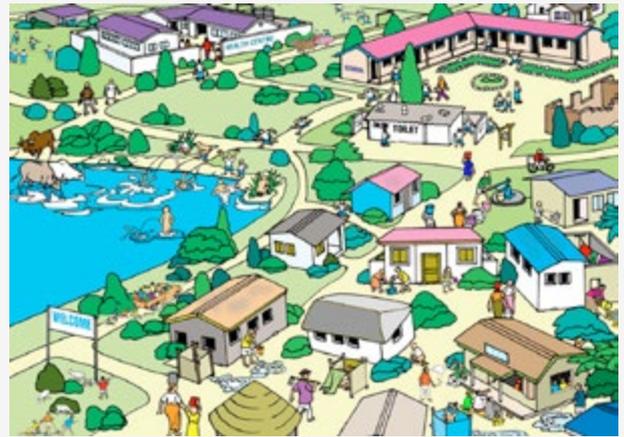
In order to reach this goal, in 2012 Merck KGaA, Darmstadt, Germany, pledged to significantly expand its donation, a tenfold increase of up to 250 million praziquantel tablets per year in the medium term. Our efforts to fight schistosomiasis reflect the United Nations Millennium Development Goals and also constitute part of the London Declaration initiative to fight neglected tropical diseases, which was launched by the Bill & Melinda Gates Foundation in 2012.

Since the start of our Praziquantel Donation Program, Merck KGaA, Darmstadt, Germany, has donated over 160 million tablets. To date, more than 38 million patients in total have thus been treated, consisting primarily of school children. In 2013, around 50 million tablets were provided to the African countries of Angola, Ethiopia, the Democratic Republic of Congo, Cameroon, the Republic of the Congo, Madagascar, Mali, Nigeria, Senegal, Zimbabwe, Sudan, and Tanzania.



WHAT CHILDREN SHOULD KNOW ABOUT SCHISTOSOMIASIS (BILHARZIA)

[Download PDF](#)



INFORMATIONAL POSTERS

In addition to the tablet donations, Merck KGaA, Darmstadt, Germany, is also supporting an awareness program at schools in Africa to educate people on the causes of schistosomiasis, as well as ways to prevent the disease. Following the success of the pilot projects, the program is now being rolled out in Senegal with 750,000 brochures and in Malawi with 250,000, in addition to the 75,000 informational posters that are being printed. In order to reach more children, Merck KGaA, Darmstadt, Germany, is paying for the brochures to be translated into Swahili, Arabic and Portuguese.

Besides its donation and awareness programs, Merck KGaA, Darmstadt, Germany, has joined a public-private partnership to research a praziquantel formulation for young children since the current tablets are only approved for adults and children over six. As part of its initiative to fight neglected tropical diseases, the Bill and Melinda Gates foundation has provided US\$ 1.15 million to Merck KGaA, Darmstadt, Germany, and its project partners Astellas Pharma Inc., the Swiss Tropical and Public Health Institute, and TI Pharma to conduct preclinical research.



Indicators

Economics, Compliance, Employees, Environment, Society

The figures presented below pertain to Merck KGaA, Darmstadt, Germany, unless otherwise indicated.

Indicators: Economics

Total revenues, sales, operating result (EBIT) and R&D costs, by division (€ million)

	Biopharma- ceuticals division	Consumer Health	Performance Materials	Life science tools division	Group*
2012					
Total revenues	6,405.2	475.2	1,675.6	2,616.9	11,172.9
Sales	5,995.8	472.6	1,674.2	2,598.2	10,740.8
Operating result (EBIT)**	547.7	7.6	609.7	251.7	963.6
R&D costs	1,187.3	19.4	137.4	166.1	1,511.3
2013					
Total revenues	6,325.8	479.6	1,644.4	2,645.3	11,095.1
Sales	5,953.6	476.9	1,642.1	2,627.5	10,700.1
Operating result (EBIT)**	893.0	62.2	653.3	262.0	1,610.8
R&D costs	1,182.8	17.1	143.0	159.8	1,504.3

* As a non-operating segment, Corporate and Other is not shown here (see Annual Report 2013, Segment Reporting).

** The previous year's figures have been adjusted (see Annual Report 2013, Notes on Segment Reporting).

Merck KGaA, Darmstadt, Germany, achieved strong full-year results, meeting its objectives for 2013 despite a challenging market environment. The company, which offers top-quality high-tech products in the pharmaceutical and chemical sectors, reported solid organic sales growth of 4.2% to € 10.7 billion. Thanks to the accelerated implementation of efficiency measures, EBITDA pre one-time items increased by 9.7% to a record € 3.25 billion. The EBITDA pre margin increased by nearly three percentage points from 27.6% to 30.4%.

Merck KGaA, Darmstadt, Germany, posted a considerable increase of 67.2% in the operating result (EBIT), which amounted to € 1.61 billion (2012: € 964 million). This was due on the one hand to the good performance of operating business and on the other to the sharp decline in the very high level of one-time items incurred in 2012 due to restructuring measures.

At € 1,504 million, R&D costs in 2013 remained at the 2012 level.

See Annual Report 2013, Development of total revenues and sales as well as results of operations

Indicators: Compliance

Internal audits on corruption and Social Charter

	2009	2010	2011	2012	2013
Number of audits relating to corruption	32	34	28	40	30
Number of audits relating to Social Charter	-	26	26	40	27

Compliance violations reported via the SpeakUp Line

	2009	2010	2011	2012	2013
Number of reported compliance incidents	14	21	29	20	22
Number of confirmed cases	3	3	5	5	9

Compliance training seminars

	2009	2010	2011	2012	2013
Number of employees trained in anti-corruption policies and procedures in the respective year*	6,400	8,600	13,399	22,890	24,168
% of employees trained on the topic of anti-corruption in the respective year	19	21	33	59	63
Number of employees Global Grade 10 or higher trained on the topic of anti-corruption in the respective year	Not recorded	Not recorded	7,540	10,164	12,390
% of employees Global Grade 10 or higher trained on the topic of anti-corruption in the respective year	Not recorded	Not recorded	53	60	69
% of employees Global Grade 9 or lower trained on the topic of anti-corruption in the respective year	Not recorded	Not recorded	22	58	51

* Until 2010, anti-corruption training was part of Code of Conduct training seminars.

In order to address the special responsibility held by employees of a certain management level, as well as by employees with HR responsibility, these employees are increasingly receiving anti-corruption training. This includes all employees rated Global Grade (GG) 10 or higher.

Indicators: Employees

Workforce structure

Number of total employees

As of Dec. 31	2009	2010	2011	2012	2013
Total employees	33,062	40,562	40,676	38,847	38,154
Men	19,097	23,171	23,347	22,505	22,253
Women	13,965	17,391	17,329	16,342	15,901

The "Fit for 2018" transformation and growth program impacted HR work in 2013 as well. In 2013, at the majority of our sites the structural prerequisites were put in place and agreements were reached with the respective social partners in order to implement the socially responsible approach to workforce reduction necessary as part of the transformation process. For example, in Germany, around 1,200 employees chose to participate in a partial retirement program or a voluntary leaver program. By the end of 2013, we had completed the process of moving our biopharmaceuticals division's headquarters from Geneva to Darmstadt. In comparison to 2012, the total number of employees in 2013 decreased by 693.

Number of employees by hierarchical level

As of Dec. 31	2009	2010	2011	2012	2013
Total employees	33,062	40,562	40,676	38,847	38,154
Senior Management (Global Grade above 17)	Not recorded	51*	49*	54	63
Low and middle management (Global Grade 14-17)	Not recorded	1,354*	1,355*	1,719	1,949
Other employees (Global Grade below 14)	Not recorded	39,157*	39,272*	37,074	36,142

* Figures do not entirely include the employees of the life science tools division, which was acquired in July 2010. The Global Grading System was instituted there incrementally.

Average number of employees by functional area

Average number of employees	2009	2010	2011	2012	2013
Group	32,850	36,347	40,570	39,939	38,282
Production	6,956	8,327	9,317	9,486	9,985
Logistics	1,773	1,927	2,054	1,665	1,779
Marketing and Sales	10,582	11,541	12,322	12,353	12,214
Administration	3,750	4,378	4,696	4,416	5,106
Research and Development	3,627	4,116	4,632	4,558	4,433
Infrastructure and Other	6,162	6,058	7,549	7,461	4,765

Number of employees by region

As of Dec. 31	2009	2010	2011	2012	2013
Total	33,062	40,562	40,676	38,847	38,154
Employees in Europe	*	*	21,830	20,777	20,013
thereof women	*	*	9,832	9,261	8,755
Employees in North America	*	*	4,964	4,848	4,911
thereof women	*	*	2,314	2,225	2,246
Employees in Emerging Markets**	*	*	12,229	11,642	11,688
thereof women	*	*	4,565	4,274	4,335
Employees in Rest of World	*	*	1,653	1,580	1,542
thereof women	*	*	618	582	565

* No retroactive calculation based on the new regional structure.

** Latin America and Asia excluding Japan.

Full-time and part-time employees

As of Dec. 31	2009	2010	2011	2012	2013
% of full-time employees	94	94	94	94	95
% of part-time employees	6	6	6	6	5

In 2013, 39% of employees working full-time at Merck KGaA, Darmstadt, Germany were women (2012: 39%), with women representing 92% of employees working part-time (2011: 90%). In 2012, 13% of employees worked part-time at the Darmstadt, Gernsheim and Grafing sites in Germany, with 11% working part-time there in 2013.

