## **ABB Annual Report 2006**

Sustainability review

Power and productivity for a better world







## Contents

Introduction	Inside cover
This is ABB	1
CEO's letter to stakeholders	2–3
Contributing to a better world	4–5
Seven key sustainability issues for ABB	
Energy efficiency	6–9
Climate change	10–13
Managing environmental impact	14–17
Product innovation	18–21
Health and safety	22–25
Corporate responsibility	26–29
Sustainability in our supply chain	30–33
Stakeholder engagement	34–35
Sustainability professionals	36–37
Volunteers	38–39
ABB's sustainability policies	40–42
Business ethics	42–43
UN Global Compact reporting	44-45
Human rights	46
GRI standard disclosures	47–52
Sustainability ratings	53
ABB's sustainability organization	54–56
Position statements	56–57
Summary of main performance indicators	58–61
Independent verification statement	62
GRI content index table	Inside back cover

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. Well over a third of the wood used for this report comes from forests certified by the Pan-European Forest Certification Council (PEFC).

The complete ABB Annual Report 2006 consists of an Operational review, a Financial review and a Sustainability review. For an additional copy of this, or any of the reviews, please use the contact information at the back of this document, or download copies from: www.abb.com.

## Introduction

This report focuses on the seven major issues where ABB has significant sustainability impact, and follows the relevant Global Reporting Initiative (GRI) Guidelines which were updated in 2006.

The GRI standard disclosures most relevant to ABB's operations are presented in the appropriate parts of this report, while the remainder are on ABB's Web site. A GRI content matrix identifies where they can be found.

To facilitate comparisons, a table of numerical performance indicators over the last three years is included (pages 58–61). The indicators have been verified by the independent verification body Det Norske Veritas (DNV).

Each item carries the relevant GRI disclosure reference. In some cases data is included which we believe is more relevant to ABB's type of activities – for example hazardous substances instead of materials used. Some other GRI indicators relate to impacts which are either insignificant or irrelevant to ABB's activities and have been omitted.

The reporting boundaries encompass all manufacturing facilities, comprising approximately 350 sites in the 50 countries where ABB has substantial manufacturing activities.

ABB's non-manufacturing organizations are also included, although these have only limited environmental impact. Many such sites report hard data; at others, we have estimated their main indicators such as the use of electricity, waste output, district heating and water consumption per person. The estimates – clearly indicated as such – are based on data from comparable non-manufacturing premises.

ABB's global network of more than 400 sustainability controllers and officers is responsible for auditing and reporting performance annually by means of an intranet-based system. The data is consolidated and checked against GRI definitions at Group level, and then verified by DNV before being published in this report.

## This is ABB

For ABB, sustainability is about balancing economic success, environmental stewardship and social progress to benefit all our stakeholders.

Sustainability considerations cover how we design and manufacture products, what we offer customers, how we engage suppliers, how we assess risks and opportunities, and how we behave in the communities where we operate and towards one another. We also strive for excellence in health and safety performance.

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 108,000 people.

## Total ABB Group

\$ millions unless otherwise indicated	2006	2005 <sup>1</sup>
Orders	28,401	23,194
Revenues	24,412	22,012
Earnings before interest and taxes (EBIT)	2,586	1,778
as % of revenues	10.6%	8.1%
Net income	1,390	735
as % of revenues	5.7%	3.3%
Diluted earnings per share (\$)	0.63	0.36
Dividend per share in CHF (proposed)	0.24	0.12
Cash flow from operations	1,939	1,012
Free cash flow	1,598	902
as % of net income	115%	123%
Return on capital employed	20%	14%
Number of employees	108,000	104,000
1 Adjusted to reflect the reclassification of activities to Discontinued operations		

<sup>1</sup>Adjusted to reflect the reclassification of activities to Discontinued operations

## CEO's letter to stakeholders

# Sustainability highlights

- New Code of Conduct rolled out throughout Group in 45 languages, supported by training program.
- As part of health and safety efforts, training on site observational tours carried out in all 66 countries targeted.
- Program underway to reduce Group's energy use by five percent per manufactured unit.
- Formal procedures introduced for environmental and social audits of suppliers.
- Risk review tool for assessing potential projects strengthened with more social, environmental and human rights criteria.
- Sustainability awards received in 17 countries.
- Corporate stakeholder dialogue focused on climate change, managing risks in weak governance countries, and pandemic preparedness.
- Access to Electricity rural electrification program expanded in India and Tanzania.



## Building sustainability into all our business activities

ABB's company slogan "Power and productivity for a better world" highlights the contributions and solutions we have to offer to some of the biggest challenges the world is currently facing.

In this report we highlight seven focus areas where we can effect change. These seven areas range from how we help to minimize climate change, and save energy for our customers, through to managing social and environmental risks, and working more closely with our supply chain.

Sustainability is built into how we manufacture our products; it is central to our ability to offer customers energy-efficient and emissions-reducing products, systems and solutions; it helps us to assess risks and opportunities; it permeates the culture we are building within the company; and it underlines our behavior in the communities where we operate.

## "Sustainability is key to our long-term business development and success."

We no longer have to make the "business case for sustainability." The case has been made. As a matter of urgency, we are focusing on areas where we can make a difference: For example, by helping ourselves and our customers reduce climate change and save energy.

Sustainability is key to our long-term business development and success, and we are working to end any separation – real or perceived – between our business and sustainability. They need to be indivisible. While we are making strong progress to fully integrate sustainability into all that we do, there is still some way to go. No drive for improved business performance can be satisfying without a good

## "Environmental, social and human rights concerns influence the bottom line."

health and safety performance; our employees and contractors have the fundamental right to return home safely after a day's work. We are making strenuous efforts with training and campaigns, but our performance is clearly still not good enough.

Improving our performance in this key area will continue to be a top priority in 2007 and beyond. Health and safety is clearly also a business issue.

There are no "soft" issues in business any more. Environmental, social and human rights concerns must not be viewed merely as reputational issues; they are important in themselves and influence the bottom line.

