ABB Annual Report 2004
Sustainability review

Making a difference

ABB

Overview

Contents and GRI reference matrix

While this report provides certain information with respect to ABB products, services, technologies and standards of conduct, its contents must not be construed as constituting an expressed or implied warranty or representation.

This report is printed on paper made from elementary chlorine-free (ECF) pulp in mills which are certified to ISO 14001. About ten percent of the wood used for this report comes from forests certified by the Forest Stewardship Council (FSC), the remainder from forests which are in the process of FSC certification.

The complete ABB Annual Report 2004 consists of an Operational review, a Financial review and a Sustainability review. For an additional copy of this or any other of the reviews, please use the contact information on the back of this document, or download copies from www.abb.com.

ABB's Sustainability review is available on the internet: www.abb.com/sustainability

Group*

Revenues (2003 $20,427m)

$20,721m

EBIT (2003 $357m)

$1,084m

Net loss (2003 net loss $779m)

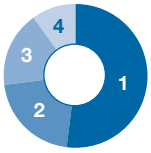
$35m**

* 2003 figures adjusted to reflect the reclassification of the remaining Oil, Gas, and Petrochemicals business from discontinued operations to continuing operations and certain other businesses from continuing operations to discontinued operations in 2004.

** $201 million net income from our February 17, 2005 earnings release, reduced to a net loss of $35 million due to charge from March 2005 asbestos agreement being taken in 2004.

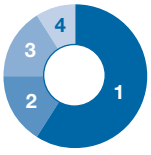
Revenues by region

1 Europe **52%**
2 Asia **21%**
3 The Americas **17%**
4 Middle East and Africa **10%**



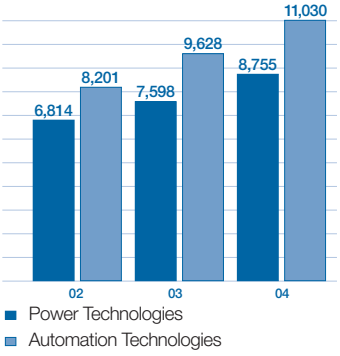
Employees by region

1 Europe **59%**
2 The Americas **16%**
3 Asia **16%**
4 Middle East and Africa **9%**



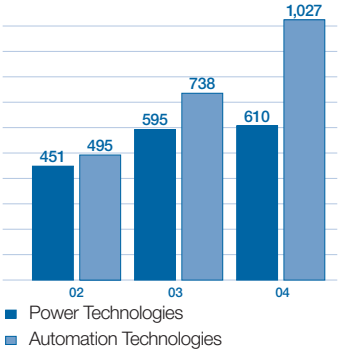
Core division revenues

(in $ millions)



Core division EBIT

(in $ millions)



Letter to shareholders
Making a difference

"To us in ABB, sustainability is not an add-on – it is an essential part of our business."
Jürgen Dormann
Chairman and CEO, ABB Ltd

Sustainability highlights

- Health and safety training courses for top managers held worldwide in campaign to improve group performance
- Assessment starts to determine if ABB will become CO_2-neutral company
- ABB develops and road tests human rights checklist as part of international business initiative to protect and promote human rights
- Power turned on in remote Tanzanian village, marking first concrete results of Access to Electricity program
- Progress in phasing out hazardous substances, including chlorinated volatile organic compounds
- Stakeholder dialogues held in 15 countries
- ABB in Italy wins prestigious Sodalitas award for sustainability policies – mainly for wide range of social programs
- More than 200 volunteers from ABB in Germany work at Special Olympics for disabled held in Hamburg
- ABB receives environmental leadership award from Ford Motor Company for product performance

ABB made steady progress in 2004, with our core divisions – Power Technologies and Automation Technologies – posting double-digit growth in orders and revenues. Overall in 2004, ABB improved operational performance and results, strengthened finances and regained the path of profitable organic growth.

Improved results mean we are better placed to strengthen our social and environmental performance, to fulfill our responsibilities to stakeholders – shareholders, customers, employees and society – and to play a more active role in international efforts aimed at making business act on its responsibilities to society.

To us in ABB, sustainability is not an add-on – it is an essential part of our business. It is ABB's way of making a difference. Sustainability is built in to the products and systems we develop and provide to help our customers improve power grid reliability and increase industrial productivity.

These products, systems and solutions are designed to increase energy-efficiency and reduce costs, and therefore have a direct impact on the financial success of ABB and our customers.

To track our performance on the "triple bottom line," ABB is following the guidelines of the Global Reporting Initiative (GRI), for the fourth year in a row, reporting on our efforts to promote sustainable economic, environmental and social development.

Using this data we can provide a clearer picture of how we generate economic growth, lower the environmental impact of our own and our customers' businesses, and promote social progress.

In 2005, we continue as an active participant in a number of business efforts on sustainability issues – from expanding our Access to Electricity rural electrification program to our efforts in the Business Leaders Initiative on Human Rights, which aims to help businesses find pragmatic ways to protect and promote human rights (see pages 8–9).

One of the main challenges that society faces is climate change. ABB has a role to play throughout the value chain – our research and development work, our products themselves, in our manufacturing centers around the world, and through our business relationships with suppliers and customers. We have the technology to make a difference (see pages 2–3).

An area where we continuously strive to improve is in the health and safety of our employees. Every injury or death at an ABB workplace or at a subcontractor is unacceptable, and we took further measures in 2004, and will take more in 2005, to secure further improvements (see page 10).

We believe a sustainable approach to business pays off, and are committed to it. We will continue to review our activities and ensure that our contribution to the triple bottom line is as beneficial and balanced as it can be.

Sincerely,

Jürgen Dormann
Chairman and CEO, ABB Ltd*

* Fred Kindle assumed the roles of President and CEO on January 1, 2005. Mr. Dormann remains chairman of the board of directors.

Challenges and contributions
Climate change: how our technologies make a difference

Climate change is one of the biggest issues we all face. The degradation of the environment, pollution, reliance on non-renewable sources of energy, poverty and overpopulation are crucial problems, whose impact is more severe and noticeable than ever.

ABB's products, systems and solutions are designed to have the lowest possible environmental impact, as we press ahead with our goals of helping our customers strengthen power grids and improve industrial efficiency. At the same time, we work closely with suppliers and customers to ensure they demonstrate the same commitment.

We began an investigation in 2004 on the possibility of becoming a "carbon-neutral" company in the medium term. We produce about 1.5 million tons of CO_2 emissions annually (measured according to Greenhouse Gas Protocol Scope 1 and 2), which is relatively low for an industrial company. As well as planning for the future, we are involved in ongoing efforts to reduce carbon emissions, as well as other harmful substances (see pages 29–30).

The implementation of the Kyoto Protocol and the start of carbon trading in the European Union in 2005 are setting new parameters for many of our key customers, and they also mean that carbon emissions now have a financial value.

Coupled with this, new regulations and increased energy costs have led to growing awareness of the need for energy efficiency.

ABB is optimizing energy efficiency with a wide variety of products and solutions in our own businesses. We are helping our customers to do the same in areas such as power transmission and distribution, power generation, industries such as cement, pulp and paper, mining, chemicals and oil and gas, as well as at factories and buildings worldwide.

Take the power sector, for example. Our leading-edge management and control systems, Optimax and Combustion Optimizer, have helped hundreds of power plant operators around the globe to improve their operating efficiency. The same critical level of power is generated but less fossil fuel is used.

ABB systems Modan and Modakond optimize the operation of turbines and boilers in steam power plants, leading to efficiency gains of up to 0.5 percent. This gives customers a truly valuable return on investment – cutting costs and reducing environmental impact.

Many industries and plants benefit from the energy efficiency of ABB's drives. ABB is the world's top supplier of variable speed drives which reduce energy consumption by closely regulating the speed of motors.

The journey so far

1992

ABB signs International Chamber of Commerce Business Charter for Sustainable Development, establishes its environmental affairs organization and sets up an environmental advisory board.

1993

Network of environmental controllers appointed for countries and factories. Thirty-eight countries participate in start-up of ABB's environmental management program. First reporting procedures introduced.

1994

Implementation of environmental management systems is set as group-wide objective, involving 43 countries. ABB publishes its first environmental report.

1995

ABB publishes its environmental objectives and launches design tool for life cycle assessment of products. Fifteen sites certified to BS 7750 or EMAS environmental standards.

1996

ISO 14001 is introduced. A total of 50 sites gain certification, including first site in China and first construction site.

1997

123 sites gain certification to ISO 14001. ABB publishes second generation of environmental objectives and launches second-generation life cycle assessment software tool and database.

1998

ISO 14001 is implemented in 449 sites. ABB's CEO serves on World Commission on Dams, which produced guidelines for hydroelectric power projects. Summaries of ABB's environmental report published in 23 languages.

ABB's next steps towards CO_2 neutrality

ABB has identified the following steps as key, as it considers becoming a carbon-neutral company.

- Establish a comprehensive system to measure emissions
- Produce a detailed plan to reduce our emissions
- Create emission-reduction projects with customers to offset our remaining emissions
- Verify our performance through third-party assessment
- Invite stakeholder feedback and promote CO_2 neutrality along the value chain

HVDC
HVDC transmission reduces energy losses and the environmental impact of a project.

Drives
ABB's drives lower energy consumption considerably and cut costs.

Worldwide, ABB drives help to save some 80TWh (terawatthours) of energy every year, the equivalent of ten 900 MW (megawatt) power plants. These savings translate to a reduction in CO_2 emissions of 68 million tons per year, more than the annual emissions of a country the size of Finland.

Renewable sources of energy could make a more significant contribution to power needs, particularly in Europe, but we must ensure that transmission grids are sufficiently developed to collect and deliver that power efficiently and reliably.

ABB has the technology to improve the generation and transmission of renewable sources of energy. We provide vital components for wind parks (see page 4 for example), including generators and converters, transformers, switchgear and control systems.

But the issue is much greater. A grid must be able to collect power from sometimes remote areas and transmit it to centers of consumption. What really counts is not how much power is generated, but how much power is efficiently delivered.

An effective means of connecting volatile power generators like wind parks with power grids is ABB's unique HVDC (high voltage direct current) Light technology which has many environmental benefits: no electromagnetic field, low transmission losses for linked AC grids, oil-free cables, and lines which can run underground or underwater.

Key technologies to stabilize grids also include FACTS (Flexible AC Transmission Systems) and conventional HVDC transmission technology.

The need for new power grid interconnections, as well as transmission and distribution lines, is evident. New investment should prioritize these high-end technology solutions that get more out of existing grid capacity while minimizing energy losses and lowering environmental impact.

We also seek to minimize the environmental impact caused by transportation – our own and our customers'. This ranges from cutting the amount of air travel to increasing use of rail rather than road transport for products, and developing technologies such as Compact Azipod propulsion systems for ships which increase maneuverability and reduce fuel consumption.

ABB is committed to working with other stakeholders to develop sustainable energy practices across the value chain, and promote both sound regulatory frameworks and more careful use of energy in society. We are contributing aggressively, but there is further work ahead.

1999

ABB produces first environmental product declarations (EPDs). ABB's CEO initiates World Energy Council's greenhouse gas reduction program. ISO 14001 is implemented in an ABB Black Economic Empowerment company.

2000

ABB launches social policy and publishes first sustainability report including both environmental and social performance. ABB participates in launch of the United Nations Global Compact. ISO 14001 is implemented in 539 sites.

2001

Dow Jones Sustainability Index rates ABB top of its group for the third year. ABB produces first "triple bottom line" sustainability report, inspired by the Global Reporting Initiative. ISO 14001 implemented in 98 percent of sites.

2002

Sustainability business plans implemented in 50 countries. ABB launches "Access to Electricity" initiative at World Summit in Johannesburg. Environmental program expanded to include employees in non-manufacturing facilities.

2003

ABB to implement health and safety systems based on OHSAS 18001 by end 2004. First "Access to Electricity" projects in Tanzania. With other companies, ABB launches Business Leaders Initiative on Human Rights. New environmental policy launched.

2004

Health and safety training for top managers begins worldwide. Group-wide conference addresses diversity issues. ABB starts investigation to become a CO_2-neutral company in the medium-term. Implementation of new environmental policy continues worldwide.

Case studies
Triple bottom line in action

ABB aims to contribute to economic growth, environmental stewardship and societal development through its businesses.

The Global Reporting Initiative's triple bottom line guidelines, covering the economic, environmental and social dimensions of a company's activities, provide a valuable yardstick in measuring performance.

On the following pages, we present some examples of how our products and systems, and our activities in different countries, are strengthening economic growth, lowering environmental impact and fostering social progress.

ABB drives Finland's biggest wind park

The number of large-scale wind-power parks has increased dramatically in recent years. Finland's biggest wind park, switched on at the end of August 2004, is one of many driven by ABB technology.

Consisting of five 2.3-megawatt wind turbine generators, the Raahe wind park in the Gulf of Bothnia will generate up to 26 million kilowatt hours of wind-generated electricity annually. Built by a company owned by the country's nine largest utilities, the park features 80-meter high towers, fitted with 40-meter long rotating blades.

Rautaruukki, the global steel factory owning the land, will buy part of the electricity that is generated. The total amount of electricity generated would be sufficient to heat 1,500 one-family houses.

ABB was responsible for the overall project management, delivery of generators and transformers, and connection to the grid. Ensuring reliable connection to a grid is central to deciding a wind farm's viability.

ABB offers tailor-made solutions for interconnecting windmills and then connecting wind parks to a grid system.

ABB has more than 20 years of experience in producing generators for different kinds of wind power applications, and has a 25 percent market share, making it the clear market leader in wind turbine generators.

The Raahe wind park, driven by ABB technology, is the biggest in Finland, both in terms of size and output.

Creating hopeful futures in Brazil

Poor children struggling to survive in São Paulo's gritty industrial suburbs are being given a chance to improve their lives with Criança Futuro-Esperança, ABB's innovative supplemental school program for children aged seven to 14.

ABB in Brazil spends roughly $180,000 (500,000 Reais) annually on the program, which in English means Children with a Future Full of Hope. The money helps feed, clothe and educate nearly 180 children, who are bused every day from nearby slums to employee centers on the ABB grounds in Osasco and Guarulhos.

Here, they receive an extra four hours of lessons to supplement their regular school classes with subjects and facilities that are not always available to them. They can work on computers, study art and music, and are given access to sports equipment and facilities under the care and supervision of qualified teachers.

They receive health and hygiene instruction, medical and dental checkups. They are also given food, learn about protecting the environment, and even get uniforms to wear.

Many of the children are nearing 14, and will have to leave the program soon. Program founder and director Ronaldo Spedaletti is now searching for new partnerships to help keep the goal of a better life alive for them.

Children receive schooling, food, medical checkups and the chance of a better future under an ABB health and education program.

Major energy savings with ABB drives

ABB has the world's largest installed base of variable speed drives, which reduce energy consumption by adjusting the speed of motors. In total, the drives reduce CO_2 emissions by 68 million tons per year worldwide.

Take just one example: Magnetto-Topy in the U.K. produces up to 100,000 steel wheels per week for automotive customers like Nissan, Peugeot, Vauxhall, Opel, LDV, MGRover and Land Rover.

ABB variable speed drives reduced energy consumption at the company's Coventry plant by 50 percent, and a second ABB solution then cut energy consumption in half again for a total energy saving of 75 percent.

The drives regulate water pumps in four cooling towers that supply water for the wheel-making process.

Before installation, the pumps ran constantly and unnecessarily at 50 hertz. ABB drives reduced the speed to 35 hertz, shrinking energy consumption by 53 percent in the first 12 months.

Energy consumption fell by another 50 percent when ABB activated the internal proportional-integral-derivative (PID) controller in each drive.

ABB drives cut energy consumption and costs, and reduce global CO_2 emissions by about 68 million tons per year.

"At home" everywhere

Being "at home" in a community where a business is based is key for ABB. There are a number of sometimes unconventional ways, outside business, in which the company can help the community.

In Argentina, for example, ABB started a farming school in 2004 to help ease food shortages and raise the standard of living of farmers, who had been hit by a downturn in the sugar cane industry.

Working with a non-governmental organization, ABB set up the farming school on a 10-hectare plot of company land, adjoining a low-voltage factory in Bella Vista, a town in northwestern Tucumán province.

Groups of people are now taking part in six-month intensive training courses on the ABB land, being taught how to raise crops, run a small farm and conserve food. They learn how to be self-sufficient before returning to farm their own small plots of land.

About 40 people completed the courses in the first year, and most of them are now working for themselves on their own land. The project, although small-scale, is helping to ease the plight of some members of that community.

People learn new farming methods on ABB land, which helps them to improve their living standards.

How to make a difference locally

ABB in India expanded operations at its power technologies hub in Vadodara in 2004, reflecting the company's ongoing growth. The local benefits extend beyond business.

Several new lines, including a distribution transformers plant and high-voltage machines have been added at the state-of-the-art factory. The expansion has led to further jobs and a boost for local suppliers.

On the social front, ABB adopted a government primary school in Vadodara in 2004, continuing its countrywide policy of promoting education for less privileged children.

The school in Makarpura village, with 1,800 pupils, lacked basic amenities when ABB stepped in. Work has now been completed to provide clean drinking water, renovate washrooms, strengthen walls and paint classrooms.

As in other Indian cities, ABB also sponsors "greening initiatives" in Vadodara. This involves planting and maintaining gardens, shrubs and trees at parks, roundabouts, road verges and the airport.

That same care for the environment is visible at the factory, set in a lush green park with carefully tended lawns and extensive trees and bushes, which also keep dust out of the plant.

Vadodara airport is one of the city areas benefiting from ABB's greening initiative.

Helping to engineer social change in South Africa

ABB in South Africa funds projects which have an economic, social and environmental impact in communities where the company operates.

