

At a Glance

Sustainability at Bayer

2010/2011



Science For A Better Life

What sustainable development means for us



"As the Chairman of the Board of Management, I am keen to work tirelessly with my fellow Board members to implement our global sustainability strategy. Our long-term values guide us in these endeavors. Last year, we reformulated these principles and renamed them the LIFE values, which stand for Leadership, Integrity, Flexibility and Efficiency. These values, in turn, are closely linked to our mission "Bayer: Science For A Better Life." Our values and our mission help us achieve our goals. This also applies to our commitment to sustainability, for which we have set ambitious new targets to be achieved by 2015."

Dr. Marijn Dekkers, Chairman of the Board of Management of Bayer AG

Bayer is a global enterprise with core competencies in the fields of health care, nutrition and high-tech materials. With its innovative products and services, Bayer helps improve the quality of life of people and helps solve the major challenges and socially relevant problems of our time, primarily in the fields of health care, nutrition for the growing world population and conservation of ever scarcer resources.

We endeavor to reconcile economic growth with the ecological and social responsibility of an international corporate group by basing our activities on the principles of sustainable development. That is why we were one of the first signatories of the United Nations' new Global Compact platform for corporate sustainability leadership – LEAD – which was launched at the beginning of this year at the World Economic Forum in Davos.

We are committed to the principles of sustainability and to our role as a socially and ethically responsible corporate citizen. Sustainable development is one of our main driving forces. This is summed up by our mission "Bayer: Science For A Better Life," which lays a vital foundation for our future business success and also constitutes our promise to society.

Sustainability strategy

The core element of our sustainability strategy is clearly defined. We want to create business opportunities for our company and generate economic, ecological and social benefit using sustainable practices. The aim of the targets we have set for 2015 is to further integrate sustainability into our business activities – along the entire value chain. We will realize our goal of balancing ecological and social responsibility with corporate interests at four levels.

The four levels of Bayer's sustainability strategy:

1 Dialogue and commitment

Bayer takes into account the expectations of all stakeholders. This applies to our employee relations and discourse between industry, academia and politicians, and takes in our social commitment.

2 Responsible business practices

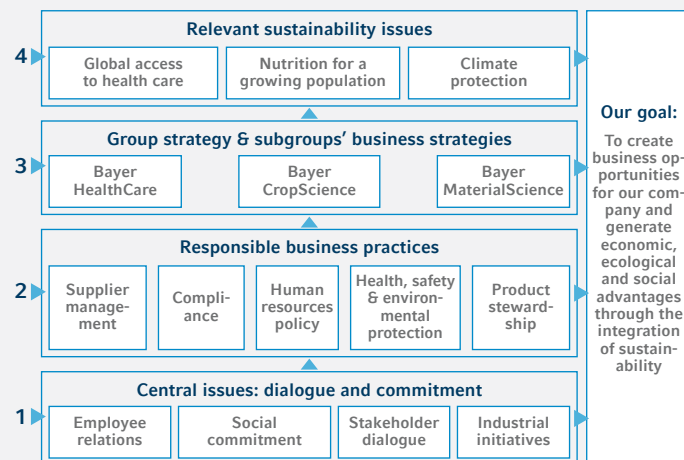
Bayer attaches great importance to responsible practices in the areas of compliance, human resources, product stewardship, health, safety and supplier management.

3 Integrating sustainability into our business

The sustainability strategy is accepted by all areas of the company, integrated into their business activities and implemented. Our innovations and products in particular make it an integral component of our business activities.

4 Relevant sustainability issues

Bayer's Sustainability Program comprises solutions to major social challenges such as contributions to sustainable health care provision, high-quality nutrition for a growing world population, and climate and resource protection.



Sustainability management

Bayer has special bodies responsible for strategically driving forward the principles of sustainable development at Bayer across all levels in the Group. In addition, the subgroups, regions and countries also have numerous additional organizational units involved in this area.

Sustainability bodies

Until the end of 2011 two bodies were responsible for the alignment and steering of our sustainability strategy: the Community Board for Sustainable Development (CB SD) as a management committee at Group level and the Bayer Community Council for Sustainable Development, which supported the operational alignment of sustainability at specialist level. During 2011, the committee structure underwent a realignment and refocusing process across the entire Group. From 2012, a Group body headed by the Head of the Environment & Sustainability Department will assume responsibility for steering and aligning our Group-wide sustainability strategy. In consultation with the member of the Board of Management responsible for Innovation, Technology and Sustainability, this committee will define objectives, decide on initiatives and corresponding Group regulations and monitor their implementation.