Companies that seek to raise their performance above minimum legal requirements face not only a raft of additional responsibilities and accountabilities, but also high expectations from a wide variety of stakeholders.

ABB is relishing this journey, and we believe our stakeholders – among them customers, shareholders, employees and the communities where we operate – are benefiting from our approach. But we recognize it is very much work in progress.

Our initiatives to raise performance within the company in 2006 included strengthening and rolling out a new Code of Conduct, online ethics courses, and health and safety campaigns and training. Externally – to name a few – we joined the Vattenfall 3C Climate Change initiative, worked with the World Business Council for Sustainable Development on its "Powering the Future" report, partnered and exchanged with the International Committee of the Red Cross, and continued to participate actively in the work of the UN Global Compact and the Business Leaders Initiative on Human Rights.

Sustainability is part of our vision statement for the coming years. We say: "By 2009, ABB will be recognized as the top global engineering company in terms of market impact, growth and profitability, value creation, sustainability and ethical behavior."

We know all our sustainability activities tie into the business. We need to make them even more effective. This will strengthen a healthy company culture and promote business success.

Sincerely

I Kindle

Fred Kindle President and CEO, ABB Ltd

## Contributing to a better world



From industrial plants to ski lifts - ABB's motors and variable-speed drives raise industrial efficiency and save energy.



ABB's state-of-the-art HVDC power transmission technology has been deployed in every continent.

ABB's products, systems and solutions contribute to a better world in a variety of ways – such as saving energy and cutting harmful emissions. Here we highlight some of those contributions.

## Sustainability in motion

High-efficiency motors and variablespeed drives from ABB save enough power every year to supply five million people, while cutting nearly 100 million tons of carbon dioxide emissions.

Since motor-driven machines consume about 60 percent of the power used by industry, even small improvements add

## Bulk power transmission with low impact

ABB's high-voltage direct current (HVDC) and HVDC Light transmission systems carry bulk power over long distances efficiently and with minimal environmental impact.

The technology featured in two key European projects in 2006. An underground and underwater HVDC Light cable linking Estonia and Finland was formally inaugurated, and HVDC was up to big electricity and cost savings. ABB's motors convert power to motion efficiently and have a long lifespan.

Using ABB motors and drives, a factory assembly line, escalator, baggage conveyor belt, air conditioner or a ski lift will operate at the exact speed they need to to go, rather than at any pre-set speed. Customers, consumers and the environment all benefit.

chosen to transmit excess power from the island of Sardinia to mainland Italy.

HVDC technology, pioneered by ABB more than half a century ago, carries power in overhead lines or underwater cables with minimal losses and has a small footprint.

HVDC Light allows underground as well as underwater cable transmission. It is also environmentally friendly, featuring oil-free cables and no electromagnetic fields. One of its applications is to harness energy from offshore wind farms.



Control systems have many industrial and utility applications, including power plants, steel mills and pulp and paper factories.

## **ABB** takes control

Advanced ABB control solutions such as Industrial IT System 800xA help manufacturers and utilities reduce waste and improve efficiency.

Functioning as the electronic brains of complex processes, the ABB systems constantly monitor and adjust thousands

of variables such as temperature, pressure, and product composition.

By more closely controlling these variables, customers are able to reduce the margin of error that they traditionally accepted. This helps to save energy, reduce raw material consumption, and yields products that more closely match process specifications.

## **High-efficiency transformers**

Transformers are key to the transmission and distribution of electrical power, acting as "gear boxes" to ensure the right type of voltage reaches the consumer. They account for most of the otherwise low level of energy losses in grids.

ABB – as the leading manufacturer of transformers – has improved their design

and use of raw materials to raise overall efficiency. ABB's technology allows for highly compact transformers, saving copper, electromagnetic steel and insulating oil, and reducing energy losses.

ABB was also the first manufacturer to have environmental product declarations for power and distribution transformers.



Compact transformers manufactured by ABB use less raw materials and are suitable for areas where space is at a premium.

### **Smoother sailing with ABB**

The operators of large cruise, cargo and ice-breaking vessels are saving fuel and improving efficiency with ABB Azipod propulsion systems.

Fitted outside the vessel like a huge outboard motor, each Azipod unit swivels 360 degrees to combine the functions of traditional driveshaft, propeller, rudder and thruster systems. With more than 125 units installed, ABB customers hail the Azipod as an important competitive tool. Average fuel savings of 1,000 tons per year are reported, along with reduced vessel vibration and improved maneuverability around ports.

The Azipod concept also saves space inside the vessel, increasing the room available for passengers or cargo.



