SUSTAINABLE DEVELOPMENT REPORT 2010

ONLINE REPORT

In-depth information to supplement the printed report



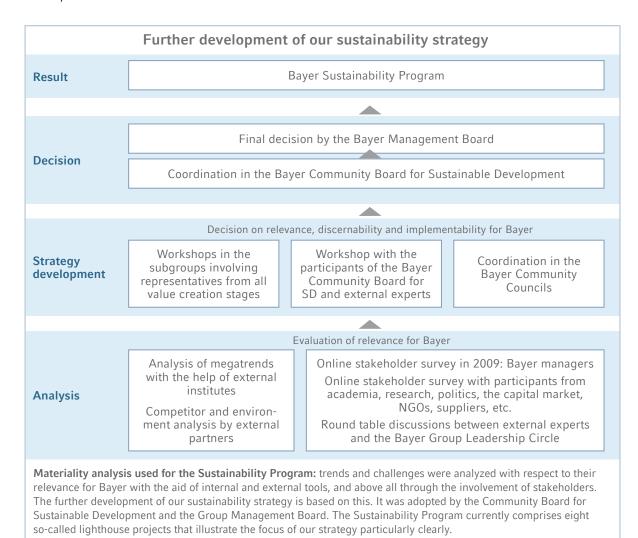
4 LIFE: Our values

Bayer's corporate culture is an important factor in the company's success. Central to our culture are our values: Leadership, Integrity, Flexibility and Efficiency – or LIFE for short. These provide us with guidance for our daily work as we seek solutions to the major challenges of our time, in line with our mission "Bayer: Science For A Better Life."

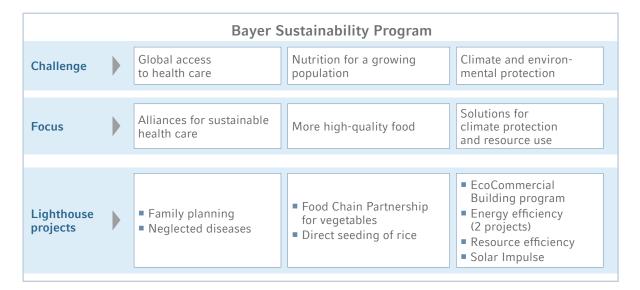
- L Be passionate for people and performance
 - Show personal drive, inspire and motivate others
 - Be accountable for actions and results, successes and failures
 - Treat others fairly and with respect
 - Give clear, candid and timely feedback
 - Manage conflicts constructively
 - Create value for all our stakeholders
- I Be a role model
 - Comply with laws, regulations and good business practices
 - Trust others and build trustful relationships
 - Be honest and reliable
 - Listen attentively and communicate appropriately
 - Ensure sustainability: balance short-term results with long-term requirements
 - Care about people, safety and the environment
- F Drive change actively
 - Be ready to adapt to future trends and needs
 - Challenge the status quo
 - Think and act with customers in mind
 - Seek out opportunities and take calculated risks
 - Be open-minded
 - Embrace lifelong learning
- **E** Manage resources smartly
 - Focus on activities that create value
 - Do things simply and effectively
 - Deliver with appropriate costs, speed and quality
 - Speed up good decision-making
 - Be accountable for consistent execution
 - Collaborate for better solutions

Further development of our sustainability strategy: development of our current Sustainability Program

The further development of Bayer's sustainability strategy is based on trends and challenges that we determine with the help of our stakeholders.



The core of our Sustainability Program finds particular expression in our lighthouse projects, of which there are currently nine. These projects address the current global challenges of health care, global nutrition and climate and environmental protection.



10 Stakeholder dialogue

In our mission "Science For A Better Life," the term "Science" represents Bayer as an inventor company and our clear commitment to research and innovation. Our values and leadership principles - summarized under the acronym "LIFE" – describe our conduct toward our stakeholders.

As an internationally operating company, we know that social acceptance of business activities cannot be achieved without communication with stakeholders in transparent and open dialogue. Sustainability and mutual acceptance can only be attained in tandem.

That's why we specifically seek dialogue at the local, national and international levels with representatives from politics, industry and society. Our conversation partners are our stakeholders - employees, customers, suppliers and investors. Of equal importance to Bayer are public interests - those of our direct neighbors at our sites and of nongovernmental organizations (NGOs), politicians and the general public. Last but not least, Bayer operates within a scope of activity that is heavily influenced by scientific institutions and public administration bodies, as well as by legislation.

We see dialogue with our various stakeholders as the basis for building mutual understanding and trust, and as an opportunity to openly communicate to each other points of view and courses of action. It helps us to identify challenges and view them from various perspectives. We want cooperative dialogue to create value for all partners. We take the suggestions of our stakeholders seriously, as they provide important impetus for our company. They help us to avoid risks, as well as to recognize at an early stage both trends and markets - and thus also to define focus areas for our activities. Our systematic dialogue therefore makes an important contribution to both innovation and risk management. This results in workable solutions that account for a broad spectrum of interests.

Our stakeholder activities range from local projects through participation in committees and specialist workshops to comprehensive information programs and collaboration in international initiatives. Below is an overview containing examples of our activities with various stakeholders as regards a number of issues in 2010.

Employees

We rely on our employees, whose know-how and commitment safeguard our business success around the world. To sustain this performance, the Bayer Group needs a modern personnel management organization with competitive structures and processes. This includes regularly providing up-to-date information to our workforce, as well as actively engaging in targeted dialogue.

Active employee dialogue at all levels

- Ask the CEO (employees address questions to the Chairman via e-mail, see page 36 of the report and link 78)
- "Bayer Talk" with the Management Board Chairman
- Town hall meetings
- Round table discussions
- "Live Talk" (opportunity to ask questions online during a live employee information assembly)
- Regular Global Leadership Conferences in workshop form
- Employee surveys

Forums for the exchange of information about changes in the company

- Briefing for managerial employees
- Employee assemblies
- 19th Bayer European Forum: discussion between approximately 50 Bayer employee representatives from 24 European countries and the Bayer Group Management Board

Discussions on performance, motivation and development perspectives

- Yearly performance talks
- 360° feedback surveys

Subject-specific dialogues

- Expert Club Meeting exchange of experiences on the issue of innovation between 44 Bayer scientists and the Management Board member responsible for Innovation, Technology & Environment
- Process and Plant Safety Symposium with 100 Bayer experts from around the world and international experts
- Global Bayer MaterialScience Safety Day in December 2010
- Continuing education seminars for our employees in the areas of compliance, human rights, sustainability in procurement, and diversity

Publications for employees

- Bayer Group publications: print and online
- Print and online media by the subgroups and service companies for their employees

Investors/Analysts

Intensive dialogue with the capital market is a high priority for Bayer. In 2010, our Investor Relations team visited 26 financial centers - mostly accompanied by the Chairman of the Board of Management or the Chief Financial Officer - and held more than 400 one-on-one meetings.

In addition to our regular quarterly, half-yearly and annual reporting, we update stockholders on the development status of products, for example through conference calls.

Our annual "Meet Management" event, which was held for the fifth time in 2010, is now an established part of our Investor Relations program for the capital market. This platform gives investors and analysts the opportunity for detailed discussions on the company's development and future prospects at smaller meetings with members of the Group and subgroup management boards.

During the year we also explained Bayer's commitment to sustainability at numerous one-on-one meetings with investors and analysts. Bayer actively participates in panel discussions and events on the subject of sustainable investment, including with the "Sustainable Investing" working group of the World Economic Forum. We are also involved in the dialogue regarding the draft German Sustainability Code submitted by the German Sustainable Development Council.



Customers

In 2010, Bayer summarized its values under the acronym LIFE, which stands for Leadership, Integrity, Flexibility and Efficiency. Our claim to leadership in this area drives us to create value for our stockholders, customers, employees and society. Above all, flexibility means thinking and acting in a customer-oriented manner.

Our conduct towards customers is characterized by a sense of responsibility. The long-term success of our company will not only be dependent on the provision of innovative products, but also on cooperation based on partnership and a high level of satisfaction among our customers. Products that meet customer requirements and also bring benefit to society are in our view the key to sustainability. Due to our highly diversified business activities, our resulting widely varying product range and the associated differentiated customer structure, all three Bayer subgroups have put in place both specific systems for measuring customer satisfaction and suitable complaints management systems.

- The customer philosophy of Bayer CropScience (BCS) is based on the concept of partnership. Our customers are not just consumers of our products, but also partners with whom we want to enter a long-term, trust-based relationship of mutual benefit. In 2009, BCS introduced a concept for the systematic analysis of customer satisfaction among distributors and farmers. Pilot surveys were conducted in Poland, Austria and the Netherlands, and this program is being expanded to include further countries in Europe, Asia and Central America. In addition to these standardized surveys, we regularly conduct customer surveys on special products or specific topics.
- Customer-focused thinking and action, commitment and responsibility, know-how and close cooperation are the key requirements for satisfying the wishes of Bayer Material Science (BMS) customers and thus ensuring a good partnership. Four global Supply Chain Centers serve as the central link to the customers. At their disposal are Customer Service Centers in the Europe/Middle East/Africa, Latin America, NAFTA and Asia/Pacific regions. Specifically this means that all information streams are pooled, from order acceptance to dispatch planning, delivery and complaint acceptance. The advantage of this system is that customers can access the information they need quickly and reliably from a single source. Through the online information platform BayerONE, customers of BMS can check the status of their orders at any time.
 - Customer satisfaction data are systematically compiled at BMS as well. To ensure optimal quality of service, customers are surveyed, their complaints systematically evaluated in the global complaints management system, and the BMS supplier evaluations carried out by customers analyzed in detail.
 - Customer dialogue involves listening to customers and addressing their needs as regards environmentally friendly product types that can also contain recycled plastics or bio-based substances. We aim to help our customers achieve their sustainability goals.
- The activities of Bayer HealthCare (BHC), with annual research expenditures totaling in the billions, are aimed at enabling patients to receive optimal treatment for their diseases. In addition to product tolerability, therefore, one of BHC's most important goals is to achieve a high level of customer satisfaction.
 - Customer satisfaction is ensured through regular surveys of both physicians and patients. Consumer studies are systematically evaluated. To better understand the needs of our patients, Bayer HealthCare works together with numerous patient groups in the various therapeutic areas.
- We are also concerned to protect patients from the risks to which counterfeit drugs expose them. Counterfeit drugs have become a serious challenge in recent years. The potential dangers of counterfeit products have also increased in countries where the manufacture and commercialization of pharmaceuticals are subject to stringent legal requirements. They can pose a threat to the health of unsuspecting patients or even put lives at risk. Only informed patients can counteract the risks of counterfeit drugs and optimally treat their disease. At the same time, we must protect our good reputation and products against damage from misuse and counterfeit medications.
- BHC is intensifying its educational efforts in this area and has launched the "Beware of Counterfeits" campaign featuring a special website. Bayer also helps to combat pharmaceutical counterfeiting through technical product safety measures, the deployment of internal and external investigators and legal prosecution.

Suppliers

To establish reliable partnerships, Bayer maintains a close dialogue with its suppliers that is designed to increase the transparency of supplier and purchaser relations. We want our suppliers to be able to better understand our requirements - but we, too, want to know more about our suppliers' situation. Our dialogue with our stakeholders as regards quality and sustainability issues also plays an important part in helping us to better address the needs of both our external and internal customers around the world and work together to develop solutions.

- Constructive dialogue with our suppliers to ensure REACH compliance promotes long-term business ties with resulting advantages for our customers' supply security
- Global "supplier days" for more sustainability in purchasing (see Sustainable Development Report on page 32)
- Regular dialogue with suppliers through participation in trade fairs (e.g. for packaging)

Society/Community

The communities near our sites play a key role in our success: we can only be successful if we gain the trust and support of our neighbors. For this reason, we endeavor to be recognized at all of our sites as a reliable partner and attractive employer that meets its social responsibility. This makes both the region and the company more competitive.

- Support for the City of Pittsburgh, United States, in the organization of the U.N. World Environment Day
- Bayer's "Partner in Education" Outreach Program, United States
- Bayer CropScience: active participation in Aggie Days in Calgary, Canada. During the Calgary Stampede, exhibitors from the agricultural industry vividly present the value and impact of agriculture to students and families.
- Science talk at Schloss Morsbroich, Leverkusen, Germany, on the acceptance of innovation and technology; featuring Bayer Management Board member Dr. Richard Pott and representatives of the city, the University of Cologne, and Cologne University of Applied Sciences
- Chempark Visitor Days 2010 in Leverkusen, Dormagen and Krefeld-Uerdingen, Germany, focusing on safety, environment and energy
- Chemistry forum: Chem-Cologne region
- Currenta: information for citizens on the construction of a gas and steam turbine power plant in Leverkusen, Germany
- Discussions with neighbors, public authorities and elected officials on topics such as the CO pipeline
- Bayer supports a survey of Chinese consumers by the Economist Intelligence Unit of the business magazine The Economist to gain new perspectives and findings on Chinese consumer demands and life attitudes.

NGOs/Supranational organizations

Bayer participates in a number of projects, thematic initiatives and specialist conferences at national and international levels to help jointly shape sustainable development. This includes our cooperation with NGOs and supranational organizations.

- Together with the non-governmental organization Vignana Jyothi, Bayer CropScience (BCS) runs the vocational center "Bayer-Ramanaidu Vignana Jyothi School of Agriculture" near Hyderabad, India.
- BCS: intensive cooperation with Naandi Foundation to enable children in India to attend school
- BCS: together with the Fair Labour Association (FLA), Bayer CropScience organized and implemented a workshop in Hyderabad, India. The company presented the Bayer CropScience Child Care Program and its results as a contribution to fighting child labor in the Indian cotton seed industry. More than 60 participants from prominent non-governmental organizations talked about borderline cases in daily practice in the fields.
- BCS: joint project on biodiversity between Bayer CropScience and the "Rhineland Cultural Landscapes Foundation" (see also link 141)
- Bayer HealthCare (BHC): project with the German Foundation for World Population (DSW)
- BHC: series of conferences entitled "International Dialogue for Population and Sustainable Development" jointly organized each year with the International Planned Parenthood Federation (the world's biggest non-governmental organization for reproductive health), the German Foundation for World Population, the German Society for Technical Cooperation, the international continuing education and development organization Inwent, and the development bank KfW Entwicklungsbank, in cooperation with the German Ministry for Economic Cooperation and Development
- BHC: cooperation in the area of reproductive health with the United Nations Population Fund (UNFPA), the nongovernmental organization International Planned Parenthood Federation (IPPF), the United States Agency for International Development (USAID) and other partners
- Dialogue with the "Access to Medicine Foundation" (events, discussions)
- Bayer CEO a member of the Advisory Committee of the World Economic Forum in Davos 2010
- Membership and participation in the UN Global Compact and the initiatives "LEAD," "Caring for Climate" and "CEO Water Mandate," as well as in the UN-SBCI for sustainable building projects
- Cooperation with the United Nations Environment Programme (UNEP)
- Organizational stakeholder in the Global Reporting Initiative (GRI)
- Participation on the Board of Directors and in events of the WEC (World Environment Center)

Associations/Politicians and political organizations

Bayer is an active member of numerous national, European and international associations and their committees, while the Bayer subgroups are additionally active in their respective industry associations. Bayer chairs the Board of Management of the sustainable development forum of German industry (econsense).

We also engage in political advocacy activities. It is essential for political decision-making processes that all stakeholders properly represent their interests so that responsible and balanced solutions can be developed. Responsible corporate management means transparently representing one's own interests. Bayer therefore supports the German initiative for responsible corporate governance.

- Field Day 2010, Belgium: 30 political decision-makers experienced "sustainable agriculture" in practice.
- Economic ethics forum with a panel discussion at Bayer in Berlin: balancing economic growth and responsibility. Participants from industry, politics, academia, churches and media Joining Bayer Management Board member Dr. Richard Pott on the podium were representatives of the Protestant and Catholic academies of Berlin, the Cologne Institute for Economic Research and the German Ministry of Labor and Social Affairs.
- Discussion with the E.U. Commissioner for Industry and Entrepreneurship on research and sustainability issues
- Discussion session of the Federation of German Industries (BDI), led by Bayer AG, on the challenges of commercial property rights in 2010, to mark World Intellectual Property Day
- CEFIC (European Chemical Industry Council) workshop chaired by Bayer and attended by E.U. authorities and political representatives from E.U. Member States on the subject of the combination effects of chemicals
- VCI (German Chemical Industry Association) discussion in Berlin on green industrial policy: keynote address and discussion with the Bayer Labor Director
- Parliamentary evening of Bayer and the DSW (German Foundation for World Population): expert discussion on family planning
- Information booths and discussion sessions at party conventions
- Parliamentary innovation dialogue on the themes of global health care provision and food supply and combating climate change
- Background discussions with politicians on issues such as research, energy and environmental policy in Germany
- Participation in the Steering and Expert Committee of the cooperation project between the VCI (German Chemical Industry Association) and the German Environment Ministry on the topic of human biomonitoring

For more information on our memberships and active involvement in associations, visit the links 143 and 165.

Schools, universities and scientific institutions

Bayer traditionally places great importance on support for education and research because, as a research-based company, we depend heavily on recruiting highly trained scientists and on society's acceptance of technology.