In 2013, 8% of our part-time employees were men.

Temporary and permanent contracts

As of Dec. 31	2009	2010	2011	2012	2013
Total employees	33,062	40,562	40,676	38,847	38,154
Number of employees with permanent contracts	Not recorded	Not recorded	39,261	37,732	36,908
Number of employees with temporary contracts	Not recorded	Not recorded	1,415	1,115	1,246

Only 3% of Merck KGaA, Darmstadt, Germany, employees have temporary contracts.

In 2013, 42% of Merck KGaA, Darmstadt, Germany, employees with permanent contracts were women (2012: 42%); 43% of the employees with temporary contracts were women (2012: 46%).

Staff turnover					
	2009	2010	2011*	2012*	2013
Total turnover rate	Not recorded	Not recorded	13.37	13.71	14.61
Turnover rate by gender					
Men	Not recorded	Not recorded	10.98	13.17	14.08
Women	Not recorded	Not recorded	12.07	14.45	15.34
Turnover rate by age group					
Up to 29 years old	Not recorded	Not recorded	22.40	23.77	21.55
30 to 49 years old	Not recorded	Not recorded	11.58	12.48	13.44
50 or older	Not recorded	Not recorded	11.40	9.91	13.01
Turnover rate by region					
Europe	Not recorded	Not recorded	8.57	9.52	11.83
North America	Not recorded	Not recorded	14.48	12.75	10.51
Emerging Markets	Not recorded	Not recorded	21.00	21.46	21.15
Rest of World	Not recorded	Not recorded	17.00	14.68	14.14

* The figures for 2011 and 2012 have been recalculated based on the reporting date and therefore now differ from the figures reported in prior years.

The table contains unadjusted turnover rates, calculated as follows: number of separations*100/number of employees as of Dec. 31.

The adjusted turnover rate excludes employees who leave due to parental leave or a long-term illness, as well as employees who are transitioning to the non-working phase of partial retirement.

Staff turnover					
	2009	2010	2011	2012	2013
Turnover rate of employees who were hired during the 18 months preceding Dec. 31 of the respective year	Not recorded	Not recorded	12.23	14.07	12.77
Turnover rate by gender					
Men	Not recorded	Not recorded	13.49	15.20	13.74
Women	Not recorded	Not recorded	10.42	12.34	11.34
Turnover rate by age group					
Up to 29 years old	Not recorded	Not recorded	16.25	16.20	15.55
30 to 49 years old	Not recorded	Not recorded	9.18	12.73	10.76
50 or older	Not recorded	Not recorded	8.51	9.69	10.64
Turnover rate by region					
Europe	Not recorded	Not recorded	7.16	8.16	8.71
North America	Not recorded	Not recorded	7.30	7.91	6.42
Emerging Markets	Not recorded	Not recorded	17.11	19.06	16.10
Rest of World	Not recorded	Not recorded	5.67	11.90	15.77

Merck KGaA, Darmstadt, Germany, records the new employee turnover rate over the course of 18 months because 12 months is too short a time to become truly familiar with a new position, especially when it comes to management positions.

The turnover rate is calculated as follows: (Number of newly hired employees within the preceding 18 months that left Merck KGaA, Darmstadt, Germany, within the same period)/(average number of employees in the preceding 18 months)*100

The figures exclude employees who leave due to parental leave or a long-term illness, as well as employees who are transitioning to the non-working phase of partial retirement.

Core labor standards of the International Labour Organization (ILO)

As of Dec. 31	2009	2010	2011	2012	2013
% of full-time employees (standard contract, excluding exempts) with contractually stipulated working hours of maximally 48 hours/week ¹	99	99	99	99	99
% of full-time employees (standard contract) with at least 15 vacation days/year ²	95	94	96	95	98
% of female employees with access to maternity leave programs ³	97	100	100	100	100
% of employees with the right to collective bargaining ⁴	76	96	96	97	97
% of employees working at companies where collective agreements apply	Not recorded	Not recorded*	Not recorded*	Not recorded*	68
% of sites that rule out complicity in child labor as described in ILO Convention 138	100	100	100	100	100
Age of youngest employees, excluding apprentices	17	17	18	18	16

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 the years 2010, 2011 and 2012 Merck KGaA, Darmstadt, Germany, recorded the percentage of employees who have a right to collective bargaining.

Local minimum wage

	2009	2010	2011	2012	2013
% of sites that guarantee a salary above the local minimum wage*	94	100	99	100	100

* Minimum wage as stipulated by law, or derived from other provisions such as collective agreements.

The Global Rewards Policy applies to all Merck KGaA, Darmstadt, Germany, legal entities worldwide and guarantees a systematic compensation structure. Base pay is oriented to the median base pay, and short-

term variable compensation is based on the third quartile of the relevant reference market. The overall compensation package thus exceeds the market median.

Occupational health and safety

Work-related accidents

	2009	2010	2011	2012**	2013
Lost Time Injury Rate (LTIR)	3.5	3.0	2.1*	2.3	2.2*
Europe	4.3	4.5	3.1	3.9	3.7
North America	0.7	1.9	1.5	1.2	0.9
Emerging Markets	3.1	1.9	0.9	0.7	0.8
ROW	0.7	0.4	2.1	1.0	1.0
Number of deaths	0	1	0	0	0

* 2011: Figures retroactively adjusted. In our Annual Report an LTIR of 2.1 was reported for 2013. Due to new data provided from one site the LTIR has been increased to 2.2.

** Incl. temps.

Merck KGaA, Darmstadt, Germany, employees have been included in the calculation of the indicators as well as supervised employees of external companies. Independent contractors have not been taken into account.

Using the LTIR, we record work-related accidents of our employees that involve at least one day of missed work. A work-related accident is an injury that results from the type of work, in the course of doing said work, and that has no internal cause (cumulative trauma). Work-related accidents are considered relevant if they occur on the premises, on business trips, during a transport accident, in the course of external influences (e.g. natural disasters), or due to criminal acts involving personal injury. Commuting accidents and accidents during company sporting activities are not included. First-aid incidents are generally not included in the LTIR since these usually do not result in more than one day of missed work.

We have set ourselves the goal of reducing the LTIR rate to 2.5 by 2015. In 2013, by means of targeted accident prevention measures we again outperformed this goal as we did in the previous two years, achieving an LTIR of 2.2.

For Merck KGaA (24% of the employees of the Merck KGaA, Darmstadt, Germany Group) we report work-related illnesses if these have been diagnosed and certified by a physician. In the reporting period, one case of work-induced illness was recorded. We do not keep track of the number of work-related illnesses throughout Merck KGaA, Darmstadt, Germany.

Continuing education and training

Spending on advanced training for employees (€)

	2009	2010	2011	2012	2013
Average continuing education spending per employee	1,102	1,152	982	699	679

Besides savings measures within the scope of the "Fit for 2018" transformation program, the increased use of online training has also contributed to a reduction in training costs.

Apprentices*

As of Dec. 31	2009	2010	2011	2012	2013
Number of apprentices	520	513	523	528	516
% of apprentices	5.7	5.9	5.6	5.7	5.6

* Only pertains to the Darmstadt, Gernsheim and Grafing sites in Germany (which accounted for around 24% of Merck KGaA, Darmstadt, Germany, employees in 2013).

Employees who regularly receive a performance and development evaluation

As of Dec. 31	2009	2010	2011	2012	2013
% of employees who regularly receive a performance and development evaluation	Not recorded	88	98	98	97

Our globally uniform Performance Management process requires annual feedback discussions and performance assessments for all employees that are rated above Global Grade 10 in our position assessment system. Apart from evaluating employee performance, it helps us to identify individual development opportunities. To date, around 27,400 employees worldwide have been involved in the process (2012: around 23,800 employees).

For all other employees that do not participate online in this globally uniform process, other methods of performance assessment are available. In 2012, 97% of employees took part in a performance and development evaluation.

Diversity and inclusion**Percentage of women**

As of Dec. 31	2009	2010	2011	2012	2013
% of women in the entire workforce	43	43	43	42	42
% of management positions held by women (Global Grade 14 or above)*	17	22*	23*	24	25
% of women in the biopharmaceuticals and Consumer Health divisions	Not recorded	47	47	46	46
% of women in the Performance Materials and life science tools divisions	Not recorded	33	38	37	37

* These figures do not entirely include the employees of the Millipore Corporation, which was acquired in July 2010. The Global Grading System was instituted there incrementally.

Since 2009, we have been continually increasing the percentage of management positions held by women. In 2013, with 25% of management positions (Global Grade 14 or above) held by women, we reached our goal of increasing this percentage to at least 25%-30%.

Internationality of employees

	2009	2010*	2011*	2012	2013
Number of nationalities	111	128	125	121	114
Number of nationalities in management positions (Global Grade 14 or above)	56	55	54	57	64
% of non-Germans in management positions (Global Grade 14 or above)	58	57	56	61	60

* These figures do not entirely include the employees of the Millipore Corporation, which was acquired in July 2010. The Global Grading System was instituted there incrementally.