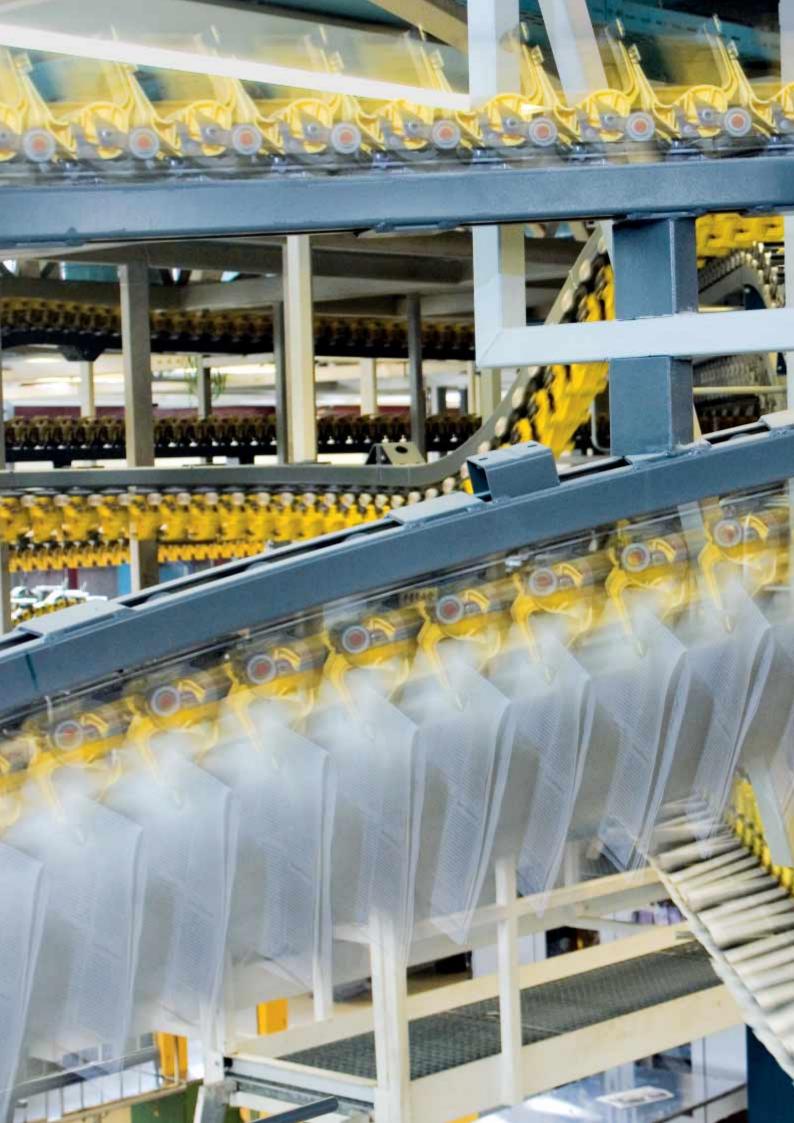
Azipod propulsion systems increase a vessel's efficiency, save fuel and improve maneuverability.

#### How we embed sustainability

... in product development ABB uses standardized Life Cycle Assessment procedures, a handbook for environmentally aware design, a check-list to identify potential sustainability risks, and a list of prohibited and restricted substances to ensure the company's sustainability objectives are embedded into product development. The ABB GATE model, a mandatory internal approvals process for the development of new products, requires documented assessment at the development phase of products' sustainability objectives and likely performance throughout their working life.

... in the manufacturing process ABB has placed high priority on implementing management systems such as ISO 14001 and OHSAS 18001 in all its manufacturing and service sites. This has resulted in cleaner production processes with lower emissions, less waste, safer working environments for employees and significant cost savings.

Implementation of these management systems, supported by Group-wide initiatives on such issues as eliminating hazardous substances, reducing transportation, and energy efficiency, lead to continuous improvements in ABB's environmental, and health and safety performance. This is supported by the transfer of know-how and the best-available technology between countries and sites, as well as by tools and guidelines.





## Energy efficiency

## Lower costs, less emissions

Energy efficiency has become critically important to companies, governments and consumers due to soaring energy prices, rising demand in power-hungry developing nations, and concern about the effect of man-made emissions on climate change.

It's one of ABB's key areas of focus – in its own manufacturing processes and the products provided to customers. The company also promotes energy efficiency as a member of international organizations committed to fostering economic growth while limiting emissions of greenhouse gases.

How do we define energy efficiency? For ABB it means cutting energy use without reducing the output of energyconsuming plants and equipment. It means promoting behavior, working methods and manufacturing techniques which are less energy-intensive.

Energy efficiency is embedded in the products, systems and services that ABB provides throughout the supply chain, from the extraction of energy to its use by consumers. Life Cycle Assessment studies of installations using ABB products show their main environmental benefit consists in reducing customers' energy use.

Two examples of how energy-efficient products can lower environmental impact:

- The global installed base of ABB variable-speed drives saves enough energy to power the homes of five million people and cuts nearly 100 million tons of CO<sub>2</sub> emissions.
- Utilities and industries using an all-in-one ABB disconnecting circuit breaker instead of separate conventional technologies in substations can cut CO<sub>2</sub> emissions by more than 200 tons over the product's lifetime.

There are, however, still obstacles to more widespread use of energy-efficient products. These include institutional and legal barriers, along with a tendency among project owners to focus on the initial purchase price of a product rather than its value, in terms of total savings over a product's working life.

ABB's own activities are not energyintensive, with annual greenhouse gas emissions from its operations totaling 1.7 million tons. Nevertheless, the company is in the midst of a two-year program to cut energy use by five percent per manufactured unit.

Simple measures can have a large impact.

- ABB in Germany is seeking a 15 percent energy saving at its Mannheim headquarters through five steps to improve insulation.
- In Sweden, deep energy savings have been made at a machinery unit in Västerås, by using energy-efficient equipment for precision work and operating the ventilation and ovens for shorter periods.

The savings are measured and monitored by ABB's global network of some 400 employees responsible for sustainability issues.

## Energy efficiency

Driving success: Variable-speed drives at a sewage treatment plant won ABB and Severn Trent Water in the U.K. a joint award.



## ABB wins award for saving energy

Replacing aging drives with ABB's variable-speed drives has led to major energy savings for a U.K. water company – and an environmental award for ABB.

After Severn Trent Water installed three 37 kW ABB drives on water process pumps at a sewage treatment plant, the company cut energy consumption by more than 65 percent and reported annual cost savings of over \$20,000. Payback time was just six months from the original investment.

The project won both companies the "Best Environmental Initiative of the Year" under the Electrical Industry Awards scheme for 2006.

"Using ABB's six-step energy saving plan, a method for identifying energy waste in industry and achieving rapid savings, we have a long list of clients who are now benefiting from savings achieved in a similar way," said Brian Dick, managing director for Sentridge, ABB's local partner and the company that installed the equipment at Severn Trent Water.

## Helping Chinese companies to cut consumption

ABB has signed an accord with the Chinese province of Guangdong, the country's largest by gross domestic product (GDP), to advise on ways of improving the energy efficiency of companies in the region.

The five-year agreement, signed in 2006, aims to help Guangdong achieve its goal to reduce energy consumption by 16 percent per unit of GDP by 2010.