Group regulations on sustainability

Bayer has firmly anchored its sustainability concept in numerous Group regulations. The basis is formed by the "Bayer Sustainable Development Policy," which regulates cooperation between the various bodies. Other regulations include the Group's position on human rights and labor conditions, the Corporate Compliance Policy, the Directive on Integrity & Responsibility in Communications and Marketing, and the Group's procurement directives. There are also Group-wide regulations governing HSEQ audits, donations and process and plant safety, and a Supplier Code of Conduct.

Ambitious sustainability targets for 2015

In 2005, we for the first time set out challenging and to a large extent measurable goals with the five-year program of objectives "2006+." A more detailed overview of this program is available online (<http://www.sustainability2010.bayer.com/en/program-of-objectives-2006-2010.pdf>). Following the completion of the 2006 – 2010 program, Bayer has now set ambitious new targets to be achieved by 2015. We have consistently aligned these to our value chain. They also include our ambitious long-term climate objectives concerning greenhouse gas reduction, which we have once again tightened up.

Our "Targets 2015," which relate primarily to specifically measurable indicators, and our Sustainability Program with its objectives clearly illustrate the direction in which we want to go,

namely toward an even stronger integration of sustainability into our business activities. In this way we aim to further improve our position as a responsible enterprise and drive forward more strategically our contribution to the sustainable development of society.

Sustainability targets 2015*

Management and corporate governance

Compliance

- Extend compliance training to 100% of all Bayer managers

Supplier management

- Inform all suppliers with purchase-order-relevant volumes about the Bayer Supplier Code of Conduct
- Assess the sustainability performance of suppliers that represent more than 75% of the total procurement volume and 75% of the procurement volume from risk areas
- Annually audit the sustainability performance of at least 10% of the suppliers from risk areas or at least 15 suppliers

Employees

Diversity

- Increase the proportion of female managerial staff to approaching 30%

Occupational safety

- Reduce the number of occupational injuries with lost days by 25% to 0.3 LTRIR (Lost Time Reportable Incident Rate) ≈ 1.5 MAQ

Innovation and product stewardship

Research and development

- Maintain or increase R&D spending in relation to sales

Product stewardship

- Roll out Global Product Strategy in another 10 countries with different languages

Ecology

Climate protection (target 2020)

- Reduce specific greenhouse gas emissions by 35% (direct and indirect emissions in relation to manufactured sales volume in metric tons) in the period between 2005 and 2020

Process and plant safety

- Implement the Bayer-wide initiative to increase process and plant safety. Dedicated process and plant safety training for 40,000 employees worldwide by the end of 2012

Emissions

- Reduce other relevant emissions (ozone-depleting substances: -70%; volatile organic compounds: -50%)

Waste

- Reduce specific hazardous waste from production to 2.5% in relation to manufactured sales volume

Social commitment

Focus our global commitment further on scientific education, fostering talent, cutting-edge research, health care and, in Germany, additionally on recreational, youth and disabled sports

* unless indicated otherwise








Responsible management and corporate governance

Our corporate culture finds expression in our mission “Bayer: Science For A Better Life” and in our LIFE values. Clear corporate governance structures and transparent principles for worldwide compliance are the foundations that underpin the long-term success of the Bayer Group. The shareholder service provider IVOX ranked Bayer’s corporate governance top among all DAX companies in 2010. Wide-ranging risk management helps us identify and counter possible risks as early as possible. Bayer also contributes to the positive development of the economy and society in the regions in which it operates. Value-oriented corporate governance is put into practice through Group-wide regulations and policies.

Investor information

Investors – particularly long-term institutional investors – are showing an increasing interest in how companies integrate sustainability into their business activities. Bayer stock is included in many sustainability indices and funds. For example, we have appeared continuously in the Dow Jones Sustainability Index World since 1999. In 2011, the Carbon Disclosure Project (CDP) once again included Bayer in the Carbon Disclosure Leadership Index (CDLI), this time as one of the world’s four best companies across all sectors because of our high transparency in climate reporting. Bayer was also included in the Carbon Performance Leadership Index (CPLI) with the rating “A” as a reflection of its efforts to reduce CO₂.

Bayer’s listing in relevant sustainability indices and sustainability funds

	Index/Fund	2010	2011
	DJSI World	✓	✓
	DJSI Europe	✓	✓
	FTSE4Good Global Index FTSE4Good Europe Index	✓	✓
	ASPI Eurozone	✓	✓
	Storebrand SRI Funds	✓	✓
	Carbon Disclosure Leadership Index *	✓	✓
	Carbon Performance Leadership Index *	✓	✓
	NYSE Euronext Low Carbon 100 Europe Index	✓	✓
	Access To Medicine Index *	✓	✓**

* The Carbon Disclosure Leadership Index, the Carbon Performance Leadership Index and the Access To Medicine Index are not trading indices.