Under the country's Black Economic Empowerment program, ABB supports previously disadvantaged companies that provide engineering installation services for substations. One such company is Desta Power Matla, a subsidiary of ABB Powertech Transformers, which manufactures power products like distribution transformers.

In addition, people working outside ABB are encouraged to start up small businesses in areas that provide strong job creation. ABB's purchasing policy favors such businesses.

ABB has a number of social development programs. In 2004 ABB focused on the community of Botshabelo in Free State province where there is high unemployment.

One project with the Association for Persons with Disabilities and the Deaf has resulted in ABB production contracts for 50 disabled people. Seven other disabled people will be employed full-time by ABB in Botshabelo.

ABB also donated equipment and materials to help disabled children and adults at learning centers in the town.

ABB is contributing to a number of literacy programs throughout the country.

Case studies
Triple bottom line in action

By following the guidelines of the Global Reporting Initiative (GRI), and tracking our performance on the triple bottom line, we can report more effectively on our efforts to promote sustainable economic, environmental and social development.

Using this data we can provide a clearer picture of how we generate economic growth, lower the environmental impact of our and our customers' businesses, and promote social progress.

Power transmission with added benefits

ABB's high-voltage direct current (HVDC) technology permits bulk power transmission over long distances, providing customers with economic and environmental benefits.

The system allows long distance transmission on land or underwater with minimal losses; its small footprint helps to preserve farmland and forests; power supply to remote locations is also cost-effective because of low losses and efficient transmission.

A decision at the end of 2004 to proceed with the NorNed project, a 580-kilometer HVDC link connecting the power grids of Norway and The Netherlands, will have additional environmental benefits.

The interconnection, the world's longest high-voltage underwater link, will lead to a more efficient use of renewable hydro energy produced in Norway. It may also boost the development of wind power in The Netherlands because the HVDC link should help to compensate the effect of wind fluctuations.

In addition, the interconnection will also contribute to reduced CO_2 emissions because it will cut the use of peak load fossil-fuelled generators and instead ease the use of highly efficient base load generators.

HVDC Light, which was invented by ABB, also has major benefits. It has no electromagnetic fields, it lowers transmission losses for linked AC grids, it uses environmentally friendly oil-free cables, and because its lines can run underground or underwater over longer distances, it avoids unsightly overhead lines.

High-voltage direct current transmission cuts energy losses and reduces the footprint of a project.

Helping women in Gulf develop careers

Women in the United Arab Emirates (UAE) can look forward to a better professional future, as a result of internal and external initiatives by ABB.

Dubai Women's College (DWC) has awarded a certificate of appreciation to ABB for its contribution to the college's work experience program – part of the company's ongoing efforts to support the professional development of women in the UAE through work placement programs and related initiatives.

Some 20 women have been offered placements with ABB since 1998. ABB managers in the UAE also sit on a special Business Programs Advisory Committee, which identifies opportunities for local women in both the public and private sectors.

ABB is one of the main sponsors of a series of international study tours for DWC students. These give participants the chance to experience different cultures and working environments in locations ranging from Switzerland and Germany to Singapore.

In addition, ABB is involved in a program to develop leadership potential in the UAE by providing direct mentorship for talented young men and women who are already involved in the business world.

ABB is supporting the professional development of women in the UAE with a number of initiatives.

From road to rail: savings all round

As part of its efforts to reduce environmental impact, ABB seeks – where feasible – to use more environmentally friendly forms of transport.

In the heart of Europe, a Swiss environmentalist, Christian Vetterli, has changed policy at his ABB production unit in a way that saves money and the environment.

At Vetterli's urging, ABB's Sécheron plant near Geneva is now transporting a quarter of its products, mainly traction transformers for trains, by rail.

The Swiss Federal Railways has offered ABB cheaper transportation prices than road haulage companies for certain destinations such as Germany, Italy and Sweden. Railway transport costs are 37 percent cheaper, and ABB's savings for one year are estimated at CHF 100,000 (approximately $85,000).

The environmental impact is also lower. Under one recent contract, 140 transformers are to be delivered by rail to Prague; by road, the same order would have taken 60 truckloads, clocking up some 46,000 kilometers and commensurate CO_2 emissions.

The medium-term aim for ABB Sécheron is to deliver half its products and transport 30 percent of its material by rail.

Christian Vetterli oversees the loading of ABB equipment on to trains.

Ships plug into an environmental success

The biggest port in Scandinavia is offering visiting vessels the world's first high-voltage shore connection. This environmentally friendly idea, supported by ABB technology, won the port of Gothenburg in Sweden a Clean Marine Award from the European Union.

"We knew the concept we wanted, and ABB solved it for us technically," says Per Lindeberg, the man in charge of the port's electrical installations. ABB's delivery included the maintenance-free 12 kV (kilovolt) switchgear SafePlus, relay protection, the low-voltage switchgear MNS and Resiblock transformers.

Ports are not normally equipped to supply vessels with electricity from shore. In most cases, ships at dock get electricity from their auxiliary engines burning diesel or heavy marine fuel oil. The ships' engines power electric generators on board which run the vessel's heating system, fan drives and pumps.

When they dock at Gothenburg, ships are quickly and simply connected to a single high-voltage cable, which means their engines can be switched off and pollution from exhaust gases and noise is eliminated.

The EU calculates the new system eliminates 80 metric tons of nitrogen oxide, 60 tons of sulphur dioxide and two tons of solid particle emissions each year. Electricity for Gothenburg's dockside service is generated partly from wind power.

Ships can now receive power through a single source onshore and cut their exhaust gases.

Helping poor students to finance their education

ABB is helping students from impoverished families in China to finance their university education.

ABB has donated around RMB 830,000 ($100,000) to the New Great Wall Project, part of the China Foundation for Poverty Alleviation, China's largest non-governmental anti-poverty organization.

Started in 2002, the project has so far helped more than 4,000 students, each of whom receives RMB 2,000 ($240) a year for the duration of their studies. The money is used for tuition fees, books, food and lodging.

ABB's donation, which is monitored closely, will help support around 60 electrical engineering students during their four-year university courses. Universities and students are selected jointly by the project managers and ABB personnel to ensure the funds go to best use.

The donation comes from the proceeds of an ABB Group photography competition. Entrants were asked to submit a photo illustrating one or all of ABB's three business principles – responsibility, respect and determination – and the results were then compiled in a book. People who wanted the book provided a donation.

To view the winning entries visit www.abb.com/photocompetition

ABB is contributing the proceeds from an international photo book to help impoverished technology students in China.

ABB tries to increase the number of female engineers

A series of courses and training programs are run by ABB around the world to increase the number of women interested and qualified in engineering, a traditional male bastion.

In North America, for example, ABB announced in 2004 it is co-sponsoring a further four scholarships for female college students in the United States to study engineering abroad.

One scholarship winner, who is now studying in Denmark, said: "This could be the most valuable experience of my education, changing my views on what type of career I will choose after college and how I will go about being a top contributor to that job."

In Canada, ABB tries to promote professional equality of opportunity by encouraging women to study science and mathematics.

ABB employees have been playing a key role in the annual women's career day organized every February for the past five years by Montreal Polytechnic and Quebec University's ETS engineering school. In 2004, the event – "Young Women and Science: An Electric Partnership" – aimed to show female students what could be achieved by choosing degrees in "non-traditional" areas.

Courses in North America seek to raise the number of qualified female engineers.

Transferring know-how to West Africa

ABB Kabeldon of Alingsås, Sweden has started a youth exchange program with the village of Kartong in Gambia to teach young villagers how to install an inexpensive and renewable source of energy and give them their first taste of a different culture.

Power in Kartong – with its 2,500 inhabitants – currently comes mainly from kerosene lamps.

The youth exchange program will provide villagers with the knowledge to build and install their own solar cells and connect them to 12-volt batteries that will power lamps, refrigerators and other appliances.

The first group of six Kartong youngsters spent three weeks in Alingsås in September 2004, staying with host families while learning about electricity and solar energy at ABB Kabeldon and at Chalmers University of Technology.

A Swedish group including two young ABB Kabeldon engineers returned the visit early in 2005, teaching young villagers how to build and install equipment.

If successful the project may act as a model for other villages in West Africa. ABB is collaborating on the project with the Alingsås-Gambia Society and society member Stephan Mangold, who is associate professor of technology innovation at Chalmers University of Technology in Gothenburg. The project is financed by the Swedish International Development Cooperation Agency.

Sharing knowledge: Swedish engineers are training people from Gambia about solar power.

Common efforts
Promoting sustainable development in Africa

Power provided by ABB was turned on in a remote village in southern Tanzania in 2004, sparking immediate economic, environmental and social benefits for members of the local community.

The 1,800-strong village of Ngarambe, on the edge of the Selous National Park, received electricity under ABB's Access to Electricity program which is designed to promote sustainable development in rural and semi-urban communities in Africa and Asia.

The benefits are already visible. Power from a diesel-fired generator supplied by ABB is lighting up the village school, dispensary, local government office, mosque, small businesses and a number of homes. Small shops, restaurants and clothes makers on the main road take advantage of the electricity to stay open an additional four hours every night.

The local school holds classes after dark. "The pupils can study more for their exams, and it will be beneficial to society," says a teacher. The number of pupils has risen from 250 to 350 since the arrival of electricity.

And at the dispensary, the doctor can now also treat his patients at night. In addition, he is intending to install a refrigerator for medicines. The measures will save some of his patients from the lengthy journey to the nearest hospital 70 kilometers – or two hours' ride – from Ngarambe.

The villagers pay for their power. Discussions are held with the village authorities to set an affordable and viable price. Current limiters prevent individuals exceeding what they have paid for.

ABB and WWF, the global conservation organization, teamed up to ensure the sustainable development of the village. Apart from supplying the generator, ABB installed underground cables and low-voltage equipment, and trained local people to run the power supply. WWF provided guidance on issues ranging from reducing deforestation to healthcare and environmental education.

The project is serving as a model for further, larger Access to Electricity projects aimed at easing poverty in other areas. ABB launched the program in response to the United Nations Global Compact which urged companies and organizations to provide greater assistance to least developed countries. ABB was one of the first international companies to sign on to the Global Compact after it was launched in 2000.

Partnership is a key part of the program. ABB works with other stakeholders – governments, companies, non-governmental organizations, aid agencies, civil society – with each partner bringing its complementary skills to the project.

It's a commercial, as well as social venture, so external financing is vital to make it a good business proposition.

Ngarambe has been an early success. Further projects are now being planned in other parts of Tanzania, Senegal and Uganda, as well as in Asia.

ABB helps relief efforts

Along with other companies, ABB contributed to relief efforts in south Asia following the tsunami catastrophe in December 2004 – both with aid donations and through its expertise in electricity grids and other essential infrastructure.

In a first reaction, employees in many countries around the world made financial donations totaling well over $1 million and collected food, clothing, bedding and emergency materials for distribution in the worst affected areas.

ABB volunteers in the region helped relief agencies with collection, packing and distribution work.

ABB experts also worked on the ground to establish how to help rebuild infrastructure and what kinds of equipment the company could contribute to longer-term reconstruction projects.

ABB also responded to other catastrophes in 2004. In the United States, ABB provided $50,000 for relief efforts in Florida, after the state was hit by a series of hurricanes. After one hurricane, ABB also worked closely with a leading utility to help restore power and protect larger electrical equipment.

ABB helped tsunami reconstruction efforts in a variety of ways, including the donation to a royal foundation in Thailand of switches and circuit breakers to be used in the rebuilding of schools.

A road test for human rights criteria

ABB takes an active role in a number of international organizations to drive greater awareness of business responsibilities in society.

The agendas and aims of the organizations are varied (see pages 37–38). One of them is the Business Leaders Initiative on Human Rights (BLIHR), a three-year program to help lead and develop practical ways for companies to protect and promote human rights.

ABB was a founding member of BLIHR, which now comprises ten international companies, believing that the provision of electricity is central to efforts to raise living standards around the world and contributes to ensuring key human rights.

Electricity provides a safe and clean source of heat, light, power and refrigeration which play an important role in the fulfillment of key economic, social and cultural rights, such as the right to housing, the right to education, the right to health and the right to food.

In 2004, ABB agreed – on behalf of BLIHR – to road test the United Nations human rights rules for business, known as the UN Norms, by developing a human rights checklist for use by managers of infrastructure projects. ABB based the checklist on the premise that managing engineering work and assessing its impact should be subject to human rights criteria.

Working with wide risk assessment criteria is not new, but a systematic approach incorporating human rights concerns contributes to sounder decisions.

The checklist mirrors the human rights categories listed in the UN Norms – the rights of workers, occupational health and safety, non-discriminatory treatment and the rights of local communities.

Translated into local languages, it was road tested in ABB's Access to Electricity rural electrification project in Tanzania (see facing page). First reactions have been positive.

A human rights-aware approach benefits all stakeholders – the villagers, local authorities, suppliers and the companies and organizations. For ABB, the approach means lowering business risk by taking a wider view on the potential impact of such projects.

The use of the checklist is being extended to ABB projects in other parts of sub-Saharan Africa.

ABB has already received feedback from a number of organizations, including Amnesty International, on issues raised by the checklist. Areas for further consideration include the need to strengthen certain questions and the possibility of expanding the checklist to cover the UN Norms more fully.

It is still too early to draw detailed conclusions from the initial results. They will be evaluated in 2005 to assess the level of acceptance, major areas of concern and how to monitor the performance of organizations in meeting the criteria.

Managing dilemmas

Doing business in certain countries presents dilemmas. A recent example for ABB is in Sudan, scene of a long-running civil war and the conflict in the Darfur region. ABB has two projects in Sudan – one for power transmission from a dam to the capital Khartoum, to Port Sudan on the Red Sea and to a city on the Nile. We also delivered a process control system to an oil field in the south of the country.

ABB has been criticized by activists and in the media, and also received questions from concerned investors about its business activities in Sudan. The critics allege that doing business there props up the military government.

ABB takes a broader view, fully aware of its responsibilities. Access to electricity and the exploration of natural resources are prerequisites for economic development. Economic progress, in turn, over time will improve access to clean water, education and health care.

While ABB can't meet the expectations of all stakeholders, it is committed to engaging with them to address concerns. The company's risk review processes are designed to capture and avoid both financial and non-financial risks, including unintentional complicity in human rights violations. Guided by strict internal and external rules, ABB would, of course, abide by international sanctions.

Aware of the situation on the ground in Sudan, ABB is engaging an experienced human rights lawyer to support us with stakeholder contacts in Sudan and is taking advice from the Amnesty Business Group, an arm of Amnesty International.

Our goal is to do the right thing for the right reasons.

Health and safety
Working to improve standards

ABB is striving to promote a positive health and safety culture throughout the group.

Increased training and better communications are key elements of ABB's ongoing activities to improve its health and safety performance.

Incident statistics show that, although much has been achieved in recent years, there is still considerable work to be done.

A total of 21 people died in 2004 as a result of our operations. Eleven employees and eight contractors were killed in work-related incidents. Another two employees died in commuting road traffic incidents.

Six of the victims were employees of ABB Lummus Global who were killed in a terrorist attack on a customer site in Saudi Arabia where ABB had offices. One person was also seriously injured in the attack.

A total of 47 people were seriously injured in incidents in 2004.

Overall, the number of lost-day incidents decreased in 2004. But every incident is unacceptable to ABB, and the company has been increasing its focus on health and safety.

A number of measures, initiated in 2003, were driven forward last year. By the end of 2004, more effective systems and processes had been implemented where necessary.

We have continued to embed health and safety into the way we run our business. This process has involved people at every level of the organization, creating the conditions for a positive health and safety culture to grow.

This process has been closely monitored by executive committee members through a newly-formed health and safety working group.

Special emphasis was placed on leadership training in 2004. Five health and safety workshops, designed to train ABB's top 100 managers, were held in different parts of the world.

This has been run in partnership with DuPont, the global science company and world leader in safety management. It increases managers' awareness of the culture change that ABB needs to make, and helps them to understand how they can actively demonstrate safety leadership.

As a further measure, ABB is continuing to issue minimum rules for high-risk activities such as working with electricity and working at height.

Among the key activities being pursued in 2005 are a review of the health and safety policy and principles, ensuring they are closely aligned with the business and future goals and activities, and are fully implemented.

Apart from ongoing workshops for senior managers, more training is scheduled at country level. This is being coupled with increased efforts to cascade key safety advice and guidance to where they are most needed through a new regional safety organization.

ABB is resolved to continue to improve its health and safety performance in 2005 and beyond. We are seeking to achieve this by focusing on health and safety leadership at every level and by promoting a positive health and safety culture throughout the group.

Stakeholder dialogues

Learning how to become a better corporate citizen

Stakeholder dialogues tackle a wide range of issues and are of considerable benefit to ABB.

ABB's social policy commits the company to contribute within the scope of its capabilities to improving economic, environmental and social conditions through open dialogue with stakeholders and through active participation in common efforts.

Stakeholder dialogue takes place at two levels – at corporate level, normally twice a year, and at country level at least once a year in each country where ABB has operations. In 2004, they were conducted twice at corporate level and in 15 of the 48 countries and regions where we have sustainability controllers.

The corporate-level dialogues are led by executive committee members and involve about ten top-level external stakeholders, selected from representative groups which have expert knowledge of the topics under discussion.

The first corporate-level meeting in 2004 sought guidance on ABB's efforts to integrate sustainability and human rights into company performance.

Ways in which sustainability can be a driver for innovation were also discussed. The result: technology liaison managers have been appointed in the core Power Technologies and Automation Technologies divisions to further integrate sustainability performance into product development and project management.

The issue of improving promotion opportunities for women at all levels in a male-dominated electro-engineering company was also discussed. ABB has set up a task force to make progress in this area.

The second corporate-level meeting focused on one key issue – whether ABB should aim to become a CO_2-neutral organization. Although ABB emits only a relatively small amount of CO_2 from its own facilities, the meeting urged ABB to rise to the challenge.