The authorities will promote cooperation between ABB and more than 1,000 companies with high energy consumption. ABB will conduct energy conservation audits for companies that request them and help them to implement measures to save energy.

## Smart technology for luxury living

Luxury lifestyles don't necessarily mean energy wastefulness. ABB's smart home automation system has taken luxury living to new heights in the award-winning 50-story Le Rêve (The Dream) Tower, one of the most exclusive addresses in Dubai and the first smart home built in the Middle East.

ABB's i-bus EIB/KNX smart home system, which uses wireless touch screens, enables residents to control all the functions of their homes, including lighting, air conditioning, curtains and water heater temperature in any room – and from any room.

The ability to control energy-intensive functions like air conditioning and lighting in each room reduces power consumption and carbon dioxide emissions, and makes it one of the most energy-efficient building automation systems on the market.

It is one of the most widely used intelligent installation systems in the world, and the leading smart building system in the Middle East and Africa.

Making dreams come true: ABB's home automation system controls a wide variety of functions at this Dubai penthouse.



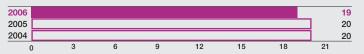
#### EN3 Direct energy use (Gigawatt-hours - GWh)

Primary fuel	2006*	2005	2004
Oil (11.63 MWh/ton)	117	134	126
Coal (7.56 MWh/ton)	8	8	17
Gas	435	460	417
District heat	239*	217	256
Electricity	1,265*	1,304	1,212
Total energy used	2,064	2,123	2,028

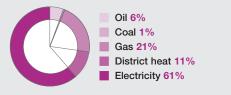
\* The figures are based on reported data from 83 percent of employees and an assumed energy use of 3 megawatt-hours (MWh) per employee for district heat and 12 MWh per employee for electricity for the remaining 17 percent of employees.

Due to a heterogeneous product mix comprising thousands of different sized products, ABB does not report energy consumption per unit of production. Instead, ABB monitors the use of energy per employee.

#### Megawatt-hours (MWh) per employee



#### Direct energy use (Gigawatt-hours - GWh) by type for 2006



#### EN4 Indirect energy use (Gigawatt-hours – GWh)

	U	sed by ABB		L	osses at utilities			ōtal use f energy	
	2006	2005	2004	2006	2005	2004	2006	2005	2004
District heat	239*	217	256	36	32	38	275	249	294
Electricity	1,265*	1,304	1,212	1,747	1,801	1,674	3,012	3,105	2,886

\* The figures are based on reported data from 83 percent of employees and an assumed energy use of 3 megawatt-hours (MWh) per employee for district heat and 12 MWh per employee for electricity for the remaining 17 percent of employees.

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

Indirect energy use is defined in this table as the energy losses incurred by the utilities supplying ABB's energy.





## Climate change

## How ABB cuts emissions

Climate change is one of the biggest challenges currently facing the world. Urgent, global action is needed to limit its consequences.

ABB focuses its climate change efforts on three main areas:

- Supporting efforts by customers particularly in utilities and industry – to cut greenhouse gas emissions
- Raising energy efficiency within the company and its manufacturing processes
- Strengthening the use of clean energy sources such as wind power

ABB's greatest contribution to the reduction of greenhouse gases is through products, systems and solutions.

They include: High-efficiency motors and variable-speed drives for motors; advanced industrial information technology to control and optimize power grids and industrial processes; and certain types of substation and transformer which have minimal losses.

Not surprisingly, climate change has boosted interest in clean energy technology and renewable power sources.

As a leading supplier of equipment to the global wind power industry, ABB has a strong role to play. Its ability to harness wind power and integrate it into electrical grids was underlined by a major contract in 2006 for equipment and cable connections off the coast of The Netherlands, and by ABB's involvement in a proposed pan-European subsea energy grid.

A Group-wide internal energy-savings program, designed to cut consumption by five percent over two years, is on track to meet its targets. In a country like Switzerland, for example, ABB is working with a state body and private companies to reduce emissions. ABB's contribution includes slashing its  $CO_2$  emissions by 50 percent by 2010 through greater energy efficiency in its buildings and improvements in manufacturing processes.

As a whole, the company is responsible for 1.7 million tons of greenhouse gas emissions – relatively low compared to other industrial concerns – and is constantly looking at ways to reduce that level.

It's not only carbon emissions where ABB faces challenges. The company uses sulfur hexafluoride ( $SF_6$ ) – a potent greenhouse gas – in some high-voltage electrical equipment and other applications, which lowers their environmental impact.

ABB employs strict SF<sub>6</sub> handling procedures and efficient tracing and inventory systems to minimize any risk of leaks, and also dismantles and recycles old products under controlled conditions.

Apart from company-wide measures, ABB acknowledges the need for international and sector-specific initiatives. Senior executives have been taking part in the World Economic Forum's G8 Climate Change roundtable and the 3C (Combat Climate Change) initiative launched by Swedish utility Vattenfall.

## Climate change

A cleaner approach: Conversion of this power plant near Rome to clean coal technology will sharply cut polluting emissions.



## Cleaning up a power plant

A state-of-the-art ABB automation and control system and power products are playing key roles in a major project in Italy to convert an oil-fired power plant into a modern plant based on clean coal technology.

Greater efficiency and considerably lower emissions will result when the 1,980 megawatt Enel clean coal power plant at Torrevaldaliga Nord near Rome becomes fully operational by the end of 2008.

Power generation capacity is forecast to decrease by 25 percent as four oil burning generators are converted to three coal-burning units, but net plant efficiency will rise as much as 45 percent. Polluting emissions will drop sharply: Sulfur dioxide (80 percent), nitrogen dioxide (60 percent), and carbon dioxide (18 percent). Dust levels will fall by 80 percent.

## Measuring the atmosphere from space

Complex and robust ABB instruments, manufactured in Quebec City, are being deployed on satellites in space to measure greenhouse gases and ozone levels to help scientists understand climate change.