Employee age by region

Number of employees	Worldwide	North America	Europe (including Germany)	Germany	Emerging Markets	Rest of World
2012						
Up to 29 years old	5,957	508	2,354	1,466	2,878	217
thereof women	2,476	226	1,104	593	1,067	79
30 to 49 years old	25,329	2,843	13,592	6,361	7,835	1,059
thereof women	11,027	1,339	6,290	2,478	2,976	422
50 or older	7,561	1,497	4,831	2,961	929	304
thereof women	2,839	660	1,867	1,022	231	81
Average age	40.2	43.6	41.8	42.3	36.0	40.3
Total employees	38,847	4,848	20,777	10,788	11,642	1,580
2013						
Up to 29 years old	5,906	462	2,362	1,494	2,883	199
thereof women	2,411	204	1,071	587	1,059	77
30 to 49 years old	24,562	2,867	12,774	6,221	7,882	1,039
thereof women	10,666	1,359	5,851	2,447	3,044	412
50 or older	7,686	1,582	4,877	3,153	923	304
thereof women	2,824	683	1,833	1,074	232	76
Average age	40.4	44.1	41.9	42.6	36.0	40.5
Total employees	38,154	4,911	20,013	10,868	11,688	1,542

Employees with disabilities* (%)

As of Dec. 31	2009	2010	2011	2012	2013
Employees with disabilities*	4.1	4.1	4.2	4.9	5.0

* Only pertains to the Darmstadt, Gernsheim and Grafing sites in Germany (which accounted for around 24% of Merck KGaA, Darmstadt, Germany, employees in 2013). The figures for 2009–2011 have been retroactively adjusted (calculations based on the German Social Code IX - SGB IX).

Insurance and retirement benefits for employees

Insurance and pension systems for employees					
	2009	2010	2011	2012	2013
% of employees who are obliged to contribute to a statutory pension system	90	95*	98	99	99
% of employees in a company pension plan (also in addition to the statutory pension plan)	67	68	68	68	70
% of family members who are entitled to a statutory surviving dependent's pension	Not recorded	Not recorded	Not recorded	Not recorded	67
% of family members who are covered by a company pension plan in addition to the statutory surviving dependent's pension	Not recorded	Not recorded	Not recorded	Not recorded	47
% of employees with company accident insurance	97	100	100	100	100
% of employees with statutory health insurance	78	88	88	87	85
% of employees with employer-funded health insurance	82	88	88	93	95

* Due to new data provided these figures have been retroactively adjusted.

Long-term pension obligations and post-employment benefits

€ million	2009	2010	2011	2012	2013
Present value of all pension obligations as of Dec. 31	1,878	2,356	2,490	2,830	2,737
Pension expenses	98	132	168	159	147

Depending on the legal, economic and fiscal circumstances prevailing in each country, differing retirement benefit systems are provided for the employees of Merck KGaA, Darmstadt, Germany. As a rule, these systems are based on length of service and salary of the employees. Pension obligations of Merck KGaA, Darmstadt, Germany, include both defined benefit and defined contribution plans, and comprise both obligations from current pensions and accrued benefits for pensions payable in the future. At Merck KGaA, Darmstadt, Germany, defined benefit plans are funded and unfunded. These provisions also contain other post-employment benefits, such as accrued future health care costs for retirees in the United States (see Annual Report 2013, Note on Provisions for pensions and other post-employment benefits).

Reconciling the demands of a career and family

Flexible working hours					
	2009	2010	2011	2012	2013
% of employees with the option of working flexible hours	Not recorded	57	58	69	75

Parental leave in Germany*					
As of Dec. 31	2009	2010	2011	2012	2013
Number of employees with a right to parental leave	Not recorded	Not recorded	237	299	254
thereof women (recorded via maternity leave in the respective year)	Not recorded	Not recorded	82	139	120
thereof men (recorded via special paternity leave in the respective year)	Not recorded	Not recorded	155	160	134
Number of employees who took parental leave	162	368	401	434	433
thereof women	Not recorded	Not recorded	283	303	292
thereof men	Not recorded	Not recorded	118	131	141
Number of employees on parental leave who worked part time during their leave	Not recorded	Not recorded	123	137	81
thereof women	Not recorded	Not recorded	117	135	77
thereof men	Not recorded	Not recorded	6	2	4
Number of employees who returned from parental leave	Not recorded	Not recorded	144	162	151
thereof women	Not recorded	Not recorded	58	62	60
thereof men	Not recorded	Not recorded	86	100	91
Number of employees still working for us one year after their return from parental leave	Not recorded	Not recorded	140	130	***
thereof women	Not recorded	Not recorded	55	34	***
thereof men	Not recorded	Not recorded	85	96	***

* Figures only pertain to the Darmstadt, Gernsheim and Grafing sites in Germany (which accounted for around 24% of Merck KGaA, Darmstadt, Germany, employees in 2013). For 2009, the figures were calculated based on the data as of Dec. 31 of the respective year; since 2010, the data from the entire year has provided the basis for the calculation, which also includes those employees who took parental leave during the calendar year, but who had returned by Dec. 31.

** Since parental leave can be taken for a period ranging from one month to three years, it is possible for employees to be recorded across a period of up to four calendar years. This explains why the number of employees on parental leave exceeds the number of employees who have a right to it.

*** Figure will be available on Dec. 31, 2014.

Indicators: Environment

Environmental management

Spending on environmental protection, safety and health (€ million)

	2009	2010	2011	2012	2013
Spending	131	140	141	146	142

These figures include both investments in as well as internal and external spending on waste and wastewater management, water, occupational safety, fire protection, noise reduction, air pollution prevention, decontamination, preservation of nature and the landscape, climate protection, and energy efficiency.

Greenhouse gas emissions

Total greenhouse gas emissions (metric kilotons) (Scope 1 and 2 of the GHG Protocol)*

in kt	2006	2007	2008	2009	2010	2011	2012	2013
Total CO ₂ eq emissions	528	583	497	474	537	502	502	524
Thereof								
direct CO ₂ eq emissions	314	367	299	299	348	315	317	343
indirect CO ₂ eq emissions	214	216	198	175	189	187	185	181

* In line with the Greenhouse Gas Protocol, for all previous years (up to the 2006 baseline) the greenhouse gas emissions have been calculated based on the current corporate structure of the reporting year and retroactively adjusted for acquisitions or divestments of (parts of) companies, or for changes in emission factors (portfolio-adjusted).

eq = equivalents.

Our response to the Carbon Disclosure Project contains a detailed description of our calculation methods.

These figures do not include emissions from using biomass to create energy. In 2013, emissions totaled 5.8 metric kilotons (2012: 5.1 metric kilotons).

Other relevant indirect greenhouse gas emissions (Scope 3 of the GHG Protocol)

	2009	2010	2011	2012	2013
From air travel (metric kilotons)*	34	29	47	48	63
From rail travel (metric tons)**	138	160	121	122	45
From rental car travel (metric tons)***	Not recorded	Not recorded	Not recorded	848	1,292

* 2009–2012 approx. 70–80% of Merck KGaA, Darmstadt, Germany, air travel; in 2013, approx. 90–95% of Merck KGaA, Darmstadt, Germany, air travel.

Air travel-related CO₂ emissions recorded in this way are calculated via *atmosfair* (exception: 2010).

** Recorded Germany-wide. Data is provided by Deutsche Bahn AG.

*** Emissions from rental car use in Europe and North America.

eq = equivalents.

Other air emissions

Emissions of ozone-depleting substances (metric tons)

	2009	2010	2011	2012	2013
Total emissions of ozone-depleting substances	0.8	0.7	1.0	1.9	1.5
CFC-11eq*	Not recorded	0.04	0.06	0.10	0.08

* CFC-11eq is a unit of measure used to compare the potential of various substances to deplete the ozone. Reference figure 1 indicates the potential of CFC-11 to cause the depletion of the ozone layer.

Other air emissions (metric kilotons)

	2009	2010	2011	2012	2013
VOC (Volatile organic compounds)*	0.2	0.2	0.2	0.2	0.2
Nitrogen oxide	0.1	0.2	0.1	0.2	0.2
Sulfur dioxide	0.03	0.03	0.02	0.02	0.02
Dust	0.02	0.02	0.03	0.03	0.01

* Volatile organic compounds

The VOC, nitrogen oxide, sulfur dioxide and dust emissions reported here are production-related. These figures do not include emissions from vehicles. Emissions are determined partially based on measurements and partially based on calculations or estimates. Only some sites are required to measure individual parameters.

Transport

Transport of finished goods, by means of transportation*

	2009	2010	2011	2012	2013
% Truck	60	58	58	58	56
% Boat	35	36	36	36	37
% Airplane	5	6	6	6	7

* Pertains to goods shipped by Merck KGaA, Darmstadt, Germany, sites in Germany. These figures pertain to the total weight of the transported products. Indicated here is the primary means of transport.

In shipping finished goods from production sites to local warehouses of the legal entities, we are working to reduce the use of air shipping in favor of sea shipping. In doing so, we cut costs and reduce the CO₂ emissions incurred by transporting goods.

Resource consumption

Energy consumption (in GWh)*

	2009	2010	2011	2012	2013
Total energy consumption	1,275	1,395	1,391	1,388	1,431
Direct energy consumption	823	905	906	920	968
Natural gas	742	794	798	818	864
Liquid fossil fuels*	66	96	95	89	89
Biomass and other self-generated renewable energy	15	15	13	13	15
Indirect energy consumption	452	490	485	468	463
Electricity	443	480	481	464	458
Steam	9	10	4	4	5

Energy consumption (in TJ)*

	2009	2010	2011	2012	2013
Total energy consumption	4,590	5,022	5,008	4,997	5,152
Direct energy consumption	2,963	3,258	3,262	3,312	3,485
Natural gas	2,671	2,858	2,873	2,945	3,110
Liquid fossil fuels**	238	346	342	320	320
Biomass and other self-generated renewable energy	54	54	47	47	54
Indirect energy consumption	1,627	1,764	1,746	1,685	1,667
Electricity	1,595	1,728	1,732	1,670	1,649
Steam	32	36	14	14	18

* In line with the Greenhouse Gas Protocol, for all previous years (up to the 2006 baseline) the energy consumption has been calculated based on the current corporate structure of the reporting year and retroactively adjusted for acquisitions or divestments of (parts of) companies, or for changes in emission factors (portfolio-adjusted).