Agreed next steps include the preparation of a business plan demonstrating the aims, methods and benefits of CO_2 neutrality as a platform for further business growth. (See pages 2–3 for more about ABB's efforts to reduce CO_2 emissions).

At the country level, stakeholder dialogues are led by ABB's country managers and focus on issues relevant to ABB's operations in each country and on the concerns of local communities.

In the U.K., for example, stakeholders discussed a number of priority issues for ABB and stressed the importance of defining the business case behind sustainability activities and providing follow-up support for equipment supplied under the Access to Electricity rural electrification project in Tanzania.

They also underlined the need to promote energy efficiency through ABB's leadership in variable speed drives, develop a strong health and safety culture, and free up full potential from the diversity of talent within ABB.

At a stakeholder dialogue in the United States, customers, suppliers, NGOs and academics exchanged views on a series of issues: ways to improve occupational health and safety, strengthen community involvement, and develop a sustainability plan specific to the U.S.

In Canada, discussions focused on the partnership between ABB and United Way – a community-based organization selected by ABB employees as a partner for serving the needs of local communities across the country.

The program of organized dialogues with stakeholders over the past four years has brought considerable benefits. ABB gains valuable expert advice on dealing with current and future sustainability challenges and responds with actions which are more in tune with the expectations of the societies in which it operates.

Outlook

ABB has set a number of priorities in the field of sustainability and corporate social responsibility (CSR) for the coming years.

Corporate

Sustainability, as described in this review, will be further integrated into ABB's business principles, objectives and day-to-day business operations.

We aim to ensure that the highest standards of corporate social responsibility, including health and safety, are mainstreamed into the working culture of all ABB employees.

Moral accountability is as important as legal accountability in our business activities. Association and involvement in the supply of a product or project counts as much as ownership. We intend to ensure that wider and deeper project assessments and risk reviews are fully implemented.

Carbon emissions will have a growing impact on the bottom line of all companies and organizations, creating new types of customer relationships and increasing opportunities for suppliers of energy-efficient products and systems like ABB. Carbon dioxide (CO_2) will have a financial value, providing a stimulus for emission-reduction solutions.

Ongoing dialogues with stakeholders will help us to further sharpen our definition of CSR and improve our performance. They will also help us to make sound decisions to address specific issues, such as the viability of becoming a CO_2-neutral organization.

Economic dimension

Our priority is to ensure ABB's profitable growth and meet 2005 group targets.

Environmental dimension

ABB's environmental performance is already of a consistently high standard, and we are now seeking ways to reach a higher level.

We plan to achieve this by conducting an environmental management review throughout the ABB Group and by building teams to identify new performance challenges and define strategies. Among the issues are CO_2 neutrality and the target of no waste.

We are addressing the climate change challenge by continuing to provide low-carbon technologies and innovative solutions to reduce our own and our customers' CO_2 emissions.

We will continue to help our businesses and customers manage the challenge of increasing restrictions on the use of toxic and hazardous materials.

We aim to drive environmental management systems, promoting continuous improvement projects. We will further encourage all sites to integrate their management systems to cover environmental, quality and occupational health and safety matters.

Social dimension

The improvement of our health and safety performance will continue to be our first priority, and we want to reduce our accident rates. We have been focusing on consolidating safety systems and processes at work, and in coming years we will concentrate more on safety behavior and culture.

Building on our work with the Business Leaders Initiative on Human Rights (BLIHR), we are confident we will be able to more effectively integrate these issues into our global business activities and avoid being complicit in human rights abuses.

We will increase efforts to improve our gender balance within the group in order to realize the full potential of our cultural diversity, benefiting the company and employees.

Supply chain issues are a major challenge for all global companies, and we will ensure that our policies and systems function effectively.

Common efforts

The Access to Electricity projects in Africa will continue to be a focus. To stimulate development in poor communities in other parts of the world, ABB will continue to test more business models suited to rural electrification projects.

ABB will continue to participate in selected international initiatives that offer effective ways for business to work with other partners to promote sustainability. To this end, we will continue to focus on organizations active in this field such as the UN Global Compact, World Business Council for Sustainable Development, BLIHR, CSR Europe, GRI and World Wide Fund for Nature.

The Global Reporting Initiative (GRI)

In this section of the Sustainability review, you will find facts and figures concerning ABB's economic, environmental, social and occupational health and safety performance in 2004.

Each item carries the relevant GRI performance indicator number. Some of the GRI indicators, such as respect for consumer privacy (PR3), are not relevant to ABB's operations. Some others, like the amount of materials used (EN1) and net employment creation (LA2), are almost impossible to answer for a global company manufacturing a wide range of products at many different sites.

Apart from these three indicators, we have reported against all the GRI core indicators and many of the additional indicators covering our environmental and social performance.

We have given more space to indicators which are particularly relevant to ABB's activities. In 2004, we strongly focused on our occupational health and safety performance, building on the management systems and reporting procedures established over the past two years.

The reporting boundaries encompass all manufacturing facilities, comprising approximately 390 sites in the 48 countries where we have substantial manufacturing activities.

In addition, we have also included our non-manufacturing organizations, although these have limited environmental impact. More and more of these sites are reporting hard data. For the remainder, we have estimated their main indicators such as the use of electricity, district heating and water consumption per person.

The estimates are based on data from comparable non-manufacturing premises. We indicate in the text when an estimate is used.

Integrating sustainability in our business

In the Operational review of the ABB Group Annual Report, you will find more information on the role that our products and systems, such as high-voltage direct current technology and our wide range of drives, are playing in promoting sustainable development.

ABB chairman, Jürgen Dormann, makes it clear on page one of this Sustainability review that sustainability is not treated by ABB as "an add-on." It is an essential part of our business.

"Sustainability is built into the products and systems we develop and provide to help our customers improve grid reliability and increase industrial productivity," he says.

Monitoring and reporting performance

Our global network of some 450 sustainability controllers and officers, some part-time, is responsible for implementing our sustainability policies and systems to meet group objectives, and for auditing and reporting performance annually by means of an intranet-based system.

About 350 local sustainability officers report environmental data from 390 manufacturing sites, while 46 country sustainability controllers report management and social performance from 48 countries and regions.

Health and safety data is reported either by the country sustainability controllers or by local health and safety advisors at key facility and project sites in all countries.

Performance data relating to products and product stewardship is provided by the technology liaison managers responsible for those issues in ABB's two core divisions, Power Technologies and Automation Technologies.

The intranet reporting scope is extensive, with data collected against defined performance indicators covering environmental, social, and health and safety areas. The data is then consolidated and checked against GRI definitions at group level, verified by the independent accreditation society Det Norske Veritas (DNV) and published in this report.

Profile of ABB and scope of report

Organizational profile

2.1 Name of reporting organization
ABB Ltd – the worldwide ABB Group – headquartered in Zurich, Switzerland.

2.2 Major products and services
ABB is a leader in power and automation technologies that enable utility and industry customers to increase their productivity while lowering environmental impact. ABB's products, systems, solutions and services are designed to improve the reliability of power grids and raise industrial productivity.

The Power Technologies division serves electric, gas and water utilities, as well as industrial and commercial customers, and channel partners, with a broad range of products, systems and services for power transmission, distribution and power plant automation.

The Automation Technologies division blends a comprehensive portfolio of standard and customer-tailored products, systems and services for increased productivity and energy efficiency among industrial, utility and building industry customers.

ABB is a manufacturing and services group which outsources some of its work (for example, information technology infrastructure).

2.3 – 2.5 Operational structure, description of major divisions, and locations of the organization
The operational structure comprises two core Power and Automation Technologies divisions, supported by group staff functions (such as sustainability affairs, corporate communications, controlling, legal and compliance, human resources, etc), all reporting to a five-person executive committee. The president of the executive committee is the chief executive officer of the company. Also represented on the committee are the two heads of the core divisions, the chief financial officer and the head of human resources, who is also the executive committee member responsible for sustainability affairs.

At the end of 2004, the number of employees was approximately 102,500. The formal sustainability reporting system covers 95,200 employees in 48 countries and regions. The ABB Group of companies operates in around 100 countries. The headquarters is in Zurich, Switzerland.

2.6 Nature of ownership; legal form
ABB is listed on the SWX Swiss Exchange and the exchanges in London, Stockholm, Frankfurt and New York.

As of December 31, 2003, Investor AB, Stockholm, Sweden, held 204,115,142 ABB shares, reflecting 9.9 percent of the company's share capital. This figure remained unchanged during 2004. On March 8, 2005 Investor AB announced that it reduced its holdings to 187,374,142 ABB shares representing 9.1 percent of the company's share capital.

To the best of ABB's knowledge, no other shareholder holds 5 percent or more of ABB's shares.

2.7 Nature of markets served
ABB serves electric, gas and water utilities and the oil, gas and petrochemical industries. In the manufacturing, process and service industries ABB serves the automotive, cement, chemical, distribution, electronics, food and beverage, life sciences, marine, metals, mining, paper, petroleum, printing, telecommunications and turbocharging industries with application-specific power and automation technology.

2.8 Scale of reporting organization
Number of employees worldwide at end 2004: 102,500 (116,500 end 2003).

Employees by region:	2004	2003
Europe	**59%**	61%
The Americas	**16%**	16%
Asia	**16%**	13%
Middle East and Africa	**9%**	10%

Sales (revenues) for 2004:
$20,721 million ($20,427* million for 2003)

Sales by region:	2004	2003
Europe	**52%**	54%
The Americas	**17%**	19%
Asia	**21%**	17%
Middle East and Africa	**10%**	10%

* Adjusted to reflect the move of certain activities in 2004 from discontinued operations to continuing operations and other activities from continuing operations to discontinued operations.

Total capitalization: On December 31, 2004, the total capitalization (short-term borrowings and current maturities of long-term borrowings plus long-term borrowings and total stockholders' equity) was $8.6 billion ($10.9 billion end 2003).

Debt: (short-term borrowings and current maturities of long-term borrowings and long-term borrowings) was $5.5 billion ($7.9 billion end 2003).

Equity: (total stockholders' equity) was $3.1 billion ($2.9 billion end 2003).

Total assets: total assets were $24.7 billion ($30.4 billion end 2003).

2.9 Main stakeholders
Customers, employees, shareholders, creditors, suppliers, media and investment communities, business partners, and society at large (local communities where we have operations, NGOs, academia, central and local government, trade unions, media, and banks).

Report scope

2.10 Contact for the report
e-mail: sustainability.abbzh@ch.abb.com

Web address: www.abb.com/sustainability

2.11 Reporting period
Fiscal year 2004.

2.12 Date of previous report
March 2004, covering fiscal year 2003.

2.13 Boundaries of report
Unless otherwise stated, the Sustainability review covers ABB Group employees in owned or leased premises in countries and regions where ABB has appointed country/regional sustainability controllers, who are responsible for driving ABB's sustainability management program worldwide and gathering the data consolidated in this report. All ABB employees, except those in units being divested, are covered by this report, including those in ABB Lummus Global, which has been reclassified as "continuing operations" (previously classified as "discontinued operations"). All relevant figures for 2002–2003 have been restated to reflect this change in classification.

A total of 78 percent of employees are covered by confirmed data through the formal sustainability reporting system, while 22 percent in low-impact non-manufacturing organizations are covered by estimated data. It does not cover our customers' sites or suppliers.

2.14 Significant changes in size, structure and ownership
In March 2004, ABB sold its Swiss Building Systems business, in April 2004 it completed the sale of its Reinsurance business, and in July 2004 it completed the sale of the upstream part of its Oil, Gas and Petrochemicals business.

There were no significant ownership changes in 2004. The holdings of The Capital Group International, Inc., Los Angeles, CA, U.S., which in December 2003 corresponded to 6.5 percent of total share capital have been reduced below the 5 percent threshold as per April 23, 2004.

2.16 Effect of restatement of information
Due to the divestments in 2004, mentioned in 2.14, and the cost-cutting and ongoing streamlining of ABB's organization, the number of employees was reduced to around 102,500 in 2004, from around 116,000 in 2003, and the number of manufacturing sites and workshops covered by the sustainability management program reduced to approximately 390 in 2004, from 410 in 2003.

Sustainability review profile

2.19 Significant changes in sustainability information measurement methods
Sustainability information measurement methods remain much the same as in the previous year. However, we have slightly reduced the amount of data reported, particularly on environmental issues, for quantities which have become negligible or because current data can only be based on estimates. On the other hand, we have focused more strongly on other issues of importance to ABB's activities. In 2004 we introduced a quarterly reporting system for occupational health and safety incidents and ill-health, building on the existing procedure for the reporting of fatal and serious incidents.

ABB uses three computerized data reporting questionnaires to measure and collect performance data throughout the group via the ABB intranet – a social report from every country, an environmental report from every site, and a health and safety report from every country.

2.20 Policies and practices to enhance accuracy, completeness and reliability of the report
The three sets of computerized data collected from each country and ABB site, as described in indicator 2.19, are consolidated and checked at country level and again at group level. Country sustainability controllers audit the data from each site.

In response to comments in 2003 by Det Norske Veritas, the independent verification body, additional help buttons have been provided in the reporting questionnaires and have been expanded to better define the data required, and to ensure accuracy and consistency.

2.21 Independent assurance for the full report
ABB's triple bottom line performance, as covered in this Sustainability review, has been verified by independent external organizations. The data reported in the economic performance section (pages 25–26) comprises extracts from ABB's Annual Report 2004, audited by group statutory auditors Ernst & Young AG. The environmental and social sections (pages 27–30, and 31–36) have been verified by the independent verification body, Det Norske Veritas, whose statement appears on page 40.

2.22 Additional information on sustainability matters
Information on ABB's sustainability performance is also described in the Operational review of the ABB Group Annual Report 2004, and is published on the ABB Group Web site under: www.abb.com/sustainability

Governance structure and stakeholder engagement

Structure and governance

3.1 Governance structure of the organization, including committees

ABB is committed to the highest standards of corporate governance, and supports the general principles stated in the Swiss Code of Best Practice, as well as those of the capital markets where ABB is listed: the SWX Swiss Exchange and exchanges in London, Stockholm, Frankfurt and New York.

In addition to the provisions of the Swiss Code of Obligations, ABB's principles and rules on corporate governance are laid down in its articles of incorporation, its standards for corporate governance, the charters of the board committees, the board membership guidelines, several directives (e.g. on insider information) and the code on business ethics.

The board of directors defines the ultimate direction of the business of ABB and issues the necessary instructions. It determines the organization of the group and appoints, removes and supervises the persons entrusted with the management and representation of ABB.

The board has established from among its members three board committees – the nomination and compensation committee, the finance and audit committee and the strategy committee.

The nomination and compensation committee determines the selection of candidates for the board of directors and its committees, plans for the succession of directors, and ensures that directors receive the appropriate training to fulfill their obligations. The committee also proposes appointments to the group executive committee and determines the remuneration of the executive committee members.

The finance and audit committee oversees the financial reporting processes and accounting practices, evaluates the external and internal auditors, reviews audit results, monitors the legal compliance of ABB's financial statements, and assesses the processes relating to risk management and internal control systems.

The strategy committee reviews management proposals relating to the strategic direction of the group and assists the board of directors in determining the long-term strategy of the ABB Group.

In order to address potential situations of conflicting interests, which Jürgen Dormann may have experienced when he was both chairman of the board and CEO, the board had created the position of lead director. The position of lead director was dissolved as of January 1, 2005, when Fred Kindle became CEO.

The board of directors has delegated the executive management of ABB to the CEO and the other members of the group executive committee who are responsible for ABB's overall business and the day-to-day management of the group. The CEO reports to the board regularly, on the course of ABB's business and financial performance and on all organizational and personnel matters, transactions and other issues relevant to the group.

Upon proposal by the nomination and compensation committee, the group executive committee is appointed and discharged by the board and consists of the CEO, the chief financial officer and three executive vice presidents.

Further information on corporate governance is published on ABB's Web site: www.abb.com/about

3.2 Independent, non-executive directors

The ABB board has eight members – all are non-executive and independent directors, with the exception of Jürgen Dormann, who was also CEO until December 31, 2004, in addition to his ongoing function as chairman. The independence of directors was determined according to the Swiss Code of Best Practice and the independence criteria in the corporate governance rules of the New York Stock Exchange.

3.3 Expertise of board members

The nomination and compensation committee selects and recommends suitable candidates for the board in accordance with guidelines contained in the committee's charter. The committee ensures that new directors receive the appropriate introduction, and that all directors receive continuing education and training to fulfill their obligations.

3.4 Board-level processes for overseeing sustainability

The board supervises the executive committee and the CEO. The sustainability performance of the group, namely its health and safety, social and environmental performance, is the responsibility of one of the executive committee members, to whom the head of ABB's sustainability affairs organization reports. Sustainability risks and opportunities are also investigated in coordination with other group functions, e.g. internal audit, mergers and acquisitions (due diligence), site risk and insurance (real estate liabilities), and ABB's bid evaluation committee (customer and project risk assessments).

3.5 Linkage between executive compensation and performance
Executive compensation consists of a base salary and a performance bonus linked to individual areas of responsibility and group performance. The criteria for both includes the achievement of non-financial goals. In addition, executives may participate in share-based programs to an extent that is also performance-driven.

3.6 Organizational structure for sustainability policies
The head of ABB's sustainability affairs organization is responsible for these matters. He reports directly to an executive committee member – whose responsibilities include human resources and sustainability. A network of some 450 sustainability controllers worldwide report to the sustainability affairs team.

3.7 Business principles statements relevant to sustainability performance
Sustainability is one of ABB's core values, described in the business principles statements which are mandatory for all employees and are published on the group Web site (www.abb.com/about). These principles are supported by group environmental, social, health and safety, and business ethics policies. These policies are published in full on pages 23–24.