ABB was the prime contractor for the main payload on Canada Space Agency's SciSat-1 satellite which permits continuous monitoring of the atmosphere, better understanding of its chemistry and more specifically the ozone layer.

Another project, GOSAT, involves a Japanese satellite, to be launched in 2008, which will chart the atmosphere's carbon dioxide and methane density levels, and help scientists evaluate whether countries are abiding by the Kyoto Protocol. ABB's Michelson interferometer provides measurements up to 30 times a day from 650 kilometers above the earth.

## The power of wind

ABB supplies a comprehensive range of high-technology products and systems around the world to drive wind power and ensure that this valuable renewable source of energy connects to the power grid.

The value of wind power was underlined in Denmark on October 27, 2006 when the first gales of the year struck the country. With wind speeds of up to 20 meters per second, wind turbines at one stage accounted for 80 percent of the country's electricity.

For several hours, east and west Denmark enjoyed free electricity, and power plants were asked to reduce their output to balance electricity consumption and production.

Denmark has a long tradition in the wind power industry, and ABB has been a leading supplier for more than 20 years.

Harnessing wind power: ABB products and systems help wind farms – often in remote locations – to produce energy and connect them to electricity grids.



#### EN16 Greenhouse gas emissions (kilotons)

	2006	2005	2004
CO <sub>2</sub> from use of energy	833*	870	824
SF <sub>6</sub> (in CO <sub>2</sub> equivalents)	558***	295	253
CO <sub>2</sub> from transport by own fleet**	350	350	350

\*The figure is based on reported data from 83 percent of employees and an assumed energy use of 3 megawatt-hours (MWh) per employee for district heat and 12 MWh per employee for electricity for the remaining 17 percent of employees. \*Estimated figure

\*\*Increase due to significantly higher business volume

Carbon dioxide (CO<sub>2</sub>) emissions calculations are based on inhouse energy use for production, lighting, heating and air-conditioning, and include indirect emissions at utilities where ABB buys power. Sulfur hexafluoride (SF<sub>6</sub>) emissions are estimated to be equivalent to three percent of all SF<sub>6</sub> gas used by ABB.

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 1.7 million tons for the whole ABB Group.

#### Greenhouse gas emissions by type for 2006



#### EC2 Financial implications of climate change

Climate change is of strategic importance for ABB's customers in the utility and industry sectors, and ABB is in a strong position to help. The company's greatest contribution to the reduction of greenhouse gases is through the products it supplies to them. ABB's own climate risks are small since its facilities are not weather sensitive and its CO<sub>2</sub> emissions are low.

#### EN17 Other indirect greenhouse gas emissions

Indirect emissions from traveling, transportation, outsourced materials and emissions related to product use are not aggregated at Group level. More information on transportation is provided under indicator EN29. For core products, 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 EN26 for more information on EPDs.

### **EN18 Greenhouse gas reduction initiatives**

In 2006, ABB set a target to reduce its energy use at each site by five percent per output unit over two years. ABB also investigates current and upcoming international instruments that would help ABB to compensate for its own greenhouse gas emissions.

Members of ABB's Executive Committee take part in global initiatives on climate change such as the World Economic Forum's G8 Climate Change roundtable and the 3C (Combat Climate Change) initiative launched by the Swedish utility Vattenfall.

#### **EN29 Significant environmental impacts of transportation**

ABB estimates that 80-90 percent of deliveries of materials from suppliers and deliveries of ABB finished products to customers are made by road and sea. The remainder is shared between rail and air. Air transport of goods is limited, but its environmental impact is higher than by land and sea. To optimize logistics and lower environmental impact, ABB has launched a new management system for transportation assignments. It enables ABB to log and analyze both volumes of transportation in ton-kilometers and their related emissions (carbon dioxide, sulfur dioxide, etc.).





## Managing environmental impact

# How ABB seeks continuous improvement

Economic growth, particularly in rapidly developing countries, increasing pollution and the depletion of natural resources are forcing governments, business and consumers to pay more attention to the environmental impact of their activities.

As a manufacturer and supplier, ABB is well aware of its responsibilities, and has been working for many years to manage its impacts, both within its own plants and offices, and those of its products.

ABB recognizes it can minimize environmental damage by using less material, increasing energy efficiency, using low-impact materials and processes, streamlining transportation, and by designing products that can be recycled. The aim is continuous improvement.

The company uses internationally recognized management systems, such as ISO 14001 and OHSAS 18001, as well as intranet-based tools and guidelines, for environmental and health and safety issues at all manufacturing and service sites.

This has resulted in cleaner production processes with lower emissions, less waste, safer working environments and significant cost savings.

An example of managing impacts: ABB has a list of prohibited and restricted substances, with guidelines for phasing them out in processes, product design, service offerings and in activities at customers' sites. Project teams, coordinated by environmental specialists, work to find alternatives and arrange for the transfer of best available technology and practices between sites. Lowering impact starts when a product or system is being designed: Tools and training are provided so ABB engineers can carry out standardized environmental Life Cycle Assessments (LCAs) on what they are designing.

This allows the engineers to measure and reduce a product's environmental impact throughout its working life – from conception through manufacture and use to when it is taken out of service.

The results of LCAs are documented in environmental product declarations (EPDs), and published on ABB's Web site, so that a product's environmental performance is fully transparent. An LCA also identifies what improvements can still be made in areas such as material selection, energy efficiency and recycling.

A support group based at ABB's Corporate Research Center in Sweden has a global brief to maintain and develop sustainability tools and training to ensure best practice is followed.

This process helps ABB as it strives for continuous improvement both in its products and manufacturing facilities, and in raising customers' performance.

## Managing environmental impact

Reducing rubbish: Improved waste management in the U.K. means lower landfill costs and significant savings for



### Better waste management cuts Benefits of recycling heat costs

Recycling at an ABB plant at Sunderland in northeastern England has cut the amount of waste sent to landfill by one third - from 47 tons to 31 tons in just one year - even though more waste has been handled.