** Not re-assessed in 2011

Compliance

The integrity of each and every employee is a central part of our sustainability strategy. In the Corporate Compliance Policy, the Group Management Board outlines the company’s clear commitment to corporate compliance. Every employee is required to report any infringement of this policy without delay – this can also be done anonymously. At least once a year, the Group Compliance Officer and the Head of Corporate Auditing report to the Audit Committee of the Supervisory Board on any compliance violations that have been identified.

The brochure on our Corporate Compliance Policy is available in 42 languages and can therefore be understood by all employees. A web-based corporate compliance training module was introduced in 2010. Around 19,800 managers worldwide have already successfully completed this module.

Because members of our Group Leadership Circle have a special obligation to set an example for employees, a fixed compliance target was included in their performance evaluation in 2010.

Supplier management

To ensure that the Group’s own quality, environmental protection and social standards are observed at all stages in the supply chain, Bayer places great value on good relations to its currently around 94,000 suppliers. The Group-wide policy guidelines issued by the Procurement Community set out the principles of our procurement policy, which clearly reflect the values and leadership principles of Bayer.

To explain our understanding of sustainability to suppliers, we introduced a Supplier Code of Conduct in 2009 covering criteria such as ethics, employee relations, management systems, health, safety, environmental protection and quality. This places particular emphasis on the observation of human rights and the ban on child labor. The code forms an integral part of our procurement policy and was integrated into the ordering systems and contracts in 2010. We use questionnaires and audits to evaluate the sustainability performance of selected suppliers and the implementation of the criteria in our Code of Conduct.

Suppliers and procurement expenses according to economic region in 2010

	Suppliers (percent)	Spending (percent)
Non-OECD countries (approx. 70 % of all countries)	28	16
OECD countries (approx. 30 % of all countries)	72	84
Total	100	100

Our employees

The Bayer Group had around 111,400 employees worldwide at the end of 2010. The success of our company is mainly attributable to their unstinting efforts. We therefore want to continuously improve their skills and boost their motivation and commitment with a responsible, long-term human resources policy. We also plan to implement the Group-wide job cuts announced at the end of 2010 as far as possible through socially acceptable measures.

Employee rights

Respecting the rights of our employees is particularly important to us. We support the United Nations' Declaration of Human Rights. The most important principles for respecting employee rights at Bayer are set out in our Human Rights Position. Key elements of our commitment include the provision of a safe and healthy working environment, the maintenance of fair and competitive working conditions and respectful interaction. To ensure we achieve this, we are committed to transparent and efficient employee communication, to providing a social safety net for our employees in the form of health insurance and a company pension plan and to transparent and performance-based compensation. Our responsible HR policy also includes a strict ban on discrimination, child labor and forced or compulsory labor, and a clear commitment to freedom of association.

Diversity

Bayer has an international workforce. For example, 21 nations are represented in the Group Leadership Circle. Fostering this diversity will be a keystone of Bayer's business success in the future. The Declaration on Diversity at Bayer underscores this

conviction. We have two main goals: Our workforce should reflect the diversity of society, and employees throughout the Group should be able to contribute their abilities without being disadvantaged due to their gender, race, religion, sexual orientation or any disability. Vacancies are filled throughout the Group based exclusively on specialist expertise, development potential and individual performance.

Increasing the number of women in management positions is another key element of our efforts to foster diversity. To reconcile professional and family interests, we offer various flexible worktime arrangements.

Training and development

Offering young men and women vocational training is one of the most important ways of countering a possible shortage of skilled workers. Worldwide, we had 2,600 trainees on more than 20 vocational training courses in 2010. In addition, more than 2,700 students completed an internship.

The ongoing development of our employees also plays a key role in our human resources strategy. Our goal is to foster individual potential and to align vocational skills to the changing demands of the market. In 2010, we invested more than €130 million in a wide-ranging training program.

Occupational health and safety

Reducing risks and thus avoiding accidents and protecting the health of our employees is a prime objective of our company. Our health, safety, environmental protection and quality activities are in line with the principles of the Responsible Care Global Charter, a voluntary global initiative of the chemical industry. They have proven successful. The number of occupational injuries in our workforce fell once again in 2010. We aim to continue this longstanding trend (see table on page 21).