Schoolchildren/Students

- Opening of the fifth Bayer laboratory for schoolchildren Baylab at the Bayer Communication Center in Leverkusen to introduce children to science at an early age
- Constructive dialogue and support for environmentally engaged young people, for example through our cooperation with UNEP. Young Environmental Envoys from 18 countries visited Bayer for a week again in 2010. Subject: environmental protection and sustainability
- Further expansion of our "Making Science Make Sense" education program (United States)
- Participation in the SciTech Festival Pittsburgh (United States): Bayer MaterialScience informed junior high and high school students about developments in the automotive and construction industries, and about how Bayer thus contributes to sustainable solutions.
- Presentations, discussion and tours for student groups from various disciplines and from all over the world on the issue of sustainability at the Bayer Communication Center
- Bayer International Summer Sustainability Camp 2010 in Pittsburgh (USA) for German and American schoolchildren on the theme of "modern water protection"

Universities and scientific institutions

The company's research and development activities are supported by an international network of collaborations with leading universities, public-sector research institutes and partner companies. Bayer's researchers maintain a constant dialogue with scientists from leading universities, as well as with customers and cooperation partners.

- Professorships at universities in the fields of medicine, pharmacy and chemistry
- Strategic collaborations with universities in Cologne, Germany; the NUS, Singapore; Tsinghua University, Beijing, China; and the DKFZ, Heidelberg, Germany)
- Bayer Tongji Intellectual Property Forum, which Bayer organized jointly with Tongji University in Shanghai, China, on the subject of intellectual property protection in cooperation between companies, universities and research institutions. Participants: governmental representatives, E.U. officials, international experts, judges and representatives of academia
- Meeting of the Bayer Foundation for German and International Commercial Law, with 80 experts from science, law, politics, industry and associations on the theme of data protection versus compliance and anticorruption
- Workshop with Otto Bayer Award laureate Professor Detlef Weigel from the Max Planck Institute for Developmental Biology on the theme of innovation and genetic research
- Workshop bringing together Brazilian scientists and experts from Bayer CropScience on the theme of resistance management
- Innovative materials network to intensify contacts between companies, associations and universities in the Rhineland region of Germany

Theme-based dialogue

We work closely with our stakeholders on a number of initiatives. The topics of these initiatives and the perspectives of the various stakeholder groups are extremely diverse by nature. Although sustainability is a global issue, regional priorities and perspectives can vary widely. We constantly strive to view the various challenges in a differentiated manner and take account of context in order to develop solutions on a case-by-case basis that satisfy the framework conditions. For this reason, stakeholder dialogue is an important task for the various functions, organizational units and regions.

Below we present examples of our dialogue in the context of different topics that relate to our business areas.

Family planning

- 8th International Dialogue for Population and Sustainable Development 2010. The German Ministry for Economic Cooperation and Development, the German Society for Technical Cooperation, the KfW Bank, Bayer HealthCare and other organizers assembled an illustrious group of U.N. experts, political representatives and the directors of major aid organizations in Berlin. The goal was to develop a catalogue of recommendations for political decisionmakers worldwide. To this end, the participants intensively exchanged experiences to identify the factors necessary for successful family planning programs. Following the dialogue conference, a catalogue of recommendations was compiled. This catalogue provides decision-makers around the world with arguments about why they should support the establishment of reproductive health as a human right.
- Bayer HealthCare celebrated the 50th anniversary of the invention of the birth control pill in Brussels by holding a discussion about trends and requirements in reproductive health with stakeholders who included European politicians, special-interest groups and other experts.
- Parliamentary evening of the German Foundation for World Population (DSW) and Bayer, dealing with initiatives for family planning and safe sexuality worldwide
- Bayer HealthCare initiated a survey about hormonal contraception in which more than 20,000 women in 18 European countries were interviewed.

Climate protection

- Workshop with the Potsdam Institute for Climate Impact Research (PIK)
- Participation in the United Nations Global Compact initiative "Caring for Climate"
- Participation in the Bonn Dialogues' panel discussion entitled "Environment and Health: The Role of Climate
- Participation and presentation at the International BMBF (German Education and Research Ministry) Forum for Sustainability: "Working Together for a Good Climate - Innovations for International Climate Protection"
- Presentation and participation in the panel discussion at the 4th Annual Climate Change Summit in London, United Kingdom, organized by the Ethical Corporation
- Presentation and participation in the event entitled "Investment Climate for Climate Investment" in New Delhi, India, as part of the "Dialogue with Business about Poverty Reduction and Climate Change" series of the German Society for International Cooperation (GIZ)
- Global Forum for Food and Agriculture at the international Green Week: Bayer Crop Science was among the participants in the discussion focusing on agriculture and climate change, featuring experts from industry, academia and politics.
- Discussion with Chinese journalists in Beijing on Bayer's commitment to climate protection in China
- Bayer is among the founding members of the new European Climate Knowledge and Innovation Community (Climate KIC).
- In the United States, Bayer was invited to join the "Pew Center on Global Climate Change's Business Environmental Leadership Council" (BELC). BELC is a U.S.-based association that looks at the impact of climate change and support for a binding climate policy.

Nanotechnology

- On a global level, Bayer actively and transparently participates in multi-stakeholder dialogues about nanotechnology through associations such as the American Chemical Council and the European Chemical Industry Council
- In Germany, we take part in the national stakeholder dialogue through the "Nano Dialogues" program of the German Environment Ministry.
- Presentations at national and international conferences and workshops
- Furthermore, we foster intensive stakeholder dialogue with committees, associations, industry partners, customers, authorities, universities and the public.
- We actively participate in projects promoted by the German Ministry of Education and Research, such as Nano-GEM and CarboTox for the safety of nanomaterials in general, and – in the context of the "Carbon Nanotubes" innovation alliance (Inno.CNT) - in CarboSafe and CarboLifeCycle to ensure the safety of carbon nanotubes.
- We are intensively collaborating on the national and international standardization of terminology and test procedures for nanomaterials as promoted by the German standardization institute DIN and at the ISO level, as well as on the development of toxicological testing guidelines at the OECD level.

Biotechnology

- Bayer CropScience (BCS): discourse event in Monheim with the Professor and students of moral theology at the Faculty of Catholic Theology of Ruhr University in Bochum, Germany. Subject: ethical questions about genetic
- BCS: participation in the conference "From Gene to Ethics Knowledge and Responsibility in Biosciences" of the Cultural Science Institute in Essen, Germany.

Children's health and environment

Since 2009, Bayer has initiated a stakeholder dialogue on the issue of "children's health and environment." The project focuses on a personal exchange of information with various organizations - from German parliamentary committees through medical industry associations to NGOs from the health care sector. The content of this dialogue comprises healthy nutrition, diseases, and the social circumstances of children. In this connection, the Sustainability Department of Bayer AG performs strategic framework planning and then works with colleagues from the subgroups to define cooperation opportunities.

Bayer sees dialogue as an opportunity to position itself as a credible player in the field of children's health and environment. We achieve this by familiarizing ourselves with the expectations and assessments of our stakeholders, engaging in discussions with experts and sounding out cooperation projects.

Animal studies

- Participation in the EPAA (European Partnership for Alternative Approaches to Animal Testing)
- Dialogue series on the issue of "animal studies" with various stakeholders, from animal welfare associations and authorities to scientists such as Professor Thomas Hartung, Director of the Center for Alternatives to Animal Testing at Johns Hopkins University in Baltimore, Maryland, United States
- Dialogue with and support for the Foundation for the Promotion of Alternate and Complementary Methods to Reduce Animal Testing (SET)

Experts' dialogue on sustainability

The dialogue with international sustainability experts helps us to align our activities toward sustainable development.

- Global Executive Conference dialogue with Jonathan Porritt from the "Forum for the Future" on the issues of population growth, climate change and food scarcity
- Discussion between Professor Hans-Joachim Schellnhuber (Founding Director and Head of the Potsdam Institute for Climate Impact Research – PIK) and members of the Bayer Group Management Board and the Bayer Community Council Politics on the issue of counteracting climate change
- At the W11 dialogue with Group Leadership Circle members: 2010 discussion with Frank Mattern, Head of the German office of McKinsey, and others. Subject: "Sustainable business practices are becoming more important"
- Discussion between Bayer's sustainability experts and Geoff Lye (SustainAbility) on the issue of corporate economic responsibility

Development of the Stakeholder Engagement Process

In 2010, we worked with Leipzig Commercial College (HHL) on a joint project to integrate existing approaches for stakeholder dialogue into a standardized structure. The Bayer Stakeholder Engagement Process is described in a manual. This process helps us to identify stakeholders, address their expectations and steer our dialogue with them both uniformly and on a Group-wide basis. The results of the project are integrated into our existing stakeholder dialogue and help to systemize new projects. With this clear process, sustainability activities are developed and supported by a partnership-based dialogue.

The eight steps of the Stakeholder Engagement Process



The dialogue with our stakeholders and other related activities are, in all subgroups, an important part of our corporate communications.

11 **Development of sustainability at Bayer**

Bayer maintained programs and measures already in the 1970s and 1980s that were focused on responsible conduct as a goal of the company's business policy. This was reflected in our program "Bayer: research for a clean environment," in our commitment to the Responsible Care® initiative and in our agreements to safeguard employment. We published our first Environment and Social Report in 1976 and our first international Environmental Protection Report 16 years later. In 2000, Bayer became a founding member of the United Nations Global Compact.

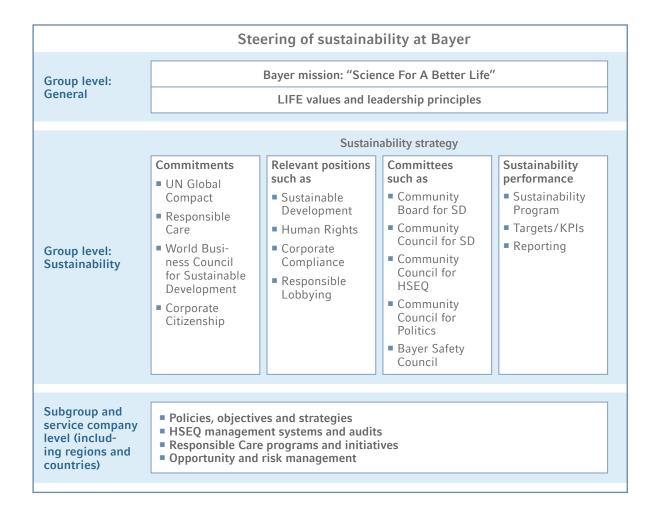
This basic understanding is integral to our company values and principles to this day. This is reflected in our mission "Bayer: Science For A Better Life" and in our LIFE values.

Step-by-step evolution of sustainability in the company

	Strategic steps	Projects and measures
Through 2015	Systematic integration of sustainability in our businesses, functions and regions	 Roll-out and implementation of the Sustainability Targets Program 2015, including new, ambitious climate goals Expansion of Sustainability Program Further development and implementation of the "Access To Medicine" strategy Implementation of the process and plant safety initiative Roll-out and implementation of the new LIFE values concept 2011
2008 – 2010	 2010: Completion of Program of Objectives 2006 – 2010 2010: Directive on the management of compliance incidents 2010: Procedure on the compilation of and reporting on greenhouse gas emissions 2009: Directives on process and plant safety, occupational safety and occupational health 2009: Code of Conduct for Responsible Lobbying 2008: Corporate Compliance Policy 2008: Expansion of the strategy for sustainability in procurement 	 Support of the UN Global Compact initiative LEAD 2010: Pilot projects for the Resource Efficiency Check 2010: Introduction of the STRUCTese™ energy efficiency management system 2009: Launch of the worldwide implementation of the Bayer Supplier Code of Conduct 2009: Implementation of the Climate Check; completion 2010 2008: Support for the CEO Water Mandate and "Caring for Climate" initiatives of the UN Global Compact 2008: REACH implementation 2008: First presentation of the Bayer Climate Award
2006 – 2007	2007: Launch of the Bayer Climate Program2006: Sustainable Development Policy2006: Signing of the Responsible Care Global Charter	 2007: Bayer Group positions on the themes of human rights, biomonitoring, the responsible use of gene technology and nanotechnology 2007: Bayer Code of Good Practice on Nanomaterials 2006: "Triple-i" innovation initiative
2003 – 2005	 2005: Directive on Health, Safety, Environment and Quality (HSEQ) Audits 2004: Formulation of a mission statement, values and leadership principles for the Bayer Group 2003: Strategy for sustainable agriculture 	 2005: Launch of systematic initiatives to reduce child labor in India 2004: Sustainability committees anchored in the Bayer Group organization 2004: Organizational stakeholder in the Global Reporting Initiative (GRI) 2003: Definition of key performance indicators for health, safety and environmental protection (HSE)
Before 2002	 2001: Guidelines for Responsible Care in Environmental Protection, Health Protection and Safety 2000: Bayer is a founding member of the UN Global Compact 1986: Policy guidelines for environmental protection and safety 	 2000: Registration of all production sites in the Bayer Site Information System BaySIS™ introduced in 1999 to determine HSE key performance indicators 1998: Policy guidelines for the responsible use of genetic engineering 1995: Launch of the Agrovida program to improve the living and working conditions of rural laborers in Brazil 1987: Launch of a DM3 billion program to improve environmental protection 1976: Publication of the first Bayer Environmental Report

17 Integration of sustainability at Bayer

We include sustainability steering at all levels and in all functions of the Bayer Group.



Training and research partnerships in China

Our commitment goes beyond improving drug supplies. In line with the declared objective of China's Ministry of Health to additionally boost medical care in the less developed western part of the country by improving the qualifications of medical staff, our "Go West" project aims to provide physicians from the rural regions of this part of the People's Republic of China with further training. In cooperation with the Chinese government and local universities, Bayer is organizing continuing education for local physicians to improve diagnosis, treatment and advice for patients. Between 2007 and 2012, some 10,000 physicians from 330 rural districts are to complete three-month training courses in the fields of internal medicine, general surgery, gynecology and obstetrics, laboratory diagnostics and radiology. During the same period, around 600 hospitals are being linked to the leading hospital or clinic in their respective regions. Bayer is making available a total of approximately €2.3 million for "Go West" over this five-year period.

Bayer HealthCare has entered into a research partnership with The People's Liberation Army General Hospital (301 Hospital). The joint research programs will focus on gynecological disorders, given both sides' exceptional expertise in gynecology. The cooperation agreement provides for the development of a long-term research partnership to benefit women in China and other countries.

The 301 Hospital is one of the largest general hospitals in China. Its specialists enjoy an excellent reputation in gynecological and obstetric research and in the treatment of related disorders.

"Bayer Fights Chagas" - an employee project

One focus of our commitment to better medical care for neglected diseases is Chagas disease. This dangerous infection is widespread in many countries of Central and South America. In our efforts to combat Chagas disease, we are cooperating closely with the World Health Organization (WHO). In addition, our new "Bayer Fights Chagas" project aims to find innovative approaches to tackling this tropical disease. The initiative, which is starting with a pilot project in Argentina, was launched jointly by Bayer HealthCare and the Bayer Cares Foundation. "Bayer Fights Chagas" has a deliberate policy of deploying talented young individuals from various parts of the company and employees from the pilot country who volunteer their services. This is the first time that an international team drawn from the various subgroups has sought answers to the question of how Bayer, as a global company, can make a meaningful and lasting contribution to combating Chagas disease.

26 Partnership to control malaria-transmitting mosquitoes (IVCC)

Bayer CropScience is actively involved in tackling one of the deadliest tropical diseases - malaria. In 2009, 225 million people were infected with this disease. According to a recent WHO report, around 781,000 people died from malaria transmitted by Anopheles mosquitoes in 2009, including a large number of children under five.

As the official cooperation partner of the Innovative Vector Control Consortium (IVCC) in Liverpool, United Kingdom, Bayer CropScience is therefore working on finding new active ingredients that are effective against Anopheles mosquitoes and other disease-transmitting insects (vectors). In tandem with partners such as Bayer CropScience, the international IVCC consortium aims to find approaches to the development of new products, strategies and tools for improved vector control. A number of highly promising chemical classes that are currently being optimized have already been identified in the joint project.

27 Molecules block odors (SentiSearch)

In a new partnership with SentiSearch and leading U.S. universities, Bayer CropScience is looking for a further approach for effectively controlling tropical diseases such as malaria and dengue fever. As part of a two-year collaboration, the partners are looking to identify new molecules that affect insects' odor receptors. The objective is to block mosquitoes' ability to smell human odors, thereby preventing insect attacks and the transfer of malaria. As part of this collaboration, Bayer CropScience is contributing its extensive substance library, screening options and experience in chemical synthesis and insecticide development.

29 LifeNet[™] – a mosquito net with built-in insecticide

Bayer has developed an innovative, long-lasting, tear-resistant and flexible polypropylene mosquito net. The collaboration between Bayer CropScience and Bayer Technology Services has enabled the active ingredient to be integrated directly into the polypropylene fiber. To do this, a process was developed in which the insecticide is incorporated into the molten polypropylene until a complete and homogeneous mixture is created. This mixture is then pulled into strands that solidify and are later broken up into granules. After further melting of the granules, these are processed into wafer-thin but extremely tear-resistant threads. This complex process enables nets to be produced that are even longer lasting and more effective and offer improved user-friendliness. At the end of April, the World Health Organization (WHO) issued a provisional recommendation for the new LifeNetTM mosquito nets for the prevention and control of malaria. This is a key step toward global commercialization, which is planned for some time in 2011.

Green World Project

The Green World Project has been supporting small-scale farmers in Kenya since 2006. Together with the German Society for International Cooperation (GIZ), the private association Fresh Produce Exporters and the microfunder Equity Bank, Bayer is helping overcome the challenges facing small-scale farmers. Bayer CropScience offers tailormade solutions to problems for Kenya - without focusing primarily on sales figures. The Group has already charted several successes in recent years. The Green World Project has made small-scale farmers more aware of good agricultural practice. Farmers have been able to lower their production costs and improve the quality of food. Fruit and vegetables are therefore more attractive for exporting.

Cultivation of the Rocha pear in Portugal

The Rocha pear is Portugal's most important export fruit. High quality and reliable deliveries are particularly important to the main export country for this product, the United Kingdom. Producers and exporters therefore face the double challenge of meeting the expectations of importers while fulfilling complex framework conditions and standards, such as the Integrated Crop Management and Integrated Pest Management requirements.