This has been achieved by recycling a wide range of materials, good waste segregation and through training employees. Materials now recycled include office paper, low-grade paper (such as magazines and catalogues), plastic sheeting and hard plastic such as PVC, various metals and cable, cardboard, wood and electrical equipment.

Good waste management not only ensures legal compliance and lowers environmental impact, it also saves money. Savings of nearly \$40,000 have been made through a reduction in landfill tax, lower transport costs and financial returns on several waste streams.

## **Replacing cadmium**

ABB has found a way to avoid using the toxic substance cadmium in the lead shield, traditionally used to protect underwater power cables from the wear and tear caused by sand and stones.

The use of cadmium presents potential risks although there is no danger of a leak from an underwater cable.

ABB has now substituted antimony for cadmium as the alloying element of the protective shield for the cable. This has removed risk at the cable manufacturer's plant without compromising the quality of the finished cable or weakening its protective shield.

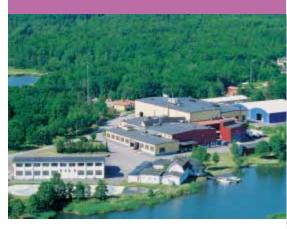
A radical review of the heating concept has led to a sharp decrease in wasted energy at the ABB Figeholm paper mill in southeastern Sweden which produces insulation material for electrical equipment.

Previously all heat generated at the plant - comprising a machine shop, an aftertreatment hall and an employee building - was released into the atmosphere or a nearby water course.

After improvements in 2006 to the heating concept, heat generated in the manufacturing process is now used as heating for the machine hall and the after-treatment hall.

The improvements, which cost about \$150,000, led to a reduction in energy use from 1,300 megawatt-hours (MWh) per year to approximately 200 MWh per year which corresponds to a payback time on the investment of less than two vears.

Valuable hot air: Recycling heat at the Figeholm paper mill in Sweden benefits the environment and reduces costs.



#### EN1 Use of hazardous substances (tons)

	2006	2005	2004
Phthalates (DIDP) – softener for PVC	42*	19	1.7
PBB and PBDE – flame retardants in plastics	3.1	9	108
Lead in submarine cables	6,900*	4,306	2,810
Lead in other products, e.g. counterweights in robots	222	316	211
Cadmium in rechargeable batteries	4**	* 20	1.9
Cadmium in industrial batteries delivered to customers	22	26	69
Cadmium in lead alloy	5	3	2.0
Mercury in products delivered to customers	0.009	0.014	0.020
SF <sub>6</sub> insulation gas (inflow to ABB)	815*	481	388
SF <sub>6</sub> insulation gas (outflow from ABB)	596*	441	353

\*Increase due to higher business volume \*\*Decrease due to change of battery technology

## EN2 Percentage of materials used that are recycled input materials

The lead used as counterweights for robots and the cadmium used in industrial batteries are recycled materials.

#### **EN8 Water consumption (kilotons)**

	2006	2005	2004
Purchased from water companies	3,431*	3,432	3,200
Groundwater extracted by ABB**	2,700	2,500	2,500
Surface water extracted by ABB**	2,500	1,700	1,000

\*The figure is based on reported data from 83 percent of employees and an assumed water consumption of ten tons/year/employee for the remaining 17 percent of employees. \*\*Estimated (rounded) figures

#### EN19 Emissions of ozone-depleting substances (tons)

	2006	2005	2004
Volatile Organic Compounds (VOC)	992	981	861
Chlorinated Volatile Organic Compounds (VOC-CI)	29*	13.5	22

\*Increase due to higher business volume

The major constituents of VOCs and VOC-Cls are xylene, thinner and perchloroethylene.

#### EN20 Emissions of NOx and SOx (tons SO<sub>2</sub> and NO<sub>2</sub>)

	2006	2005	2004
SOx from burning coal	6	6	12
SOx from burning oil	86	97	92
NOx from burning coal	4	4	9
NOx from burning oil	65	73	69
NOx from burning gas	89	99	90

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

#### **EN22 Waste (tons)**

	2006	2005	2004
Waste sent for recycling	111,674	85,131	70,291
General waste sent for disposal	30,994*	28,514	n.a.
Hazardous waste	4,296	5,775	3,719

\*The figure is based on reported data from 83 percent of employees and an assumed waste output of 0.28 tons/year/employee for the remaining 17 percent of employees.

The main waste streams at ABB organizations are wood, paper, oil and plastic. ABB's aim is to reduce the amount of waste sent to landfill and to increase its use of materials which are recycled or made available for reuse.

#### **EN23 Numbers of significant spills**

	2006	2005	2004
Oil spills	3	8	7
Chemical spills	0	7	2
Emissions to air	1	3	1
Others	0	1	2

Adequate decontamination procedures were implemented to prevent any permanent contamination of soil and water due to these spills. Corrective actions, such as improved control systems, have been taken to reduce the risk of future spills.

#### **EN28 Significant fines for non-compliance**

One penalty amounting to \$670 was reported during 2006, which related to the late submission of waste registration data.





## Product innovation

# Sustainability is key to success

Product innovation is crucial to ABB's continuing success in its markets, and to its efforts to develop energy-efficient and environmentally friendly products and systems for customers.

As they develop products to maintain the company's market and technology leadership, ABB's community of researchers and scientists are also focused on how their innovations can mitigate some of society's problems such as environmental damage and the depletion of natural resources.

Key among their objectives: To increase energy efficiency, productivity, intelligence and communication, to raise safety standards and ensure products can be recycled – all this, while lowering volume, weight, cost, maintenance and environmental impact.

Tools on ABB's intranet help designers choose environmentally-friendly materials and designs. Environmental criteria are also incorporated into the evaluation of a product's development process.

Innovative products and systems launched in 2006 helped ABB achieve a wide variety of sustainability goals.