** Light and heavy fuel oil, liquified petroleum gas (LPG), diesel and unleaded gas.

At our sites in Billerica, Massachusetts (USA), Bedford, Massachusetts (USA), Molsheim (France), Tel Aviv (Israel), and Rome (Italy), we use photovoltaics to produce power.

Water consumption (in millions of m³)

	2009	2010	2011	2012	2013
Total water consumption	16.2	18.0	17.6	16.3*	10.0
Surface water (rivers, lakes)	7.6	8.7	8.3	7.0	0.0
Groundwater	5.7	5.5	5.7	5.3	5.8
Drinking water (from local suppliers)	2.9	3.8	3.6	4.0*	4.2
Rain water and other sources	0.02	0.02	0.02	0.01	0.01

* Figures retroactively adjusted.

Water reused (in millions of m³)

	2009	2010	2011	2012	2013
Water reused	not recorded	not recorded	not recorded	17.8	16.6

The sharp decrease in total water consumption is attributable to the closure of the biopharmaceuticals division site in Geneva (Switzerland). The site utilized surface water from Lake Geneva for cooling and heating purposes. The lake water covered a large portion of the site's energy requirements.

These figures do not include the ground water that we utilize in relation to safety measures at the Gernsheim site in Germany. Here, the water is fed back directly into natural circulation.

Wastewater

Wastewater volume and quality

	2009	2010	2011	2012	2013
Total wastewater volume (millions of m³)	9.3	8.8	11.1	8.5*	8.6
Chemical oxygen demand (metric tons of O ₂)	745	967	911	929	756
Phosphorous (metric tons)	6	9	8	7	7
Nitrogen (metric tons)	48	61	73	76	77
Zinc (kg)	808	283	248	267	293
Chromium (kg)	18	20	21	21	23
Copper (kg)	38	40	34	37	36
Nickel (kg)	38	39	101	101	110
Lead (kg)	32	38	40	35	42
Cadmium (kg)	8	10	10	10	10
Mercury (kg)	1	1	1	1	1
Arsenic (kg)	8	7	6	3	4

* Figures retroactively adjusted. Unlike previous years, the wastewater figures from 2012 on do not include groundwater that we utilize for safety measures at the site in Gernsheim, Germany, which is fed back directly into natural circulation. In addition, the figures likewise exclude rainwater at the Gernsheim site.

The wastewater volume includes indirect discharge into both public and Merck KGaA, Darmstadt, Germany-owned wastewater treatment plants, as well as direct discharge (such as rainwater and cooling water).

Wastewater from the neighboring municipality of Biebesheim is also treated at the wastewater treatment plant at the Gernsheim site in Germany. The communal wastewater from Biebesheim is included in the wastewater volume as well as in the emissions stated in the table.

Emissions are determined partially based on measurements and partially based on calculations or estimates. Only some sites are required to measure individual parameters.

Waste

Hazardous and non-hazardous waste (metric kilotons)					
	2009	2010	2011	2012	2013
Total waste	162	194	200*	189	158
Hazardous waste disposed	45	47	43	62*	37
Non-hazardous waste disposed	21	27	36	36*	30
Hazardous waste recycled	29*	32*	45*	48*	48
Non-hazardous waste recycled	67*	88*	76*	43*	43

* Figures retroactively adjusted.

Exported/Imported hazardous waste (metric kilotons)					
	2009	2010	2011	2012	2013
Export*	Not reported	Not reported	Not reported	Not reported	7
Import**	Not reported	Not reported	Not reported	Not reported	0.01

* Disposal within the EU.

** Within the scope of the return system for our cell tests, these tests are brought to our Gernsheim site in Germany for their proper disposal.

Waste by disposal method					
	2009	2010	2011	2012	2013
Total waste (metric kilotons)	162	194	200*	189	158
Waste for disposal (metric kilotons)	66	74	79	98*	67
Landfill waste (metric kilotons)	12	13	14	19	13
Incinerated waste (metric kilotons)	54	61	65	79*	54
Recycled waste (metric kilotons)	96	120	121*	91*	91
Recycled solid waste (metric kilotons)	79	100	97	67*	67
Recycled energy (metric kilotons)	17	20	24*	24	24
Recycling rate (%)	59	62	61*	48*	58

* Figures retroactively adjusted.

In previous years, there was an increase particularly in the quantities of waste to be disposed of due to extensive construction and renovation projects. After completion of these projects, total waste decreased by 16% in 2013.

Indicators: Society

Spending on social engagement (€ million)

	2009	2010	2011	2012	2013
Total spending	6.2	6.9	7.9	11.8	46.2

For spending on social engagement, we calculate product donations at their fair value, except for the praziquantel donated within our Praziquantel Donation Program, whose value is calculated according to the WHO Guidelines for Medicine Donations.

The sharp increase in our spending on social engagement is attributable to three factors:

- Expansion of our Praziquantel Donation Program.
- Expansion of the ECPAP – Erbitux® China Patients Aid Program launched in 2011, in which we work with the Beijing Red Cross Foundation to provide Erbitux® free-of-charge to low-income patients with colorectal cancer. Our biopharmaceuticals division has established registration centers in 35 cities in China.
- First inclusion of contributions to the Serono Symposia International Foundation. This is a charitable organization that works to promote advanced medical training for scientists, physicians, nurses, pharmacists, and other health care professionals.

Spending on local social engagement, by region (%)*

	2009	2010	2011	2012	2013
Europe	56	29	39	20	36
North America	11	17	23	13	< 1
Emerging Markets	28	49	37	66	63
Rest of World	5	5	1	1	< 1

* Excluding lighthouse projects.

As a result of the sharp increase in spending on social engagement in Europe and Emerging Markets, the relative share of spending in North America declined.

Focus of local social engagement (%)*

	2009	2010	2011	2012	2013
Health	–	–	28	30	23
Support for culture and sports activities near our sites	15	14	18	28	19
Education	19	21	22	16	23
Environment	–	–	5	9	10
Other**	60	62	17	14	19
Disaster relief	6	3	10	3	6

* Excluding lighthouse projects, based on number of projects.

** 2009 and 2010 include discontinued focus areas.

Motivations for our social engagement (%)*

	2009	2010	2011	2012	2013
Charitable activities	58	56	52	32	20
Community investment	19	20	24	52	59
Commercial initiatives in the community	23	24	24	16	21

* Excluding lighthouse projects, based on total spending.

We assign the motivations for our engagement to categories based on the model of the London Benchmarking Group and the guidelines of the Bertelsmann Foundation for corporate social engagement. Projects that primarily aim to make improvements within the community are classified as "Community investment". Projects that are predominantly aimed at company-relevant factors such as image or personnel recruitment are classified as "Commercial initiatives in the community". "Charitable activities" comprehends any other projects that benefit a charitable organization, but cannot be assigned to either of the other two motivation categories due to missing data or their narrow scope.



Goals

Products, Suppliers, Employees, Environment, Society

Goals

Products

Goals: Product Safety

Strategic goal	Action	By?	Progress in 2013	Status
Establish a globally uniform hazard and risk communication system for all relevant Merck KGaA, Darmstadt, Germany, chemicals in the supply chain, incorporating the principles of prevention	Register substances produced in quantities ranging from 100-1,000 metric tons per year (phase 2 of REACH implementation) and register non-phase-in substances	Mid-2013	All registrations for quantities ranging from 100-1,000 metric tons per year were completed on schedule by mid-2013.	
	Register substances produced in quantities ranging from 1-100 metric tons per year (phase 3 of REACH implementation) and register non-phase-in substances	Mid-2018	First registrations are shortly before completion; the plan to ensure compliance with the registration deadline of mid-2018 is in place; preparations for the next registrations are ongoing.	
	Implementation of GHS/CLP: Classify mixtures and sets according to the CLP regulation	Mid-2015	Approx. 95% of mixtures were already labeled according to the CLP regulation.	
	Implementation of Global Product Strategy (GPS): Provide Product Safety Summaries within GPS for all hazardous substances registered under REACH	End of 2020	Further Product Safety Summaries are in preparation in accordance with the registrations made under REACH.	
	Projects for hazard communication: Update safety data sheets for non-hazardous materials	End of 2020	Approx. 80% of safety data sheets for non-hazardous materials have already been updated.	
	Increase the number of safety data sheets prepared to a globally uniform standard	End of 2020	With the roll-out of the global product safety database in the United States, a further step has been made toward a Group-wide standard.	