An integral part of these tailor-made solutions is the optimized use of crop protection agents and a new strategy to combat mold (PSYLA) using the active ingredient spirotetramat. With the tried-and-tested Phytobac system, a biological "bed" allows farmers to clean crop protection spraying equipment using environmentally friendly processes. Using Bayer CropScience products, this Food Chain Partnership in Portugal combines the technical expertise of the Frutus cultivation association, its Triportugal trading companies and the British fruit importer Chingford Fruit Ltd. and thus succeeds in meeting the various expectations of all partners.

The first successes have already been realized. This Food Chain Partnership has achieved its most important goal - to produce high-quality Rocha pears. We were also able to optimize the crop protection strategy so that less insecticide needs to be used. A total of 20 analyses - before, during and three months after harvesting - showed that residue is below average. The project also established the basis for the Phytobac liquid waste management system.

Vegetable projects in Guatemala

In Guatemala, Bayer CropScience supports with one of its Food Chain Partnerships around 2,200 small-scale farmers in producing high-quality vegetables for export to Europe. Through the company's collaboration with SIESA, one of the country's leading vegetable exporters, and Flamingo Holdings Ltd, a supplier for European food retailers, the first successes in terms of implementing good agricultural practice in vegetable cultivation and vegetable quality have been achieved. More information can be found in our special brochure.

Potatoes are traditionally cultivated by small-scale farmers in Guatemala. Disease and a lack of technology have caused yields in this region to fall steadily. The crop protection agents used by farmers in this region are often homemade and not only harm the farmers themselves but also the safety of the harvested produce. As part of a project under the AgroVida programs, Bayer CropScience Guatemala has introduced crop protection agents in the San Juan Ostuncalco, Concepción Chiquirichapa and Palestina de los Altos region that have led to an increase in both yields and quality. The long-term objective is to make a contribution to improving poverty indicators - nutrition, appropriate accommodation and children's education. So far, 300 small-scale farmers have benefited from this project. Income per hectare has already increased by US\$7,100. The long-term goal is to expand the Food Chain Partnership to some 3,000 farmers and their families.

Saving energy through improved cooling systems: insulating materials for refrigerators

Innovative insulating materials play a key role worldwide in insulating cooling systems, among other applications. Too many foodstuffs still perish on the way to the consumer. New rigid polyurethane foams help insulate refrigerators more effectively and make them more climate-friendly. Palfridge in Swaziland supplies devices with particularly efficient insulation made of rigid foam based on products from Bayer MaterialScience. In this country in southern Africa, one of the world's poorest nations, food goes off extremely quickly, as electricity is not widely available.

43 **Innovation City Ruhr**

As part of the "EcoCommercial Building" lighthouse project, Bayer MaterialScience brings together selected service providers and producers in the field of planning, renovating and constructing energy-efficient and cost-effective industrial and office buildings. This unique network also supports the planned climate-friendly city of the future in Germany's Ruhr region. The aim of the large-scale "Innovation City Ruhr" project is to redesign an entire district of the city of Bottrop and transform it into a low-energy city. The sustainable renovation of this district is intended to serve as a showpiece example of climate protection and energy efficiency. Bayer Material Science is providing technology, materials and expertise from the EcoCommercial Building Program. http://www.innovationcityruhr.de/

Bayer is also underlining its international commitment as a member of the Sustainable Buildings and Climate Initiative (SBCI), an environment program initiated by the United Nations. Bayer MaterialScience supports the SBCI proposals for an internationally standardized method of measuring the climate footprint of buildings. The company has assumed responsibility for organizing the SBCI annual conference in Leverkusen in May 2011, where the focus will be on the design of sustainable buildings and housing in all its facets.

Bayer MaterialScience becomes official research partner for "Solar Impulse"

Bayer MaterialScience has been an official partner of the "Solar Impulse" project since March 2010. Its founders Bertrand Piccard and André Borschberg from Switzerland are developing the first manned aircraft able to fly day and night without fuel which is set to circumnavigate the world in the near future powered entirely by solar energy. State-of-the-art technology helps ensure this first-generation aircraft with a wingspan of over 60 meters weighs no more than a midsize car. Some 12,000 solar cells cover its surface to run four electric motors. Solar energy for use during the night is stored in lithium polymer batteries weighing a total of 400 kilograms.

Bayer Material Science is supporting the Solar Impulse initiative with technical expertise, high-tech polymer materials and energy-saving lightweight products. Its Baytubes™ carbon nanotubes, for example, could improve battery performance and increase the strength of structural components while keeping their weight to a minimum. Other potential applications include innovative adhesives, polyurethane rigid foams for paneling in the cockpit and engines, and extremely thin yet break-resistant polycarbonate films and sheets for the cockpit glazing.

Thermoplastic films of the future

Bayer is developing cost-effective and energy-efficient solutions for a wide range of applications for photovoltaics. Thermoplastic films, for example, could enable the production of wafer-thin and flexible organic solar cells that remove the need for a power pack and socket for laptops. Another example of polycarbonate's material properties can be found in Bremen's Weserstadion stadium. Here, solar cells are embedded between transparent Makrolon™ polycarbonate sheets to ensure break resistance and flexibility on the 3,000-square-meter stadium roof, turning the soccer arena into a solar power plant.

Supporting initiatives

Supporting initiatives for greater energy efficiency

With its supporting initiatives, Bayer is looking to make its day-to-day business operations more energy-efficient and climate-friendly. The company is endeavoring to cut emissions on the road throughout the Group, including in its own fleet of vehicles. The aim is to cut CO2 emissions caused by the company car fleet by 20 percent by 2012 compared with 2007 as part of the "EcoFleet" program. At the end of 2010, this figure was already 15 percent for newly registered vehicles. In a further key step, Bayer has taken into operation the first natural gas filling station at its premises in Leverkusen and will switch around 400 vehicles to the greener fuel by 2015. Electric vehicles are currently being tested in small volumes in a pilot project at the Berlin and Leverkusen sites.

In a further supporting initiative, Bayer is aiming to cut employee travel by increasing the provision of cutting-edge telepresence and video conference technology. The telepresence and video conference-compatible network could be increased to 152 units by the end of 2010, including six telepresence facilities. Bayer will continue to expand the video communications network and test and introduce further desktop solutions such as high-quality video transmission as part of the Bayer Personalized Workplace Program in the next few years.

The "Green IT" initiative from Bayer Business Services also centers on potential in-house energy savings. A 20 percent increase in energy efficiency between 2009 and 2012 is also a target at the three data centers in Leverkusen, Pittsburgh and Singapore. A 13 percent rise had already been achieved by the end of 2010. Added to this are supplementary measures to lower paper consumption at the company, for instance.

Commitment at many levels

Numerous other initiatives are also supported by the commitment shown by employees, such as at Bayer Health-Care. As one of 13 leading companies, the company pledged to cut CO₂ emissions at its Berlin site as part of the Berlin Climate Alliance founded in 2008. This brought together numerous green business measures as part of an energy-saving forum. Employees also made an enthusiastic contribution to the "Ideas Full of Energy – Energy Full of Ideas" competition. Examples of successful, locally implemented employee suggestions leading to cuts in CO₂ emissions include LED lighting for buildings, shutdown times and optimized energy distribution.

The Bayer Science & Education Foundation honors pioneering interdisciplinary research every two years with the Bayer Climate Award. 2011 will see the crowning of a new winner whose work lays down key basic principles in the field of climate sciences.

Bayer also provides support in achieving climate targets and performing associated research with an endowed chair in sustainability at Tongji University in China, where the activities organized include climate research events and the staging of regional environmental and climate projects as part of the partnership with the United Nations Environment Programme (UNEP).

In Australia, Bayer works in partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in supporting the next generation as part of the "CarbonKids" program. In courses suitable for their age level, schoolchildren find out more about the principles of climate change and the latest research findings and learn how they themselves can play an active role. The program can be implemented at all schools throughout Australia. Bayer has been working successfully with the Australian authorities for over 15 years and has been the main sponsor of "CarbonKids" since November 2010.

Collaborations – Dream Production and CO₂RRECT

The "Dream Production" project opens up virtually dreamlike opportunities for dealing with climate-unfriendly carbon dioxide emissions. The impressive idea behind this project involves binding CO₂ chemically and integrating it into materials - a "dream reaction." Researchers from Bayer MaterialScience and Bayer Technology Services are working on the technical implementation with RWE and RWTH Aachen University as an academic partner. The key technology for this is catalysis. A pilot plant has been taken on stream at the Chempark Leverkusen site to trial the new process on a technical scale. The plant produces a chemical precursor into which CO2 is incorporated. This substance is then processed into polyurethanes that are used in many everyday items. As a result, CO_2 – a waste gas and key contributor to climate change - can now be recycled and used as a raw material and substitute for petroleum. With a budget of over €6.6 million, Bayer is responsible for the lion's share of the project's €8.9 million cost and is supported by a 50 percent contribution from the German Federal Ministry of Education and Research (BMBF).

How can renewable energies be used to harness carbon dioxide? This is a question being pursued by teams of researchers in the CO₂RRECT – short for CO₂ Reaction using Regenerative Energies and Catalytic Technologies – joint project. The background to this is that generating electricity using the sun and wind power is subject to fluctuations due to natural conditions. Occasionally, excess energy is produced, which up to now has only been used to a limited extent. The main aim of CO₂RRECT is to harness this excess energy for conversion processes so as to use the climate gas CO₂ as a raw material for chemical precursors. Some 14 partners from science and industry are involved in the project, including RWE and Siemens. With its investment of around €4 million, Bayer is contributing the largest industry share to the project, which has an estimated price tag of €18.5 million. The project is also receiving state funding of around €11 million.



50 LIFE: Our values (see also link 4, page 1)

77 Risk management in Bayer's subgroups

All subgroups continued to implement their risk management processes in 2010.

Bayer HealthCare

In 2009, Bayer HealthCare issued an Enterprise Risk Management Directive, which defines the risk management process for all production areas. The company has introduced a uniform global procedure to ensure timely identification and foresighted management of risks. The aim is to minimize the impact of potential risks on the supply of our products to patients and to limit the possible negative implications for the company.

Potential risks are identified and evaluated, and action taken where necessary, using a uniform method at all of Bayer HealthCare's production sites. In addition to production-related risks, the procedure takes account of procurement and health, safety, environmental protection and quality (HSEQ) risks and those caused by natural disasters. Application of this uniform global method allows transparent and comparable presentation of risks, thereby greatly improving the basis for deciding on possible counteractive measures.

Bayer HealthCare is also aware of its responsibility to patients in the event of global crises. In particular, that includes being prepared for pandemics. Bayer HealthCare has therefore defined specific global and local contingency plans. Both production and other areas of the company have their own risk management systems.

Bayer CropScience

Bayer CropScience takes an all-round approach to risk management, which it regards as an integral part of its organizational structure and planning processes. Ultimately, every employee is responsible for evaluating and dealing with risks. The company defines four key areas for risk management. First, we focus on external compliance, in other words ensuring we comply with the applicable laws, respect effective patent rights and do not cause any hazards in the area of HSEQ. Second, we endeavor to minimize operational and strategic risks by continually monitoring our strategy. Third, we take account of risks resulting from events or developments (event risks) both inside and outside the company that could jeopardize a steady increase in the value of the company. The fourth area of risk management at Bayer CropScience focuses on internal compliance, which is monitored with the aid of internal audits. In addition, an Incident Command System is generally used to minimize our financial risks.

Bayer MaterialScience

Bayer MaterialScience divides risks into four categories: process and organizational risks, event risks, planning and market risks, and legal risks. In the first category, an internal control system has been introduced. To manage event risks, Bayer MaterialScience has developed a system to ensure timely identification of risks in keeping with the German Stock Corporation Act (AktG). Risk management is the responsibility of an Overall Risk Coordinator, supported by a number of Functional Risk Coordinators and appropriate experts. Their task is to identify and evaluate risks and document them where appropriate in BayRisk, Bayer's Group-wide database. Planning and market risks are addressed centrally by the Bayer Group. The key tools used for this are strategy and portfolio management and Group planning and auditing conferences. Bayer MaterialScience minimizes legal risks principally through systematic implementation of its Corporate Governance Policy.

Focus of political lobbying activities at Bayer

In order to foster consensus-based dialogue, Bayer closely coordinates its activities on key political issues with national and international industry associations. We also maintain close contact with other stakeholder groups in our society, for example in the environmental and health fields. Good collaboration with local initiatives and organizations in the vicinity of our sites is important to us.

In 2011, Bayer's political activities focused on the following issues:

1. Acceptance of products and technologies

For Bayer, acceptance of its products and technologies is vital. A reliable long-term basis for planning our highly complex facilities and innovative products is only possible if society recognizes our investments as being both beneficial and sufficiently safe. Consequently, in the political discourse we pay enormous attention to weighing up the risks and benefits transparently and actively seek dialogue with various groups that tend to be skeptical about modern technologies. Our commitment to clarifying issues relating to the use of nanomaterials is an example of open dialogue with scientists, politicians, non-governmental organizations and government representatives.

Risks cannot be clarified solely on the basis of scientific findings. In particularly sensitive areas such as health and the environment we also need to take account of ethical considerations and the concerns of individuals. At the same time, we need to find ways of utilizing inventions productively for society. Green biotechnology is a case in point.

2. Innovation: progress and acknowledgement

Bayer is an inventor company with a long tradition of introducing successful and sustainable innovations. We are highly dependent on valid patents to protect the results of our high investment in research and development. Alongside basic conditions that foster innovation, legislation on the protection of intellectual property enables us to continue to invest in research and realize new developments in the future. We are also committed to providing direct support for research and development so we can play a part in the future growth of the knowledge society.

3. Sustainable health care systems

Sustainable health care systems need to find a balance between patients' needs for innovative health care services, the limited financial resources of health care providers and market-based pricing for medical products. Complex registration and reimbursement procedures can delay or even prevent free access to innovative drugs. Our aim is to help patients obtain safe and innovative medicines as quickly as possible. Fair remuneration of our medicines and research activities is essential in this context.

4. Chemicals management

Safe production and handling of chemical products are particularly important for our company. Modern chemicals management is based on a combination of statutory obligations and voluntary commitments. Examples are REACH and GPS.

GPS, the Global Product Strategy, is a voluntary initiative of the International Council of Chemical Associations (ICCA). It is the chemical industry's contribution to the UN's international chemicals policy and aims to harmonize safety standards in developing, emerging and industrialized nations. The BayCare website shows how Bayer implements the GPS initiative. Our subgroups have special product stewardship programs and Bayer aims to meet its product stewardship obligations through careful analysis of all substances, safety assessments, understandable communication at all stages in the product chain, training programs and global commitment.

The European Commission has proposed that a fitness check be introduced for regulations in order to reduce duplication of regulations and unnecessary bureaucracy. This approach is both sensible and necessary. The statutory framework should be structured cost-efficiently without weakening the aims of protection or calling them into question.



5. Energy policy and climate protection

There are many different aspects of energy policy and climate protection. For industrial companies, the priorities are aspects such as safety, affordable energy prices, uniform conditions in which to do business and open markets. The financial burdens expected from the third E.U. emissions trading period are likely to be critical. Carbon leakage, in other words the relocation of energy-intensive industries to other regions, would be a particularly bad solution from both an economic and an ecological viewpoint.

However, there are also other dimensions to energy policy and climate protection. Reliable energy supply and the long-term shift to renewable energies are challenges for society as a whole. Through new production processes and increased efforts to enhance energy efficiency, the company is continuously improving energy usage and save resources.

Through its Climate Program, Bayer endeavors to market innovative products that reduce greenhouse gas emissions or help limit the impact of climate change. We also support an international agreement on climate policy. In parallel with this, energy policy and climate protection should bring tangible progress in key regions of the world. To achieve that we play an active role in the dialogue with society and politicians.

"Learning for Life" initiative: our training initiatives in figures

We have continued to adjust our collaboration with the Naandi Foundation in India to reflect current developments. In 2010, 535 school students received educational support at 23 Academic Learning Centers. A further 834 children attended 29 Early Childhood Education Centers in 2010. These child care centers enable older children to attend school by freeing them from the obligation to look after younger siblings. As a further incentive, we offered new scholarships for school students in 2010. We no longer operate bridge schools because there has been a sharp decline in child labor.

At present, our "Learning for Life" initiative is focusing on vocational training. In the Indian state of Karnataka, for example, 1,949 trainees regularly attended vocational lessons in the 2009/2010 and 2010/2011 academic years. Through the "Introduction to Basic Technology" project, we have introduced vocational education at, initially, five government schools in collaboration with local non-governmental organizations. Further, the Bayer Ramanaidu Vignana Jyothi School of Agriculture offers young people the opportunity to gain a qualification as farm assistants. Since 2010, twice as many students have been able to start their training at this school: instead of a one-year course, two intensive six-month courses are now offered for a total of 60 students.

70 Further measures in our Child Care Program

At the end of July 2010, we organized a workshop in Hyderabad in collaboration with the Fair Labour Association. In a multi-stakeholder workshop, participants discussed borderline cases of child labor and came up with valuable ideas on how companies can deal with them.

Together with the Richard Ivey School of Business at the University of Western Ontario in Canada, we have compiled a case study on the Bayer CropScience Child Care Program for use in academic courses. The case study shows a company can deal with situations that confront them with a dilemma.

We also presented and discussed the program at national and international conferences such as the German CSR forum ENVICOMM in Stuttgart in April 2010 and the 30th Strategic Management Conference in Rome in September 2010.

A case study of the Bayer CropScience Child Care Program has been published on the CSR WeltWeit website, a corporate social responsibility information portal initiated by the German Foreign Office and the Bertelsmann Foundation.