3.8 Mechanisms for shareholders to give recommendations to the board
Shareholders representing shares of a par value of at least CHF 1,000,000 may request items to be included in the agenda of an annual general meeting.

To provide a service to all shareholders, ABB's Investor Relations team is in frequent contact with shareholders and holds quarterly briefings, inviting feedback through the ABB Group Web site.

These facilities provide opportunities for minority shareholders to express their views to ABB's management.

Stakeholder engagement
3.9 Identification and selection of major stakeholders
Stakeholder dialogue is conducted on two levels:

1. at corporate level, led by two executive committee members.

2. at country and site levels, in 48 countries and regions where we have country sustainability controllers. The respective country managers are recommended to lead these dialogues.

Stakeholders are from representative groups that are impacted by, or have an impact on, the company, e.g. customers, employees, suppliers, business partners, and society at large.

3.10 Stakeholder consultation
The corporate-level stakeholder consultations were conducted twice in 2004, in April and December. The next is planned for Spring 2005. The country-level stakeholder dialogue sessions are to be held at least once a year.

3.11 Type of information generated by stakeholder consultations
The issues discussed at the corporate-level stakeholder dialogues help to identify opportunities, challenges and weaknesses for the ABB Group in the field of sustainability. Topics discussed at corporate level during 2004 included human rights, equality of opportunity, the integration of sustainability into company performance, customers' sustainability performance and its impact on ABB, and the implications for ABB if it opts to become a CO_2-neutral organization. Further details of these discussions are given on page 11.

The agenda for country-level stakeholder dialogues is set by the participants and focuses on ABB's activities in the country and the concerns of local communities.

3.12 Use of information resulting from stakeholder engagements
Information from corporate-level stakeholder engagements helps ABB to set future strategy, and to respond to the issues and challenges discussed.

The information, opinions, advice and follow-up from country-level dialogues benefit a country's awareness and strategic direction. Information from country stakeholder dialogue sessions is fed back to the corporate sustainability affairs team to assess its relevance to the group. A feedback report has been provided to all countries participating in the program so that they can learn from each other and further raise performance.

Policies and management systems

ABB's sustainability policies

Our goal is to improve our economic, environmental and social performance continuously, and improve the quality of life in the communities and countries where we operate.

We create value for society by:

- Contributing to economies through promoting business, creating jobs, paying taxes
- Joining initiatives that foster economic, environmental, social and educational development
- Making positive contributions in the communities where we operate so they will welcome us, and consider ABB an attractive employer and a good investment
- Offering our customers eco-efficient products that save energy and are safe to use, that optimize the use of natural resources, minimize waste and reduce environmental impact over their complete life cycles
- Sharing our state-of-the-art technologies with emerging markets
- Ensuring our operations and processes comply with applicable environmental standards and legislation. Specifically, that every ABB operating unit implements an environmental management system that continuously improves its environmental performance
- Ensuring our social and environmental policies are communicated and implemented
- Working toward achieving best practice in occupational health and safety, and ensuring the health and safety of our employees, contractors and others involved in or affected by our activities
- Favoring and motivating suppliers who have sustainability policies and systems similar to our own

Environmental policy

Environmental management is one of ABB's highest business priorities. We address environmental issues in all our business operations.

Throughout 2004, ABB continued to implement worldwide its new environmental policy, which was updated in 2003 to better reflect current commitments and activities. It is an integral part of our commitment to sustainability and is embedded in our strategies, processes and day-to-day business throughout the group.

The ABB environmental policy is printed in full on page 23, and is also on www.abb.com/sustainability

Social policy

ABB's commitment to good social performance is elaborated in the group's social policy, which was introduced in 2000 and applies to all employees.

The ABB social policy is printed in full on pages 23–24, and is also on www.abb.com/sustainability

Occupational health and safety policy

Principle 5 of the social policy defines a clear policy for health and safety, underpinned by eight health and safety expectations which we have set up for our group.

The ABB occupational health and safety policy is printed in full on page 24, and is also on www.abb.com/sustainability

Group function sustainability affairs

ABB's sustainability affairs organization is composed of nearly 450 people in 48 countries and regions, and directs ABB's sustainability management program relating to social, health and safety, and environmental performance.

The team also coordinates groupwide common efforts programs and commissions auditing programs to verify that the ABB Group is in compliance with its sustainability commitments.

A total of 46 country sustainability controllers implement sustainability business plans within each country, covering environmental, social and communication policies, programs and procedures. The plans must first be endorsed by the respective country manager, before being submitted to the head of ABB's sustainability affairs organization for review, consolidation in group-wide activities, and monitoring.

About 350 local sustainability officers are responsible for environmental management programs on ABB sites in accordance with ISO 14001.

Some countries and facilities maintain additional environmental specialists to support the implementation of environmental management systems.

To ensure the effective implementation of ABB's heath and safety strategy, each country has a country-level health and safety advisor. In 2004, regional advisors were also appointed. These specialists support senior management and work through a network of local occupational health and safety advisors at facility and project site level.

Divisional technical managers in the two core divisions work to integrate sustainability performance into product development, product stewardship and project management, focusing on division-level objectives.

A sustainability support group also works within ABB's corporate research team to develop and maintain sustainability tools and training, which cover life cycle assessment of products and systems, life cycle costs and design tools – with the aim of integrating the tools into daily business activities. The group also plays an increasingly important role in developing global sustainability objectives, formulating ABB's policies and directives for the elimination of hazardous substances and serving as a contact for a large number of external sustainability partnerships.

Stakeholder consultations at corporate level are normally held twice a year. Senior members of relevant stakeholder groups are selected on a case-by-case basis, depending on the nature of the sustainability issues to be discussed. See the article "Stakeholder dialogues" on page 11 for more information.

3.13 Precautionary approach

ABB has group-wide mandatory sustainability checks in place, to be applied in conjunction with the development of new products and projects. This precautionary approach is also integrated into the GATE model – an internal approvals process governing the development of new products and projects which requires documented assessment at the development phase of their life-long sustainability impact.

The GATE model requires a life cycle assessment study of each new product and project, and provides advice on how to reduce the use of unwanted substances. The model is also being expanded to cover occupational health and safety and supply management issues relating to a product or project.

See under "product stewardship" on page 20 for more information on the GATE model.

ABB has also integrated sustainability criteria into its risk assessment process for projects.

3.14 Use of externally developed charters and principles

ABB subscribes to externally developed charters and principles for sustainability management. They include the ICC Business Charter for Sustainable Development which ABB signed in 1992, and ISO 14000 standards and technical reports.

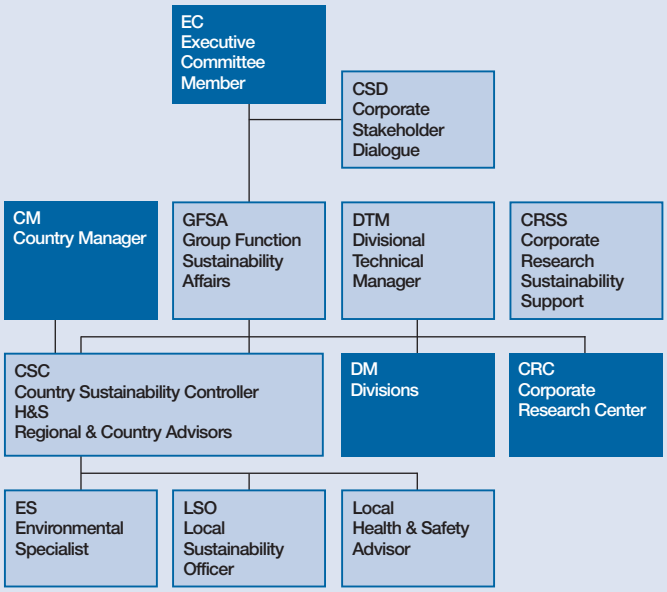
ABB has adopted ISO 14001 for environmental management systems; ISO/TR 14025 for environmental product declarations; ISO 14040-45 for life cycle assessment; and ISO 19011 for environmental auditing of organizations.

ABB has incorporated the principles of OHSAS 18001, the International Labour Organization (ILO) guidelines on occupational health and safety management systems, and the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases into its health and safety program.

In January 2004, ABB was one of ten international companies to sign a set of "Business Principles for Countering Bribery in the Engineering and Construction Industry".

ABB facilities are encouraged to produce integrated management systems for environmental and quality issues, and for occupational health and safety. Most sites now use integrated systems, several of which have been externally certified. The most recent sites are in the United Arab Emirates and Romania.

ABB's sustainability affairs organization



EMS to cover all employees

In line with ABB's policy, practically all manufacturing and service sites have implemented the ISO 14001 standard. A complete list of these sites per country is provided on page 21.

An ABB site in Arusha, Tanzania was the latest to gain certification against ISO 14001.

During 2004, ABB extended environmental management systems to cover employees in non-manufacturing facilities. Our goal is to ensure that all ABB employees, whatever their function, are subject to environmental management systems.

Social management

An executive committee member is responsible for sustainability affairs throughout the group and for the worldwide implementation of ABB's social policy. Under this member's influence, there was a continuing focus in 2004 on improving health and safety performance throughout the group.

ABB continued its efforts to encourage its main suppliers to follow the principles set out in the group's social policy, covering such issues as equality of opportunity, health and safety and child labor. For example, ABB is now working with its eight largest international freight-forwarders for sea and air to jointly draft and implement effective and practicable guidelines covering environmental and social performance objectives and requirements.

Business ethics compliance programs continued throughout the year, targeting employees involved in business transactions.

Stakeholder dialogues, designed to guide ABB's role in society, were conducted twice at corporate level and in 15 out of 48 countries and regions.

In 2004, ABB continued discussions with the Amnesty International Business Group with the aim of training ABB managers in human rights issues, while a working team addressed the broader issues of equality of opportunity and the promotion of women and minority groups to positions of greater responsibility.

During 2004, ABB continued to play a leading role in the work of the Business Leaders Initiative on Human Rights (BLIHR), a three-year initiative aimed at further integrating human rights in business. Dialogues were held with a wide range of stakeholders to obtain further perspectives. The initiative produced its second report in December 2004.

The ABB Group's executive committee approved an investigation on ABB becoming a CO_2-neutral company in the medium term. This demonstrates ABB's commitment to reducing harmful emissions and its support for efforts to raise awareness about climate change.

See pages 2–3 for more information on ABB's efforts to reduce CO_2 emissions.

Occupational health and safety

Good progress was made in 2004 on implementing occupational health and safety management systems (OHMSs) groupwide, based on the internationally recognized OHSAS 18001 standard and the ILO Guidelines on Occupational Health and Safety Management Systems. Overall, approximately 81 percent of ABB's business units have implemented such a system.

Policies and management systems

3.15 Principal memberships in industry and business associations
Listed below are some of the principal associations and initiatives with which ABB is involved in the area of sustainability.

Business for Social Responsibility (BSR), U.S.
Business Leaders Initiative for Human Rights (BLIHR), U.S.
Chalmers University of Technology, CPM, Sweden
CSR Europe, Belgium
Global Village Energy Partnership, U.S.
Global Reporting Initiative, Netherlands
International Organization for Standardization, ISO, Switzerland
oikos International, Switzerland
Pew Center on Global Climate Change, U.S.
Transparency International, Germany
United Nations Global Compact, U.S.
World Business Council for Sustainable Development, Switzerland
World Energy Council, U.K.
World Wide Fund for Nature, WWF, Switzerland

See pages 37–38 for more details concerning these memberships.

3.16 Policies for managing upstream and downstream impacts
Sustainability in the supply chain
ABB's sustainability management principles – environmental and social – are also applied to its main suppliers and incorporated into the contracts it signs with them. ABB favors and motivates suppliers who are committed to improving their environmental performance continuously, are certified to ISO 14001 or its equivalent, and who have in place a social policy similar to that of ABB.

In order to clarify its requirements, ABB has produced social policy guidelines and a social policy expectations document which it incorporates into its contracts with main suppliers. ABB's eight main freight-forwarding suppliers are the latest group to come under these measures.

See indicators EN33 on page 30, and HR3 on page 33 for more information.

Product stewardship
To assess and continually improve the sustainability performance of new products and projects, ABB applies its GATE model to their development. The model contains seven steps which assess sustainability objectives and performance throughout the life cycle. The model provides the opportunity to correct deficiencies and adopt new designs.

ABB has also integrated sustainability criteria into its risk assessment process for projects.

3.17 Management of indirect impacts
See under environmental and social performance on pages 27–36 for information on the indirect impacts resulting from our activities.

3.18 Major changes in operations
See indicator 2.14, page 15, for details.

3.19 Programs and procedures related to sustainability performance
Priority and target setting
- A goal for all businesses to have implemented the ABB occupational health and safety management system during 2004 was 81 percent achieved
- A goal has been set to apply the ISO 14001 principles to all employees
- The objective to reduce energy use continues
- The restricted materials list supports our objective to phase out the use of all hazardous substances
- An overall environmental management review to be carried out
- A new objective is to assess the possibility of ABB becoming a CO_2-neutral company in the medium term

See the article "Climate change: how our technologies make a difference" on pages 2–3 for more information on our goals, products and strategy.

Programs for performance improvement
- All country sustainability controllers developed country-specific business plans to implement our sustainability priorities and objectives during 2004
- The sustainability affairs team in group headquarters is responsible for the regular review of these business plans

Sustainability costs
ABB limits the accounting of sustainability to the costs of implementing and maintaining environmental management systems to ISO 14001, health and safety management systems to ISO 18001, and running the sustainability network, including personnel costs and the cost of developing sustainability tools, education and training.

This does not include costs related to improvement projects. For example, the decision to invest in a new manufacturing process is the result of integrating many decisions in addition to environmental considerations.

$ thousands

Sustainability network	2004	2003	2002
Group level	**2,653***	1,450	1,360
Country level	**4,215**	4,323	3,950
Site level	**3,835**	3,783	3,810

* For 2004, the figure includes additional resources to manage ABB's occupational health and safety program.

3.20 Status of certification
Internal communication and training
The network of country sustainability controllers, country and local health and safety advisors, and local sustainability officers communicates sustainability priorities and goals internally, and identifies sustainability training needs. The 100 most senior managers received health and safety training in 2004.

Performance monitoring

Sustainability performance is monitored by an internal reporting system. Local sustainability officers report on environmental performance in an annual report comprising approximately 80 environmental indicators.

Country sustainability controllers (CSC) report on social performance, and country health and safety advisors report on occupational health and safety performance (OHS) in an annual report comprising approximately 45 social indicators. See the list below for those responsible in each country.

Any fatal or serious accident within ABB's jurisdiction is to be reported to the chief executive officer and other company officers within 24 hours, and the cause of the accident must be determined by an investigation.

Country	Name	Function	ISO 14001 sites
Argentina	Justo Gonzalez Litardo	CSC & OHS	3
Australia/ New Zealand	Peter Kinsley Marian McLean Craig McEwan	CSC OHS OHS	21
Austria	Arnd Schneider	CSC & OHS	0
Benelux	Bart Maes	CSC & OHS	2
Brazil	Carlos-Roberto Hohl Gerson Arra	CSC OHS	4
Canada	Grazyna A Momot Sandy Taylor	CSC Country Manager	7
China	ShiWen Zheng Han Yu	OHS CSC	18
Colombia	Albert Tibavizco	CSC & OHS	2
Czech Republic	Frantisek Dobes	CSC & OHS	4
Denmark	Jan F Relster	CSC & OHS	6
Egypt	Said Ismail	CSC & OHS	4
Estonia	Liis Raidma	CSC & OHS	4
Finland	Sakari Hakkarainen	CSC & OHS	26
France	Valérie Rimonteil	CSC & OHS	8
Germany	Udo Weis	CSC & OHS	36
Greece	Andreas Mamalis Caterina Paleorouta	CSC OHS	2
Gulf Region	Gary Foote	CSC & OHS	5
Hungary	Zsolt Horváth	CSC & OHS	1
India	K SS Rajan Sanjeev Nagpal	CSC OHS	8
Indonesia	Sofyan Akib	CSC & OHS	3
Ireland	David Maguire Anthony McFeely	CSC OHS	4
Italy	Antonio Giacomucci	CSC & OHS	20
Japan	Katsumi Endo Takashi Mizuno	CSC OHS	2
Latvia	Laila Keisele	CSC & OHS	2
Lithuania	Ineta Mensikovaite	CSC & OHS	1
Malaysia	Urs von Wartburg Jennifer Wong	CSC OHS	1
Mexico	Alberto Aviles	CSC & OHS	1
Norway	Kjell Brandal	CSC & OHS	16
Peru	Olenka Espinoza	CSC & OHS	1
Philippines	T.J. Ponce	CSC & OHS	1
Poland	Andrzej Brzozowski	CSC & OHS	9
Portugal	Joao Oliveira	CSC	1
Romania	Rares Lutia	CSC & OHS	1
Russia	Alexander Burov	CSC & OHS	5
Saudi Arabia	Khizar Usmani Zeid al-Rumaihi	CSC OHS	1
Singapore	Emely Tan James Foo	CSC OHS	3
South Africa	Clive Govender	CSC & OHS	6
South Korea	Kyeong-Hee Lee	CSC & OHS	1
Spain	José Vera	CSC & OHS	15
Sweden	Gunnel Wisén-Persson	CSC & OHS	69
Switzerland	Remo Kuery	CSC & OHS	15
Thailand	Pornchai Satheinsep	CSC & OHS	1
Turkey	Gulden Turktan	CSC & OHS	2
United Kingdom	John Watson	CSC & OHS	12
United States	David Onuscheck Darryl Hill	CSC OHS	29
Venezuela	Andrea Greselin	CSC & OHS	2
		Total ISO sites	**385**

Some countries and facilities employ additional specialists to maintain environmental management.