Employees* by region and function

	2009	2010
Production	48,400	47,200
Sales	40,200	41,100
Research and development	12,800	13,200
Administration	9,600	9,900
Total	111,000	111,400

* The number of employees on either permanent or fixed-term contracts is stated in full-time equivalents, with part-time employees included on a pro-rata basis in line with their contractual working hours.

Bayer Group workforce structure

	Women	Men	Total 2010
Senior management (incl. Group Leadership Circle)	200	1,200	1,400
Management	10,000	20,900	30,900
Skilled employees	29,100	50,000	79,100
Trainees	800	1,800	2,600

Innovation and product stewardship

Innovative products form the basis for maintaining a lasting competitive edge and play a key part in generating solutions to global challenges in the areas of health care, nutrition and climate. That is why we are constantly working on improving our products and production processes. Our top priorities in doing so are the safety and compatibility of our products and the protection of the environment.

The role of research and development

For Bayer, innovative capability means demonstrating that we have a competitive edge through our excellent research and technology and through innovative products. To this end, around 13,200 employees worldwide work in research and development facilities at Bayer, supplemented by a close network of collaborations with universities, public-sector research institutes and partner companies. Research and development expenses at Bayer reached an all-time high of more than €3 billion in 2010. This is equivalent to 8.7 percent of the Bayer Group’s sales. To ensure we benefit from this and strengthen our growth, we are committed to promoting patent protection around the world and protecting intellectual property.

Biotechnology and nanotechnology are regarded as key technologies of the 21st century, harboring considerable innovation potential. Safety and the observance of all legal provisions are top priorities for their use. We have developed our own Position on the Responsible Use of Gene Technology and subject every product to a stringent approval process before it reaches market maturity to determine whether it is safe for people, animals and the environment. We have also developed clear principles for working with nanotechnology and summarized these in the Bayer Position on Nanotechnology.

Animal studies – for example, to test new active ingredients – are scientifically essential and statutorily prescribed to research the effects of our products. We keep these to an absolute minimum, use alternatives wherever possible and are working intensively on the development of alternative methods.

Research and development expenses* (€ million)

	2009	2010
Total	2,746	3,053
of which Bayer HealthCare	1,847	2,066
of which Bayer CropScience	653	722
of which Bayer MaterialScience**	207	231
of which reconciliation***	39	34

* Figures for 2006–2009 as last reported
** Excluding R&D in collaboration with customers
*** Not directly allocated to the subgroups; mainly expenditures of the service companies

Counterfeit or illegally marketed pharmaceuticals or crop protection products often harbor significant risks for people and the environment due to their quality shortcomings. That is why we are committed to the battle against product counterfeits.

Minimum risks, maximum safety

To assess the health and environmental risks of our products along the entire value chain, we align ourselves to the precautionary principle as defined by the United Nations and the European Commission and participate in the voluntary Responsible Care® initiative of the chemical industry. To ensure a high and uniform level of health, safety, environmental protection and quality, a Group-wide HSEQ management system has been in place for many years. We also support the Global Product Strategy of the International Council of Chemical Associations (ICCA) that is designed to improve knowledge about chemical products, particularly in emerging and developing countries, and plan to introduce it in another 10 countries.

Data compilation and labeling

Nearly all our products are subject to wide-ranging statutory obligations concerning the publication of information on their handling and application, such as those imposed by the European chemicals regulation REACH. In 2010, we registered 125 substances within the statutory deadline. As we also use products from other manufacturers, we require our suppliers to confirm compliance with REACH. We have registered all substances relevant to the Global Harmonized System of Classification and Labeling of Chemicals (GHS) that applies in Europe and came into effect in China in 2010.

Drug safety

As a pharmaceuticals manufacturer, we place the very highest demands on the benefit-risk profile and the safety of our pharmaceutical and medical products. Safety Management Teams evaluate the available data so as to identify possible safety risks at an early stage and undertake measures to reduce these risks. Risks are systematically identified, analyzed and minimized with the help of a risk management system to achieve an optimal benefit-risk ratio for the patient. This applies in equal measure to both human and veterinary medicine.

Product safety in crop protection

We also attach great importance to product safety in the area of crop protection. Bayer observes the International Code of Conduct of the United Nations Food and Agriculture Organization (FAO), whose principles cover the entire life cycle of a product. Programs and training courses help ensure that the greatest possible care is taken in the handling of crop protection agents and that our products are applied in a way that is safe for users, the environment and consumers.

Ecology

Bayer places great importance on protecting the environment and using natural resources responsibly. This is reflected particularly in the development of innovative products that help protect the environment, nature and the climate and in continuous efforts to optimize technologies and processes. Bayer applies new strategies throughout the Group to optimize the efficient use of resources.