The Bayer CropScience Child Care Program was highlighted in the German government's ninth human rights report covering the period March 2008 to February 2010 as an example of good practice in the field of corporate social responsibility.

LIFE: Our values (see also link 4, page 1)

77 Awards for Bayer as an employer

The Bayer Group and its subgroups have received many accolades as top employees in various parts of the world. Here is a selection:

- In Canada, Bayer has been named one of North America's 50 Most Engaged Workplaces by "I Love Rewards," a Canadian provider of employee incentive programs. The award was made because Bayer has created an environment where engaged employees truly are the company's greatest assets. Bayer's outstanding initiatives demonstrate its endeavors for its employees. This award is presented annually to leading employers. The criteria used to evaluate the companies are leadership and innovation in dealing with human resources, communication, culture, rewards and recognition, professional and personal growth and corporate social performance.
- Bayer has also been selected by Media Corp in 2011 as one of Canada's top 100 employers for the fourth year in a row and has been included in the list of the best 90 employers in the Toronto region for the fourth consecutive time.
- In Turkey, the Bayer HealthCare subsidiary Intendis has been honored as one of the country's leading employers. In a survey by the international management consultancy Hewitt Associates it garnered second place out of 45 companies – ahead of Microsoft, Cisco Systems and Novartis and a step forward from the previous year's third place.

The survey looked at employees' identification with their employer and their commitment to the company's interests. Hewitt Associates also conducted interviews with human resources departments and members of the senior management to establish whether the significance of employees and their role as a key success factor is recognized in corporate policy and by the management itself.

- Bayer is also one of the most attractive employers in Colombia. In 2010, the company ranked third in a comparative analysis of human resources management undertaken by MERCO. The Group was also ranked as the fifth most popular employer by Colombian business school graduates. The study conducted by the leading Spanish company that examines corporate reputations is the only survey of the Hispanic world that looks at the reputation of companies in Colombia. The survey gathers the opinions of public opinion leaders, other companies and representatives of governments, associations and non-governmental organizations. This year's study included an attractiveness rating for the first time.
- Bayer is a preferred employer in Germany as well, according to a TNS Emnid survey. In a representative survey conducted for the management consultancy and audit company PriceWaterhouseCoopers (PwC), the Bayer Group was ranked as the country's eighth most popular employer, positioning it in the top ten for the first time.

The most important evaluation criterion according to those who took part in the survey is the quality of the company's products and services (98 percent). 95 percent saw good management as a positive factor, while for 92 percent the company's attractiveness as an employer was important. Sustainability and job security scored 87 percent and 84 percent, ranking them among the key criteria.

Bayer is a preferred employer for the younger generation

- Science students regard Bayer as one of the most attractive employers. A Europe-wide survey by market research and consultancy company Universum ranked Bayer third, directly behind Google and Apple. Bayer therefore improved its ranking by five places compared to the previous year. More than 21,000 students from over 100 European universities took part in the survey.
- Bayer's website also earned praise: Bayer is one of the companies that uses its Internet presence most professionally to inform and attract qualified employees. This was the result of a ranking of listed companies' recruitment websites, which was published exclusively in the journal Harvard Business Manager. In Germany, Bayer ranked second after the utility company E.On and ahead of BMW, Deutsche Post and ThyssenKrupp. The authors examined the companies' investor relations and corporate social responsibility sites as well as their careers' portals and summarized the findings in an overall ranking. Bayer was ranked second overall.



 Bayer HealthCare's Bergkamen site received an award for its endeavors to secure qualified staff for the future. The company increased the number of training places offered in 2010 by a third from 34 to 45. For this it received a certificate from the Westphalian Chemical Industry Employers' Federation. By offering vocational training for more young people than it needs for its operations, Bayer HealthCare demonstrates social responsibility and provides an encouraging signal for the regional training market.

78 Ask the CEO

"Ask the CEO" is an ideal supplement to other forms of employee communication. It gives employees a chance to determine which issues they would like to receive more information on - directly from the Chairman of our Board of Management, Dr. Marijn Dekkers. Any employee can post a question in the intranet via the Bayer News Channel. Their colleagues then rank the most relevant issues. The questions with the highest ratings are submitted to Dr. Dekkers. This bottom-up approach is one of the characteristic features of the "Ask the CEO" format.

This new communication format has already proven very successful: in the first four months, the site netted more than 100,000 clicks. Within a short period, more than 200 questions and comments from around the world had been submitted to "Ask the CEO." Dr. Dekkers comments: "I'm very pleased with this response, because it shows our employees place great importance on our company and our strategy. So I would like to thank everyone who has participated so far by asking a question or helping to rank the questions submitted by colleagues."

As an example, here are two of the questions submitted to Dr. Dekkers:

An employee from Bayer Antwerpen NV, Belgium:

Bayer supporting U.S. senators

Mr. Dekkers,

Bayer was mentioned in a Climate Action Network Europe report on how and why European companies funded climate change deniers and anti-climate legislation voices in the 2010 U.S. Senate race. This is an obvious contradiction to the Bayer Climate Program so I'm a bit confused about this. Can you explain how the company got involved?

Answer of Dr. Marijn Dekkers

Dear Colleague,

The accusation that Bayer systematically supported candidates in the U.S. election campaign who seek to block climate protection activities is completely unfounded. This would indeed conflict with our corporate policy. In fact, quite the opposite is true. As an international company with numerous production facilities in Europe, we have a very strong interest in encouraging other regions to adopt the E.U.'s ambitious climate goals – not least because differences between the regions distort competition. Bayer therefore calls for a globally valid – and ambitious - climate agreement.

Bayer was quick to signal its clear commitment to the fight against climate change and sided with people campaigning to protect the earth's climate. Our Group-wide policies also show that we are "walking our talk" on climate protection. The Bayer Climate Program comprises a range of activities that are being systematically implemented.

And to set the record straight, the donations you refer to are not corporate donations by Bayer. In the United States, our employees can support candidates for public office through private donations to the "Bayer Corporation Political Action Committee" (BayPac). These are voluntary donations by employees, not the company itself. The money was distributed by BayPac to candidates who the employees believe will take sensible positions on issues relevant to Bayer, such as health care policy or patent protection. Although, in an ideal world, we would want all politicians to share our views on climate change, it is inevitable that some of those who received donations opposed President Obama's Climate Bill.

An employee from Bayer Inc., Canada:

Developing the people pipeline

Great initiative Dr. Dekkers! Thank you and welcome!

Do you think we develop our leadership pipeline the same great way we develop our products pipeline? In my opinion we have some work do to with attracting and developing younger talent. Germany seems to have some good programs especially with regard to international movement. Global companies like RIM and Deloitte have already put excellent plans in place. Is this an area you plan to focus on for all countries? How? When?

Answer of Dr. Marijn Dekkers

Dear Colleague,

I am indeed passionate about attracting and developing local talent to meet our business needs. Given the existing demographic challenges, we are mindful of the need to ensure a healthy pipeline of people throughout Bayer. The fact that we have in recent years filled more than 80 percent of our open, top group leadership circle positions internally tells me that we're on the right track.

You are correct in recognizing that we have good programs for developing our people in Germany. These include blended action learning and training, coaching, mentoring, 360° feedback as well as project work and challenging assignments both at home and abroad. And we are committed to a standardized and harmonized approach across the Bayer Group internationally to help support every employee to develop to his or her full potential. This will benefit both Bayer and its employees. This approach should be implemented promptly and within the mentioned framework of our Group-wide developing programs.

81 Employee networks contribute to our culture of diversity

Many of Bayer's sites in the United States have employee networking organizations and affinity groups. These are one of several platforms that employees can use to share their experience, build valuable contacts for fostering collaboration and drive forward their personal development. These network groups work to improve our activities within the organization and the communities which we serve. Bayer provides an annual budget of US\$5,000 for each networking group.

Every employee network is tailored to specific interests, but the prime aim is always to reflect the diversity of the workforce. The 15 networking groups that inspire a culture of diversity at Bayer are:

- African American Employee Network (Access) Promotes greater cultural diversity, enhanced awareness and more educational opportunities for African American employees.
- ANGLE-B A network of lesbian, gay, bisexual and transsexual (LGBT) employees. This is the first network of its type in the global Bayer organization.
- Bayer Asian Society in America (BASIA) A network for all Bayer employees who wish to broaden their awareness and understanding of Asian culture and its values.
- Bayer Association for Science in Communities (BASIC) This is a group of volunteers who take part locally in Bayer's Making Science Make Sense™ initiative, which aims to improve scientific education in Pittsburgh and foster scientific knowledge.
- Baytown Employee Recreation Association (BERA) This network is dedicated to promoting and developing recreation activities for Bayer employees in Baytown, Texas.
- Employee Connection Fosters employee appreciation and interaction through voluntary activities that inspire and motivate us to be an employer of choice offering a healthy work-life balance.
- Junior Board Endeavors to improve the quality of working life for employees by identifying and implementing projects that extend beyond the scope of functional groups.
- Kansas City FUN Committee Develops and implements employee initiatives and activities to increase the sense of community and morale of employees in support of the present ongoing cultural changes.

- Pharmacists at Bayer (PhAB) Enhances employees' awareness and understanding of the value and contributions made by pharmacists.
- Professional Moms (ProMoms) A forum where working mothers can learn from one another and provide mutual support.
- Professional Networking Group (Links) The purpose of this network is to connect a new generation of employees with the Bayer community.
- Sandwich Generation Networking Group (SGNG) Seeks to reduce the distress felt by caregivers that is often associated with the searching, selecting and supporting efforts of providing care. This provides a platform to assist both caregivers and care recipients of all ages.
- Toastmasters International Promotes a positive learning environment to help employees improve their communication and leadership skills.
- Women's Advocacy Through Visioning and Education (WAVE) Cultivates a professional environment for women that recognizes and supports their development in accordance with Bayer's values and leadership principles.
- Women's Initiative Networking Group (WINGs) Dedicated to the advancement of women; also supports worklife balance at Bayer's site in Pittsburgh.

Programs for fostering the advancement of female employees at Bayer HealthCare

Bayer HealthCare has a clear goal: it aims to attract and retain the ablest employees through prudent diversity management. The wide range of programs includes SPEED - Significant Progress in Early Executive Development - which was introduced at Bayer HealthCare in Asia in 2008. The purpose is to foster the development of female employees into managers from a very early stage to ensure more diverse structures in this region.

In Japan, a program to reduce fluctuation rates among female pharmacists is starting to bear fruit. Measures to help these young women combine working life with raising a family have been designed to counter the fact that to date 80 percent of them have left the company within six years.

The diversity program has increased the number of female job applicants. Many state that the initiative was a key reason why they applied to Bayer. Further evidence of the success of this program is that when the program was introduced in 2008 only 33 percent of female employees said that they wanted to stay with the company in the medium term. By 2010, the proportion had risen to 57 percent. There was an even more significant improvement in satisfaction with their work-life balance. The satisfaction rate has increased from 12 percent to 68 percent.

The information campaign "The Power of Diversity" introduced by Bayer HealthCare in 2009 has the support of top management. The aim is to collect and publish examples of best practices and active implementation of diversity from all over the world to derive conclusions for the company.

Bayer's commitment to diversity is particularly evident in the United States. One example is the Women in Leadership Initiative (WLI) at Bayer HealthCare in the United States where mentoring programs, lecture series, support in the establishment of networks and assistance in enhancing mobility are designed specifically to increase the proportion of female managers.

86 New perspectives for vocational training

In 2010, the vocational training activities at Currenta were validated as conformant with DIN ISO 9001:2008. At the same time, quality management at the vocational training school run by Currenta was validated for the first time by experts from the Deloitte management consultancy. The exceptionally low proportion of lessons cancelled, satisfied trainees and customer companies and the fact that Currenta trainees repeatedly come top of their year in vocational examinations are visible signs of the quality of the theoretical instruction provided in Leverkusen. Currenta is responsible for most of the theoretical instruction, while trainees receive their practical training at one of Bayer's subgroups.

A growing number of organizational units offer trainees an opportunity to work at a different location for several weeks. Trainee pharmaceutical technicians, animal caretakers and safety & security specialists spend a short period during their training working somewhere else. For example, starting in May 2010 trainees from the Pharmaceutical Technology Department in Berlin have exchanged places with colleagues from the production plant in Weimar for three months. In fall 2010, trainee animal caretakers from Berlin spent two weeks in Wuppertal-Elberfeld. Site Safety & Security even runs a trainee exchange with the German railways.

Bayer HealthCare is increasing its training offering at its site in Bergkamen. Last year, the number of new trainees was increased by a third from 34 to 45. Overall, the company has 108 young people on eight different training courses at this site.

Group-wide continuing education and training

Our ongoing training program comprises a wide range of work-related programs that enable employees to broaden and update their knowledge and abilities or acquire new skills, for example by learning a language or acquiring leadership competencies.

Examples of continuing education offerings

Training categories	Conception and implementation level
Global Leadership Global General Management Training	Global/Groupwide
 Knowledge and skills training in the areas: Introduction to and knowledge of the company Leadership skills Communication and efficient working Business administration and law Marketing, sales and customer orientation Languages and intercultural skills Information technology & SAP Research, production and technology 	Local/National
 Group focuses Corporate compliance Human rights Changes in technology (Personalized Workplace Program) Supplier management/Supplier Code of Conduct 	Global/Group-wide
Subgroup focuses Occupational safety (PEGASUS) Fit in Production (FIP) at BMS	Global/Subgroup-wide
Continuing education offerings for employees outside worktime	Local/National

These individual training offerings are supplemented by special training courses and continuing education programs at the subgroups and service companies. These are geared to company-specific needs.



One example is occupational safety. Last year alone, around 30,000 training sessions, mainly in production, took place across the Group through our online training program PEGASUS. In addition, Bayer has Group-wide programs on issues of relevance to all employees. These include our compulsory training in corporate compliance and human rights training.

Group-wide programs include a range of offerings for employees identified as "talents" and "high potentials." These programs are designed to prepare selected employees at managerial level for their future role.

In order to establish a uniform leadership philosophy for the entire Bayer Group, Competence Training & Development (CT) at Bayer Business Services has developed a management training program for use worldwide. The program is specifically tailored to Bayer's values and is designed to give all managers in the Bayer Group around the world a sustained and uniform understanding of what Bayer understands by leadership. The program is divided into a number of modules such as "Learn to Lead" and "Bayer Leadership Excellence," which gradually prepare managers for their leadership role in the Group. To ensure lasting success, CT uses additional telephone coaching to help managers put the modules into practice. The international rollout started in Europe and North America in 2010 and the program is now being introduced in Asia. A special train-the-trainer program was developed for this purpose in Leverkusen and has been implemented in the regions. In the final step, Latin America will be included in the program.

In 2010, Currenta strengthened its management culture and stepped up dialogue between employees across departments and hierarchical levels through the "Take the lead" program. The aim is to motivate all employees to utilize their competencies profitably and extend their knowledge. The initiative includes the continued use and extension of established tools such as 360° feedback and a Pulse Check questionnaire. For the first time, employees were asked to rate the attractiveness of their employer and for their views on leadership qualities. An extensive seminar program for managers including modules on leadership and personnel development has been developed specifically for Currenta in order to strengthen the leadership competencies of the company's managerial employees and drive forward personnel development.

In 2010, Currenta initiated a collaboration with Hogeschool Zuyd in the Netherlands, offering a university course for employees. The collaboration enables Chempark employees to take a part-time degree course at the university's site in Heerlen, leading to a Bachelor of Applied Science or Bachelor of Engineering.

Knowledge transfer and best practices

Utilizing knowledge in production is the purpose of Bayer MaterialScience's "Fit in Production" program. The principal aim is to ensure that all production employees have a comparable level of qualification and can therefore respond safely and appropriately at all times. This global program standardizes the content of training. Every plant included in this continuing education program goes through a FIT Loop. During this process, production experts, production supervisors and their teams jointly develop best-practice training concepts and case studies that can be used for training in the production plant. They then implement these among their colleagues in the plant. The special feature of the FIP method is that as well as establishing training concepts and drafting detailed practical training overviews, employees gain methodological knowledge.

An integrated continuing education concept for laboratory staff in Medical Chemistry at Bayer HealthCare's Wuppertal site has also proven very effective. The aim is to extend the knowledge of the approximately 190 laboratory staff and utilize it for the benefit of the entire organization. Elements include, for example, a series of in-house seminars for laboratory technicians. Over a three-year period, laboratory managers give participants a deeper understanding of the principles of organic chemistry. In addition, in-house colloquia are organized once a month to help experienced employees broaden their knowledge. Speakers include technical staff and laboratory managers. The concept also includes workshops to address difficult issues.



Activities in India, Hong Kong and the United States

Bayer HealthCare runs a mentoring program in India too. The underlying aim is to bring together talented youngsters and more experienced colleagues. For one year, managers act as mentors for one mentee each from different parts of the company. The first mentoring program for three upcoming managers was completed in 2010.

Bayer CropScience also offers a range of training programs in India. These serve to foster the development of young high potentials and employees over 40. The courses run by the XCEDO Academy mainly target regional managers, field marketing managers and the frontline field force. Similarly, the NEIV management program comprises further training for high potentials. The two-week "Prayaas - Effort" program has four core themes: Share, Care, Teach and Grow. It comprises knowledge transfer workshops and voluntary activities such as fundraising. In addition to its measures in India, Bayer CropScience organized a range of other training and development programs in 2010. These ranged from a Leadership Academy to training in creative and unconventional ways of thinking and the threeyear Passport Program for senior managers.

Bayer Material Science runs a variety of training programs in Hong Kong. Alongside a training initiative and a development program for talented employees, these include graduate trainee and volunteer programs. The volunteer programs give employees an opportunity to undertake voluntary work with young people or senior citizens or to engage in environmental protection.