Goals: Animal testing

Strategic goal	Action	By?	Progress in 2013	Status
Harmonize animal welfare throughout Merck KGaA, Darmstadt, Germany	Establish Group-wide governance for Corporate Animal Science & Welfare	End of 2014	Establishment of the Group function Corporate Animal Safety & Welfare, draft of a quality manual, and foundation of an internal network of experts for animal testing and animal welfare.	
	Develop a Group-wide audit concept for contract animal testing facilities	End of 2015	Performance of audits by Corporate Animal Safety & Welfare at selected contract institutes and laboratory animal breeders.	
Harmonize the high quality of animal facilities at the biopharmaceuticals division	Obtain AAALAC International accreditation for all biopharmaceuticals division laboratory animal facilities	End of 2015	Successful re-accreditation at one site and preparation of accreditation at two sites.	
Implementation of a Merck KGaA, Darmstadt, Germany, 3R Award	Prepare of a 3R Award program	End of 2015		

Goals: Storage and transport

Strategic goal	Action	By?	Progress in 2013	Status
Further improve warehouse and transport safety	Create a Group-wide standard for safe logistics	End of 2013	Diverse standards and instructions were revised, or created, and put into effect.	
	Systematically share best warehouse and transport safety practices among employees worldwide	End of 2013	Regular online conferences with Group-wide participation were implemented in order to train employees and exchange experiences.	
	Expand scope of transport safety audits, to include contracted service providers	End of 2014	The first audits focused on transport safety were conducted as pilot projects. The necessary tools (e.g. check lists and evaluation forms) were created.	
	Develop additional performance indicators to assess warehouse and transport activities	End of 2014	Based on audits focused on transport and warehouse safety, assessments were carried out and a performance indicator each for transport and warehouse was allocated. For the determination of performance indicators, instructions were drafted and put into effect.	

Legend:  Achieved  In progress  Not achieved  New goal

Suppliers

Goals: Supplier Management

Strategic goal	Action	By?	Progress in 2013	Status
Ensure ethical, social and compliance standards at suppliers (contribution to fulfilling the strategic procurement goal "Risk Mitigation")	Adapt the general terms and conditions to integrate our Responsible Sourcing Principles into all orders	End of 2013	The general terms and conditions were revised and dated August 2, 2013.	
	Conduct CR audits on 30 suppliers with a risk potential	End of 2013	In the period from 2011 to 2013, more than 50 CR audits were conducted at suppliers with a risk potential.	
	Create the technical prerequisites for obtaining supplier self-disclosures in France, the United States, China, Italy, the United Kingdom, and Ireland by implementing a new computerized supplier management system	End of 2013	The technical prerequisites were created for obtaining supplier self-disclosures; the Xcitech system was introduced.	
	Collect supplier self-disclosures from higher-risk suppliers from whom we procure a volume above a defined threshold, in the countries Germany, Brazil, Mexico, Switzerland, Japan, India, France, the United States, China, Italy, the United Kingdom, and Ireland	End of 2013	Self-disclosures were obtained from higher-risk suppliers with a defined minimum procurement volume in Germany, Brazil, Mexico, Switzerland, Japan, India, France and the United States. The process of obtaining self-disclosures from suppliers in China, Italy, the United Kingdom and Ireland is to be completed by the end of 2014.	
	Join the industry initiative Together for Sustainability (TfS)	End of 2014		
	Perform workshops to prepare and involve Merck KGaA, Darmstadt, Germany, in the TfS program			
	As a contribution to fulfilling the strategic procurement goal "Risk Mitigation", measures will be taken to ensure that suppliers comply with ethical, social and compliance standards.	End of 2015		

Legend:  Achieved  In progress  Not achieved  New goal

Employees

Goals: Attracting and developing talent

Strategic goal	Action	By?	Progress in 2013	Status
Introduce a performance management system	Introduce performance management systems for all employees with target agreements, feedback and coaching	End of 2013	In 2013, 97% of employees took part in a performance and development evaluation.	
	Introduce development plans for all employees with performance evaluations, target agreements, feedback and coaching	End of 2013	This process was further supported by the implementation of a new system in 2013, which requires that development plans are updated annually. In addition, managers are now regularly provided with reports on the status of development plans in their unit. Experience has shown that reaching 100% implementation of development plans is unrealistic and in some cases not meaningful. Therefore, this goal is considered reached with the further steps to integrate the process and its tracking procedure into the organization.	
	Introduce development plans for all managers from Millipore Corporation, which was acquired in 2010	End of 2011	The process to implement development plans was continued. Further restructuring resulted in significant changes to the target population. With 87% of managers having development plans as of the end of 2013, this target is considered to be reached.	
Talent & Succession Management: Fill at least 2/3 of positions at Global Grade 16 + with internal candidates	Use the Talent & Succession Management Process to identify suitable employees with management potential and define a process to systematically develop employees	Ongoing	In 2011, we initiated the Performance & Talent Process to systematically develop management. In 2013, 92% of the vacant management positions were filled with internal candidates.	

Goals: Occupational health & safety

Strategic goal	Action	By?	Progress in 2013	Status
Reduce work accidents throughout Merck KGaA, Darmstadt, Germany (lost time injury rate = 2.5)	Implement the BeSafe! program; hold EHS forums on "Safety Behavior Change"	End of 2015	Through systematic accident prevention measures (such as training and campaigns to strengthen our corporate safety culture) as part of our BeSafe! program, we attained an LTIR of 2.2 in 2013. We are working to lastingly stabilize our LTIR.	

Goals: Diversity and inclusion

Strategic goal	Action	By?	Progress in 2013	Status
Increase the percentage of management positions (Global Grade 14+) held by women to at least 25%-30%	Increase the percentage of management positions held by women through numerous initiatives that move women into those positions	End of 2016	<p>Performance of numerous communication measures and deeper integration into HR processes, such as talent management.</p> <p>25% of management positions were held by women in 2013. Thus we have achieved our target corridor.</p> <p>We are continuing to pursue the goal of increasing the percentage of management positions held by women even further.</p>	

Legend:  Achieved  In progress  Not achieved  New goal

Environment

Goals: Environmental management

Strategic goal	Action	By?	Progress in 2013	Status
Attain the ISO 14001:2004 Group certificate	Certify all production sites to ISO 14001:2004 Certify the Millipore production sites acquired in July 2010	End of 2013	All acquired Millipore production sites with more than 50 employees were certified according to plan.	
Check and introduce environmental management systems at sites of new acquisitions	Conduct a gap analysis during 2014 of new acquisitions of the biopharmaceuticals division (e.g. Heipha, Biochrom) as well as the production site of Allergopharma in Reinbek	End of 2014		
	Certify the environmental management systems at further sites of new acquisitions	Ongoing		
	Include the production sites of AZ Electronic Materials	End of 2015		

Goals: Climate protection

Strategic goal	Action	By?	Progress in 2013	Status
Reduce direct and indirect greenhouse gas emissions (Scope 1 and 2) of Merck KGaA, Darmstadt, Germany, by 20% (2006 baseline)	Systematically examine the energy consumption at the sites	End of 2020	The systematic examination of production plants for energy-saving potential was continued in Darmstadt and Gernsheim. In addition, energy checks were conducted at the Aubonne and Vevey sites.	
	Identify and implement potential ways to save energy	End of 2020	The Executive Board has allocated a further € 10 million to measures for saving energy and for reducing greenhouse gas emissions. In 2014, we thus want to realize 130 further individual projects and continue projects from 2012 and 2013. With the approx. 200 EDISON projects that were initiated in the past two years, Merck KGaA, Darmstadt, Germany, wants to annually save around 52 metric kilotons of CO ₂ * in the medium term. Major projects include the gas-fired cogeneration unit at the Gernsheim site in Germany, which went on line in mid-2013, as well as the installation of carbon-neutral biomass power plants at our sites in Jaffrey, New Hampshire (USA) and Goa, India, which are scheduled to go on line in 2014.	
	Reduce process-related emissions	End of 2020	We have achieved further progress in reducing process-related greenhouse gas emissions. The emissions per product unit was reduced by nearly 21% in the past two years. However, the sharp increase in production volume led to a rise in absolute emissions. In 2014, further activities are planned with the long-term goal of totally preventing process-related emissions.	
	Sustainably implement the topics of energy efficiency and reduction of greenhouse gas emissions	End of 2020	To sustainably implement energy efficiency topics, an EHS Group Standard Energy Management was published, which is now being implemented at the sites. An EHS standard on the topic of refrigerants is to contribute toward reducing refrigerant emissions, e.g. from air-conditioning systems.	

Legend:  Achieved  In progress  Not achieved  New goal

* The figure of 64 metric kilotons communicated in the last CR Report as the savings potential of the EDISON projects had to be adjusted. For one large project, the implementation will lead to lower savings than originally calculated.

Society

Goals: Praziquantel

Strategic goal	Action	By?	Progress in 2013	Status
Eliminate the worm disease schistosomiasis in Africa	Provide tablets containing the active ingredient praziquantel free of charge to treat school children in Africa	Ongoing	More than 150 million tablets were donated from the start of the project up to the end of December 2013. Altogether more than 38 million children were treated up to the end of 2012. More than 15 million children were treated in 2012. 2012: More than 27 million tablets were provided in eight African countries. 2013: Around 50 million tablets were provided in twelve African countries	
	Carry out an awareness program to explain the causes of schistosomiasis and potential preventive measures	End of 2013	In 2013, 750,000 brochures were provided in Senegal and 250,000 brochures were printed for Malawi.	
	Incrementally increase the number of tablets donated annually by a factor of ten, up to 250 million	End of 2016	A search is ongoing for additional suppliers of the active ingredient.	
	Research a new formulation of praziquantel for children under six years old		A public-private partnership (PPP) was founded in July 2012. The milestone is to complete preclinical development in the course of 2014 and to start clinical development in the same year.	
	Optimize the praziquantel formulation	End of 2014	A film coating is being developed to help patients swallow the tablets more easily and make the tablets less sensitive to long transport times.	