Energy

Compared with the previous year, energy consumption in the Group increased by just 10.8 percent to 85.7 petajoules despite production growth of 20 percent. Primary energy sources such as natural gas, coal and other energy sources were the starting point for our own energy generation. Primary energy conversion amounted to 51.6 petajoules. Additional steam from waste heat and procured electricity and steam were also used.

Emissions

Compared with the previous year, our direct emissions rose by 5 percent in 2010. Total direct and indirect emissions grew by 4.9 percent on the previous year. The smaller rise in emissions compared with increased production volume was achieved through improvements to processes and higher utilization of plant capacities. Emissions of ozone-depleting substances (ODS) increased by around 19 percent to 20.8 metric tons. For the first time, we were unable to achieve our own target of a maximum of 20.0 metric tons in 2010. This was mainly due to temporary leaks at two major production sites.

The volume of volatile organic compounds (VOC) fell by about 2 percent. Almost three-quarters of the Group’s VOC emissions are generated at a single site in India. By 2015, we hope to significantly reduce VOC emissions there with the help of waste air treatment plants. Other important emissions decreased at our sites worldwide despite increased production volumes. Carbon monoxide emissions fell by 77 metric tons, sulfur oxides by 855 metric tons and particulates by 17 metric tons. Only the volume of nitrogen oxides emitted rose due to increased production activities.

Energy consumption and manufactured sales volume

	2009	2010
Absolute energy consumption (petajoules)	77.3	85.7
Manufactured sales volume (million metric tons)	8.7	10.4

Water

By systematically supporting the efficient and sustainable use of water, Bayer is helping to conserve this important resource. Since 2008, Bayer has therefore supported the CEO Water Mandate, an initiative of the UN Global Compact. Compared with the previous year, specific water usage declined further throughout the Group in 2010. Because 85 percent of the water used by Bayer is cooling water – and does not come into contact with products – this water can be returned to the water cycle without further treatment within the scope of the official permit specifications.

HSEQ management

Bayer has established HSEQ management systems in all subgroups. These are based on recognized international standards and are regularly reviewed and updated. The objective is to achieve an appropriate and uniform standard of HSEQ worldwide. Operational responsibility is borne by the boards of management in the subgroups. 92 percent of our HSE management systems were audited internally in 2010. More than 60 percent of our activities take place at sites that are certified or validated externally in accordance with internationally recognized regulations. We plan to increase this proportion to over 80 percent.

Safety

In 2010, to sharpen the focus of our commitment to safety, the Bayer Board of Management set up the Bayer Safety Council to address, in particular, occupational safety, process and plant safety and transport safety. The focal points for 2011 are process and plant safety and the first global Bayer Safety Day.

Despite far-reaching safety precautions, accidents cannot be avoided completely. In 2010, we recorded seven environmental incidents that were reportable in accordance with Group specifications and eight transport accidents. All incidents and accidents were analyzed and appropriate measures initiated.

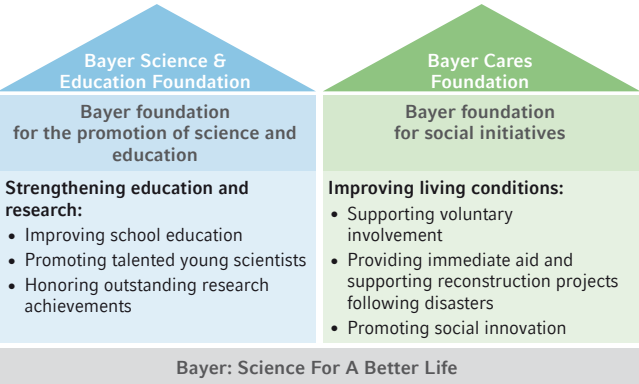
Certifications in 2010

	Certified to ISO 14001/ Validated to EMAS standards	HSE management systems based on other external standards*	Certified to OHSAS 18001
Percentage of our operations (with respect to production volume and/or energy consumption) at certified or validated Bayer sites	62	38	9

* RCMS (Responsible Care Management System) in the United States or Industria Limpia (clean industry) in Mexico

Social commitment

Social commitment forms an integral part of Bayer’s sustainability strategy. We regard the promotion of social issues as a long-term commitment to safeguarding the future viability of our society – in the interests of both the common welfare and our company. The selection criteria for our support activities are innovation capability, sustainable effectiveness and efficient project implementation. Geographically, we focus on countries in which Bayer is represented. In terms of content, we concentrate on areas that are relevant to our company. In this way, we can make optimal use of our employees’ commitment and our technical and business expertise.