In the United States, Bayer runs "Sustainability Thinking Education Pilot" (STEP), a three-stage program introduced in December 2010. Interested employees can take a web-based training program to achieve the first level: Sustainability Contributor. This is followed by a two-day workshop with an expert leading to a qualification as a Sustainability Practitioner. The third step is a one-day workshop, leading to the goal of Sustainability Leader. The content of the program includes business value, contextual intelligence, sustainability principles and creative thinking.

In 2010, these measures were complemented by the work of the Competence Training (CT) unit at Bayer Business Services. Many of the projects outlined here, for example, the "Fit in Production" program at Bayer MaterialScience, could not have been realized without input from CT. Thousands of employees undertook a wide variety of web-based training (WBT) modules created by the team at BBS. Examples are the compliance and data protection WBT modules. A health management program to reinforce work-life balance was also introduced in 2010.

Occupational safety: actions and ideas in the subgroups to improve safety

Bayer HealthCare has introduced a global initiative to reduce traffic accidents involving members of the field force. A brochure was distributed to Bayer HealthCare sales organizations around the world with information on how to develop their own accident prevention program. Many regional sales organizations have already implemented the recommendations. For example, in Canada, a special driving safety course is now mandatory for all members of the field force. Ecuador has adopted a holistic approach including hearing and eyesight tests, as well as training personal and technical skills. In Germany, Bayer Vital GmbH is planning to develop an intranet-based safety training module.

Bayer MaterialScience introduced a CEO Safety Award in 2009. This award is presented by Patrick Thomas, Chairman of the Board of Management of Bayer Material Science, and honors exemplary safety measures. This initiative has been very well received and many excellent suggestions were submitted in both 2009 and 2010.

Two examples are the Fleet Safety Program in the United States, which comprises an extensive and proactive range of measures to improve safety while driving, and the Quarterly Safety Walk Program at BaySystems in Japan, which is designed to protect employees at the site. Once a quarter, offices and production facilities are inspected by members of the Safety Council on the basis of a defined checklist. Any necessary action is taken at once.

In addition to the CEO Safety Award, Bayer MaterialScience organizes a global BMS Safety Day in December. On that day the Executive Committee calls on company employees and management worldwide to focus on the topic of "safety" in production plants, laboratories and offices. The latest ideas submitted for the CEO Safety Award are announced at the Safety Day and information about them is made available. That has led to a brochure entitled "Our Responsibility to People, Nature and the Environment." BMS has also developed training materials to improve safety in offices.

Currenta also organizes safety campaigns in its business units. An annual budget of €200,000 is provided for this. Any employee can put forward suggestions. One key focus of attention is the prevention of accidents caused by tripping and falling as these account for about half of injuries leading to lost work days in the company. Last year, an obstacle course was set up to give employees a practical insight into situations that involve a risk of slipping, tripping or falling. Experts from the Employers' Accident Liability Insurance Association led more than 200 employees from the Infrastructure Services Department through the obstacle course in a week-long campaign. In addition, 700 employees attended road safety training sessions organized for all Currenta employees in collaboration with the German automobile club ADAC as part of the program "Working together to increase safety."

Currenta also organized further anti-addiction workshops in 2010 at the Dormagen site. These workshops have been offered to all trainees there since 2006. The aim is to raise the awareness among young men and women of the signs and risks of addiction. Special spectacles are used to simulate a state of inebriation and give them a feel for the impact of alcohol and show how this can affect them when operating machinery. A guideline also provides information on dealing with possible addiction.

90 Examples of health promotion programs at Bayer subgroups

For many years, Bayer HealthCare has had a range of activities to foster employees' health. These are coordinated systematically at many sites because the underlying challenges require a holistic approach. These challenges include demographic change, the rising incidence of mental illness, and the fact that health care provision can be a criterion that skilled employees use to select their employer. Occupational health management bodies have therefore been established at many sites. At the heart of Bayer HealthCare's health promotion programs are human resources management, occupational health and safety management, conventional occupational medicine and health promotion, the reintegration of employees after prolonged periods of illness, preventing addiction and the personal responsibility of employees.

In 2010, Bayer CropScience commissioned a global report on health in the workplace and the measures in place to address this issue. The results show that, except at a few small regional offices, the corporate health care program has been implemented worldwide. Response to of the activities is good, with especially high interest in preventive check-ups and cardiovascular checks. Measures to prevent cancer, infectious diseases and muscular-skeletal disorders have also been well received. The examples and best practices derived from the report will be used to improve the Bayer CropScience health care program in the coming years.

The CEO Safety Award introduced by Bayer Material Science in 2009 also makes a contribution to occupational health management. The suggestions implemented through this initiative include preventive back and muscular training and the Pittsburgh Ergonomics Program in the United States.

The idea for back exercises evolved in cooperation with experts from the TSV Bayer Dormagen sports club. Individual in-house ergonomics training sessions are held to teach employees correct posture and the best way to use their muscles to reduce pressure on the spine. Together with the instructors, specific areas of strain such as lifting drums or driving fork-lift trucks have been targeted. Training videos provide comparisons showing the correct movements.

The Pittsburgh Ergonomics Program, an idea from the United States, is a systematic method of analyzing an employee's workplace on the basis of individual needs and requirements. Employees are actively involved through annual training sessions and workshops and are personally responsible for reporting changes in their health status. Employees, supervisors and ergonomics instructors jointly identify health risks and take action to counter problems before they cause serious damage or address health problems before they become chronic.

Club and Career of Bayer experts

The concept of networking is what is behind the two Group-wide initiatives "Expert Club" and "Expert Career." The Club sees itself as a scientific network of experts that functions primarily as a platform of exchange between our research and development functions. At regular meetings, some 100 leading Bayer scientists not only discuss current research matters, but also create the foundation for interdisciplinary innovations through the open exchange of ideas and best practice examples. Bayer also promotes outstanding achievements in the area of innovation with its "Expert Career" initiative. This initiative was established to acknowledge the contribution of Bayer's leading R&D employees. As with the support provided at the management level, the initiative aims to give our scientists targeted opportunities to advance their careers within the company.

More innovation with Triple-i

"Triple-i" stands for "inspiration, ideas, innovation." The name describes our global employee initiative, through which Bayer brings together innovative minds across national borders and in all subgroups. A software tool enables employees around the world to present innovative business ideas on the intranet or rate and expand upon the ideas of others. Together with experts from the relevant departments, the Triple-i team evaluates the submitted proposals. More than 11,000 new ideas in total have already been submitted through Triple-i. Each year, Bayer launches a subject-specific initiative. By March 2011, the company had already received more than 1,500 suggestions in response to the "Your Heart" campaign established by Bayer HealthCare in August 2010; these proposals have been commented on and rated by more than 4,500 employees. Throughout the Group, marketable products have since been developed out of a total of five ideas. One of these is the "Baytani" rice sowing machine, which today is part of a Bayer lighthouse project for sustainability in Indonesia.

Precautionary principle

The precautionary principle is defined in Article 15 of the Rio Declaration of the United Nations Conference on Environment and Development (1992) and in the communiqué from the European Commission (COM 2000/1). It is applied whenever there is scientific uncertainty in a given area and sufficient evidence also exists that people or the environment could suffer significant or irreversible damage. Bayer supports the application of the precautionary principle according to the stipulations of the European Commission. The resulting measures should be proportionate – i.e. they should: meet the desired level of protection; be applicable without discrimination, in other words comparable circumstances must not be treated in different manners; be consistent with similar measures undertaken previously; and be examined to determine which costs and benefits are associated with the application of the precautionary principle. The measures undertaken are evaluated as soon as new scientific data are available for the particular circumstance.

International commitment to enhanced product safety

We participate in international associations and political initiatives to evolve the scientific assessment of chemicals, research new test methods and develop statutory regulations. In this connection, we are also active in the Long-Range Research Initiative of the International Council of Chemical Associations (ICCA). At the European and international levels, we organize workshops and other events with relevant authorities and other stakeholders. In 2010, for example, we intensively supported the organization of a joint workshop of the ICCA and the Joint Research Center of the European Commission. Bayer scientists are also playing a leading role in preparing the 2011 ICCA Workshop, which is being organized together with Health Canada.

We also endorse the goals of the E.U. and WHO action plans for improving health and the environment, for example with the further development of human biomonitoring. We play a leading role in a cooperation between the German Environment Ministry and the German Chemical Industry Association. Their joint goal is to make previously unmeasurable chemicals in the human body identifiable with analytical methods, apply these methods in suitable investigations and thereby gain new findings about the real impact the respective substances have on the population.

Initiative for sustainable sugarcane production

In 2010, Bayer CropScience joined a global non-profit initiative with the goal of achieving more sustainable sugarcane production in Brazil. The Better Sugarcane Initiative (BSI) aims to set standards in production, making processes more efficient while meeting sustainability criteria and taking into account customer needs. Among BSI's goals are good labor conditions, the ostracism of child labor, and high production yields.

With regard to biofuel certification in Brazil, Bayer CropScience also participates in the International Standard for Carbon Certification (ISCC). Both programs - BSI and ISCC - stand for sustainable sugarcane production. Furthermore, the company for two years now has been a member of the Round Table for Responsible Soy (RTRS), advocating sustainable production in soybeans as well.

These memberships also support future projects. We assist customers in adopting our standards and improving their yields, particularly for exports. Despite advanced negotiations, we have not yet been able to establish projects with fuel or sugar producers.

The company's activities in Brazil are rounded out by the "Mais Qualidade – More Quality" project. Bayer Crop-Science Brazil certifies quality and sustainable production processes in the harvest of table grapes, melons and pineapples in the southern part of the country. This certification is increasingly regarded as a seal of quality, and communicated as such in the media and advertising. This in turn promotes the program's success and increases the value of the participating fruit growers' produce.

E.U.-wide crop protection product requirements

Bayer CropScience only distributes crop protection products that have been granted regulatory approval at the European level and by the authorities in the countries concerned, that are safe when used responsibly and as intended, and that pose no risk to either people or the environment. The regulations of the new E.U. registration policy concerning crop protection product requirements will take immediate effect throughout Europe from June 14, 2011, while the Directive governing the sustainable use of crop protection products will be implemented in national laws as of December 14, 2011.

It is of major importance for Bayer CropScience and the European agricultural industry that the new legislation is enacted on the basis of independent scientific findings, and that the desired harmonization goals, as intended in the national plans of action, can be achieved in a manner that is practical. Bayer CropScience will continue to contribute its experience and expertise so as to support appropriate solutions in scientific committees and partnership-based collaborations. In this context, we place particular value on the further development of agricultural production systems to satisfy the increasing requirements as regards biodiversity and climate and water protection, as well as the sustainable production of high-quality, affordable food products.

Sustainable solution to improve bee health: product to fight Varroa mites

Varroatosis is one of the most serious diseases in bees. It is caused by a parasite, the Varroa mite. Bee colonies weakened by mite infestation are no longer capable of adequately cleaning and caring for their hive. Varroa mites are parasites of honeybees that attack both adult bees and their offspring. They suck the hemolymph (bloodstream) out of adult bees and developing offspring, which weakens infested bees and shortens their lifespan. Bee offspring can be affected by deformations such as missing legs or wings. Varroa mites, when not effectively controlled, are regarded as one of the main causes of periodic increases in bee deaths. To be able to offer its customers further solutions for controlling these mites, Bayer in 2010 acquired a Varroa control product from U.K.-based Exosect. This product is currently being developed for use in various countries. It features an innovative application technology that promotes cleaning behavior among bees and combines with the organic active ingredient thymol that is effective against mites.

Sustainable Development Report 2010

126 Dream Production

Bayer is taking a new direction in the production of high-quality plastics with the help of carbon dioxide (CO₂) from the energy sector. A pilot plant has come on stream at the Chempark Leverkusen site to trial the new process on an industrial scale. The plant produces a chemical precursor into which CO2 is incorporated. This substance is processed into polyurethanes that are used in many everyday items. As a result, CO2 - a waste gas and key contributor to climate change - can now be recycled and used as a raw material and substitute for petroleum.

The innovative process is the outcome of the "Dream Production" project – a collaboration between industry and academia. Bayer is working on the project with the energy company RWE, which supplies the CO2 used in the process. Other project partners are RWTH Aachen University and the CAT Catalytic Center, which is run jointly by the university and Bayer. The researchers recently achieved a breakthrough in catalysis technology that for the first time has made it possible to put CO₂ to efficient use.

The new process helps to boost sustainability in a number of different ways. For example, carbon dioxide may offer an alternative to petroleum, which has until now been the chemical industry's main source of the key element carbon. Polyurethanes themselves also help to reduce energy consumption and protect the climate. When used to insulate buildings against heat or cold, they can save around 70 times more energy than is used in their production.

The "Dream Production" project is receiving federal funding of some €5 million. Including the investment by Bayer and RWE, the total budget for this project amounts to approximately €9 million. If the test phase yields positive results, the industrial production of plastics based on CO₂ is scheduled to start in 2015.

The carbon dioxide used in the project comes from RWE Power's liquite power plant in Niederaussem near Cologne, Germany. At its Coal Innovation Center there, the company operates a CO₂ scrubber in which the carbon dioxide is separated from the flue gas.

At the pilot plant - designed, built and run by Bayer Technology Services - the carbon dioxide is used in the kilogram-scale production of polyol, one of the two components essential for the manufacture of polyurethanes. Bayer MaterialScience is testing these materials, which are used primarily to produce soft and rigid foams, at one of its existing plants.

The efficient use of CO₂ is only possible because a suitable catalyst, for which experts had been searching for four decades, has finally been discovered. This research breakthrough was made by scientists at Bayer - supported by the CAT Catalytic Center – as part of the forerunner "Dream Reactions" project, which was also funded in part by the German federal government. During the current "Dream Production" initiative, researchers at the CAT are, among other tasks, testing the compatibility of the catalyst with CO2 from the power plant. RWTH Aachen University is subjecting all stages of the new process to comprehensive ecological and economic scrutiny, and is also comparing it with conventional processes and products.



132 Use of renewable raw materials

Some of our hormones are synthesized on the basis of plants. We use certain types of sterols/phytosterols, which we procure externally. These substances are generated (as by-products) during the refining of plant oils from soybeans, canola or sunflowers. Palm oil/Palm kernel oil is not used, due to its low concentration of sterols. We also purchase various steroids, which are manufactured from diosgenin. Today, this substance is usually obtained from yam grown in countries such as China. This is not an endangered species. In the steps we apply in the fermentation process, we additionally use raw materials such as water, glucose, yeast, soybean starch, castor oil and corn steep water (none of these are endangered either). Extracts of plant leaves (Centella asiatica) are used in some Consumer Care products. This plant is common in Asia and is not an endangered species. Bayer is also involved in various sustainable development projects in Madagascar, which is where we predominantly obtain this plant from.

For information on the use of renewable raw materials at Bayer MaterialScience, see Bayer's research magazine 20 on pages 16-20.

Bayer's progress report on the CEO Water Mandate of the UN Global Compact

As part of its activities under the UN Global Compact, Bayer supports the CEO Water Mandate, an initiative of the UN Global Compact that was signed at the end of 2008. In connection with this, we are developing sustainable strategies for the use of water in cooperation with our stakeholders and will implement appropriate solutions and report on the progress made.

In the measures listed, we give an overview of Bayer's specific implementation of the CEO Water Mandate in different regions and of the results achieved in the year under review:

Commitment and transparency

- Bayer took part in the Water Disclosure Project, which was carried out in 2010 for the first time by the Carbon Disclosure Project, and hence published detailed information on opportunities and risks relating to water and on the company's water footprint. 137 institutional investors had asked 302 of the world's biggest companies to disclose details of their water management along with opportunities and risks identified in connection with the use of water.
- In 2010, a company-wide analysis of water-related risks and opportunities was carried out using the WBCSD Global Water Tool.
- Since fall 2010, Bayer CropScience has been a member of the newly founded WBCSD Water Programme Leadership Group, thereby supporting the implementation of the "Water Programme" initiated by the WBCSD.
- The Bayer Resource Efficiency Check, a lighthouse project of the Bayer Sustainability Program, was tested in the first pilot projects in 2010. This method involves an integrated analysis of all resources of relevance to production, including water, in production and treatment processes.
- As part of Bayer's support for the Chair in Sustainable Development at Tongji University in China, a project has been developed to determine the water footprint of the industrial region of Shanghai in China.

Water and wastewater projects in the production process

- At its Leverkusen site, Currenta has completed the modernization of the sedimentation tanks at the Bayer Waste Management Center. With the cascade biology now used, the proportion of nitrogen compounds in the wastewater has been reduced by more than 40 percent. The plant is thus one of the most modern industrial wastewater treatment plants in Germany.
- At the Bayer MaterialScience site in Tarragona, Spain, a plant for the use of rainwater collected in a retention reservoir as cooling water went on stream in November 2010. This will make it possible in the future to save around 60,000 m³ of water per year, which corresponds to around 7 percent of the site's total water consumption.
- To safeguard the supply of drinking water to the region of Catalonia, Spain, the Chemical Business Association of Tarragona (AEQT) initiated a project in July 2010, in collaboration with local chemical companies (including Bayer MaterialScience) and the water authority concerned, for the reuse of wastewater from two municipal treatment plants. Following completion, a water treatment plant with a capacity of approximately 6.5 million m³ of wastewater per year is to begin operating in June 2011. Of this treated wastewater, around 240,000 m³ is to be made available to Bayer MaterialScience for use as process water at its site in Tarragona.