Goals: Minilab

Strategic goal	Action	By?	Progress in 2013	Status
Combat counterfeit medicines by providing and further developing the mobile GPHF Minilab	Develop new test methods for seven active ingredients and add descriptions of the new test methods to the manuals	End of 2013	Seven new test methods developed and manuals updated.	
	Three training seminars on use of the GPHF Minilab; sale of 50 Minilabs	End of 2013	Four training seminars on use of the GPHF Minilab; sale of 63 Minilabs.	
	Develop new test methods for five active ingredients and add descriptions of the new test methods to the manuals	End of 2014		
	Four training seminars on use of the GPHF Minilab; sale of 50 Minilabs	End of 2014		

Legend:  Achieved  In progress  Not achieved  New goal



Global Compact

Implementation of the ten principles of
the UN Global Compact

PERIOD: JANUARY 2013 TO DECEMBER 2013



→ The Global Compact (GC) is a UN initiative founded in 2000. Signatories of the initiative commit themselves to ten principles based on key UN conventions regarding human rights, labor standards, environmental protection, and anti-corruption. 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

Merck KGaA, Darmstadt, Germany has been a Global Compact participant since 2005. The following Communication on Progress (CoP) presents the key measures that Merck KGaA, Darmstadt, Germany took in 2013 to implement the principles of the Global Compact

CEO's Declaration of continued support



Responsibility is not optional at Merck KGaA, Darmstadt, Germany – it is part of who we are. For more than three centuries, Merck KGaA, Darmstadt, Germany, has combined entrepreneurial success with responsible conduct and has made the fulfillment of our corporate responsibility an integral part of our identity.

To align our efforts internationally, we joined the United Nations Global Compact in 2005. We are committed to this path and stand firm in our continued support of the ten principles established by the compact, which cover human rights, labor regulations, environmental protection, and anti-corruption.

We want to leverage our knowledge and expertise to help address the major challenges of our time. For example, as a leading company in the pharmaceutical and chemical sectors, Merck KGaA, Darmstadt, Germany, is well placed to contribute meaningfully in the field of healthcare.

Access to medical care is a universal human right and we want to make sure that it becomes a reality for everyone. For that reason, we have partnered with the World Health Organization (WHO) to combat the tropical disease schistosomiasis. We are donating praziquantel tablets, which are needed to treat this dangerous and wide-spread parasitic worm disease. To date, 38 million children in 19 countries have already been treated. And we intend to do more. After all, Merck KGaA, Darmstadt, Germany, has committed to donating tablets until schistosomiasis has been eliminated in Africa.

Working to improve global access to health is one aspect of our responsibility efforts, but by no means the only one. As this progress report shows, responsibility is a basic tenet of our activities. We are living the principles of the Global Compact throughout our company – and will continue to do so.

Karl-Ludwig Kley

Chairman of the Executive Board

Merck KGaA

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Human rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Commitment, principles & goals

Our entrepreneurial approach as a conscientious, responsible company includes ethical conduct as well as a commitment to human rights and core international labor standards.

Our primary policy documents include:

- **Code of Conduct:** Our Code of Conduct is a compulsory set of rules for all Merck KGaA, Darmstadt, Germany, employees. It explains the principles for interacting with business associates, general partners, colleagues, and employees, as well as with the communities in which we operate. Thus, it supports all employees in acting ethically – not only in their interactions with one another, but also outside the company.
- **Human Rights Charter:** At the end of 2013, Merck KGaA, Darmstadt, Germany, adopted a Group-wide **human rights charter** that underscores our commitment to respecting and protecting human rights. It brings together and complements existing regulations and guidelines that pertain to human rights, such as our Code of Conduct, our Social Charter, our Environment, Health and Safety Policy, and our Charter on Access to Health in Developing Countries. The Human Rights Charter defines our company's expectations while increasing awareness of human rights within the company. It also allows us to more accurately assess Group-specific risks and to align our business operations with our Values.

Since the Human Rights Charter includes core labor standards of the International Labor Organization (ILO), the Human Rights Charter is replacing our Social Charter.

- **Procurement Policy:** Through our Group Procurement Policy, updated in 2013, we are ensuring that our procurement processes adhere to CR standards, which includes the selection, assessment and management of suppliers. This policy reflects numerous internal and external guidelines, such as our Code of Conduct, our Social Charter, our EHS policy, and ISO standard 14001. Standard operating procedures for Group Procurement have been revised to reflect this policy.
- **Our Responsible Sourcing Principles:** To complement our procurement policy, we drafted our Responsible Sourcing Principles and integrated them Group-wide into our general terms and conditions in 2013. These principles define what we require of our suppliers with regard to responsible conduct, highlighting the responsibility of our suppliers to apply our corporate responsibility standards to their upstream value chain.

As a member company of the German Federal Association for Materials Management, Purchasing and Logistics (Bundesverband der Materialwirtschaft Einkauf und Logistik e.V. – BME), Merck KGaA, Darmstadt, Germany, supports the **BME compliance initiative** against corruption, cartels and child labor.

- **Access to Health Charter:** As described in our Charter on Access to Health in Developing Countries, Access to Health (A2H) is a strategic priority for Merck KGaA, Darmstadt, Germany. Our A2H strategy is designed to contribute to overcoming barriers to access for underserved populations and communities in developing countries. Recognizing that access is a complex and multifaceted

challenge with no one-size-fits-all solution, our programs and initiatives are tailored to global, regional and local needs. We take a holistic needs-based approach, working in partnerships to achieve results. Our A2H work cuts across our businesses and is a component of our Corporate Responsibility strategy.

Merck KGaA, Darmstadt, Germany, is committed to the Millennium Development Goals (MDGs) and to working with partners to achieve them, as well as to ensuring that health remains an integral component of the post-2015 development framework. Through our efforts to expand access to health solutions, we are working to make Merck KGaA, Darmstadt, Germany, a health partner of choice in low and middle income countries as they continue to develop.

Our robust patient needs-based approach to addressing the complex challenge of providing access is designed around four pillars, known as the 4A's for Access to High Quality Health Solutions: Availability, Affordability, Awareness, and Accessibility.

Implementation

- **Compliance management:** We support compliance with statutory and company-internal rules and regulations through our compliance organization. The central Group function Compliance, with the Group Compliance Officer (GCO) and other specialists, is responsible for maintaining and further developing the compliance program.

In the subsidiaries abroad, local compliance officers are responsible for implementing the compliance measures. They are advised by Group Compliance and provided with training documentation, among other forms of support. The local compliance officers report to the GCO at regular intervals. The GCO in turn reports at least once a year to the Executive Board, with a focus on the status of compliance activities, compliance risks, and serious compliance violations. The Executive Board informs the supervisory bodies at least once a year about the key compliance issues. Compliance management is continuously adapted to current requirements.

- **Compliance training:** Our employees receive regular training on compliance topics via classroom and online courses. Employees at all levels of the hierarchy are familiarized with our requirements with regard to the Code of Conduct.

In 2013, around 108,000 compliance-related courses were conducted for 34,733 employees. Furthermore, 24,168 employees (thereof 12,390 employees ranked Global Grade 10+) were trained in anti-corruption (35,003 courses).

The training plan is regularly updated and adjusted in response to new developments. In addition, classroom sessions are adapted to local needs.

- **Human Rights Risk Assessment:** In 2012, Merck KGaA, Darmstadt, Germany, conducted a Group-wide human rights risk assessment based on the **Organizational Capacity Assessment Instrument (OCAI)**. It aimed to systematically examine and evaluate the effects of our business operations on human rights and the potential risks, as well as to determine the next steps to be taken.
- **Supplier management:** Supplier Management is a core task within Procurement and comprises the entire process of supplier assessment, evaluation, development, and phasing-out. It aims at optimizing the performance of the entire supply base in order to realize added value for Merck KGaA, Darmstadt, Germany, by using a transparent, holistic and globally uniform approach. Merck KGaA, Darmstadt, Germany, expects its suppliers to comply with fundamental rules, such as rules

against corruption and child labor, and sets minimum requirements regarding work standards.

To complement our Procurement Policy, we developed our Responsible Sourcing Principles, which were incorporated Group-wide into our general terms and conditions in 2013.

In order to document our suppliers' commitment to environmental and social standards, we use supplier self-assessment questionnaires. In 2013, around 600 questionnaires were completed by new and select suppliers (on the basis of a risk analysis).

The Group standard "Sustainability Audits in Supply Chain" regulates audits aimed at evaluating working conditions at key suppliers of Merck KGaA, Darmstadt, Germany, as well as the suppliers' impact on the environment and community.

- **Promoting access to health care in developing countries:** Through our programs and our charter on Access to Health in Developing Countries, we strive to lead and collaborate with others to improve global access to medicine. The charter covers the topics of product pricing, intellectual property, research & development for neglected tropical diseases (NTDs), anti-counterfeiting as well as pharmaceutical product donations and philanthropy.

An important component of our Access to Medicine activities is our Praziquantel Donation Program. Through this initiative, we have been supporting the World Health Organization since 2007 in the fight against schistosomiasis in Africa, a widespread tropical worm disease. Since the program was launched, around 150 million tablets containing the active ingredient praziquantel have been donated, resulting in the treatment of more than 38 million children. In 2007, Merck KGaA, Darmstadt, Germany, made a commitment to donate to WHO 200 million tablets of Cesol® 600, which contain the active ingredient praziquantel. By 2017, this was intended to have treated around 27 million children for schistosomiasis in the most severely affected countries in Africa. In 2012, we announced that we will continue our efforts to fight schistosomiasis until the disease has been eliminated in Africa. To this end, Merck KGaA, Darmstadt, Germany, is increasing the number of praziquantel tablets donated in the medium term, raising the total to up to 250 million tablets annually.