Environmental specialists

Country	Name
Austria	Erwin Wippel
Brazil	Manoel Siqueira
China	ShiWen Zheng
Germany	Lothar Kinzig
Gulf Region	Gary Foote
Italy	Gianluca Donato
Malaysia	Chung-Seng Lee
Norway	Kirsten Knudsen
Romania	Sabine Simon
Switzerland	Jakob Weber BDS
United States	Clair Clairborne

Internal and external auditing

Although it is not an ABB Group directive that all environmental management systems are externally verified, approximately 85 percent of ABB facilities have appointed an accredited certification body to verify regularly how well they meet ISO 14001 standards.

Based on acquiring more than 500 certificates over a period of almost 11 years, we believe the benefits of external verification far outweigh the cost for most facilities. The process can, for example, help identify projects that may improve environmental performance and reduce cost at the same time. External verification also helps keep the internal system up to date and informs us of new legislation.

Policies and management systems

In addition, ABB's Sustainability review is verified by Det Norske Veritas (DNV), an independent verification body. The DNV audit includes verification of reports and indicators, and focuses on the Global Reporting Initiative guidelines for reporting on sustainability.

Country sustainability controllers also perform regular audits of sustainability performance at ABB sites. In general, every site is audited at least every third year.

To support the implementation of ABB's health and safety strategy, a system of internal compliance audits is being established.

Senior management review and governance

ABB's top-level health and safety committee, chaired by the executive committee member responsible for sustainability affairs, continued to meet in 2004, monitoring progress against OHMS goals, and safety performance generally. The other members of this committee are the two business division heads, who are also executive committee members, the head of the group function for sustainability affairs and his health and safety appointee, and a representative of the group function for corporate communications.

ABB's executive committee members, when discharging their stewardship duties on the boards of ABB's subsidiary companies, are charged with addressing the sustainability performance of these companies in the areas of health and safety, environmental performance and corporate social responsibility. The latter covers stakeholder dialogue, community involvement and human rights issues.

The head of ABB's sustainability affairs organization reports on the group's sustainability performance regularly to the executive committee member responsible for sustainability affairs.

Business ethics

Policy

Principle 13 of ABB's social policy commits ABB to uphold high standards in business ethics and to support the efforts of national and international authorities to establish and enforce high ethical standards for all businesses.

The ABB Group subscribes to the basic principles in the International Chamber of Commerce (ICC) Rules of Conduct, 1999 edition, and the Organization for Economic Cooperation and Development (OECD) Convention from 1997, as well as the U.S. Foreign Corrupt Practices Act, 1977.

ABB's policy on business ethics belongs to the company's core set of values and guiding principles. It is incorporated in ABB's business ethics standards, which set a "zero tolerance" ruling on non-compliance.

In implementing this policy, ABB management and employees:

- Recognize that ethical and economic values are interdependent, and that high business ethics and integrity ensure ABB's market credibility
- Insist on honesty and fairness in all aspects of their business and expect the same from their business partners
- Ensure all ABB business transactions are fully and fairly recorded according to the company's accounting principles
- Undergo continuous training and awareness-raising sessions on how to handle ethical issues, and provide timely advice and guidance
- Apply a "zero tolerance" policy regarding compliance issues to ensure strict adherence to local and international laws and regulations, as well as to ABB Group ethical standards
- Regularly monitor ethical conduct and ensure that accessible systems are in place for employees or others to report potential violations

Global compliance support network

The group function Legal and Compliance is designated by ABB's board of directors and executive committee to implement and oversee business ethics within ABB and to manage a global network to ensure compliance.

Compliance officers and counselors at group headquarters and in more than 50 countries, together with regional managers in specific regions, train, advise and monitor employees in all parts of the organization. In addition, ethical coordinators in the business divisions identify critical issues and develop programs to address them. Another section covering lenders and export credit agencies (ECAs) is also included in the business ethics policy. Specially trained ECA compliance officers are responsible for overseeing and certifying all necessary disclosures in this area.

This global network distributes information and guidance, fosters internal dialogue, and supports ethical education and training. Over the last few years, ABB has carried out a rigorous program throughout the group to promote its business ethics policy and ensure compliance. Such training programs have covered almost all employees directly involved in business transactions, while awareness has been raised among almost all other employees.

In addition, a special training program is conducted each year to address selected important issues. The participants are those people most likely to face such issues. Members of ABB's top management also participate in this program and receive training directly from the head of the Legal and Compliance group function.

Access for employees

Employees have access via the group's global intranet to information, guidelines, documents, forms and useful agreements covering all aspects of the business ethics compliance program.

Help lines

Round-the-clock response helpdesks and details of the compliance counselor network are also provided to facilitate consultation or questions. In addition to the Legal and Compliance team helpline at group headquarters, there are help lines to units in almost every country and region that are working to accommodate national sensitivities. In some countries, for example, communications are strictly anonymous, whereas in others they go through trusted confidants.

External liaisons

ABB is a group contributor and donor to Transparency International, the coalition against corruption. The ABB Group also liaises with the Basel Institute on Governance, and for several years has cooperated with the Center for Business Ethics in Konstanz, Germany.

Anti-bribery business principles

In January 2004, ABB was one of ten international companies to sign a set of "Business Principles for Countering Bribery in the Engineering and Construction Industry". These principles were developed by a multinational task force of engineering and construction companies, including ABB, working with the World Economic Forum, Transparency International and the Basel Institute on Governance.

At a special session of the World Economic Forum's annual meeting in January 2005 in Davos, Switzerland, the mining, minerals and energy industries also joined this initiative, bringing to 60 the number of companies who have now signed these anti-bribery principles.

ABB's sustainability policies

ABB's environmental policy

In 2003 ABB updated its previous environmental policy, first introduced in 1992, to better reflect current commitments and activities.

We are committed to developing resource-efficient products and systems and to conducting ongoing dialogue with customers to help them select the most environmentally friendly products, systems and solutions.

The policy strengthens the management of environmental issues in nine key areas throughout the life cycle of ABB products – from suppliers and contractors, through the customers' use of our products, to their eventual disposal and recycling at the end of their useful life. The commitment:

1. To conduct our operations in an environmentally sound manner by applying environmental management systems, such as ISO 14001, in all our operations and by applying environmental principles, such as commitment to continual improvement, legal compliance and awareness training of employees, in all our operations worldwide.

2. To promote environmental responsibility along the value chain by encouraging suppliers, subcontractors and customers to adopt international environmental standards.

3. To develop our manufacturing processes with a focus on energy and resource efficiency.

4. To conduct regular audits of our facilities' environmental performance, including facilities involved in acquisitions, divestments and mergers.

5. To transfer eco-efficient technologies to developing countries.

6. To develop and market products and systems which are resource efficient and facilitate use of renewable energy sources.

7. To declare the environmental performance of our core products by publishing environmental product declarations based on life cycle assessment.

8. To include environmental aspects in the risk assessment of major customer projects.

9. To ensure transparency by producing an annual Sustainability review, based on Global Reporting Initiative (GRI) requirements, which is independently verified.

ABB's social policy

As well as seeking to contribute economically and environmentally, ABB recognizes social performance as a key to sustainable development.

ABB's social policy was introduced in 2000, and is applicable to areas that ABB can directly influence. It draws on five sources: the United Nations Universal Declaration of Human Rights, the International Labour Organization's fundamental principles on rights at work, the Organisation for Economic Cooperation and Development's Guidelines for Multinational Enterprises, the Global Sullivan Principles, and the Social Accountability 8000 (SA 8000) standard, an auditable standard for the protection of workers' rights.

We engage in stakeholder review and consultations on this policy to ensure it is continuously improved. Our policy aims:

1. ABB in society:
To contribute within the scope of our capabilities to improving economic, environmental and social conditions through open dialogue with stakeholders and through active participation in common efforts.

2. Human rights:
To support and respect the protection of internationally proclaimed human rights. Employees and contractors engaged as security personnel shall observe international human rights norms in their work.

3. Children and young workers:
To ensure that minors are properly protected; and as a fundamental principle, not to employ children or support the use of child labor, except as part of government-approved youth training schemes (such as work-experience programs).

4. Freedom of engagement:
To require that all employees enter into employment with the company of their own free will; and not to apply any coercion when engaging employees or support any form of forced or compulsory labor.

5. Health and safety:
To provide a safe and healthy working environment at all sites and facilities and to take adequate steps to prevent accidents and injury to health arising from the course of work by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

6. Employee consultation and communication:
To facilitate regular consultation with all employees to address areas of concern.

To respect the right of all personnel to form and join trade unions of their choice and to bargain collectively.

To ensure that employee representatives are not the subject of discrimination and that such representatives have access to their members in the workplace.

To ensure, in case of major layoffs, that a social benefits and guidance plan is in place, and already known to employees or their official representatives.

ABB's sustainability policies

7. Equality of opportunity:
To offer equal opportunity to all employees and not to engage in or support discrimination in hiring, compensation, access to training, promotion, termination or retirement based on ethnic or national origin, caste, religion, disability, sex, age, sexual orientation, union membership, or political affiliation.

8. Harassment and disciplinary practices:
To oppose the use of mental or physical coercion, verbal abuse or corporal/hard-labor punishment; and not to allow behavior, including gestures, language and physical contact, that is sexual, coercive, threatening, abusive or exploitative.

To develop and maintain equitable procedures to deal with employee grievances and disciplinary practices.

9. Working hours:
To comply with applicable laws and industry standards on working hours, including overtime.

10. Compensation:
To ensure that wages paid meet or exceed the legal or industry minimum standards, and are always sufficient to meet the basic needs of personnel and to provide some discretionary income.

To ensure that wage and benefits composition are detailed clearly and regularly for workers, and that compensation is rendered in full compliance with all applicable laws and in a manner convenient to workers.

To ensure that labor-only contracting arrangements and apprenticeship schemes are undertaken in full compliance with ABB's obligations under applicable laws pertaining to labor and social security legislation and regulations.

11. Suppliers:
To establish and maintain appropriate procedures to evaluate and select major suppliers and subcontractors on their ability to meet the requirements of ABB's social policy and principles, and to maintain reasonable evidence that these requirements are continuing to be met.

12. Community involvement:
To promote and participate in community engagement activities that actively foster economic, environmental, social and educational development, as part of ABB's commitment to the communities where it operates.

13. Business ethics:
To uphold the highest standards of business ethics and integrity and to support efforts of national and international authorities to establish and enforce high ethical standards for all businesses.

ABB's health and safety policy

ABB seeks to provide a healthy and safe working environment at all sites and facilities and to take adequate steps to prevent accidents and injury to health arising from the course of work by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

Eight health and safety "expectations" support the policy and comprise the framework of the health and safety culture we are pursuing in ABB.

1. Leadership and accountability – clearly defined responsibilities, resources, and accountability for managers.
2. Managing health and safety risks – at every stage of project, service or manufacturing life cycle, where meeting national and international standards is the minimum requirement.
3. Demonstrating health and safety competence so that all managers, employees, safety advisors and contractors know their responsibilities and have the training and experience to carry them out.
4. Ensuring safe contractors and business partners by selecting contractors and suppliers that perform to ABB's health and safety requirements.
5. Ensuring health and safety is integrated into the processes for managing change, both globally and locally.
6. Ensuring a crisis and emergency management system is in place.
7. Ensuring accident analysis and prevention is in place.
8. Routine review of health and safety performance by managers, supported by a reporting process.

ABB's business ethics policy

ABB seeks to uphold high standards of business ethics and to support efforts of national and international authorities to establish and enforce high ethical standards for all businesses.

ABB's policy on business ethics belongs to the company's core set of values and guiding principles. It is incorporated in ABB's Business Ethics Standards, which set a "zero tolerance" ruling on non-compliance.

The ABB Group subscribes to the basic principles in the International Chamber of Commerce (ICC) Rules of Conduct, 1999 revised edition, and the OECD Convention from 1997, as well as the U.S. Foreign Corrupt Practices Act, 1977.

Economic performance
ABB substantially improves business results

ABB sharply improved operational performance and results in 2004, strengthened finances and regained the path of profitable organic growth.

Overall during the year, ABB Group experienced good order and revenue growth in our core power and automation businesses, significantly higher EBIT, EBIT margin and cash flow, and substantial debt reduction.

In mid-February 2005, the group reported a net income for 2004 of $201 million, an improvement of nearly $1 billion over the previous year.

A few weeks after announcing the results, we achieved another breakthrough – an agreement with those representing outstanding asbestos claims that will form the basis for amended plans of reorganization for our U.S. subsidiary, Combustion Engineering, and ABB Lummus Global to resolve the asbestos claims against both companies.

After a setback in the U.S. Third Circuit Court of Appeals in December 2004, this agreement was a vital step towards a final resolution of our asbestos issue.

The agreement requires ABB to contribute an additional fixed amount of $232 million to the trust fund for asbestos claimants. Under U.S. accounting rules, ABB had to book this charge and related costs in 2004, and the company therefore revised its net income figure for 2004 from $201 million to a negative $35 million.

Turning to the core divisions, Power Technologies and Automation Technologies reported double-digit order and revenue growth in 2004.

The Group's earnings before interest and taxes (EBIT) tripled to more than $1 billion.

Power Technologies division reported EBIT margin of seven percent for the year – down from 7.8 percent in 2003, while Automation Technologies recorded a 9.3 percent margin, up from 7.7 percent in 2003.

In 2004, ABB continued to lower costs, raise productivity and improve performance, and was helped by a recovery in most markets.

ABB strengthened its balance sheet compared to a year ago by paying down more than $2.4 billion in debt in 2004. Total debt at the end of 2004 stood at $5.5 billion.

The debt was reduced with the proceeds from divesting non-core businesses, including upstream oil and gas, reinsurance, and the Swiss segment of the Building Systems business.

ABB's net debt (total debt less cash and marketable securities) is now $1.3 billion, compared to $2.7 billion at the end of 2003.

ABB Group plans to divest other non-core businesses to further strengthen the balance sheet and pay down debt.

Targets for 2005*

- From 2002–2005 compound average annual revenue growth of four percent in local currencies
- Group EBIT margin of 7.7 percent (adjusted from eight percent to reflect the reclassification of the downstream oil, gas and petrochemicals business from Discontinued operations to continuing operations)
- Divisional EBIT targets: Power Technologies is ten percent, Automation Technologies is 10.7 percent
- Gearing target of 50 percent (62 percent as of Dec. 31, 2004)

* Revenue and margin targets exclude major acquisitions, divestitures and business closures.

ABB's main priorities in 2005 are to improve margins in the core divisions, reduce corporate costs from over $500 million to $450 million, continue divesting the non-core portfolio, and to finally resolve the asbestos issue.

Research and development and order-related investment in the core divisions amounted to $905 million in 2004, up ten percent compared to $826 million in 2003. Expressed as a percentage of core division revenues, total R&D and order-related development in the core divisions was 4.6 percent in 2004 compared to 4.8 percent in 2003.

The number of ABB employees decreased to approximately 102,500 by the end of December 2004, about 14,000 fewer than at the end of 2003, mainly the result of divestments.

Statement on asbestos issued by ABB on March 21, 2005

ABB announced today that it has reached agreement on a term sheet that will form the basis for an amended plan of reorganization for Combustion Engineering (CE) and ABB Lummus Global to resolve the asbestos claims of both companies.

The term sheet is the result of recent intensive discussions between the company and the representatives of asbestos claimants and has been agreed to by Steven Kazan, the representative of certain cancer claimants, John Cooney and the official creditors committee of CE and other leading representatives of asbestos claimants, as well as David Austern, the futures' representative of the CE asbestos trust.

"I am pleased that the cooperative efforts of the parties involved have resulted in a commonly agreed proposal for an amended plan in this short period of time," said Fred Kindle, ABB President and CEO. "This agreement is a vital step towards a final resolution of our asbestos issue."

All parties to the term sheet believe the amended plan of reorganization will fully address the issues raised in the 3rd Circuit Court of Appeals decision of last December as well as the objections raised by certain asbestos claimants to the original plan.

The term sheet requires ABB to contribute an additional fixed amount of $232 million to the trust fund. This contribution will be derived from the sale of ABB Lummus Global assets within two years of the plan's effective date or by a direct contribution from ABB.

The parties intend to cooperate to produce an amended plan of reorganization expeditiously, with a view to prompt confirmation by the bankruptcy court. Given the subsequent nature of this event, ABB will revise its already published financial results for 2004 to incorporate the full impact of this amended plan.

Economic performance

Monetary flow between ABB and key stakeholders (unaudited):

$ million	2004	%
Total revenues	**20,721**	
Cost of inputs	**(12,906)**	
Depreciation & Amortization	**(631)**	
Discontinued operations, net	**(483)**	
Benefit of stakeholders*	**6,701**	100
Employees	**(6,100)**	(91)
Governments (tax)	**(311)**	(5)
Shareholders of group shares (listed)	**0**	(0)
Minority shareholders	**(102)**	(2)
Banks (net)	**(223)**	(3)
Net loss	**(35)**	

* Stakeholders in businesses of continuing operations.

All figures in $ millions unless otherwise stated.

	2004	2003	2002
Total revenues	**20,721**	20,427	19,472
Gross profit (revenues less cost of sales)	**4,964**	4,499	4,374
Gross margin (%)	**24%**	22%	22.5%
EBIT	**1,084**	357	199
Net income (loss)	**201**	(779)	(819)
Dividends (CHF millions)	**0**	0	0
Dividends per share (CHF)	**0**	0	0
Net operating assets/revenues (%)	**46.4**	48.3	50.7

All figures in $ millions unless otherwise stated.