ONLINE REPORT

In-depth information to supplement the printed report

- At the Bayer MaterialScience site in Baytown, United States, phosphorus emissions in the form of phosphate were avoided completely through the optimization of a process in the production of MakrolonTM. A water consumption analysis was also carried out in cooperation with the water company. It was confirmed that the site was using water efficiently. To reduce water consumption further, a project was initiated for the reuse of wastewater.
- By performing the Bayer Climate Check (see Focus Issue Climate), Bayer HealthCare also identified potential savings in water consumption. In total, 22 plants at 16 BHC sites were checked, and water consumption was cut by 460,000 m³.
- At Bayer HealthCare's site in Berlin, 3,000 m³ of specially treated ultra-pure water for cleaning pharmaceutical production plants can now be saved each year as a result of a process optimization.
- At the Bergkamen site, Bayer HealthCare reduced emissions of organic substances into wastewater beyond the standard required by law by introducing additional activated carbon filters. TOC (total organic carbon) emissions were reduced from around 70 to 23 metric tons per year. In addition, total nitrogen emissions were halved from around 20 to approximately 10 metric tons per year.

Products and services of relevance to water

 As part of international cooperation agreements – for example, with the CSIRO (Commonwealth Scientific and Industrial Research Organisation, Australia) - Bayer CropScience is working on the development of drought-tolerant varieties of cotton and grain with reduced susceptibility to stress caused by lack of water and heat damage (see also Focus Issue Nutrition on page 20).

141 Our commitment to biodiversity

The protection of biological diversity will be one of the challenges of the next few decades. During 2010, the International Year of Biodiversity, Bayer CropScience and Stiftung Rheinische Kulturlandschaft [Foundation for the Cultural Landscape in the Rhineland] entered into a cooperation agreement for the protection of rare wild herbs: we support the project financially and provide our expertise. At a research farm owned by the company, particularly rare and endangered species are bred and their seeds made available for sowing in suitable areas at a later stage. In doing this, we demonstrate that it is possible for modern cultivation management and state-of-the-art species conservation to coexist as part of sustainable agriculture. At eight test sites owned by Bayer CropScience in Germany, location-specific strips of flowers up to 1,000 square meters in size are being laid out.

In addition to its commitment in Germany, Bayer supports the North American conservation organization Ducks Unlimited. With the development of new varieties of seeds for a special winter wheat, better breeding conditions are to be created for rare waterfowl as part of a five-year initiative.

In 2002, the Norfolk Wildlife Trust (NWT) conducted a biodiversity audit at our site in Norwich. NWT investigated how the site can make a better contribution to biodiversity and drew up a catalog of measures. The focus was on the grassland, hedges and woods on the land, as they had developed their own ecosystem over the course of time. The grass is no longer cut in these areas, to encourage the growth of wild plants and protect the habitats of rare plants and animals. Additional wild plants were sown and a large pond was created. To make progress visible and to evaluate this sustainable approach, the NWT publishes a report each year on biodiversity at the Norwich site.

A similar project run by Bayer in the United States was awarded recertification in 2010: the site in Pittsburgh was certified once again by the Wildlife Habitat Council (WHC) for its Wildlife at Work Program. The focus of the assessment is on the protection and expansion of habitats on private and public land. The woods, grassland and wetland habitats surrounding the site have been maintained with this in mind since 1999.

Bayer also campaigns for biodiversity in Morocco. Bayer Morocco has supported the project of the "Fondation du Sud" with five million new trees in southern Morocco. These are planted to halt the speed of desertification and thus improve the living conditions of the local population. Bayer's donations have been used in particular to identify species and plant seedlings on a 16-hectare piece of land that are best suited to dry conditions.

144 Activities for greater transport safety in the subgroups

The General Transport and Risk Management Program at Bayer MaterialScience in Brazil is a comprehensive measure that provides our drivers with guidelines on transport safety. The content ranges from emergency measures to checklists for the transport vehicle and the scheduling of journeys to minimize risks. The program has a considerably wider reach than a one-off safety measure, as it covers everything from road transport to supply chain activities and includes a large number of organizations, suppliers and processes. The program resulted from the CEO Safety Award initiative, which means that it was developed by employees for employees. Another example of a Safety Award idea is the Fleet Safety Program from the United States: a comprehensive, proactive system to increase safety when driving.

Bayer CropScience reinforced its hazardous goods training in Asia in 2010 (March 2010 in Shanghai, October 2010 at three sites in India), to improve knowledge and attention to safety in these regions. In particular, employees involved in procurement and logistics and the local HSEQ (health, safety, environmental protection and quality) departments were trained in international law. Specific questions were also asked about possible local adaptations, which were identified.

Incidents that came to the attention of stakeholders

The following incidents are not classed as environmental incidents or transport accidents according to our criteria, but came to the attention of our stakeholders in reporting.

	Location of the incident	Description	Explanation
1	Bayer CropScience, Kansas City, United States	August 4, 2010 Some sodium hydroxide solution leaked out, owing to a faulty valve. One employee required medical treatment.	This was an industrial accident involving personal injury, which was reported accordingly.
2	Bayer CropScience, Kansas City, United States	March 16, 2010 An employee at the Kansas City site underwent hospital examinations as a precaution after a small quantity of a pyrethroid (insecticide) leaked.	This was neither a reportable industrial accident nor an environmental incident. The employee underwent medical examinations as a precaution.
3	Bayer CropScience, Ankleshwar, India	March 11, 2010 At a plant where crop protection agents are manufactured, the starting product propyl mercaptan leaked out of a tank and caught fire. One person died in the fire.	The criteria for a reportable environmental incident are not met, as the materials were initially retained in the collection volume of the tank and then combusted. The extinguishing water was collected and disposed of correctly. The incident was reported as a "Loss of Primary Containment (LoPC) = release of substances" and as an industrial accident.
4	Bayer HealthCare, Bergkamen, Germany	February 26, 2010 When some hydrochloric acid vapors escaped at the site of Bayer HealthCare Pharmaceuticals in Bergkamen, two people received minor injuries. The cause was an undesirable reaction.	The criteria for a reportable environmental incident are not met. The incident was also classified and reported as a "Loss of Primary Containment (LoPC) = release of substances." Following an examination by the physician, the employees of the contractor were able to continue work immediately in one case and the next day in the other.

147 Social commitment in 2010: overview of expenditure

	€ thousand	Share of total in %	Share of cate- gory in %
Education & Research	6,639	12	
Science education in schools (e.g. "Baylabs" school support program, scientific competitions, "Making Science Make Sense" initiative)	3,546		53.4
Support for science and research (e.g. awards, chairs)	1,542		23.2
Student scholarships	1,051		15.8
General school education	391		5.9
Other	109		1.6
Environment & Nature	2,909	5	
Environmental education with the focus on youth	2,443		84.0
Nature conservation and biodiversity	288		9.9
Sustainable agriculture	141		4.8
Other	37		1.3
Health & Social Needs	26,090	46	
Public health programs (e.g. access to contraceptives)	16,011		61.4
Health education	3,843		14.7
Social community projects	1,830		7.0
Disaster aid	1,751		6.7
Medical research (non-profit)	1,209		4.6
Support for patient organizations	1,030		3.9
Social volunteer projects	395		1.5
Other	21		0.1
Sports & Culture	21,137	37	
Bayer sports clubs	16,003		75.7
Bayer Arts & Culture	4,526		21.4
Bayer cultural clubs	345		1.6
Other	263		1.2
Total	56,775	100	

Bayer Hemophilia Awards Program, Go West, Bayer Fights Chagas

From research to infrastructure development: Bayer's commitment to health and social needs

Bayer is active worldwide with various programs to improve health care provision.

For example, Bayer HealthCare for over 30 years has worked to support more than 400,000 hemophilia patients around the world. With medical research, donations and the development of infrastructure, the company improves care for people with hemophilia. Through investment in research and development, Bayer for more than 20 years has compiled extensive data to continuously examine and improve the quality, effectiveness and safety of its biotechnologically manufactured hemophilia medicine Kogenate™. We promote further innovative research approaches with our Bayer Hemophilia Awards Program (BHAP). Since 2002, BHAP has provided total funding of more than US\$20 million to 175 projects. In addition, Bayer makes available monetary and product donations to support the World Federation of Hemophilia (WFH), which used the donations to finance various therapy, care and training initiatives. Another program designed to promote optimal patient care is the Bayer European Hemophilia Nurses Scholarship (BEHNS). Through this scholarship program, hemophilia nurses from all over Europe are given the opportunity to gain experience at other hemophilia centers or implement their own scientific projects. Around the world, Bayer supports hemophilia camps for children and young people, such as with a project in Bogor, Indonesia.

One focus of our commitment to better medical care for neglected diseases is Chagas disease. This dangerous infection is widespread in many countries of Central and South America. In our efforts to combat Chagas disease, we are cooperating closely with the World Health Organization (WHO). In addition, our new "Bayer Fights Chagas" project aims to find innovative approaches to controlling this tropical disease. The initiative, which is starting with a pilot project in Argentina, was launched jointly by Bayer HealthCare and the Bayer Cares Foundation. "Bayer Fights Chagas" has a deliberate policy of deploying talented young individuals from various parts of the company and employees from the pilot country who volunteer their services. This is the first time that an international team drawn from the various subgroups has sought answers to the question of how Bayer, as a global company, can make a meaningful and lasting contribution to combating Chagas disease.

Our commitment goes beyond improving drug supplies. In line with the declared objective of China's Ministry of Health to additionally boost medical care in the less developed western part of the country by improving the qualifications of medical staff, our "Go West" project aims to provide physicians from the rural regions of this part of the People's Republic of China with further training. In cooperation with the Chinese government and local universities, Bayer is organizing continuing education for local physicians to improve diagnosis, treatment and advice for patients. Between 2007 and 2012, some 10,000 physicians from 330 rural districts are to complete three-month training courses in the fields of internal medicine, general surgery, gynecology and obstetrics, laboratory diagnostics and radiology. During the same period, around 600 hospitals are being linked to the leading hospital or clinic in their respective regions. Bayer is making available a total of approximately €2.3 million for "Go West" over this five-year period.

"AMAJA – For a Better Future": remedial teaching for young people in Brazil

In the area of education and research, Bayer maintains various initiatives aimed at providing children and young people around the world with a good education. At Bayer's site in Belford Roxo, Brazil, we support the "For a Better Future" project of the non-governmental organization AMAJA (Association of Residents and Friends of the Jardim Anàpolis). The program offers adolescent children from socially disadvantaged families out-of-school remedial teaching, thus improving their future vocational perspectives. At the same time, AMAJA encourages and empowers the youngsters to participate in cultural and social life.

In 2010, AMAJA supported a total of 76 young people with tutoring courses in the subjects of mathematics, Portuguese, natural science, music, computer science and sports. In instruction units lasting half a day each, the tutors not only taught the youngsters specialist knowledge, but also promoted their learning and concentration skills. The objective was to improve the young people's self-confidence and thus strengthen their aptitude for daily school instruction. As part of the program, all children received school uniforms, instructional materials and meals free of charge. In 2010, Bayer provided the "Amaja – For a Better Future" project with funding of €34,000.

160 Environment and nature: Bayer International Summer Sustainability Camp in Pittsburgh

Bayer contributes to the conservation of natural resources with numerous projects and partnerships, thus strengthening awareness about environmental issues among young people in particular. At the Bayer International Summer Sustainability Camp 2010 in Pittsburgh, Pennsylvania, for example, 15 American and German schoolchildren together learned about modern water pollution control. Initiated by our USA Foundation and the Bayer Science & Education Foundation, the event was locally supported by the non-profit organization RiverQuest. Under supervision, the young people explored the aquatic realm and the riverbed in "nature classrooms" along the banks of the Allegheny, Monongahela and Ohio rivers. Experts from the Pennsylvania Fish and Boat Commission also showed them how to maneuver professionally on a ship and how to steer a canoe. The practical instruction was supplemented by courses on sustainability and environmental protection at Duquesne University in Pittsburgh, as well as by a visit to Bayer headquarters in Pittsburgh.

162 **Simply Soccer**

"Simply Soccer" is the name of a new initiative to promote participation in that sport by schoolchildren with mental and learning disabilities. Together with the German Soccer Federation (DFB), Bayer initiates and supports partnerships between special schools and soccer clubs. The aim is to give more disabled children and young people access to club-level soccer and to promote mutual understanding between disabled and non-disabled people. Since the beginning of 2010, the first partnerships have been launched at Bayer's German locations in Leverkusen, Berlin, Krefeld, Wuppertal and Dormagen, as well as in Cologne and other cities, with between 15 and 20 disabled youngsters regularly participating in the sport in each city. The patron of "Simply Soccer" is Hanno Balitsch, who plays professionally for Bayer 04 Leverkusen.

Membership of initiatives and associations: global commitment to sustainability

Sustainability at Bayer is an integral part of a corporate policy geared to long-term success and innovative solutions. This commitment is also evidenced by the company's participation in numerous initiatives and projects around the world. On this page you will find a selection of our activities with the corresponding descriptions and logos.

Bayer has long practiced the concept of Responsible Care. To achieve continuous improvement in the areas of health, safety and environment, the company has been guided by the principles of the voluntary Responsible Care initiative of the chemical and pharmaceutical industry since 1994 and by the Responsible Care Global Charter, which was last revised in 2006.

A member of the World Business Council for Sustainable Development since 1997, Bayer was a co-founder of German industry's sustainable development forum "econsense" in 2000.

Bayer is a member of the German initiative for responsible corporate governance and follows its mission statement "Responsible care in business."

Bayer is a founding member of the United Nations Global Compact (UNGC) initiative, also established in 2000, actively promoting its 10 principles through its support for the LEAD, "Caring for Climate" and "CEO Water Mandate" initiatives and numerous projects. In Brazil, for example, Bayer supports the Abring Foundation in its efforts to combat child labor, and in India the company participates in the "Learning for Life" initiative for the protection and advancement of children during their education.

Bayer's collaboration with the United Nations Environment Programme (UNEP) has been in place since 2004 and has set standards in public-private partnerships. Among the long-standing joint activities is the "Bayer Young Environmental Envoy" program, in which young people from 18 countries on three continents participate.

In 2009 the company joined the UNEP Climate Neutral Network, which promotes low-CO₂-emission industrial and social structures. To help reduce greenhouse gas emissions from relevant buildings worldwide, Bayer is also supporting the Sustainable Buildings and Climate Initiative of the U.N. Environment Programme (UNEP SBCI) as part of its EcoCommercial Building Program.

The company places maximum importance on climate protection. Bayer has been included for six consecutive years in the Carbon Disclosure Leadership Index (CDLI) published by the Carbon Disclosure Project (CDP), an organization run on behalf of institutional investors, and in 2010 was also included in the CDP's new Carbon Performance Leadership Index (CPLI).

For more than 50 years, Bayer has supported family planning programs in over 130 countries, focusing on cooperation with private and public relief organizations such as the United Nations Population Fund (UNFPA). In the fight against tuberculosis, Bayer is cooperating with the Global Alliance for TB Drug Development, a U.S. non-profit organization, with the aim of developing a new drug that reduces treatment times. As part of its Sustainability Program, Bayer offers contraceptives at reduced prices in developing countries. Activities in the area of family planning also include educating teenagers on sexuality and health issues. In Uganda, for example, Bayer cooperates with the German Foundation for World Population (DSW) in this field.

Our sustainability reporting is based on the guidelines of the Global Reporting Initiative (GRI), which Bayer supports as an organizational stakeholder.



















CARBON DISCLOSURE PROJECT









SUSTAINABLE DEVELOPMENT REPORT 2010

ONLINE REPORT

Group sustainability objectives 2006–2010



Program of Objectives 2006–2010

Sustainable development objectives are an integral part of the Bayer management process. In 2005, we set up an ambitious five-year program called "Objectives 2006+." We have continually reported progress on these objectives in the last years. With the publication of the Sustainable Development Report 2010, we take stock of what we have achieved. At the same time, we set new, focused Group targets to be achieved by 2015 (see the inside cover and relevant sections of the printed report).

For its 2006+ program, Bayer set itself sustainability objectives in the areas of innovation, product stewardship, excellence in corporate management, social responsibility and responsibility for the environment. In 2005, this was a huge step for us to expand our objectives beyond just environmental protection. We aimed to encompass the full range of Bayer's impacts across our value chain, as well as our ability to evolve as an organization and to manage our performance. In addition, we wanted and want to fully address the expectations of our stakeholders.

Since implementing the Objectives 2006+ program, we have observed a steady increase and greater specificity in sustainability awareness across various stakeholder groups, including employees, customers, suppliers, investors, non-governmental organizations and the media. Consequently, sustainability-related objectives have grown in importance.

The 2006+ Group Program of Objectives consisted of 45 objectives. By the end of 2010, approximately two-thirds of these had been entirely or nearly achieved. We are proud of our achievements. We have also identified areas for improvement that we are addressing with our new sustainability targets.

In the last five years, our understanding of the sustainability agenda. We see sustainability as a business opportunity as well as an area to which we can contribute and generate benefit. Our global presence and strong science and research culture provide a good foundation for innovating to create new products and services to meet social and environmental needs. As such, we are beginning to measure impacts on results and sales associated with our sustainability initiatives and to integrate sustainability even more strongly into our corporate and subgroup planning.

We also place a priority on improving our culture of innovation in terms of sustainability. Among other measures, we have developed the "lighthouse projects" to pilot activities and are continuing to learn from and evolve these.

Prioritizing the issue of climate has been effective as a first step and we are proud of our achievements in reducing greenhouse gas emissions. This accomplished, we are expanding the scope of our focus to three megatrends relevant across Bayer's sub-groups: "global access to health care," "food for a growing population," and "protecting the climate" (see also the objectives in the Focus Issue articles in the printed report on pages 14-25).

Our original goal was to raise the profile of sustainability in the operational areas and we therefore took many objectives from across the organization. Many of these objectives continue to be pursued by the subgroups, as the following table shows.