All charitable donations are subject to the provisions of a Group-wide directive that establishes a framework for the content-related and strategic alignment, as well as for the proper handling, of our funds.

In 2010, Bayer invested around €56.8 million in supporting social projects with four main focuses. Depending on the project requirement, the support vehicles range from projects initiated by Bayer (often in cooperation with local partners) through volunteering programs, donations and initiatives run by the Bayer foundations including Bayer clubs.

Expenses for social commitment in 2010		
Focus	in €1,000	Share of total in percent
Education and research	6,639	12
Health and social needs	26,090	46
Environment and nature	2,909	5
Sports and culture	21,137	37
Total	56,775	100

The Bayer Sustainability Program

The growing world population and demographic change present enormous challenges for society and companies. These include, in particular, access to appropriate health care for everyone, sufficient food, and environmental and climate protection. Bayer is facing these challenges head-on with its Sustainability Program. Sustainable work practices are a basic element of our business strategy. We want to tap new market opportunities to safeguard the future long-term viability of the Group. All our activities are geared to achieving ecological, economic and social benefits for our customers and for society. This is made possible by innovative products, efficient and responsible use of resources and the environment and a global commitment to good working conditions and human rights.

Commitment to health

Bayer is committed to the provision of sustainable health care worldwide through numerous alliances, particularly in developing and emerging countries. For example, the Group’s “Family Planning” lighthouse project supports the Millennium Development Goal of the United Nations to cut the mortality rates for children and mothers by 2015. In 2010, Bayer HealthCare made available around 118 million units of different contraceptives, reaching around 16 million women throughout the world. In tandem with partners, Bayer is at the same time actively involved

Objectives of the Sustainability Program

“Alliances for sustainable health care”

Lighthouse project “Family Planning”:

- Introduce original contraception products at prices in line with the market in 11 African countries jointly with USAID by 2012
- Double current family planning activities in collaboration with our partners (e.g. USAID, UNFPA, IPPF)
- Increase annual provision of oral contraceptives to 110 million cycles jointly with partners (e.g. USAID)

Lighthouse project “Neglected Diseases”:

- Support the WHO in tackling Chagas and treating African sleeping sickness
- Conduct research into shortening the duration of tuberculosis therapy together with the Global Alliance for TB Drug Development



Our Sustainability Program addresses **worldwide access to health care, food for a growing world population and climate protection**. Our initiatives include family planning commitments in Ethiopia (photo on left), projects to ensure food supplies in Australia (middle photo) and climate protection efforts in India (photo on right).

in improving sex education and supports programs that enable patients to gain access to innovative drugs. In another lighthouse project, “Neglected Diseases,” we are helping the World Health Organization (WHO) tackle African sleeping sickness and the life-threatening tropical disease Chagas. As a partner of the Global Alliance for TB Drug Development, Bayer also conducts research into shortening the duration of tuberculosis therapy.

Focus on nutrition

Bayer CropScience has developed a business model to raise agricultural yields, increase food quality and improve the income situation of farmers, including in emerging countries. With the “Food Chain Partnership” concept, the company brings together all players in the food chain – farmers, traders, importers, exporters and food retailers – to develop joint solutions to increase productivity and the quality of produce. Bayer is represented in roughly 240 projects of this kind around the world. A particular focus is on India, where “Food Chain Partnership” projects were implemented in approximately 100 cultivation regions over an area of more than 40,000 hectares in 2010. It is planned to further increase the area of cultivated land to 50,000 hectares and the number of regions to 125 by the end of 2011. Bayer CropScience has also developed a lighthouse project for rice, one of the most important staple foodstuffs in the world. This project was launched in Indonesia in 2009. It combines the direct seeding of pregerminated rice with the efficient use of crop protection products and fertilizer. While water consumption

falls, the rice yield increases by around 10 percent. At the same time, emissions of the greenhouse gas methane are cut by around 30 percent.

Objectives of the Sustainability Program “More high-quality food”

Lighthouse project “Food Chain Partnership Vegetables”:

- Work together with partners to jointly develop solutions for sustainable vegetable growing
- Help a total of 65,000 farmers grow vegetables on an area of 50,000 hectares in 125 individual projects by the end of 2011
- For the farmers, this means higher yields, better quality, larger-scale sales opportunities and an improved income.