Revenues by region

	2004	2003	2002
Europe	**10,764**	10,963	10,461
The Americas	**3,624**	3,900	4,177
Asia	**4,296**	3,519	2,860
Middle East and Africa	**2,037**	2,045	1,974

Assets

	2004	2003	2002
Total assets	**24,677**	30,401	29,522
Of which goodwill and other intangible assets, net	**3,095**	3,129	3,028

Investments

	2004	2003	2002
Research and development expense	**690**	635	572
Order-related development expenditures	**727**	888	823
Capital expenditure	**400**	402	440
Net debt position	**(1,334)**	(2,678)	(4,817)
Gearing	**62%**	71%	87%

Labor productivity

$ thousands	2004	2003	2002
Revenue per employee	**202**	175	140

Taxes

	2004	2003	2002
Tax expense from continuing operations	**311**	245	81

Number of employees

	2004	2003	2002
Number of employees	**102,500**	116,500	139,000

Environmental performance

Overview

This section on our environmental performance relates to all employees working in premises owned or leased by ABB, including manufacturing and non-manufacturing sites. It does not cover our customers' sites or suppliers.

For non-manufacturing sites, which by nature have only limited environmental impact, we have made assumptions of the levels of their main environmental indicators, such as the use of electricity, district heating and water consumption per person. These assumptions are based on data from comparable premises and relate to about 22 percent of employees. When we have made an assumption, it is stated in the text.

The remaining 78 percent of employees are covered by data collected year-on-year from approximately 390 sites, mainly manufacturing and service organizations, consolidated from 343 separate reports.

Under the indicators in the GRI Guidelines, we have chosen to report data which is relevant to the environmental impact caused by ABB's activities, products and services. In recent years we have steadily expanded our data collection system to cover more of the GRI indicators.

However, some GRI indicators, like the amount of materials used, are virtually impossible to assess as we manufacture such a wide range of products in many different sites, and source millions of different materials and components globally and locally. We believe it is more useful and challenging to report on our use of hazardous substances as defined by official international lists of restricted substances, showing the progress we are making in eliminating them.

From this year, we have also decided to discontinue the reporting of some data – either because the quantities have become negligible (for example, chloroparaffins), or because we have divested product lines which gave rise to such data, or because current data can only be based on estimates (for example, types and impacts of transportation, disposal methods of regular waste).

For information covering ABB's asbestos liabilities, please refer to the Operational review and the Financial review of ABB's Annual Report. The issue is also detailed in the Economic performance section of this report.

Materials

EN1 Total materials consumption

The main materials used in ABB's products by weight are steel, sheet metal, copper, aluminum, mineral oil and various plastics. ABB's diverse range of standard products and the fact that many products are made to customer specifications means that aggregate reporting of materials consumption is not meaningful. ABB's corporate objective is to minimize the materials and substances used per product.

Use of hazardous material

ABB follows or, in some countries, exceeds the standard definitions of hazardous substances set by international agreements.

One of ABB's corporate objectives is to phase out the use of hazardous substances, setting end-of-use deadlines.

Priorities for replacement depend upon the environmental safety and technical acceptability of alternatives; the risk of the substance escaping into the environment; how hazardous the substance is; and whether ABB or its customers can still use the substance under strict control.

In the following tables, we list some monitored hazardous substances used by ABB to make products, or by suppliers working to ABB's specifications.

Use of hazardous substances (tons)

	2004	2003	2002
Phthalates (DIDP) – softener for PVC	**1.7***	9	14
PBB and PBDE – flame retardants in plastics	**108**	103	104
Fungicides – control of water fungi	**3.4**	2.5	4.8
Lead			
Submarine cables	**2,810**	2,967	977
Other products, e.g. counterweights in robots	**211**	222	640
Cadmium			
Rechargeable batteries	**1.9**	1.7	2.1
Industrial batteries delivered to customers	**69****	0	40
In lead alloy	**2.0**	2.6	1
Mercury			
In products delivered to customers	**0.020**	0.020	0.017
SF_6 insulation gas (inflow to ABB facilities from gas suppliers)	**388**	395	374
SF_6 insulation gas (outflow to customers)	**353**	319	358

* Reduction due to change in production mix.

** The fluctuation between years reflects the sporadic nature of this business.

Equipment containing hazardous substances in use in ABB facilities

	2004	2003	2002
No. of transformers with PCB oil	**17***	39	38
No. of capacitors with PCB oil	**2,369****	2,329	3,003
Mercury in measuring instruments for gas analysis of transformer oil (kg)	**62*****	15	28
Lead in back-up batteries (tons)	**43**	n.acc	n.acc

* The reduction includes four transformers whose PCB level falls below the international threshold of 50 ppm for PCB contaminated equipment.

** Increase due to inclusion of previously unidentified PCB capacitors.

*** Increase due to inclusion of previously unreported activities.

Environmental performance

EN2 Percentage of waste materials used from external sources
In the previous table, the lead used as counterweights for robots and the cadmium used in industrial batteries are recycled materials.

Energy

EN3 Direct energy use (Gigawatthours – GWh)

	2004	2003*	2002*
Primary fuel			
Oil (9.96 MWh/m³)	**126**	138	151
Coal (7.56 MWh/ton)	**17**	15	22
Gas	**417**	494	543
District heat	**256****	247	405
Electricity	**1,212****	1,348*	1,784
Total energy used	**2,028**	2,242	2,905
Megawatthours (MWh) per employee	**20**	19	20

* See indicator 2.13 – Boundaries of report, page 15.

** The figures assume an energy use of 3 MWh/employee for district heat and 12 MWh/employee for electricity for approximately 22 percent of all employees.

Due to a heterogeneous product mix and the fact that most of our products are made to customer specifications, we do not report energy consumption per unit of production. Instead, we monitor the use of energy per employee.

EN4 Indirect energy use (Gigawatthours – GWh)

	Use by ABB		Losses at utilities		Total use of energy	
	2004	2003	**2004**	2003	**2004**	2003
District heat	**256**	238*	**38**	36	**294**	274
Electricity	**1,212**	1,311*	**1,674**	1,811	**2,886**	3,122

(District heat and electricity are the main categories of indirect energy used by ABB.)

* Includes an estimate covering 22 percent of employees (see under energy use).

Indirect energy use is defined in this table as the energy losses incurred by the utilities supplying ABB's energy. For example, to supply ABB with 256 GWh of useable district heating, the utilities consume 294 GWh of energy, incurring losses of 38 GWh. This provides a measure of the utilities' efficiency in providing ABB with useable energy – 13 percent lost for district heating, and 58 percent lost for the supply of useful electricity.

EN17 Initiatives to use renewable energy
Most ABB facilities are bound to the energy mix supplied by local utilities. In countries where utilities offer "green energy," ABB's objective is to increase the amount of renewable energy it buys. Local sustainability officers now report quantities of "green energy" purchased per site. These reports indicate that approximately 50 percent of all manufacturing sites buy some of their energy labeled as "green energy".

EN18 Energy consumption footprint of major products
For an energy-driven ABB product, most environmental impacts are caused during its operating life rather than during its manufacture. It is therefore important for ABB to focus on energy efficiency to reduce the energy consumption footprint of its products.

This footprint is identified through a life cycle assessment study, which ABB carries out on all major products. The results are given in environmental product declarations (EPDs), published on ABB's Web site www.abb.com/sustainability. They are presented in the EPD as contributions that the product makes to known environmental impacts, such as global warming, ozone depletion, etc.

See under indicator E14 for more information on EPDs.

EN19 Other indirect energy use
a) Organizational travel
There have been no significant changes in travel patterns since last year. We estimate that during the last three years over half of all business traveling journeys by ABB employees were by road, over one-third by air and the remainder by rail.

ABB is not in a position to obtain figures for the distances covered by business travel and therefore cannot provide figures for indirect energy use for organizational travel.

b) Use of energy-intensive materials
For the reasons already given, ABB does not account for the total amount of materials used. The most energy-intensive materials we use are: aluminum (284 megajoules per kilogram – MJ/kg), copper (128 MJ/kg) and steel (28 MJ/kg).

c) Product life cycle management
All major ABB products come with recycling instructions to facilitate their efficient disposal at the end of their useful life. As an example, up to 90 percent by weight of ABB drives can be reused or recycled.

Water

EN5 Water consumption (kilotons)

	2004	2003	2002
Purchased from water companies	**3,200****	3,633*	4,502*
Extracted by ABB			
Groundwater	**2,500*****	1,921	n.acc.
Surface water	**1,000*****	850	n.acc.
Total consumption of water	**6,700**	6,374	n.acc.

* See indicator 2.13 – Boundaries of report, page 15.

** The figure assumes a water consumption of ten tons/year/employee for approximately 22 percent of all employees.

*** Estimated (rounded) figures.

EN20 Water sources significantly affected by use of water
ABB's manufacturing processes do not use significant amounts of water. Extracted ground and surface water is mainly used for cooling purposes. Almost all of the cooling water is discharged without any added contamination. ABB's local sustainability officers now report more extensively under this indicator.

EN21 Annual withdrawals of ground and surface water
See EN5 and EN20.

EN22 Recycling and reuse of water
The amount of water in closed loop processes is approximately 60,000 tons. The water is mainly used in cooling systems and for surface treatment processes.

Biodiversity

EN6 Land owned, leased or managed in biodiversity-rich habitats
ABB's manufacturing units are not located in biodiversity-rich habitats, as defined in IUCN Protected Areas Categories 1 – 4, world heritage sites or biosphere reserves.

EN23 Total amount of land owned, leased or managed for production activities (square meters)

	2004	2003
Land occupied by buildings	**approx. 7 million**	approx. 7 million
Total land area	**approx. 18 million**	approx. 18 million

Emissions

EN8 Greenhouse gases (kilotons)

	2004	2003	2002
CO_2 from use of energy	**824****	911*	1,195*
SF_6 (in CO_2 equivalents)	**253**	229	257
CO_2 from transport by own fleet	**350*****	n.acc	n.acc

* See indicator 2.13 – Boundaries of report, page 15.

** The figure assumes an energy use of 3 MWh/employee for district heat and 12 MWh/employee for electricity for approximately 22 percent of all employees.

*** Estimated.

Carbon dioxide (CO_2) emissions calculations are based on in-house energy use for production, lighting, heating and air-conditioning, and include indirect emissions at utilities where ABB buys power. Sulfur hexafluoride (SF_6) emissions are estimated to be equivalent to 3 percent of all SF_6 gas used by ABB. The CO_2 equivalent for SF_6 is 23,900.

As can be seen from the table above, the total amount of ABB's greenhouse gas emissions, based on the WBCSD/WRI Greenhouse Gas Protocol (Scope I and II), is estimated to be 1.5 million tons for the whole ABB Group.

EN9 Ozone-depleting substances (tons)

CFC class II*	2004	2003	2002
Contained in own manufacturing processes and in AC	**11.8**	12.4	12

* Chlorofluorocarbons (CFC) class I is banned in ABB products.

All CFCs are handled according to procedures in each manufacturing site's environmental management program.

Volatile organic compounds, VOC (tons)

	2004	2003	2002
VOC	**861**	724	946
VOC-Cl	**22***	31	47

* Reduced by the introduction of VOC-free degreasing processes.

ABB's objective for chlorinated volatile organic compounds (VOC-Cl) is to eliminate all emissions to air.

The current reporting system does not distinguish between the various types of VOC and VOC-Cl. It is therefore not meaningful to convert the data into ethane equivalents. The major constituents of VOCs and VOC-Cls are xylene, thinner and perchloroethylene.

EN10 Emission of NO_x and SO_x (kilotons SO_2 and NO_2)

	2004	2003	2002
SO_x from burning coal	**12**	11	16
SO_x from burning oil	**92**	84	109
NO_x from burning coal	**9**	8	12
NO_x from burning oil	**69**	63	82
NO_x from burning gas	**90**	107	137

These figures are for fossil fuels consumed in ABB premises for heating and process purposes.

EN30 Other indirect greenhouse gas emissions
Indirect emissions from traveling, transportation, manufacturing of materials and emissions related to product use, are not aggregated at group level. For core products however, the greenhouse gas emissions throughout a product's life cycle are shown in its environmental product declaration (published on www.abb.com/sustainability).

See under indicator EN14 for more information on EPDs.

EN11 Waste
a) Self-generated materials and substances sent for recycling or energy recovery (tons)

	2004	2003	2002
Solids	**65,360***	80,085	85,751
Liquids	**4,931**	4,805	5,746

* Decrease due to accelerated scrap reduction program.

ABB's objective is to recycle as much self-generated scrap as possible.

b) Hazardous wastes sent for disposal (tons)

	2004	2003	2002
Solid waste	**1,338**	1,997	2,789
Liquid waste	**2,381**	2,194	3,591

c) Disposal methods for regular waste
The main waste streams at ABB organizations are wood, plastic and paper. We estimate that over the last three years, more than half the amount of wood, well over one-third of plastic, and three-quarters of paper has been sent for recycling. The remainder has been sent for incineration or to landfill. ABB's objective is to reduce the amount of waste sent to landfill and to increase its use of materials which are recycled or available for reuse. However, in some countries proper waste recycling programs are unavailable.

Environmental performance

EN12 Discharge of process water (percentage of ABB process plants)

	2004	2003
Public sewer	**75**	75
Water sources	**25**	25

The figures, which remain unchanged from last year, indicate the percentage of ABB process plants that discharge water to public sewers or to local water sources such as lakes or rivers. The water discharge to local water sources is returned without additional contamination and comes mainly from surface treatment plants, cooling water systems and test plants.

EN31 Transport of hazardous waste
ABB follows legal regulations to transport and dispose of hazardous waste only through officially authorized disposal agents.

EN32 Water sources and related ecosystems significantly affected by discharges of water
ABB sites do not significantly affect water sources and related ecosystems or ground water.

EN13 Spills and other incidents
ABB's environmental management program includes mechanisms for reporting incidents with potential environmental impact. During 2004, 12 such incidents were reported. All related to minor spills. None resulted in permanent contamination of soil or water.

Transportation

EN34 Environmental impacts of transportation
We estimate that over the last three years, more than three-quarters of the deliveries of materials from ABB suppliers and the deliveries of ABB finished products to customers, have been by road. The remainder have been shared between rail, sea and air.

See EN33 below for more information on ABB's collaboration with its eight largest international freight-forwarders.

Suppliers

EN33 Performance of suppliers
ABB segregates its major and strategic suppliers of materials, components and services into categories according to the severity of the environmental and social impacts they may cause.

Those posing a high risk, for example, handling hazardous substances or supplying materials and services used directly in manufacturing ABB products, must undertake the following:

- Implement an environmental policy
- Identify the significant environmental aspects of manufacturing or providing the materials, components or services they supply to ABB
- Ensure that all operations and processes comply with environmental standards and legislation
- Have in place the basic elements for continuous improvement
- In particular, they must have in place an environmental management system certified to ISO 14001

ABB incorporates such sustainability requirements into its contracts with major and strategic suppliers.

ABB is now working with its eight largest international freight-forwarders for sea and air to jointly draft and implement effective and practicable guidelines covering environmental and social performance objectives and requirements, to be contractually binding on all parties.

Products and services

EN14 Significant environmental impacts of principal products and services
The environmental performance and impacts of ABB core products are presented in environmental product declarations (EPDs). An EPD is a standardized tool, meeting the requirements of ISO/TR 14025, to communicate the environmental performance of a product or system over its complete life cycle, and is a recognized worldwide reference for all interested parties. It is based on a formal life cycle assessment (LCA), providing information on environmental impacts such as raw material acquisition, energy use and efficiency, content of materials and substances, emissions and waste generation. It also includes product and recycling information.

EPDs for ABB products are published on the ABB Web site: www.abb.com/sustainability

EN15 Percentage of ABB products reclaimable after use
ABB products contain mostly steel, copper, aluminum, oil and plastics. Approximately 90 percent of the material is reclaimable after the end of a product's useful life.

ABB aims to encourage recycling by designing products that can be dismantled more easily, and by providing users with recycling instructions.

Compliance

EN16 Fines for non-compliance with applicable legislations
No penalties for environmental infringements by ABB companies were reported during 2004.

Social performance

Overview

During 2004, ABB deepened the implementation of its social policy and continued to focus strongly on health and safety performance. An ABB executive committee member chairs a steering group responsible for supervising the group-wide implementation of ABB's social policy, which includes the health and safety policy.

Implementation of the 13 principles of the ABB social policy are covered by group function heads according to their areas of expertise. For example, health and safety is covered by the group function for sustainability affairs, business ethics by legal and compliance, ABB in society by corporate communications, suppliers by supply management, and labor principles by human resources.

ABB committed considerable resources in 2004 to implement the internationally recognized OHSAS 18001 management standard in all business units, including manufacturing, office work, construction projects and service. Progress on implementing the standard now determines part of senior managers' remuneration via a scorecard performance assessment system. At the end of 2004, the average level of implementation worldwide was 81 percent.

ABB continued its efforts to encourage its main suppliers to follow the principles laid out in the group's environmental, social, and health and safety policies.

Business ethics compliance programs continued throughout the year, targeting all employees involved in business transactions.

The group's corporate social responsibility policies and activities are strongly influenced by stakeholder dialogues conducted at corporate and country level. In 2004, stakeholder dialogues were conducted twice at corporate level and in 15 out of the 48 countries and regions where we have sustainability controllers. Peru held a dialogue for the first time.

An ABB working team has been addressing the broader issues of equal opportunity, and how to encourage the promotion of women and people from minority groups to positions of greater responsibility. Diversity was a key topic at ABB's 2004 Human Resources Corporate Forum.

Turning to human rights, ABB continued discussions in 2004 with Amnesty International's Business Group with the aim of training ABB managers on human rights issues.

ABB was also an active participant in 2004 in the Business Leaders Initiative on Human Rights. As a contribution, ABB road tested the UN Norms on Human Rights for transnational corporations on its Access to Electricity project in Africa, carried out a comparison between the coverage of human rights in the UN Norms and the Global Reporting Initiative (GRI) Guidelines, and advocated in different forums that companies should report their human rights performance in accordance with the GRI Guidelines.