- Ultrahigh-voltage (800 kilovolt) direct current is a technology for reliable, energy-efficient, long-distance bulk power transmission. It has low losses and is environmentally friendly as it requires smaller transmission highways and fewer power lines than conventional transmission systems.
- For power substations, ABB developed waveguides which are simple, reliable wireless devices that use low-power electro-magnetic waves instead of copper or fiber-optic cables to transmit large amounts of data to and from medium-voltage switchgear installations. There are virtually no losses.

- ABB alternating-current (AC) drives are synonymous with energy saving. The new ACSM1 machinery drive combines conventional AC drive performance with advanced control features, and will raise energy efficiency in industries such as food and beverage, material handling, packaging, paper and printing, among others.
- Innovations are designed to increase safety. A new ABB software and hardware innovation, SafeMove, eliminates the risk of accidental contact between active industrial robots and people in an assembly plant.
- ABB technology has many innovative applications. In the medical field, an ABB innovation helped Italian students develop a unique, hand-shaped keyboard which lets deaf and blind people send electronic messages that can be read on a computer display.

ABB's investment in research and orderrelated development in its five divisions in 2006 totaled nearly \$1.1 billion – about ten percent more than in 2005.

With 6,000 skilled researchers and seven research centers around the world, as well as close collaboration with 70 of the world's principal universities and research institutes, ABB aims to maintain its position at the forefront of innovation. Sustainability performance and objectives are built into those innovations – and future success.

# Product innovation

Entering a new dimension in Sweden: The world's first test center for ultra high-voltage direct current power transmission technology.



## Major savings with powerful technology

ABB's development of ultrahigh-voltage direct current (UHVDC) power transmission technology has a variety of environmental benefits.

UHVDC technology can transmit huge quantities of power (currently 3,000 megawatts) over long distances with lower losses than conventional transmission systems. That efficiency makes it up to 30 percent cheaper than alternative systems, which lose more electricity during transmission.

It is also environmentally friendly as it requires smaller transmission highways and fewer power lines.

In 2006, ABB opened the world's first facility for testing UHVDC technology. The center – located in Sweden – can test direct current (DC) rated at 800 kilovolts.

New equipment has been developed for the 800 kilovolt DC transmission systems. Specially-designed transformer bushings and wall bushings at high-voltage DC converter stations meet tough mechanical, electrical and thermal requirements that ensure the safety and reliability of the new transmission technology.

## Making the workplace safer

An ABB innovation – the VisiVolt passive voltage indicator – is helping to improve safety conditions for people working on indoor and outdoor medium-voltage systems.

The compact device highlights the presence of a voltage by displaying a large and highly visible "lightning" arrow symbol on its liquid crystal display – a clear reminder of the danger of electrocution.

It's particularly useful in systems where voltage indicators have rarely been used, such as open indoor switchgear panels and outdoor installations.

## Robots help patients' recovery

ABB products can be used in a wide variety of innovative ways, including medical treatment.

ABB robots, for example, have been enlisted to help stroke victims. The robots stand in for busy physiotherapists by exercising limbs paralyzed as a result of a stroke. The movements can be programmed and tailored to meet each patient's needs.

Researchers at the Budapest University of Technology and Economics in Hungary were the first to adapt a line of massproduced industrial robots to treat oneside paralysis. Two ABB industrial robots work in tandem to mimic the required human motion, and keep detailed records of physical responses to help the physiotherapist to monitor progress.

In another medical application, a simple breath test using ABB analyzer technology can provide early warning of a potentially destructive but readily treatable stomach irritant before it turns into an ulcer.

The Uras analyzer detects the bacteria that can cause gastric or duodenal ulcers, and is now in use all over the world.

Robots to the rescue: Among many applications, ABB robots are also now used to nurse patients back to health.



#### PR1 Health and safety impacts of our 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). Products with a potentially negative impact are those which could contribute to global warming (leak of SF<sub>6</sub> gas from substations), require deforestation and present a visual impact (transmission lines), cause losses of energy (most electrical products), or cause electrocution if misused.

## PR2 Number of non-compliance incidents relating to product health and safety

All countries in ABB's sustainability management program are asked to give details of any non-compliance incidents, including those concerning health and safety impacts of products and services. During 2006 no such incidents were reported.

#### **PR3 Product and service information**

ABB's objective is to produce environmental product declarations (EPDs) for core products. 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.

To date, ABB has prepared about 80 EPDs covering a broad range of products. These are published on ABB's Web site www.abb.com/sustainability.

#### **PR5 Customer satisfaction**

ABB 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. The CCRP system is applied in 43 out of 50 countries and regions.

In addition, most ABB companies carry out customer surveys every one to three years. ABB also carries out satisfaction surveys with other stakeholder groups, such as suppliers, authorities and trade unions.

#### **PR6 Adherence to marketing communication regulations**

This is not an issue for ABB, which works in the field of advanced technologies and does not supply to the consumer product market.

#### EN26 Initiatives to mitigate environmental impacts of products and services

ABB has Group-wide mandatory sustainability checks in place, to be applied in conjunction with the development of new products and projects to mitigate their environmental impacts. Detailed information is given under GRI indicator 4.11 in this report.

#### EN27 Percentage of 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 enhances the ability to recycle by designing products that can be dismantled more easily, and by providing users with recycling instructions.





## Health and safety

# Managing risks, training people

For many leading companies, good occupational health and safety is an integral part of running a high-quality, responsible organization. It's one sign of an organization's "state of health," and ABB is no different.

ABB is continuing its "safety journey" for the benefit of employees and the company. It is striving to ensure that health and safety performance matches the excellent results being achieved in the businesses, research and development, and on environmental issues.

Health and safety remains a key challenge, given that ABB has more than 100,000 employees working in very diverse circumstances in around 100 countries, and at least as many contractors.

Employees can find themselves working at a customer's factory, at remote or rural project sites, or in rapidlyexpanding urban developments. "External" work and traveling to such sites represent ABB's biggest health and safety threats.

The company saw further fatal incidents and injuries in 2006, particularly at construction and project sites, on the road and through work on electrical equipment.