Lighthouse project “Direct Seeding of Rice”:

- Integrated program for sustainable rice-growing with a combination of new growing methods involving the direct seeding of pregerminated rice and the efficient use of crop protection products and fertilizer
- Increase yields by around 10 percent
- Reduce water consumption and emissions of the greenhouse gas methane by around 30 percent

Enhanced climate commitment

Bayer has raised its climate protection targets. Between 2005 and 2020, it wants to cut specific greenhouse gas emissions throughout the Group by 35 percent. The Bayer MaterialScience subgroup is playing a particularly significant role in this regard with a 40 percent reduction in specific greenhouse gas emissions (previously 25 percent). Bayer CropScience (continuing its 15 percent absolute reduction target) and Bayer HealthCare (10 percent absolute reduction instead of 5 percent) are also making major contributions. The Group has already invested €1 billion in climate-relevant research, development and projects from 2008 to 2010. Various lighthouse projects have been set up including the "EcoCommercial Building Program." The interdisciplinary network of building product manufacturers, planners, engineers and service providers develops customized concepts for energy-optimized buildings. In 2010, the network grew to over 30 partners and established itself in the key markets of China and the United States. To increase its own energy efficiency, Bayer plans to implement the "Structured Efficiency System for Energy" (STRUCTese™) at the 60 most energy-intensive production facilities by December 2012. By the end of 2010, this energy management system had already led to cuts in primary energy consumption of 550,000 megawatt hours and the avoidance of 135,000 metric tons of CO₂ emissions.

Objectives of the Sustainability Program "Climate protection"

Lighthouse project "EcoCommercial Building Program"

- Focus on new large-scale commercial and public building projects; alignment to international core and growth markets

Lighthouse project "Energy Efficiency":

- Oxygen depolarized cathode (ODC) technology based on common salt: use of ODC technology at Bayer MaterialScience for industrial-scale chlorine manufacture; operational maturity of technology by 2013; reduction in electricity requirement by up to 30% compared with the membrane process and thereby reduction in indirect CO₂ emissions; first sale of ODC technology to third parties by 2015
- Establish STRUCTese™ energy management system to achieve sustainable and systematic reduction of CO₂ emissions in energy-intensive plant

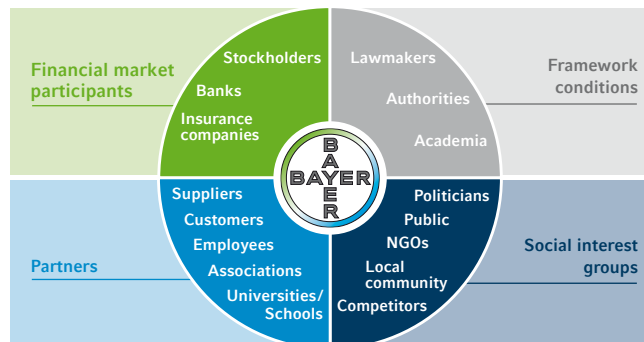
New lighthouse project "Solar Impulse":

- Develop innovative lightweight solutions for mobility concepts with materials from Bayer MaterialScience

Open and transparent communication

We believe that the only way to engender trust and create a better understanding is through discourse with all stakeholders. Only then can we develop a lasting acceptance of our business activities within society. We therefore seek dialogue with all stakeholders – at local, national and international level. Our stakeholders include our partners, financial market participants, social interest groups, lawmakers, authorities and scientists. We discuss various measures and formats with these groups by openly presenting and discussing our respective viewpoints from different perspectives. We are testing a new tool in 2011 – the "Stakeholder Check." This should make it possible to consider the views of stakeholders more effectively in investment decisions.

Overview of our most important stakeholder groups:



The basis for our Sustainable Development Report

Our Sustainable Development Report, in conjunction with the management report section of the Annual Report, describes the economic, ecological and social challenges that are linked to our operations and shows the strategies and solutions that we are applying to meet them. Our reporting meets the requirements established in the internationally recognized G3 guidelines of the Global Reporting Initiative (GRI) and covers all financial and non-financial indicators corresponding to GRI level A+. Our reporting is also based on the content of the 10 principles of the UN Global Compact (UNGC). An independent auditing company has reviewed the data capture process and statements made in the entire Sustainable Development Report to verify that they are consistent, appropriate and plausible.



Our Key Performance Indicators

Bayer gauges its progress with regard to sustainability on the basis of clearly defined objectives. We use performance indicators to openly and transparently show our stakeholders where, by when and how we plan to improve our performance.

More detailed information and explanations of the key performance indicators can be found in our most recent Sustainable Development Report (from page 26) and on our website at www.sustainability2010.bayer.com.