This report on our social performance has been expanded each year and is now in line with the GRI Guidelines relevant to ABB's activities. The GRI reference numbers are shown against each indicator.

Employment

LA1 Breakdown of workforce (total numbers of ABB employees)

	2004	2003	2002
Europe	**60,000**	70,500	91,000
The Americas	**16,500**	19,000	24,500
Asia	**16,500**	15,500	16,000
Middle East and Africa	**9,500**	11,500	7,500
Total	**102,500**	116,500	139,000

LA1 Numbers of part-time employees (included in above totals)

	2004	2003	2002
Europe	**2,600**	3,458	n.acc.
The Americas	**130**	147	n.acc.
Asia	**140**	212	n.acc.
Middle East and Africa	**130**	336	n.acc.
Total	**3,000**	4,153	n.acc.

ABB started to report these numbers in 2003. Not all countries are yet included. In Austria 16 percent of ABB employees work part-time, in Benelux 12 percent, in Switzerland nine percent, in South Africa eight percent and in Finland seven percent. The overall trend appears to be on the increase. In most other countries more than 90 percent are employed full-time.

Labor/management relations

LA3 Percentage of employees represented by independent trade unions

We have decided to discontinue reporting against this indicator until we have implemented a definition for independent trade unions throughout the group.

LA4 Information, consultation and negotiation with employees

Principle 6 of the social policy commits ABB to facilitate regular consultation with employees to address areas of concern and to make sure in case of major layoffs that a social benefits and guidance plan is in place and is already known to employees or their official representatives.

All countries in ABB's sustainability management program were asked to explain their procedures. Various methods are used, including employee-management meetings, committees, works council and trade union meetings, seminars, video conference events, country manager road shows and intranet-based information forums.

In preparation for the new European Union directive on information and consultation, to come into force in 2005, ABB is currently working on a background paper and implementation process to ensure compliance. The directive aims to give employees across the EU new rights to be informed and consulted on an ongoing basis about developments in the organizations they work for.

Social performance

Health and safety

LA5 Recording and notification of occupational accidents and diseases

Principle 5 of ABB's social policy commits ABB to provide a safe and healthy working environment at all sites.

All countries are required to report a fatality, serious injury or defined dangerous occurrence immediately to ABB's CEO, members of the executive committee and group function heads, and to conduct an investigation. They must also establish procedures for reporting and investigating by business all work-related accidents, lost days and occupational diseases, including work-related travel incidents.

The general principles of the International Labour Organization code of practice on recording and notification of occupational accidents and diseases have been followed in developing ABB's reporting and investigation process.

In 2004, ABB commenced quarterly reporting of lost-day accidents, total lost days, and defined occupational diseases.

LA6 Description of formal joint health and safety committees

Health and safety consultation is an integral part of ABB's commitment to introduce into all businesses the occupational health and safety management systems based on OHSAS 18001 and the ILO guidelines. The form of health and safety consultation with employees varies according to local requirements, and includes health and safety committees and employee forums.

LA7 Standard injuries, lost days, absentee rates and fatalities

It is highly regrettable that people died in 2004 as a result of ABB's activities. A total of 21 people, including ABB employees and contractors, died in work-related, commuting and terrorist incidents.

Eleven ABB employees died in work-related incidents, five of them in industrial incidents. Five were killed in a terrorist attack on a customer compound in Saudi Arabia in May 2004. ABB publicly deplored the attack. Another employee was killed in an attack by criminals.

Two employees died in commuting road traffic incidents.

A total of eight contractors died in work-related incidents. One of these was a victim of the attack in Saudi Arabia. Another four people were killed in industrial incidents and three others died in work-related road traffic incidents.

ABB has revised its health and safety strategy to ensure that the causes of such incidents are identified, and actions are taken to prevent, wherever possible, a recurrence.

The figures for ABB employees are stated below. They include figures for ABB Lummus Global, which has been reclassified as "continuing operations" (previously classified as "discontinued operations"). Therefore, this year's figures are not comparable with those of previous years (2002, 2003).

Employee industrial incidents

	2004 Total	2004 Incident rate
Fatal	5	0.05
Serious injury	13	0.13

Employee security and crime incidents

	2004 Total	2004 Incident rate
Fatal	6	0.06
Serious injury	1	0.01

Employee commuting and business travel incidents

	2004 Total	2004 Incident rate
Fatal	2	0.02
Serious injury	8	0.08

Note: Figures per employee are calculated based on a 2004 year-end total of approximately 102,500. Rates are per 1,000 employees.

In 2004, days lost from employee industrial incidents amounted to 27,762. This represents an improving trend over previous years: 34,212 in 2003 and 46,504 in 2002. These figures, however, do not include ABB Lummus Global.

In 2004, there were 384 nationally-reportable occupational health diseases recorded among ABB employees. As more countries are now included, this figure is not comparable with those of previous years.

In 2004 ABB continued to move towards the ILO recommendations for accident reporting as part of our commitment to the Global Reporting Initiative.

LA8 Policies or programs on HIV/AIDS

All countries in ABB's sustainability management program were asked to give details of their activities in this area. Five countries (Brazil, Philippines, South Africa, South Korea and Thailand) confirmed they had policies to address HIV/AIDS, and described their programs and initiatives. Several other countries referred to national programs.

LA14 Compliance with the ILO Guidelines for Occupational Health Management Systems

In 2004, ABB set a goal for all business units to implement the ABB occupational health and safety management system. The ABB system follows the principles of OHSAS 18001:1999, and the ILO Guidelines for Occupational Health Management Systems. At the end of 2004, 81 percent of business units achieved implementation.

Training and education

LA9 Training and education

All countries and regions reported figures for the average hours of organized "classroom" training per employee per year. The figures, which exclude "on the job" training, from a selection of countries are as follows:

Ireland	0
Argentina	4
Czech Republic	5
Russia	8
Peru	10
Turkey	13
Sweden	16
United Kingdom	25
Colombia	36
Hungary	40
China	50

It is noteworthy that training in China is substantially higher than in any western country. This is the second year we are reporting training figures. Each year we select different countries for this table so that over a four-year period we cover all countries where ABB has operations. We report on the same countries in LA11 – composition of senior management.

Diversity and opportunity

LA10 Equal opportunity policies, programs and monitoring

Principle 7 of the social policy commits ABB to offer equal opportunities to all employees.

All countries and regions in ABB's sustainability management program are asked to give details of their policies and programs to promote equal opportunities. Nearly half have policies and programs in place.

In historically male-dominated engineering companies like ABB women are in a minority, but the proportion of women employees is steadily increasing, particularly in professional functions such as communications, sustainability, financial controlling and research and development. During 2004, a working team at senior group level addressed the broader issues of equal opportunity and how to encourage promotion of women and members of minority groups to positions of greater responsibility. Diversity was a key topic at ABB's 2004 Human Resources Corporate Forum.

LA11 Composition of senior management

ABB's board of directors comprises eight men of six nationalities.

The executive committee is made up of five men of five nationalities.

At the last group executive forum of 2004, there were participants from 23 different countries. Five percent of the participants were women.

Percentage figures of women in senior executive, senior and middle management ranks taken from the same countries randomly selected for LA9 are as follows:

Argentina	3
Colombia	4
Russia	5
United Kingdom	10
Ireland	10
Sweden	13
Hungary	15
Turkey	15
Czech Republic	16
Peru	16
China	22

These figures relate to the top three levels of management in ABB's countries of operation and business areas. This is the second year we are reporting these figures. Our intention is to select other countries in future reports so that all are reported over a four-year period.

Strategy and management

HR1 Policies, guidelines, procedures to deal with human rights in operations

Principle 2 of the social policy commits the group to support and respect the protection of internationally proclaimed human rights, including the United Nations Universal Declaration of Human Rights.

ABB and nine other international companies participate in the Business Leaders Initiative on Human Rights (BLIHR), aimed at further integrating human rights in business. BLIHR's second annual report, issued in December 2004, describes the collective and sector-specific work of each of the member companies during the year.

As part of its contribution to this initiative, ABB roadtested the United Nations Norms on Human Rights for transnational corporations on its Access to Electricity project in Tanzania, carried out a comparison between the coverage of human rights in the UN Norms and the GRI Guidelines, and advocated in different forums that companies should report their human rights performance in accordance with the GRI Guidelines.

HR2 Consideration of human rights impacts as part of investment decisions

One of the performance indicators used in ABB's implementation guidelines for Principle 2 comprises a checklist to investigate human rights impacts as part of investment decisions in a country.

ABB maintains and reviews a list of countries where it has banned business operations because of unacceptable human rights records. Myanmar remains on the list because of the poor human rights record of its military government, after review by the responsible ABB Group executive committee member in February 2004.

HR3 Consideration of human rights impacts within the supply chain

Principle 11 of the social policy commits ABB to evaluate and select key suppliers and subcontractors on their ability to meet the requirements of ABB's social policy – including our human rights commitments in Principle 2.

Social performance

ABB has incorporated social performance criteria, including human rights performance, into its suppliers' qualification process (SQP) requirements. SQP is now being implemented in national, as well as in group purchasing contracts. To date, 17 countries apply the sustainability section of SQP for their key suppliers. The human rights performance of key suppliers forms part of ABB's screening and auditing procedures.

ABB's frame agreements with repeat-order customers incorporate a section which seeks to ensure their sustainability performance, under which customers join ABB in agreeing to comply with country-specific health and safety, environmental and labor standards.

ABB is working with its eight largest international freight-forwarders for sea and air to jointly draft and implement effective and practicable guidelines covering environmental and social performance objectives and requirements, to be contractually binding on all parties.

HR8 Employee training on policies and practices concerning human rights
In 2004, ABB continued discussions with Amnesty International's Business Group with the aim of training ABB managers in human rights issues.

Implementation of ABB's social policy will raise employee awareness of ABB's commitment, and the role of management and employees, in applying the principles of the policy. This includes supporting and respect for human rights.

Non-discrimination

HR4 Policies to promote non-discrimination in operations
Principle 7 of ABB's social policy prohibits the group from engaging in or supporting discrimination in any form throughout its operations.

Freedom of association and collective bargaining

HR5 Policies to facilitate freedom of association
Principle 6 of the social policy commits ABB to respect the right of all personnel to form and join trade unions of their choice and bargain collectively.

In countries where the law does not permit this right, Principle 6 obliges ABB to facilitate regular consultation with employees to address areas of concern.

Child labor

HR6 Policies to exclude child labor
Principle 3 of the social policy obliges the group to ensure that minors are protected and, as a basic principle, not to employ children or support the use of child labor.

ABB's focus is directed mainly at its supply chain by incorporating child labor criteria into its suppliers' qualification process requirements to ensure its key suppliers and contractors comply with the same principle.

Forced and compulsory labor

HR7 Policies to prevent forced and compulsory labor
Principle 4 of the social policy requires that all employees enter into employment with ABB of their own free will.

ABB's focus is again directed mainly at its supply chain by incorporating criteria into its suppliers' qualification process requirements to ensure its key suppliers and contractors comply with the same principle.

Disciplinary practices

HR9 Policies to facilitate disciplinary appeal practices
Principle 8 of the social policy commits ABB to develop and maintain equitable procedures to deal with employee grievances and disciplinary practices.

Job satisfaction levels
Job satisfaction surveys were conducted in 2004 among ABB employees in 15 countries.

In three countries (Czech Republic, Finland and Switzerland), job satisfaction increased over the previous year. In one country (Romania), job satisfaction decreased.

In Switzerland, the level of satisfaction was rated at four (out of six) overall. In Finland, questions relating to health and safety were included for the first time. In the Czech Republic, points raised in the survey were fed into local business plans and followed up monthly.

ABB's ranking as an employer
National surveys identifying employers of choice are not held every year. In 2004, ABB was ranked as an employer of choice in surveys in ten countries. In China, ABB improved its ranking from 48 to 31 in a survey by Fortune China of the "most-admired companies in China." In Finland, ABB ranked first among electrical engineering students; in Switzerland, first by "Bilanz" as the most attractive employer; in Norway, fourth for engineering and science – up from seventh in 2003.

HR10 Non-retaliation policy and employee grievance system
In addition to Principle 8 of the social policy, which requires ABB to develop and maintain equitable procedures to deal with employee grievances, Principle 6 commits ABB to ensure that representatives of personnel are not subject to discrimination and have access to their members.

The countries are required to develop and maintain equitable procedures to comply with local regulations and practices.

Security practices

HR11 Human rights training for security personnel
In 2004, 23 countries confirmed that training was given (up from 21 in 2003).

In Spain, it is included in several training courses throughout the year. More and more countries are subcontracting these duties to outside professional security companies. For example, in Greece the security agency conducts specific training for its staff on human rights and communication with employees and the public.

ABB has expanded Principle 2 of its social policy to include the responsibilities, conduct, training and supervision of security personnel in the practice of human rights.

Indigenous rights

HR12 Policies to address the needs of indigenous people
The needs of indigenous people are generally covered by Principle 7 of ABB's social policy, which obliges ABB to offer equality of opportunity to all employees and not to engage in or support discrimination in any form.

In the few countries where this is relevant to ABB's activities, such as Malaysia, Saudi Arabia and South Africa, we have additional policies in place.

Community

SO1 Policies to manage impacts on communities

Principle 12 of ABB's social policy commits ABB to promote and participate in community engagement activities that actively foster environmental, social, economic and educational development of the communities where it operates.

In 2004, ABB companies in 36 countries supported community development projects, donating approximately $1 million in funding, and employees volunteered a significant number of man-days.

Examples include a donation of $168,000 for 14 community care projects implemented by the United Way organization in Canada; $200,000 in Finland for school and university education; and $75,000 in Sweden for the World Childhood Foundation. In Argentina, ABB contributed $30,000 to support an educational farm in Tucuman to help restart family farms after the economic collapse of December 2001.

In Russia, ABB donated $30,000 towards an electrical testing laboratory at Moscow University, while ABB in the U.S. contributed $463,000 and 300 man-days of employee participation to a range of community projects and events to enhance public health and the environment.

Overall, many initiatives for community development arise from ABB's worldwide program of stakeholder dialogue where preference is given to those initiatives which help the communities where ABB has its operations, while directly or indirectly supporting ABB's business aims.

SO4 Awards received

In 2004, ABB was accepted as a member of the "Sustainability Excellence Club" in Spain. In Romania, ABB was awarded the right to utilize the "Green Point Program" brand by the National Association of Consumers Protection. In the U.S. ABB gained the Ford Environmental Award for its environmental performance.

In Brazil, ABB gained an award from the Federation of Industry of Minas Gerais state for the contributions of its employees in Betim to the city's "Give a smile" campaign. In Italy, ABB won the Sodalitas Social Award which recognizes companies making particularly impressive efforts in the social field. And in Saudi Arabia, ABB received awards for training students from local universities and technical institutes.

Bribery and corruption

SO2 Policies and compliance mechanisms addressing bribery and corruption

Principle 13 of ABB's social policy commits the group to uphold the highest standards in business ethics.

ABB also subscribes to the basic principles in the International Chamber of Commerce rules of conduct, 1999 revised edition, and the OECD Convention from 1997, as well as the U.S. Foreign Corrupt Practices Act, 1977.

During 2004, ABB continued a rigorous compliance program worldwide to promote its business ethics policy, which belongs to the company's core set of values and guiding principles. It is incorporated in ABB's business ethics standards, published on our group Web site, which set a "zero tolerance" ruling for non-compliance.

During 2004, all of ABB's country and regional compliance counselors attended one of five regional conferences, which provided the basis for them to prepare and implement compliance programs in their respective countries and regions.

Political contributions

SO3 & 5 Policies and compliance mechanisms for managing political contributions

In accordance with ABB's business ethics standards, contributions to political parties or committees, or to individual politicians, are not to be made. Any exceptions, for countries whose cultures call for such practices, have to be cleared in advance with the ABB Group Legal Affairs and Compliance department.

Competition and pricing

SO7 Policies and compliance mechanisms to prevent anti-competitive behavior

In accordance with ABB's business ethics standards, ABB is committed to fair and open competition in markets around the world and would take immediate steps under its "zero tolerance" ruling to address any incidents of non-compliance among its employees or other actions which restrict or distort competition in violation of applicable anti-trust laws. (See page 22 for information on ABB's business ethics policy and standards.)

Customer health and safety

PR1 Policy for preserving customer health and safety during use of products

ABB products generally help improve users' health and safety. They do this, for example, by improving industrial environments (automation control products), reducing exposure to aggressive and hazardous operations (robotics), and reducing potential explosions, fire risks and oil pollution (oil-free capacitors and cables).

The high level of performance of ABB products, ensured through solid investment in research and development, enhances health and safety by reducing the risk of power or equipment failures – in factories, public institutions and transportation. The high efficiency of ABB motors reduces energy consumption and thereby the indirect emissions of greenhouse gases, which cause global warming.

Products with a potentially negative impact are those which could contribute to global warming (leak of SF_6 gas), require deforestation and present a visual impact (transmission lines), cause losses of energy (most electrical products), or cause electrocution if misused.

One of the main tasks of ABB's divisional technical managers is to focus on the environmental and social performance of products and projects, including their health and safety impacts.

Products and services

PR2 Policy related to product information and labeling

ABB's objective is to produce environmental product declarations (EPDs) for core products. These declarations take a life cycle approach and are based on assessments carried out in accordance with ISO/TR 14025. They describe and quantify the environmental impact and performance of ABB products over all phases of their life cycles, covering material extraction, component manufacture, transportation and use over their full operating lifetime. They also contain recovery, recycling and disposal instructions when the product has completed its useful life.