The lessons learned from our Objectives 2006+ program as well as the changing external landscape are providing the foundation for our new Bayer sustainability targets. We aim to raise our game and position ourselves as a company addressing key sustainable development challenges through our core business. Our new set of targets will take a more strategic approach, defining goals and objectives across the value chain based on a logical structure.

The following table shows the implementation status in 2010 and the level of achievement at the official conclusion of the Objectives 2006+ program. You will find further information on the projects on the cited pages of the Sustainable Development Report or the Annual Report 2010. The column on the far right indicates which objectives from the 2006+ program have been concluded, which of the initiatives and projects are being continued in the subgroups in question or by the Group as a whole and which have become part of the Group Targets 2015, albeit possibly in a modified form adapted to the Group's current strategic considerations.

Our objectives through 2010 (unless indicated otherwise)

Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Area of action: Innovation				
Promotion of a culture of innovation by implementing a long-term, Group-wide innovation initiative – the "Triple-i" program (Inspiration, Ideas and Innovation)	The global roll-out of the "Triple-i" initiative met with a very positive response: more than 10,000 ideas were submitted, more than 120 of which were followed up, and four product ideas are already being marketed. Triple-i is a widely known and accepted tool for idea generation and the promotion of an innovation culture, and will be continued.	42 Link 92		Group initiative is being continued
Promotion of research projects on protecting drinking water and freshwater worldwide; provision of funding and participation in project management for the National Geographic Global Exploration Fund set up by Bayer and National Geographic	9 research projects have been funded with seed money totaling €250,000 with a focus on the protection of freshwater, the development of new resources and fair water distribution in various global regions. National Geographic and Bayer have cooperated with scientific advisors to manage the call for application, the selection process and the funding of the projects. Both partners reported continuously on the progress and results of the projects. It was the first time that National Geographic had entered into a theme-related project partnership with a corporation headquartered outside the United States.	-	Ongoing	Promotion is being continued
Contribution to safeguarding the food supply of a growing world population by developing plants with higher yields and improved stress tolerance of dry conditions; further development of plant biotechnology and the latest seed breeding technology	Numerous R&D projects at Bayer CropScience in both early and advanced stages of development to increase productivity and stress resistance in the Bayer BioScience crops oilseed rape, cotton, rice, wheat, soybean and corn are progressing successfully and on schedule. A technology platform for molecular marker-assisted breeding, including the provision of full genome sequences, is being integrated into the cultivation process for all Bayer BioScience crops. Alliances with public research institutions in Germany and worldwide have been established, e.g. through involvement in the "Cropsense" consortium, a German plant sensor development network which is financially supported by the German BMBF, cooperation with the Helmholtz Research Center in Jülich, Germany, and in the field of plant phenotyping as part of a research alliance with the Australian CSIRO Plant Industry Institute on wheat breeding. With this Australian partner institution, trait impact studies aimed at the evaluation of the effects of new plant traits on agricultural practice and the environment are progressing well. In the emerging E.U. Climate-KIC program, BCS was an industrial core partner in one of two starter projects of the German Node in 2010 called CACHES ("Climate Adapted Crop Health Expert System"). For 2011 the participation of BCS in the two Climate-KIC programs "Improve" and "Correct" is planned, again involving academic and industry partners across Europe.	19 – 21, 49		Is being continued by BCS subgroup
Tapping the potential of renewable energy sources and renewable raw materials; research work and technological developments for promising applications	Bayer CropScience (BCS) is extending its technology platform in sugarcane, which is the most productive crop for economically viable renewable energy having the best CO ₂ balance. Together with CTC – Centro de Tecnologia Canavieira, the Center for Sugarcane Technology, São Paulo, Brazil – Bayer CropScience will develop biotech sugarcane varieties with a higher sugar content, with the aim of increasing the production efficiency of ethanol. Early research results have indicated increases of about 30 to 40 percent.	50 Link 121		Is being continued by BCS subgroup

Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Selective, resource-optimized production of active pharmaceutical ingredients using therapeutic proteins from tobacco plants (plant-made pharmaceuticals); development of patient-specific drugs within the next seven to nine years	Around 50 known active ingredients have already been obtained from plants on a laboratory scale, including proteins for vaccines and monoclonal antibodies, for example for treating cancer. The first clinical trials using plant-based proteins for the personalized therapy of non-Hodgkin's lymphoma started at the beginning of 2010.			Is being continued by BHC subgroup
Provision of improved anticancer drugs; extension of indications of the anticancer drug Nexavar TM to include liver, lung and breast cancer	Nexavar TM has already been approved in more than 90 countries for the therapy of liver cancer and for advanced renal cell carcinoma (kidney cancer). Further studies in other indications such as non-small-cell lung cancer (NS-CLC), thyroid cancer (both Phase III), breast cancer, bowel cancer and ovarian cancer (all Phase II) are ongoing. In the case of breast cancer, a Phase III study has already started.	AR 102 – 104		Is being continued by BHC subgroup
Provision of a drug to combat dangerous blood clots; in the form of the oral Factor Xa inhibitor rivaroxaban (trade name: Xarelto™)	Rivaroxaban is a new form of anticoagulant taken in tablet form. Rivaroxaban was discovered in Bayer's laboratories in Wuppertal, and is being jointly developed by Bayer HealthCare and Johnson & Johnson Pharmaceutical Research & Development, L.L.C. In clinical studies rivaroxaban demonstrated a rapid onset of action with a clear rate/efficacy ratio and good bioavailability. Monitoring of coagulation is not necessary and there are few interactions with other drugs or foods. Rivaroxaban is marketed by Bayer HealthCare under the brand name Xarelto TM for the prophylaxis of venous thromboembolism (VTE) in adults following elective hip or knee replacement surgery in more than 75 countries worldwide. Bayer has received marketing authorization for the product in more than 100 countries, including the European Union Member States, Australia, China, Canada and Mexico. The extensive clinical trial program supporting rivaroxaban makes it the most studied oral, direct Factor Xa inhibitor in the world today. More than 65,000 patients in total are scheduled to take part in the clinical development program to investigate rivaroxaban's potential in the prevention and treatment of a broad spectrum of acute and chronic thromboembolic disorders. These include therapy of VTE, stroke prevention in patients with atrial fibrillation, secondary prevention following acute coronary syndrome, and prevention of VTE in hospitalized patients with medical conditions.	4, 46		Is being continued by BHC subgroup
Extension of the duration of efficacy of Kogenate TM , a drug recombinant to treat hemophilia, using a new formulation based on liposome technology	A Phase II study with Kogenate™ using a new formulation based on liposome technology was ended because of a lack of efficacy. Bayer remains committed to its extensive program to develop preparations to treat hemophilia with a long-term effect; several development projects are under way.	AR 101		This project has been terminated by the BHC subgroup
Development of new molecu- lar imaging methods for early detection of cancer, inflammatory processes in the nervous system and Alzheimer's disease	Signing of new and extension of existing cooperation agreements, e.g. with TauRx on molecular imaging for Alzheimer's, with Hamamatsu Photonics K.K. in the field of tumor diagnostics and Tsinghua University in the field of diagnostic imaging.	AR 104, 132, 169		Is being continued by BHC subgroup
Research into new methods of treating multiple sclerosis; development of alemtuzumab	A Phase III program with alemtuzumab is ongoing.	AR 102, 105, 196		Is being continued by BHC subgroup



Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Development of solutions for tropical and other neglected diseases; cooperation with stakeholders who are following novel approaches to enable more people to be treated	Bayer has made further important contributions to the treatment of tropical diseases. Over a period of five years Bayer will supply the WHO with 400,000 tablets a year of its drug Lampit™ containing nifurtimox for use in eflornithine- nifutimox combination therapy in the African countries affected.	16/17		Is being contin- ued by the BHC subgroup as part of the Sustainability Program
Provision of new treatments for gynecological disorders with a high level of unmet medical need	Bayer has successfully completed the decentralized part of the drug approval procedure in Europe for Visanne for the treatment of endometriosis. Visanne has been launched in several European countries such as Germany and more countries will follow in 2011.		•••••	Is being continued by BHC subgroup
Better treatments for the most common cause of serious visual impairment and blindness in the over-65s in industrialized nations	Patient recruitment for the studies of a Phase III program on the treatment of the wet form of age-related macular degeneration (AMD) is complete. Another Phase III program on another eye disease, central retinal vein occlusion (CRVO), has begun.	42/43		Is being continued by BHC subgroup
Options for the early diagnosis of diseases with a high level of unmet medical need	A Phase III study with a new PET tracer for supporting the diagnosis of Alzheimer's disease has begun.	AR 104		Is being continued by BHC subgroup
Strengthening of networks with academic institutions and utilization of shared research and development expertise	The alliance with the German Cancer Research Center for the faster utilization of research results for the development of new drugs to combat cancer and for the improved evaluation of innovative therapies for tumor-related diseases was successfully extended in Q1 2011.			
	The collaboration with the University Clinic in Cologne to utilize new findings from the research and development laboratory for the development of innovative approaches in the treatment and prevention of disease, e.g. in the area of oncology, was also continued.			
	In March 2009, Bayer HealthCare signed a cooperation agreement with Tsinghua University (Institute for Biomedicine) in Beijing, China. At the Bayer-Tsinghua Research Center, scientists from the Institute for Biomedicine, the Department of Biosciences and Biotechnology, the Medical Faculty and the Department of Chemistry of Tsinghua University will collaborate with researchers from Bayer HealthCare along the research and development value chain and drive forward innovative approaches for the discovery of new therapies. The activities will focus on Bayer HealthCare's therapeutic research areas oncology, women's healthcare, diagnostic imaging and cardiology.			Is being continued by BHC subgroup
	In May 2010, Bayer HealthCare enhanced its U.S. research strategy by establishing a new Innovation Center in Mission Bay, California. The newly formed science hub will focus on innovation sourcing and advancing collaborations with academic and biotech groups in the Bay area.			
	In July 2010, Bayer HealthCare signed a research collaboration agreement with The People's Liberation Army General Hospital (301 Hospital) in Beijing, China to enter a long-term strategic research partnership in the area of gynecological diseases.	Link 24		

Objective	Objective Implementation status		Achieve- ment by 2010	Further action
Development of a drug to combat various forms of pulmonary hypertension – riociguat				Is being continued by BHC subgroup
	Moreover, a Phase II trial with riociguat in pulmonary hypertension owing to interstitial lung disease (PH-ILD) met its primary objectives in an area of high unmet medical need.			
	Riociguat is also being investigated in pulmonary hypertension owing to chronic obstructive pulmonary disease (PH-COPD). For the indication PH owing to left ventricular dysfunction (PH-LVD), a global Phase IIb study has been initiated.			
Optimization of a production process for monomeric MDI (methylene diphenyl diisocyanate) for the construction of a new large-scale plant in China in 2008 with a target energy saving of approx. 15 percent. Objective achieved	Bayer Material Science (BMS) started up a production facility for MDI with an annual capacity of 350,000 metric tons in Shanghai in 2008.	49		The objective was achieved
Area of action: Product stew	vardship			
Further contribution to improved crop yields through highly effective crop protection agents with good plant tolerability, coupled with a good environmental and health profile	Further development of the Bayer CropScience product portfolio through the market launch of innovative products: Movento TM (insecticide): thanks to its excellent pollinator safety and IPM fitness coupled with the unique two-way transport of its active ingredient, Movento will be the new sucking insect pest control standard, especially in fruit, vegetables and soybeans, replacing organophosphate and organochlorine-based products. Belt TM (insecticide): first product of the new diamide chemistry in the market with a very safe toxicological and environmental profile, setting a new standard level of performance against caterpillars Infinito TM (fungicide): new, unique active mechanism, which precludes cross-resistance with other active ingredients and is highly effective against potato diseases LL Trait and Ignite TM (herbicide): innovative weed management solution to combat increasing weed resistance and ensure sustainable soybean production New generation of cereal fungicides Xpro TM (combination of bixafen + prothioconazole)	49, AR 106/107		Is being continued by BCS subgroup

Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Analysis and evaluation of the environmental properties of our pharmaceutical active substances and their occurrence in the environment to prevent damaging effects on people and the environment	by Bayer HealthCare. Support of external monitoring studies (e.g. measurements in rivers or seas) regarding		ongoing	Is being continued by BHC subgroup
Timely implementation of the REACH Regulation in the Group				Further stages of REACH are to be implemented in the subgroups
Area of action: Excellence in	n corporate management			
Ongoing improvement of internal work processes and employee motivation	We have continued our regular worldwide managerial staff surveys. The subgroups also perform regular surveys of their staff. From September 2010, the existing surveys were replaced by a newly designed Group-wide employee survey. The global leadership principles are integrated into the regular performance appraisals; the annual target agreements of our managerial employees include behavioral leadership objectives. Regular feedback between supervisors and staff in the performance assessment process boosts participant motivation and satisfaction.	35	ongoing	Is being continued across the Group
Management of the process to implement the Directive on Health, Safety, Environment and Quality (HSEQ) Audits	Implementation of subgroup-specific HSEQ management systems is completed; full auditing is under way in all regions.	62f.		HSEQ directive is being continually applied and further developed
Improvement of leadership qualities of all managers, e.g. through 360° Feedback analysis	Ongoing.		ongoing	Is being continued across the Group
Implementation of the objective formulated at the United Nations World Summit on Sustainable Development in Johannesburg in 2002 on the globally harmonized classification and labeling of substances and preparations (GHS = Globally Harmonized System)	Implementation in Europe was supported through to the approval of the regulation by the chemical industry associations. In countries that have already implemented the GHS or have set implementation schedules ahead of the E.U. timeframe, BMS products are marketed with GHS-compliant labels and material safety data sheets. BMS classified all its substances in line with the GHS by December 2010 and will classify all its preparations by June 2015 at the latest. BCS: The implementation of GHS-compliant MSDS and hazard labels for substances for the E.U. sites and businesses was completed by the end of November 2010. The global label management (GLM) SAP EHS module and the upgrade of product safety SAP EHS modules to comply with the GHS and REACH Annex II were introduced accordingly. All mixtures will be re-classified and re-labeled by 2015 at the latest.	45		Is being continued in the subgroups



Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Permanent ongoing safeguarding of compliance with regulations on drug safety and quality assurance with regard to human drugs	on describes measures aimed at permanently and continuous-			Is being continued on an ongoing basis by BHC subgroup
Expansion of sustainable procurement management	Bayer's Procurement Community Policy clearly supports the principles of the UN Global Compact, our values and leadership principles and the Bayer Human Rights Position. Bayer's Procurement Community has combined all of its fundamental sustainability standards and requirements for its suppliers in a Supplier Code of Conduct. The code is accessible on the Internet and published as a brochure in seven languages, and has been implemented on a step-bystep basis since December 2009. Prior to the publication of the code, strategic purchasers around the Group were acquainted with its contents and with the supplier selection and evaluation procedure in a web-based training course based on specific examples. By the end of 2010, 147 suppliers had been evaluated according to this new procedure in a globally coordinated manner.	31ff.		New Group target 2015: Supplier manage- ment
Formulation, communication and implementation of the company's stance on human rights	The Bayer Human Rights Position was published in May 2007 and now serves as the Group's globally valid directive (updated version since January 1, 2009). The brochure outlining our stance on human rights, which was first sent to managers in the German-speaking countries in 2008, was now distributed globally to managers as part of a Group-wide information campaign. The brochure is supplemented by a training presentation which clearly communicates the contents of our position on human rights to employees.	33ff.		Objective achieved Bayer pays special attention to respect for human rights
Area of action: Social respon	nsibility			
Worldwide promotion of environ- mental knowledge among young people; expansion of cooperation with the United Nations Envi- ronment Programme (UNEP), including establishment of youth environmental networks and ca- pacity building programs in Asia, America, Africa and Europe	In six years of partnership in the fields of youth and the environment, UNEP and Bayer have generated a world-wide network of young environmentalists based on established structures and opportunities that aim to empower young people in environmental affairs. The partners organize environment conferences and hands-on study trips for young environmentalists from all regions of the world on a yearly basis. The «Tunza Magazine» – produced by young people about young people for young people – reaches more than a million readers every year. Awareness-raising activities like the «International Children's Painting Competition on the Environment» and the photo competition «Ecology in Focus» make young people's voice heard by the public. UNEP and Bayer will continue this Public Private Partnership for another three-year period (2011-2013).	67	•••••	Cooperation is being continued



Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Strengthening the basic under- standing of natural sciences in schools by extending to other countries the "Making Science Make Sense" program founded in the United States	After its launch in the United States in 1995, the MSMS program has been expanded step by step to 11 more countries: the United Kingdom, Ireland, Japan, France, Denmark, Italy, Brazil, Colombia, India, Singapore and Taiwan. Several hundred thousand pupils benefit every year from the commitment of Bayer employees who regularly go into elementary schools to teach science. The participating countries share their best practices in order to improve the already high MSMS standards.	66 Link 158		Projects are being continued
Promotion of access to school and vocational education for children and young people, particularly in newly industrializing and developing countries	As a vital part of the Bayer CropScience Child Care Program, the "Learning for Life Initiative" has been launched. It now runs successfully as an established and comprehensive program fostering school enrollment and preventing school drop-outs as well as offering vocational training for young people through a variety of educational projects. This is achieved by raising awareness among both parents and children that a better education is key to a better life. Our targeted communication activities and best practice examples brought about this change in mindset. We already have entered into the next step of looking into ways of achieving a school enrollment rate of 100 percent by a self-sustaining new project called "Quality School for All" in two villages in the Indian state of Andhra Pradesh.	33		Program is being continued by BCS subgroup
Promotion of education in sustainable development and improvement of environmental awareness in newly industrializing countries (capacity building) in line with the voluntary undertaking by the chemical industry based on the Johannesburg Declaration and the declaration adopted by the International Conference on Chemicals Management (ICCM) known as the Strategic Approach to International Chemicals Management (SAICM); development of a training program and support for the establishment of a Chair for Sustainable Development at Tongji University in Shanghai, China	Professor Zhao Jianfu was named as the chair holder. In his work he will focus on climate research and climate impact research.			Project is being continued
Promotion of science and education	Worldwide, Bayer made available €6.5 million for charitable science and education projects in 2010. In 2011, we shall further expand our commitment to cutting-edge scientific research and fostering talent. Since reorganizing its support programs in 2007, the Bayer Science & Education Foundation has spent €4.06 million on education projects and science promotion, comprising: ■ €2.1 million for 205 school projects focusing on science and technology ■ €969,000 for 209 foreign study scholarships (medicine, natural sciences, technology, teacher training) 26 Climate Fellows (scholarships for school students) in the Science Camp in Pittsburgh ■ €991,000 for academic awards/professorships	65ff.		New Group target 2015: Social com- mitment