Category	Key Performance Indicator	2009	2010
Economic Indicators (€ million)			
	Sales	31,168	35,088
	Net income	1,359	1,301
	Capital expenditures*	1,669	1,621
	Research and development expenses	2,746	3,053
	Personnel expenses (incl. pension plans)	7,776	8,099
	Pension liability**	15,931	17,699
	Net financial debt	9,691	7,917
	Manufactured sales volume (million metric tons)	8.7	10.4
Employees and Society***			
Employees	Europe	54,600	54,300
	North America	16,600	16,400
	Asia/Pacific	23,000	24,600
	Latin America/Middle East/Africa	16,800	16,100
	Total	111,000	111,400
	of which trainees	2,700	2,600
Diversity and opportunities	Percentage of women in the Group Leadership Circle	5.5	6.5
	Number of nationalities in the Group Leadership Circle	22	21
	Proportion of employees with health insurance (%)	95	94
	Proportion of employees eligible for a company pension plan or company-financed retirement benefits (%)	74	74

Category	Key Performance Indicator	2009	2010
Employees and Society***			
	Proportion of full-time employees with contractually agreed working time not exceeding 48 hours per week (%)	100	100
	Proportion of employees covered by collective agreements on pay and conditions (%)	56	55
Training and development	Expenditure on training and development (as a percentage of personnel costs)	1.9	1.8
Safety	Occupational injuries resulting in days lost (per million hours worked)	2.0	1.7
	Fatal accidents	4	4
Ecological Indicators			
Use of resources	Energy consumption (in petajoules)	77.33	85.71
	Water consumption (million m ³ /year)	407	474
Emissions	Direct greenhouse gas emissions (CO ₂ equivalents in million metric tons)****	4.57	4.80
	Indirect greenhouse gas emissions (CO ₂ equivalents in million metric tons)****	3.53	3.70
	VOC emissions (1,000 metric tons p.a.)	2.59	2.54
	Total phosphorus in wastewater (1,000 metric tons p.a.)	0.74	0.09
	Total organic carbon (TOC) (1,000 metric tons p.a.)	1.35	1.42
Waste	Total nitrogen in wastewater (1,000 metric tons p.a.)	0.64	0.49
	Hazardous waste generated (million metric tons p.a.)	0.38	0.35
	Hazardous waste landfilled (million metric tons p.a.)	0.09	0.06
Environmental incidents and transport accidents	Environmental incidents	13	7
	Transport accidents	10	8

* As per segment table of the Annual Report 2010

** Present value of defined-benefit obligations for pensions and other post-employment benefits

*** Stated in full-time equivalents

**** Portfolio-adjusted in accordance with the Greenhouse Gas Protocol

The Bayer Group

Bayer AG defines common values, goals and strategies for the entire Group. Under the leadership of the management holding company, we focus our activities in three subgroups that are active in all key global growth markets.

Bayer HealthCare is among the world's foremost innovators in the field of pharmaceutical and medical products. The subgroup's mission is to research, develop, manufacture and market innovative products that improve the health of humans and animals throughout the world.

Bayer CropScience, with its highly effective products, pioneering innovations and keen customer focus, holds global leadership positions in crop protection and non-agricultural pest control. The company also has major activities in seeds and plant traits.

Bayer MaterialScience is a renowned supplier of high-tech polymers and develops innovative solutions for a broad range of applications relevant to everyday life. Products holding leading positions on the world market account for a large proportion of its sales.

The subgroups are supported by our service companies.

Bayer Business Services is the Bayer Group's global competence center for IT and business services. Its portfolio is focused on services in the core areas of IT infrastructure and applications, procurement and logistics, human resources and management services, and finance and accounting.

Bayer Technology Services, the global technological backbone and a major innovation driver of the Bayer Group, is engaged in process development and in process and plant engineering, construction and optimization. This service company offers fully integrated solutions throughout the life cycles of processes and products.

Currenta offers services for the chemical industry including utility supply, waste management, infrastructure, safety, security, analytics and vocational training.

Further information

Reports

Bayer Sustainable Development Report 2010
Bayer Annual Report 2010

Bayer on the Internet

www.sustainability2010.bayer.com
www.annualreport2010.bayer.com
www.bayer.com

Publisher

Bayer AG
Communications
51368 Leverkusen
Germany

Editor

Bayer AG

Corporate Communications
Dr. Katrin Schneider
Phone +49 (0) 214 30-48825
Fax +49 (0) 214 30-71985
katrin.schneider@bayer.com

Environment & Sustainability
Dagmar Jost
Phone +49 (0) 214 30-75284
Fax +49 (0) 214 30-53407
dagmar.jost@bayer.com

Date of publication

December 2011