To date, ABB has prepared about 50 EPDs covering a broad range of products. ABB is pursuing ways to use environmental data from EPDs as a marketing tool to assist customers in their selection of environmentally sound products.

This work is in line with the European Union's new directive on the handling of waste electrical and electronic equipment.

Social performance

PR8 Policy and compliance mechanisms related to customer satisfaction
Most ABB companies carry out customer surveys every one to three years, depending on the nature of their businesses. They are often undertaken by external agencies.

Several companies routinely use questionnaire surveys with the delivery of a product or execution of a project.

ABB also compiles, validates, tracks and analyzes all customer complaints in a single, global system that helps resolve problems quickly and efficiently. This system – the Customer Complaints Resolution Process (CCRP) – gives a basic indicator of customer satisfaction. It also provides valuable pointers for improvement.

Of 48 countries and regions, all except four apply the CCRP system.

In addition to determining the satisfaction of customers, ABB also carries out satisfaction surveys with stakeholder groups other than customers, such as suppliers, authorities and trade unions. Such surveys were conducted in China (with authorities), South Africa (with suppliers) and France (with trade unions).

Advertising

PR9 Policies and compliance mechanisms for adherence to advertising standards and codes
Since ABB works in the field of advanced technologies and does not provide consumer products or services, this has not been an issue up to now. The responsibility for ensuring compliance with advertising standards and voluntary codes on a worldwide scale is assigned to ABB's corporate specialist advertising agencies that perform these checks.

ABB in the sustainability performance ratings

High rankings in reputable sustainability performance indices translate into tangible customer benefits and distinguish ABB from many of its competitors.

Dow Jones Sustainability Indices (DJSI)
Launched in 1999, the DJSI was the world's first index comprising companies with superior sustainability performance, including economic, environmental and social aspects.

In 2004, ABB retained second place in its industry group – Advanced Industrial Equipment – and was cited as one of the sustainability leaders in its industry, being rated best company on a global basis within its group for environmental and social performance.

ABB scored above the industry average in the economic dimension. It was cited as having very strong management capabilities in the environmental dimension compared to the industry average, and scored particularly well in eco-efficiency performance and product design for the environment.

In the social dimension, ABB's reporting on social issues was cited as being superior to most of its competitors. Its standards for suppliers and measures for occupational health and safety were particularly mentioned.

FTSE4Good
The FTSE4Good indices were launched in July 2001 to highlight the best performers in corporate social responsibility.

In 2004, ABB featured again in both the FTSE4Good Europe Index and in the FTSE4Good Global Index.

Business in the Environment (BiE)
Business in the Environment (BiE) is the business-led campaign for corporate environmental responsibility, which launched the annual index of Corporate Environmental Engagement in 1996 to assess companies' environmental performance.

In the latest ranking for 2003, covering 176 companies, ABB is ranked top of its sector Engineering and Machinery and top of the General Industrial group with a score of more than 95 percent, which places ABB in the Premier League of the index.

Sarasin Bank
Bank Sarasin, based in Basel, Switzerland, assesses selected companies' environmental and social performance as a basis for its socially responsible investment funds and services.

In the latest assessment in 2004, ABB again scores above the industry average in every aspect of environmental performance.

On the social side it scores well in some categories, especially supplier relations and community activities, but is penalized for workforce reductions, anti-trust investigations and participation in controversial power plant projects.

SiRi Company
SiRi Company is a socially responsible investment research organization based in Europe, North America and Australia.

In SiRi's latest corporate sustainability rating assessment, published in January 2005, ABB scored 81.2 out of 100. ABB's rating was the highest in its industry, where the average score was 55.7.

Swedish Environment Fund
In their list of rated companies for 2004, ABB is ranked among the most sustainable corporations quoted on the Swedish stock exchange. The list is a venture between Banco Funds, which administers the Swedish Environment Fund and The Natural Step Foundation.

Innovest
Innovest Strategic Value Advisors, headquartered in New York, has renewed its environmental statement for ABB's 2004 Sustainability review as follows:

"Innovest maintains a high rating and sector ranking for ABB. With the concerns over asbestos liabilities and other financial issues now close to resolution, the company's continued strategic and comprehensive approach to sustainability factors even under difficult financial conditions marks it as a leader. This approach will continue to provide it with a competitive edge."

3.13 Principal memberships

Listed below are some of ABB's principal associations and initiatives at corporate level involving sustainability.

Business for Social Responsibility (BSR), U.S.
ABB is a member of Business for Social Responsibility (BSR), a U.S.-based global organization that helps member companies achieve success in ways that respect ethical values, people, communities and the environment. BSR provides tools, training and advisory services to make corporate social responsibility an integral part of business operations and strategies. BSR, a non-profit organization, promotes cross-sector collaboration and contributes to global efforts to advance the field of corporate social responsibility. Web site: www.bsr.org

Business Leaders Initiative on Human Rights (BLIHR), U.K.
ABB is one of the founding members of this initiative, launched in May 2003, which now comprises ten international companies. BLHIR is a three-year program to help lead and develop the corporate response to human rights. BLIHR believes in an evidence-based approach based on the application and testing of human rights across a number of business sectors and geographic locations. The honorary chair of BLIHR is Mary Robinson – former UN High Commissioner for Human Rights and former president of Ireland. BLIHR's second annual report – issued in December 2004 – describes the collective and sector-specific work of each of the member companies during the year. Web site: www.blihr.org

Centre for Environmental Assessment of Product and Material (CPM), Chalmers University of Technology, Gothenburg, Sweden
CPM is a national competence center dedicated to sustainable product development. It is jointly funded by industry, VINNOVA (the Swedish Agency for Innovation Systems), and Chalmers. ABB is a board member. Web site: www.cpm.chalmers.se

CSR Europe, Belgium
Corporate Social Responsibility Europe, founded in 1997 by its current patron Etienne Davignon and now comprising 65 member companies, is a non-profit organization which seeks to help companies achieve profitability, sustainable growth and human progress by placing corporate social responsibility in the mainstream of business practice. The head of ABB's sustainability affairs organization is vice chairman of the board of directors. Web site: www.csreurope.org

Global Village Energy Partnership (GVEP), U.S.
The partnership was formally launched at the United Nations World Summit on Sustainable Development in Johannesburg in 2002. The World Bank and the United Nations Development Programme are important drivers of the initiative. The intention is to build a coalition to help bring energy to up to two billion people who currently lack access to electricity. GVEP addresses both urban and rural communities and focuses on action plans, knowledge exchange, capacity development, financing facilitation and results monitoring. ABB is a registered partner in GVEP. Web site: www.gvep.org

Principal memberships

Global Reporting Initiative, Netherlands
ABB is an organizational stakeholder for the GRI – a multi-stakeholder process which started in 1997 and became an independent institution in 2002. The initiative has the active support and engagement of representatives from business, non-profit advocacy groups, accounting bodies, investor organizations, trade unions and others. These constituencies have worked together to build a consensus on a set of sustainability reporting guidelines with the aim of achieving worldwide acceptance. The head of ABB's sustainability affairs organization participated in an expert group, which was set up in 2004 to develop a new protocol for the next edition of the GRI guidelines. Web site: www.globalreporting.org

International Institute for Management Development (IMD), Switzerland
IMD, based in Lausanne, Switzerland, is one of the world's leading business schools with over 50 years of experience in developing the leadership capabilities of international business executives. ABB is a corporate sponsor and active participant in IMD's research program on sustainability in business. Web site: www.imd.ch

International Organization for Standardization (ISO), Switzerland
The ISO is responsible for standardization in all fields except electrical and electronic engineering. ABB's corporate staff for sustainability affairs is a member of Technical Committee 207. Web site: www.iso.ch

oikos International, Switzerland
oikos is an international student organization for sustainable economics and management, founded in 1987 at the University of St. Gallen, Switzerland, and now present in some 20 universities in 16 countries. The head of ABB's sustainability affairs organization is a member of the oikos Advisory Board.
Web site: www.oikosinternational.org

Pew Center on Global Climate Change, U.S.
ABB is one of nearly 40 companies on the Business Environmental Leadership Council. The Pew Charitable Trust established the organization in 1998 to bring together "ingenuity and experience of all sectors of our society – private, public, and non-governmental organizations" to work together to protect the climate while sustaining economic growth. Web site: www.pewclimate.org

Transparency International, Germany
The global non-governmental organization, founded in 1993, is dedicated to fighting corruption. ABB is a group contributor and donor and was one of ten international companies to sign a set of "Business Principles for Countering Bribery in the Engineering and Construction Industry" at the World Economic Forum's annual meeting in 2004 in Davos, Switzerland. The principles were developed by a multinational task force of engineering and construction companies, including ABB, working with the World Economic Forum, the Basel Institute on Governance, and Transparency International. Web site: www.transparency.org

United Nations Global Compact, U.S.
ABB was one of the 50 companies that supported the inaugural launch of the Global Compact in New York in July 2000. The Compact is a platform for encouraging and promoting good corporate practices and learning experiences in the areas of human rights, labor, the environment and anti-corruption. Web site: www.unglobalcompact.org

World Business Council for Sustainable Development, Switzerland
Established in January 1995, the WBCSD (of which ABB is a member) is a coalition of 170 international companies drawn from more than 35 countries and 20 major industrial sectors, and united by a shared commitment to sustainable development via the three pillars of economic growth, ecological balance and social progress.
Web site: www.wbcsd.ch

World Energy Council, U.K.
A non-governmental energy-policy forum founded in 1923. Its objective is to promote the sustainable supply and use of energy for the greatest benefit of all people. ABB is active in several WEC national member committees. Web site: www.worldenergy.org

World Wide Fund for Nature (WWF), Switzerland
One of the world's largest and most effective organizations devoted to the conservation of the environment, operating in around 100 countries and supported by nearly five million people. ABB is currently working on two projects with WWF: on energy efficiency, and Access to Electricity in Tanzania. Web site: www.wwf.org

Position statements

ABB's position on climate change and global warming

The United Nations Intergovernmental Panel on Climate Change believes man-made emissions of greenhouse gases – mainly carbon dioxide (CO_2) – are influencing global climate. Through the Kyoto Protocol, most industrialized countries have agreed to cut their greenhouse gas emissions.

ABB shares the U.N.'s concern about global warming and is committed to the pursuit of emission reductions. We regard the Kyoto Protocol, and other national and international efforts, as important initial steps in lowering greenhouse gas emissions and stabilizing global temperatures.

ABB has initiated a global project with the World Energy Council (WEC) to reduce greenhouse gas emissions by one billion tons annually by 2005. Progress is publicly reported in a database on the WEC Web site. Today, the one billion ton target has been reached and the database contains more than 1,300 projects in 124 countries.

In 1999, we set a target to reduce ABB's own greenhouse gas emissions by 1 percent per year over the next five years. We accomplished this through a large number of improvement projects throughout ABB. The executive committee also approved the first step towards ABB becoming a CO_2-neutral organization. It sanctioned the investigation of current and upcoming international instruments that would help ABB to compensate for its CO_2 emissions.

ABB's greatest contribution to the reduction of greenhouse gas emissions is through the high environmental performance of its products over their complete life cycles. Using life cycle assessments, ABB delivers products and systems that require less material, have higher efficiencies and consume less energy, which means fewer greenhouse gas emissions – particularly over long operating lifetimes.

Applying ABB's advanced industrial information technology for the control of integrated systems, electrical power grids, industrial processes and buildings can reduce emissions even further.

ABB's position on sulfur hexafluoride (SF_6)

Sulfur hexafluoride (SF_6) is a man-made gas. It is used in electrical equipment and also in such applications as semiconductor manufacture and cover gas in magnesium foundries. It is one of the most potent greenhouse gases listed in the Kyoto Protocol.

Compared with emissions of carbon dioxide (the main greenhouse gas), the amount of SF_6 that escapes to the atmosphere is minute. Even though SF_6 has a global warming potential some 23,900 times greater than carbon dioxide, SF_6 probably accounts for about 0.1 percent of man's contribution to the greenhouse effect.

Like many other manufacturers, ABB uses SF_6 to make safe, reliable and compact high-voltage electrical equipment. The gas has excellent insulating and arc-quenching properties, which permit much more compact equipment designs than would otherwise be possible. Land use, energy consumption; losses and waste are all considerably reduced, while the potential for recycling is increased.

Life cycle assessments indicate that with proper precautions, these advantages outweigh the environmental impact of leakages of SF_6 to the atmosphere.

In normal use, ABB products emit hardly any SF_6. The gas is contained either in closed systems that require gas handling only once in a lifetime of 40 years, or in sealed systems that require no gas handling for at least 30 years. Our current closed systems guarantee maximum leakage rates between 0.5 and 1 percent per year, which are in accordance with the latest standards. Our sealed system products guarantee leakage rates below 0.1 percent per year. Field experience shows that actual emissions are considerably less.

SF_6 requires controlled handling. Accidental releases of SF_6 due to mishaps during manufacturing, installation, maintenance and decommissioning are a greater concern than leaks. To minimize them, ABB uses strict tracing and inventory systems and efficient handling procedures in line with the recommendations of environmental agencies.

To this end, ABB plays a leading role in the international organizations responsible for developing guidelines for reuse, recycling and handling of SF_6, including IEC, CIGRE, CAPIEL and NEMA.

ABB also takes back old products for dismantling and recycling under controlled conditions.

Although the international scientific community began searches decades ago, no equivalent substitute gas for SF_6 has been found which is more favorable to the environment.

ABB has ongoing research programs into alternatives to SF_6, and we make SF_6-free products available whenever feasible.

ABB's position on WEEE and ROHS

The European Union has issued directives on Waste Electrical and Electronic Equipment (WEEE), and the Restriction of Hazardous Substances (ROHS).

The WEEE directive sets criteria for collection, treatment, recycling and recovery of waste electrical and electronic equipment. The directive makes producers responsible for financing most of these activities so that customers can return old electrical and electronic equipment without charge.

The ROHS directive controls recycling of waste electrical and electronic equipment by restricting the hazardous substances used in their manufacture, such as lead, mercury, cadmium, hexavalent chromium, and flame-retardants used in plastics: poly-brominated biphenyls (PBBs), and poly-brominated diphenyl ethers (PBDEs).

ABB has studied the scope of the WEEE directive to check the extent to which our products may be affected. Since ABB's activities are mostly business-to-business, our front-line responsibility may not be significant. However, we are currently completing an inventory of any ABB electrical and electronic components which come under this directive.

ABB is working to replace or phase out by internationally agreed deadlines the hazardous substances mentioned in the ROHS directive. These substances are all included in ABB's internal list of restricted materials.

ABB's research and development departments take into account the ROHS and WEEE directives and all relevant legislation and guidelines when designing new products, to facilitate their dismantling, recovery and recycling.

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Independent verification statement 2004

Scope and method of work

Det Norske Veritas AS has been engaged to verify the Sustainability review of the ABB Group Annual Report 2004, covering the environmental and social performance data presented on pages 27 – 36 (the "Report").

The scope and process for this work is that agreed upon with ABB Group Sustainability affairs. The verification was conducted in February 2005.

As part of the verification process we have:

- Interviewed personnel at ABB Group Sustainability Affairs having the responsibility to collect, aggregate and present the data in this report to assess the reporting system and the internal processes
- Conducted telephone interviews with six local sustainability officers and six country sustainability controllers to assess the data and the reporting system
- Reviewed documents and information in the database made available to us in connection with the above interviews

The verification process has not included any site visits or stakeholder dialogues.

Conclusions

The Report covers all the Global Reporting Initiative (GRI) core indicators, except one environmental (EN7) and two social indicators (PR3 and LA2). Furthermore, many of the additional voluntary indicators have been included. It covers data for the last three years in a consistent and transparent manner, and explanatory notes are used where necessary.

ABB has a well-established web-based reporting system for the environmental and social performance indicators that covers 78 percent of the employees in the ABB group. The boundaries of ABB's reporting are set by the countries and regions where ABB has appointed country/regional sustainability controllers. In our opinion the boundaries of the Report should be extended to further enhance transparency and inclusiveness.

The Report could also be enhanced by including more information on ABB's monitoring systems and results for the social indicators, such as those relating to the ABB supplier qualification process.

In our opinion the internal reporting system is effective and well managed, and the OHS reporting system has significantly improved in the last year. The document and data review, however, showed the need for continuous focus on quality assurance of the reported data.

During our investigations, nothing has come to our attention that causes us to believe that the reviewed sections do not give a balanced view of ABB's sustainability performance in 2004. On a test basis, we have checked and assessed the reported data, and we have not found any systematic or major errors.

Høvik, 23 February 2005

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Sustainability on the Web
www.abb.com/sustainability

A living, interactive document

If you want to know more about our activities, news and achievements, visit our sustainability Web site: www.abb.com/sustainability You can also download copies of our sustainability reports, reviews and summaries, and environmental product declarations.

You can also find more details about ABB's involvement in sustainability initiatives and associations.

Contact us

Sustainability thrives on the exchange of information and ideas between different stakeholder groups. ABB has activities in around 100 countries and we would very much like to hear your views on our sustainability objectives, activities and performance, as described in this review.

We value new ideas, and welcome the opportunity to hear and address your concerns.

You can contact us at www.abb.com/sustainability or at sustainability.abbzh@ch.abb.com

We look forward to hearing from you.

Glossary

ABB maintains a comprehensive glossary of terms relating to the environmental and social dimensions of its sustainability reporting, which can be found on the sustainability section of the ABB Web site www.abb.com/sustainability

The ABB Annual Report 2004 consists of an Operational review, a Financial review and a Sustainability review.

For an additional copy of this or any of the other reviews, please use the contact information on the back of this document or download copies from www.abb.com.

The Operational review and a Financial summary (contained in the Operational review) are published in English, German, Swedish and French. The Financial review is published in English and German. The Sustainability review is published in English. For all documents in the Annual Report series, only the English-language version is the binding version.

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