In 2012, our commitment to access to medicines was ranked eighth in the [Access to Medicine Index](#), which ranks pharma companies' access to medicine activities. The next ranking will be published in 2014.

Gauging the results

- **Compliance audits:** Compliance audits are conducted as part of general assessments by Internal Auditing. The audits focus on the existence and quality of compliance guidelines, processes and structures. In addition, our sites are reviewed for violations of our Code of Conduct and Social Charter. The topic of corruption and the requirements of the Social Charter are an integral part of our standard audit program and are audited within the scope of general audits at our sites. Altogether 30 audits were conducted to check for corruption in 2013. In addition, a total of 27 sites in 27 countries were audited on Social Charter topics in 2013. No violations of the Social Charter rules were found.
- **Central SpeakUp Line for compliance violations:** All employees are called upon to report compliance violations to their supervisor, Legal, HR or other relevant departments. Via the SpeakUp Line, a central reporting system, employees can report violations by telephone or via a web-based application in their respective national language, free of charge and anonymously.

The reports received are reviewed by the Group Compliance Office (GCO) and submitted to the Compliance committee to coordinate the necessary investigation of the facts. The Compliance committee consists of senior representatives of the Internal Auditing, Compliance, Group Security, Data privacy and Human Resources departments. It monitors the processing of reported incidents and initiates, if necessary, corresponding corrective measures. Disciplinary actions are also taken, where needed, against the employee who has violated a compliance rule. These actions may range from a simple warning up to dismissal of the employee, depending on the severity of the violation. In 2012, 20 compliance-related reports were received via the SpeakUp Line. In five cases in 2012, the alleged violation of our rules of conduct was confirmed. These cases were investigated and reported, action plans were implemented and monitored by Group Compliance. Merck KGaA, Darmstadt, Germany, takes such misconduct very seriously and takes appropriate action, including dismissals in line with the applicable laws.

2013 data will be published in June 2014 in our Corporate Responsibility Report – Update 2013.

- **Supplier audits:** To assess our suppliers' adherence to social, environmental, and workplace safety standards, a total of 22 supplier audits were conducted in 2013. The suppliers audited were selected on the basis of a risk analysis. We found four suppliers with critical flaws, and 20 suppliers with major defects. We demanded that these suppliers provide us with a corrective action and preventive action plan (CAPA), which describes the course of action needed to address the issues. Auditors will be reviewing their progress. Particularly when it comes to critical flaws, we consider the option of terminating business relations if the problems are not sufficiently corrected.
- **Evaluation of our Praziquantel Donation Program:** Since the start of our Praziquantel Donation Program, over 150 million tablets have been donated. To date, more than 38 million patients in total have thus been treated, consisting primarily of school children. In 2013, around 50 million tablets were provided to the African countries of Angola, Ethiopia, the Democratic Republic of Congo, Cameroon, the Republic of the Congo, Madagascar, Mali, Nigeria, Senegal, Zimbabwe, Sudan, and Tanzania.

As part of a Bertelsmann Foundation project on corporate social engagement, we collaborated on the development of the "IOOI" method (Input, Output, Outcome, Impact), a way of gauging and assessing social engagement. We have applied this method to our donation program to combat schistosomiasis, which allows us to evaluate the progress of the project.

Labor standards

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labor;

Principle 5: the effective abolition of child labor; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Commitment, principles & goals

Our entrepreneurial approach as a conscientious, responsible company includes ethical conduct as well as a commitment to human rights and core international labor standards.

The Human Rights Charter listed under Principles 1 and 2 is the primary policy document on compliance with core labor standards within Merck KGaA, Darmstadt, Germany.

At Merck KGaA, Darmstadt, Germany, respecting our employees' dignity, treating them fairly and in compliance with laws and regulations is a matter of course. As a matter of principle, we are guided by the ILO Core Labor Standards. We adhere especially to this claim with respect to the following topics and regularly audit our sites against these requirements: Freedom of association, no forced labor, no child labor, non-discrimination and equal opportunity, wages and salaries, working hours, occupational health and safety, prevention of abuse and harassment

The Group-wide **EHS Policy**(Principles and Strategies for Health, Safety and the Environment), which came into effect back in 1995, is the governing document with regard to the topic of occupational health and safety. This policy is implemented at site level through internal EHS standards that apply Group-wide as well as through guidelines and directives on compliant behavior. The contents of our guidelines are based on the **Responsible Care Global Charter**, which was instituted by the international chemicals industry. A major goal is the reduction of workplace accidents to an annual LTIR (lost time injury rate) of 2.5 by 2015. We have already reduced this to below the target level for the third time since 2011.

We believe that workforce diversity promotes innovation and better team performance. A good balance between different cultures, nationalities, and age groups as well as between male and female employees is conducive to our entrepreneurial success. We have therefore set ourselves the goal of furthering workforce diversity and including all employees in company operations in the best possible way (workforce inclusion). Increasing the proportion of women in management positions is important to us. We have thus set the target of increasing the percentage of women in management positions (global grade 14+ according to the Global Grading System as per **Towers Watson**) to 25%-30% by 2016.

Implementation

→ **Raw materials tracking and education program:** Mica is a raw material we use for one of our pigment product groups. When examining the mica supply chain, we discovered in 2008 that at the start of the supply chain, mica is partly also collected by children, generally together with their parents. This is not compatible with our corporate values and the principles of our Human Rights Charter. Consequently, we have realigned the mica supply chain in order to prevent child labor and to ensure that the principles of our Human Rights Charter are complied with.

It was important to us to maintain our business relationships with suppliers in the regions where mica comes from and thus safeguard jobs in Jharkhand, a region in northeast India plagued by

poverty and political uncertainty. Today we procure mica exclusively from mining and not from collecting. Based on information provided by our suppliers, we have introduced a system for tracking the origin of the raw material. It is regularly checked by staff from the office we recently set up in the region. We maintain regular and close contact with our business partners in Jharkhand and have informed them in detail about our values and our expectations regarding the social and environmental standards to be complied with. In addition, we conduct and commission audits at our suppliers and upstream processing partners.

In addition to changing our mica procurement process, we are working to improve education and health care programs in the regions where the raw material comes from. For this purpose, we are financing three schools with an affiliated daycare center, which are now regularly attended by around 430 children, as well as a training center for tailoring and carpentry. We are improving medical care by means of a local health center. A doctor and a nurse are on daily duty, regularly visiting the surrounding villages and our schools. In addition, we support an Indian non-governmental organization with a project for developing "children-friendly villages". This aims to improve the understanding of children's rights and the general conditions for children to regularly attend school.

- **EHS management:** Workplace health and safety at Merck KGaA, Darmstadt, Germany, is an integral part of our Environmental, Health & Safety (EHS) management. Bernd Reckmann, a Merck KGaA, Darmstadt, Germany, Executive Board member, bears ultimate responsibility for environmental, health, and safety matters. The Group function Environment Health Safety Security Quality (EQ) is responsible Group-wide for overseeing these topics, and the operational units at the Merck KGaA, Darmstadt, Germany, sites are in charge of implementing measures.

Employees and supervisors are further sensitized to potential accident risks and hazards through training seminars and other activities such as competitions. In addition to this, our safety culture is further reinforced by rewarding good performance at individual sites (such as the Safety Excellence Award for zero workplace accidents) and through best practice sharing at regional EHS forums. We apply our Operation Excellence Program in order to continuously improve EHS performance at the production sites.

Throughout Merck KGaA, Darmstadt, Germany, we also implement preventive occupational health and safety measures for our employees. Ergonomic evaluation of the workplace is one of the tasks of our central EHS Management organization. Other measures are managed and implemented locally. These include fitness activities, information on healthy nutrition, and early detection of diseases such as diabetes or cancer.

- **Diversity Management:** In 2011, we created the position of Chief Diversity Officer (CDO) in order to promote employee diversity. In addition to this, a Diversity Council was formed with representatives from all divisions and functions. This council further develops diversity strategies, promotes their implementation and assesses their progress. In order to foster diversity and inclusion within the company, we engage in numerous activities both Group-wide and at a local level. These include communication measures and special advanced training on topics such as leadership skills and self-marketing. Diversity and inclusion at Merck KGaA, Darmstadt, Germany, is also furthered by internal networks initiated by our employees, such as the International Community and Women at Merck KGaA, Darmstadt, Germany, each of which represents the interests of a different group.

In 2013, we developed a new competency model describing the type of conduct that supports our strategic alignment and fosters business success. The types of behavior represented in the six

competencies promote diversity and inclusion within the company; they are the basis for our recruitment, assessment, performance, and learning offerings. In 2013, we started several pilots. In 2014, the model will be applied at every stage of people management.

Gauging the results

In order to monitor and assess adherence to the Human Rights Charter both within Merck KGaA, Darmstadt, Germany, as well as at our suppliers, we conduct the audits mentioned under Principles 1 and 2; we have furthermore implemented a speak-up line for employees to report compliance violations. In addition to this, we annually gather key figures and publish them in our Corporate Responsibility Report.

- **EHS audits and data management:** Workplace health and safety is an important task of Environment, Health & Safety (EHS) management. Regular EHS audits are conducted within Merck KGaA, Darmstadt, Germany, to assess compliance with local requirements, regulatory requirements, standards, and business requirements.