Objective	Implementation status	Page	Achieve- ment by	Further action
			2010	
Promotion of solutions as a contribution to the UN Millennium Development Goals for tackling poverty, lowering child mortality and improving health care for mothers	Bayer supports the "Youth Truck" project of the German Foundation for World Population (DSW) which aims through information and education to empower school-children and young people to organize their own family planning in the long term, to reduce the risk of sexually transmitted diseases and to maintain reproductive health. The goal is to improve knowledge of sexuality, health and contraception in developing countries. In 2010, the program was implemented in 10 elementary schools in Uganda and more than 2,000 young adolescents were educated on reproductive health, HIV/AIDS and family planning. A learning toolkit will be available in early 2011.	16		Objective is being continued by BHC subgroup as part of the Sustainability Program
Investigation whether the treatment duration of (drug-sensitive) tuberculosis can be reduced from six months to four months by using the active ingredient moxifloxacin in a modified combination regimen	The Phase III study REMoxTB is scheduled to run until 2012. If the clinical trials are successful, the intention is to have moxifloxacin approved for the treatment of TB and made available to patients in developing countries at reduced prices.	17		Objective is being continued by BHC subgroup as part of the Sustainability Program
Responsible approach to gene technology	The Bayer Position on Gene Technology and specific regulations in the subgroups and service companies are being implemented.	44		Implementation is being continued by the subgroups
Reduction in the number of occupational injuries with lost days per 1 million hours worked (MAQ < 2)	Lost time injury frequency rate fell to 1.7 injuries per million working hours (million working hour quota = MAQ) by 2010.	40		New Group target 2015: Occupational safety
Consistent implementation of our corporate values in the area of equal opportunities for all, regardless of gender, nationality, color, religion, sexual orientation or age	Our Corporate Compliance Policy and the Bayer Human Rights Position are being applied and monitored throughout the Group. Additionally, the new values emphasize explicitly the tremendous importance of integrity for Bayer, its employees and our business activities. We have implemented a largely standardized compensation system for all employee groups and included behavior with regard to diversity in the 360° Feedback process. A project to achieve a sustained increase in the proportion of women in top management positions has been started in the BHC subgroup.	28, 34, 37	ongoing	New Group target 2015: Diversity New Group target 2015: Compliance
Area of action: Responsibilit	ry for the environment			
Water emissions: 10 percent reduction in the discharge of TOC (total organic carbon) and nitrogen into receiving waters per metric ton of sales product (base year 2005)	The specific volume of TOC (total organic carbon) fell to 0.136 kilograms per metric ton of sales product in 2010. The nitrogen objective relating to the base year of 2005 was achieved in 2010.	59		TOC and nitrogen values will continue to be tracked
Air emissions: 30 percent reduction in VOC (volatile organic compound) emissions per metric ton of sales product (base year 2005)	VOC emissions per metric ton of sales product dropped to 0.24 kilograms in 2010.	57		New Group target 2015: VOC emissions
Air emissions: compliance with a maximum limit for ODS (ozonedepleting substance) emissions of less than 20 metric tons per year (CFC-11 equivalents) (base year 2005)	For the first time during the last years we could not achieve our target to keep the amount of ozone-depleting substances (ODS) below the limit of 20.0 metric tons. In 2010, the ODS emissions at Group level came to 20.8 metric tons. Essential reasons were two incidents at two major production sites. In Baytown, United States, a BMS site, a leakage of cooling gases with ODS potential occurred. At the BCS site in Dormagen, Germany, ODS emissions entered the environment due to a leakage at a plant. Irrespective of these individual incidents, within the next years we will focus our activities on reducing the amount of ODS emissions across the Group by installing a waste air treatment at our BCS site in India. At this site the big-	57		New Group target 2015: ODS emissions

Objective	Implementation status	Page	Achieve- ment by 2010	Further action
Air emissions: BMS: 25 percent reduction worldwide in specific greenhouse gas emissions (CO2 equivalents in metric tons per metric ton of sales product) between 2005 and 2020. The by-products sodium hydroxide and hydrochloric acid, which occur during production, are not considered because they will in the future occur in much smaller amounts thanks to mea- sures aimed at enhancing energy efficiency. The trade products are also not considered. The reduction of specific emissions is recognized as an adequate and ambitious emissions objective in this energy-intensive segment because it enables tough energy efficiency targets to be achieved while also increasing sales	From 2009 to 2010, the specific greenhouse gas emissions of BMS (CO_2 equivalents in metric tons per metric ton of sales product) decreased from 1.09 metric tons of CO_2 equivalents per metric ton of product to 0.96 metric tons of CO_2 equivalents per metric ton of product. Compared to 2005 (1.11 metric tons of CO_2 equivalents per metric ton of product), this still represents a drop of 13.5 percent. These results are achieved based on the implementation of energy efficiency measures, the application of advanced technology and the use of catalysts.	56		New Group target 2015: Climate protection
BCS: 15 percent absolute reduction in greenhouse gas emissions (CO ₂ equivalents in metric tons) worldwide between 2005 and 2020	Greenhouse gas emissions are expected to be reduced from 1.21 million metric tons of CO_2 equivalents (2005) to 1.09 million metric tons of CO_2 equivalents (by end of 2010), this representing a drop of 9.9 percent.	56		
BHC: Five percent absolute reduction in greenhouse gas emissions (CO ₂ equivalents in metric tons) worldwide between 2005 and 2020	From 2009 to 2010, the greenhouse gas emissions of BHC fell from 0.55 million metric tons of CO_2 equivalents to 0.54 million metric tons of CO_2 equivalents. Compared to 2005 (0.59 million metric tons of CO_2 equivalents), this represents a drop of around 8.5 percent.	56		
Greenhouse gas emissions from the Bayer Group to stay at current level up to 2020 according to to- day's estimates despite expected growth in production	For the Bayer Group as a whole, greenhouse gas emissions fell from 9.11 million metric tons of CO_2 (2005) to 8.50 million metric tons of CO_2 equivalents (2010). This represents a drop of 6.7 percent.	56		Will continue to be pursued until 2020
Reduction in the volume of haz- ardous production waste to less than 2.5 percent per metric ton of sales product	Compared to the previous year, the specific amount of hazardous waste was reduced significantly, but the target of less than 2.5 percent hazardous waste per metric ton of sales product still could not be achieved. Since our acquisition of the Schering pharmaceuticals business our product portfolio has changed. Pharmaceutical and agrochemical products play a more dominating role now. With the manufacture of such products the proportion of by-products that cannot be recycled but must be handled as hazardous waste increased.	60f.		New Group target 2015: Waste



Progress report on the implementation of the principles of the UN Global Compact

Bayer has supported the United Nations Global Compact since this was founded in 2000. We want to play an active part in the endeavors to make globalization more socially and ecologically compatible and to raise standards in the fields of human rights, labor rights and environmental protection and in the fight against corruption.

Since the end of 2010, the UN Global Compact has offered participants a range of options for putting their own stamp on their progress reports. As a member of the Global Compact LEAD initiative, we base our activities on the Blueprint for Corporate Sustainability Leadership and report on the progress we make in line with the "Advanced Level." For this level of progress reporting (Communication on Progress/COP), in addition to meeting the basic requirements, participants must also fill in a questionnaire that takes the form of a self-assessment. The questionnaire calls for the fulfillment of 24 criteria relating to strategy, goals, implementation of the Global Compact principles in the supply chain too, and publication of best practices. The Bayer "COP Advanced Level" can be found on the website of the UN Global Compact initiative: www.unglobalcompact.org

The following table provides a concise summary of the activities and management systems at Bayer that support the 10 principles of the Global Compact and the results which were achieved in 2010.

	Systems	Measures 2010	Achievements 2010
Principle 1: Support of human rights	 Human Rights Position (p.34) Corporate Compliance Policy (p.28) Bayer Sustainable Development Policy (p.11) Bayer policy guideline on procurement (p.31) Procedure for selecting and evaluating suppliers (p.32,33) Supplier Code of Conduct (p.32,33) Guidelines on occupational health and safety (p.40) Establishment of a Safety Council (p.63) New program of targets for 2015 (front flap) 	 Strategy development and expansion of the alliances for sustainable health care (p. 15-17) and partnerships for good harvests (p. 19-21) Information campaign (brochure/training presentation) on the theme of human rights extended to all Group countries by the start of 2011 (p. 34) Continuous information and training on the theme of compliance (p. 28) E-learning tool for new employees, "Discovering Bayer" with chapter on human rights (p. 35) Purchaser training on sustainability and on the Supplier Code of Conduct (p. 32) Roll-out of the Supplier Code of Conduct from December 2009 (p. 32) Occupational safety: ideas and activities (link 89) Launch of Group-wide initiative on process and plant safety (p. 63) 	 Increase in the Group-wide training rate for human rights issues (p. 34) Training rate for our strategic purchasers worldwide almost at 100%, plus training for new purchasers (p. 32) Supplier training sessions on the Code of Conduct and assessments (p. 32) Employee union representatives already elected at six sites of our Group companies in China; three more to follow shortly (p. 35) In 2010, 61% of managerial employees completed web-based compliance training (p. 28) Number of occupational injuries to Bayer employees that led to lost days fell again (to 1.7 MAQ) (p. 40)
Principle 2: Exclusion of human rights violations	 Human Rights Position (p. 34) Corporate Compliance Policy (p. 28) Supplier Code of Conduct (p. 32, 33) Procurement/Supplier management (p. 32, 33) 	 Information campaign (brochure/ training presentation) on the theme of human rights extended to all Group countries by the start of 2011 (p. 34) Supplier management: risk analysis using the Bayer Country Sustainability Risk Index (p. 32) 	
Principle 3: Observance of the right to freedom of association	 Collective agreements such as sector or in-house agreements (p. 35) Bayer European Forum (link 10) Human Rights Position (p. 34) Supplier Code of Conduct (p. 32) 	 Constitution of union representation at Bayer China (p. 35) Information campaign (brochure/ training presentation) on the theme of human rights extended to all Group countries by the start of 2011 (p. 34) Roll-out of the Supplier Code of Conduct from December 2009 (p. 32) 	 Employee union representatives already elected at six sites of our Group companies in China; three more to follow shortly (p. 35) Purchaser and supplier training on the Code of Conduct (p. 32)

	Systems	Measures 2010	Achievements 2010
Principle 4: Abolition of all forms of forced labor	 Human Rights Position (p.34) Corporate Compliance organization (p.28) Supplier Code of Conduct (p.32) Procurement/Supplier management (p.32, 33) 	 Purchaser training on sustainability and on the Supplier Code of Conduct (p. 23) Roll-out of the Supplier Code of Conduct from December 2009 (p. 32) 	 Supplier training sessions on the Code of Conduct and assessments (p. 22, 32)
Principle 5: Abolition of child labor	 Human Rights Position (p. 34) Corporate Compliance organization (p. 28) Procurement/Supplier management (p. 32, 33) Supplier Code of Conduct (p. 32, 33) Bayer Child Care Program (p. 33, link 69, 70) 	 Expansion of system for countering child labor (p. 33, link 69, 70) Purchaser training on sustainability and on the Supplier Code of Conduct (p. 23) Roll-out of the Supplier Code of Conduct from December 2009 (p. 32) Learning for Life initiative (India) for improved personal circumstances (in cooperation with NGO), (p. 33, link 69) 	 Brochure on child labor (p. 33) Renewed confirmation by audits that there is no systematic child labor in the supply chain for cotton seeds in India (p. 33) Bayer Child Care Program expanded to seed production for hybrid rice in 2010 (p. 33) Learning for Life initiative (India): in 2010, 535 school students received educational support at 23 Academic Learning Centers. In the year under review, 834 children attended 29 Early Childhood Education Centers. In Karnataka, 1,949 trainees regularly attended vocational lessons in the 2009/2010 and 2010/2011 academic years (link 69).
Principle 6: Elimination of discrimination	 Human Rights Position (p. 34) Bayer diversity policy (p. 37) Corporate Compliance Policy (p. 28) Supplier Code of Conduct (p. 32) 	 Equal opportunities programs at BHC (p. 38, link 82) Promotion of diversity through networks (p. 37, link 81) Bayer USA program for training and employing people with disabilities (p. 39) New target for 2015: increase the proportion of women in management positions to approaching 30% (p. 38) 	 Continued increase in percentage of women in senior management positions (p. 38) SPEED program to support talented young employees and managerial staff in Asia/Pacific region (link 82)
Principle 7: Precautionary environmental protection	 Bayer Sustainable Development Policy (p. 11,54) HSEQ management systems (p. 45,54,62f.) Risk management systems (p. 28f., link 57) Global Product Strategy (p. 45) Supplier Code of Conduct (p. 32) "BayRisk" instruction (p. 29) Establishment of a Safety Council (p. 63) 	 Regular HSE(Q) audits (p. 62) Analysis of pharmaceuticals in the environment (p. 48) Training in methods of sustainable agriculture worldwide (p. 19-21, 50, link 34) Biodiversity projects (p. 61f., link 141) Launch of Group-wide initiative on process and plant safety (p. 63) New target for 2015: roll out Global Product Strategy in another 10 countries with different languages 	 REACH: successful registration of 125 substances that are produced or imported in volumes greater than 1,000 metric tons per year or that are particularly hazardous (p.45) Presentation of the CEO Safety Award initiated by BMS (link 89) Registration in the Inventory of the European Chemicals Agency (ECHA) of all substances marketed in the E.U. and classified as GHS by the deadline of November 30, 2010 (p.45)
Principle 8: Specific commitment to environmental protection	 Bayer Sustainable Development Policy (p. 11) Group Program of Objectives 2006+ (link 18) New program of targets for 2015 (front flap) Bayer Sustainability Program (p. 9, 23, link 6, 7) Bayer Climate Program (p. 23ff., link 40, 49) UNGC Caring for Climate (link 10, 165) CEO Water Mandate of the UN Global Compact (p. 58, link 137) 	 Application of the Bayer Climate Check (p.24) Implementation of the STRUCTese™ energy efficiency management system (p.28) Green IT (resource efficiency with servers and printers (p.25, link 46) 	 Climate Check concluded in 2010 (p. 24) STRUCTese™ successfully installed in 30 plants by end of 2010 (p. 24) Reduction in emissions of carbon monoxide, sulfur oxides and particulates (p. 57) Reduction in discharges of phosphorus, nitrogen and TOC into water (p. 59) Reduction of waste and hazardous waste (p. 60) Achievements with respect to the CEO Water Mandate (link 137)

	Systems	Measures 2010	Achievements 2010
Principle 9: Diffusion of environmen- tally friendly technologies	Core business of BTS, BMS and CURRENTA (p. 6-7, p. 23-25, 51f., 53)	 Use of waste material and climate gas carbon dioxide (CO₂) from energy industry as alternative raw material for the production of high-quality plastics. A pilot plant was taken into operation at the CHEMPARK Leverkusen site to trial the new process on a technical scale. (p.51, link 126) New pre-treatment method for electronic scrap: special thermal pre-treatment method to recover valuable metals such as gold, silver and copper from old computer PCBs and cell phones (p.61) Development of an automated test method to protect the functionality of Bayer's wastewater treatment plant in Dormagen. Enables the early identification of the harmful impact of wastewater on bacteria for nitrification. This increases the operational reliability of the wastewater treatment plant and the reliability of waste management at Bayer (p.53). In future, a climate-friendly method of chlorine production (oxygen depolarized cathode technology based on common salt) will make it possible to reduce the energy used in chlorine production by 30%. Bayer is planning to take a facility with an initial annual capacity of 20,000 metric tons into operation in Germany in 2011. By 2020, this method should cut emissions of CO₂ equivalents by 250,000 metric tons (p.55). 	 Modernization of the central waste air incineration in Dormagen is complete (p.55). A new process cuts nitrous oxide emissions in Dormagen by up to 99%, thus reducing CO₂ equivalents by 220,000 metric tons per year. Installation of a secondary catalytic unit at the Caojing site (China) has already reduced nitrous oxide emissions by around 50% (p.56)
Principle 10: Measures to fight corruption	 Corporate Compliance Policy and organization (p. 28) Code of Conduct for Responsible Lobbying (p. 30) Directive on Integrity & Responsibility in Communications and Marketing (p. 12) Code of the "Voluntary Self-Monitoring by the Pharmaceutical Industry" (FSA) association (p. 49) Export controls (directive and manual) Supplier Code of Conduct (p. 32) 	 Procurement management: risk analysis using the Bayer Country Sustainability Risk Index (p. 32) Continuous information and training on the theme of compliance (p. 28) Entry in lobby register of the E.U. (p. 30) 	 Corporate compliance training, 61% of managerial employees completed web-based compliance training (p. 28) Purchaser training sessions (p. 32) Supplier training sessions on the Code of Conduct and assessments (p. 32) Use of the Bayer Country Sustainability Risk Index (p. 32)



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