Data on workplace health and safety are gathered on a monthly basis, evaluated and published on our intranet. In 2013, the lost time injury rate (LTIR – the number of workplace accidents resulting in missed work per 1 million man-hours) was 2.2. No workplace deaths were recorded. The internal Safety Excellence Award, which recognizes sites with no workplace accidents, was presented to 38 sites within Merck KGaA, Darmstadt, Germany.

- **Workforce diversity:** In 2013, 25% of the management positions at Merck KGaA, Darmstadt, Germany, were held by women, thereby reaching our strategic goal of boosting this percentage to 25% to 30%. We intend to increase this percentage even further by 2016. Fiscal 2013 was the first time that a woman was appointed as head of a Merck KGaA, Darmstadt, Germany, Group division. People from a total of 114 different nations work at Merck KGaA, Darmstadt, Germany. Only 27% of Merck KGaA, Darmstadt, Germany, employees are German citizens, and 72% work outside of Germany.
- **Audits of the mica supply chain:** An audit system, including unannounced audits by Merck KGaA, Darmstadt, Germany and third parties as well as regular visits by Merck KGaA, Darmstadt, Germany employees, has been developed to ensure that the mica-mines and processors are socially compliant. We also check that they adhere to our requirements regarding environmental protection, safety, working standards and compliance. In 2013, six audits were conducted by an external provider in addition to the regular visits. Identified deficiencies have been documented in audit reports, and corrective measures aimed at improving these deficits are being implemented.

Environmental protection

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Commitment, principles & goals

Merck KGaA, Darmstadt, Germany, is committed to conserving natural resources as well as protecting the environment. Our responsibility to protect the environment derives from our Values and our corporate strategy. Adherence to our corporate values is a key component of our Code of Conduct, which was described under Principles 1 and 2.

The policy document for operational environmental protection is the **EHS Policy** described under Principles 3,4, 5, and 6.

We aim to continually improve our performance as well as to use energy, water and materials economically and efficiently. In addition to this, we want to boost our energy efficiency in order to reduce CO₂ emissions, thus contributing to global climate change mitigation. We have set ourselves a goal of reducing direct and indirect greenhouse gas emissions (Scope 1 and 2) by 20% by 2020 (relative to the 2006 baseline). In 2013, as in 2012 and 2011, the Executive Board earmarked around EUR 10 million for measures to conserve energy and reduce greenhouse gas emissions.

For the production of environmentally sustainable products, the Performance Materials division has implemented the Green Product Policy for liquid crystal products. Through this policy, we have committed ourselves to complying with all international and country-specific laws and regulations (REACH, RoHS) and also with voluntary bans on substances as well as self-imposed restrictions of certain industries or individual customers, such as the Halogen-Free Policy.

As part of the Design for Sustainability program, the life science tools division has developed a number of tools to drive sustainability across the product development process. The program is especially aimed at reducing our customers' own environmental impact, including their carbon footprint and water use.

Implementation

Environmental protection has been implemented in our production processes through the EHS management described under Principles 3, 4, 5, and 6.

- **EDISON program for climate protection and energy efficiency:** We have consolidated our activities for climate protection and energy efficiency into the EDISON program for energy efficiency and climate protection. Under this program, energy audits are conducted at various sites and energy saving processes implemented. Through the 200 EDISON projects that were launched in 2012 and 2013, Merck KGaA, Darmstadt, Germany, aims to annually save around 52 metric kilotons of CO₂ per year in the medium term.
- **Product safety management:** Through our Group-wide Product Safety Chemicals policy, we have established global processes for defining, steering and implementing product safety, as well as the corresponding management structures. This policy covers all relevant national and international chemical regulations, including the Globally Harmonised System of Classification and Labeling of Chemicals (GHS) and its implementation in regional legislation (such as the CLP regulation in the EU and HazCom in the United States), the European Union chemicals regulation REACH, the U.S.

Toxic Substances Control Act (TSCA), and the German federal law on protection from hazardous substances (ChemG). The policy also incorporates legal standards that relate to the transport of hazardous substances, biocides, cosmetics, chemicals used in food and animal feed, etc.

The Group Product Safety Committee (GPSC) is responsible for continuously monitoring the relevant regulatory requirements; the Executive Board member responsible for product safety is a member of this committee. Corporate Regulatory Affairs, a department within Merck KGaA, Darmstadt, Germany, function Environment Health Safety Security Quality (EQ), and local units are responsible for compliance with the relevant regulatory requirements for product safety.

- **Product development:** We strive to continuously enhance the sustainability footprint of our products, developing suitable product and process innovations in order to do so. And we are working to offer our customers products that enable them to reduce the impact of their own activities as well as achieve their own sustainability goals.

With the Green³ concept, the Performance Materials division offers its customers a comprehensive package for liquid crystal products. We are developing innovative, environmentally sustainable materials for energy-efficient displays. We also help our customers create environmentally sustainable production processes and support them in producing more environmentally sustainable LC displays. 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, under which we commit ourselves to complying with all international and country-specific laws and regulations (REACH, RoHS); we also comply 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. We have expanded the Green³ concept to include cosmetic products from our Performance Materials division. We are working to sustainably procure and produce cosmetic ingredients as well as optimize the related production processes.

At our life science tools division the Design for Sustainability program looks to minimize the environmental and health impact at each stage of the product life cycle from manufacturing through use to disposal. At the same time, we look to maximize features that improve product performance and ease of use. We incorporate sustainability considerations early in the design process before impacts of design decisions are locked in, and we use a set of criteria for major impact areas like materials, energy and waste to measure improvements. Starting in 2014, the life science tools division will apply the Design for Sustainability process for all new products.

An overview of innovative products from Merck KGaA, Darmstadt, Germany, can be found on our [website](#).

Gauging the results

- **EHS audits:** The previously mentioned internal EHS audits are utilized to scrutinize compliance within Merck KGaA, Darmstadt, Germany, with the specific regulatory requirements, standards, and business requirements for corporate environmental protection.

In 2013, for the fifth year in a row, our group certificate for environmental management systems, which conforms to ISO 14001, was reconfirmed over the course of the annual audit.

In addition to this, our suppliers' adherence to environmental standards is scrutinized in the supplier audits described under Principles 1 and 2.

- **EHS data management:** A Group-wide EHS data management system is used to regularly collect environmentally relevant data at the individual sites and relay it to the EQ Group function. In 2013, Merck KGaA, Darmstadt, Germany, emitted a total of 524 metric tons of CO₂, which represents a reduction of 1% compared to 2006 levels.

More environmentally relevant data can be found in our Corporate Responsibility Report – Update 2013.

Anticorruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery

Commitment, principles & goals

Merck KGaA, Darmstadt, Germany, does not tolerate bribery, extortion or corruption. We are expressly committed to fighting bribery, extortion and corruption across the globe. The primary policy document for this topic is the Code of Conduct mentioned under Principles 1 and 2.

Implementation

The Code of Conduct has been applied within Merck KGaA, Darmstadt, Germany, through the compliance management and the internal compliance training described under Principles 1 and 2.

Adopted at the end of 2012, our Global Business Partner Risk Management Policy now constitutes a fundamental component of the selection process for business partners, along with their overall assessment. Our Global Business Partner Risk Management aims to ensure that business partners are selected diligently in order to minimize the danger of adverse legal, reputational, and financial effects. This process is especially concerned with fighting corrupt practices

In addition, several internal guidelines were adopted at the end of 2013, which regulate how Merck KGaA, Darmstadt, Germany, employees in Pharmaceuticals interact with medical professionals and other representatives of the healthcare sector. These guidelines focus particularly on ensuring that all payments are of legitimate cause and are never made in exchange for prescribing our products. The guidelines are supported by a modern electronic compliance management system in which interactions with medical professionals and other representatives of the healthcare sector are proposed, approved, documented, published and monitored.

Our suppliers are subject to the supplier management process that is likewise mentioned there.

Gauging the results

In order to monitor and assess adherence to the Code of Conduct both within Merck KGaA, Darmstadt, Germany, as well as at our suppliers, we conduct the audits mentioned under Principles 1 and 2; we have furthermore implemented a speak-up line for employees to report compliance violations. In 2013, 30 internal audits were carried out specifically to check for corruption.

Merck KGaA, Darmstadt, Germany – further information:

This document only contains our key 2013 figures (unless otherwise indicated) that are relevant for the progress report on the UN Global Compact. Data from previous years can be found in our [Corporate Responsibility Report 2012](#) and on our [website](#).

Merck KGaA, Darmstadt, Germany, is a leading company for innovative and top-quality high-tech products in the pharmaceutical and chemical sectors. With its four divisions Biopharmaceuticals, Consumer Health, Performance Materials, and Life Science Tools, Merck KGaA, Darmstadt, Germany, generated total revenues of € 11.1 billion in 2013. Around 38,000 Merck KGaA, Darmstadt, Germany, employees work in 66 countries to improve the quality of life for patients, to further the success of customers and to help meet global challenges. Merck KGaA, Darmstadt, Germany, is the world's oldest pharmaceutical and chemical company – since 1668, the company has stood for innovation, business success and responsible entrepreneurship. Holding an approximately 70% interest, the founding family remains the majority owner of the company to this day. Merck KGaA of Darmstadt, Germany, – the

original – holds the global rights to the name and the trademark MERCK. The exception is North America, where we are represented by the EMD brand, which stands for "Emanuel Merck Darmstadt".

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