A total of 17 people, including three members of the public, died as a result of ABB operations in 2006. Of these, 12 were in the workplace, and five were road travel-related. A total of 29 people were seriously injured.

All such incidents are unacceptable to ABB. Every employee and subcontractor has the fundamental right to return home safely after a day's work. New Group-wide training initiatives were launched during the year, while other work focused on strengthening a positive safety culture in ABB in addition to consolidating actions from previous years.

ABB focused heavily on health and safety training in 2006:

- A total of 2,240 people were trained on project safety out of a target group of 2,775.
- The company's Seven Steps electrical safety program covered 7,491 out of a target group of 8,086.
- Road safety training was completed in 64 out of 66 countries targeted.

A challenge for line managers now is to reinforce the lessons from these courses and previous training initiatives. This can only be done by promoting safe behavior in the workplace and by encouraging colleagues to comply fully with both the technical rules and the behavior promoted in the training.

As part of crisis planning, specialists have also been making preparations for a potential pandemic such as avian flu to ensure the health and safety of employees, and business continuity in the event of an outbreak.

ABB still has much work to do, and is pursuing these goals in a carefully planned, wide-ranging and robust manner.

# Health and safety

Leading by example: Switzerland country manager Jasmin Staiblin and other executives were among the first to go through the company's health checks.



## Promoting good health

Health and safety at work is not only designed to safeguard the welfare of employees, but also means promoting good health. An annual campaign in Switzerland to raise health awareness has resulted in less illness and a sharp drop in costs associated with absences.

In 2006, the campaign focused on cardio-vascular issues. On offer were a free health check measuring blood pressure, levels of cholesterol and sugar, as well as lectures on combating stress, heart problems and nutrition, and introductions to Yoga, Tai Chi and other disciplines.

Hundreds of employees, including top executives, took part. The outcome from the ongoing program: The number of hours lost was 28,600 less than in 2005, saving the company the equivalent of \$1.2 million. In 2005 the drop was even more dramatic, saving the company nearly \$5 million.

"Our health campaigns offer good advice and are well received, and also increase the bond between the company and employees," said Remo Kuery, sustainability controller in Switzerland. "Both the staff and the company benefit."

## Safer work with SafeMove

A new ABB software and hardware innovation, SafeMove, eliminates the risk of accidental contact between active industrial robots and people, allowing them to work safely side by side.

SafeMove, which is embedded in the robot, is based on the latest advances in control software, electronic safety technology and safety regulations. It reliably monitors robot speed and position, instantly detecting unwanted or unusual deviations, and is capable of shutting the machine down within milliseconds. A first pilot installation is underway at a new car assembly line at a Peugeot and Citroën factory in Spain where 70 out of 250 new robots are equipped with SafeMove. The product is due to be launched in the second half of 2007.

### Accidents reduced in mining operations

Shortly after ABB took a majority stake in 2005 in a company in Chile specializing in maintenance for mining operations, it introduced a wide-ranging review of health and safety processes. That review has led to rapid improvements. ABB and CMS Tecnologia, which employs 1,350 people, jointly introduced a health and safety policy, safety campaigns, high-profile visits to all sites by OHS managers and executives, and awards for good practice.

The results: There were 40 percent less accidents at CMS in 2006 compared to 2005; the injury rate has been almost halved, and the number of working days lost in 2006 was 48 percent lower than the previous year.

"The target is of course to bring the accident rate down to zero, but we have made a good start," said Consuelo Báez Gutiérrez, ABB's health, safety and environment manager in Chile.

Shop floor instruction: New health and safety training programs are yielding early and positive results at a mining company in Chile.



## LA6 Percentage of total workforce represented in health and safety committees

Health and safety consultation is an integral part of ABB's commitment to introduce into all businesses occupational health and safety management systems based on OHSAS 18001 and the International Labour Organization (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.

At Group level, ABB has a standing OHS committee chaired by an Executive Committee member whose mandate covers all employees.

#### LA7 Injuries, lost days, diseases and fatalities

	2006	2005	2004
Employee work-related fatalities	5	4	5
Incident rate	0.05	0.04	0.05
Employee work-related serious			
injuries	15	18	13
Incident rate	0.15	0.17	0.13
Employee security and crime-			
related fatalities	0	0	6
Incident rate	0	0	0.06
Employee security and crime-related			
serious injuries	0	0	1
Incident rate	0	0	0.01
Employee commuting/business			
travel fatalities	3	5	2
Incident rate	0.03	0.05	0.02
Employee commuting/business			
travel serious injuries	2	9	8
Incident rate	0.02	0.09	0.08
Contractor work-related fatalities	6	7	5
Contractor work-related serious			
injuries	6	18	13
Employee lost-days due to			
industrial incidents	22,076	25,750	27,762
Employee occupational			
health diseases	117	162	384

In the above statistics, "lost days" are calendar days, and are counted from the day after the incident. Figures for fatalities also include deaths occuring within one year as a result of injuries sustained. Incident rates are according to the ILO rate for fatalities and standard injuries per 1,000 employees or contractors.

#### LA8 Programs in place regarding serious diseases

In six countries (Brazil, India, Philippines, South Africa, South Korea and Thailand) ABB has programs in place to address HIV/AIDS. In several other countries, national programs are in place.

In South Africa, ABB also operates a program to combat malaria.

At Group level, ABB has a program in place to deal with outbreaks of pandemic diseases, in particular avian flu.

## LA9 Health and safety topics covered in formal agreements with trade unions

This information is not recorded by the Group, but local legislation requires formal agreements in some countries, such as Germany and South Africa.





## Corporate responsibility

# Committed to all stakeholders

Corporate responsibility for ABB is a commitment to maintain high social, environmental, ethical and governance standards for the benefit of all stakeholders – shareholders, customers, employees, society at large and the communities where the company operates.

It necessarily means seeking a balance between generating economic wealth, furthering social development and ensuring environmental stewardship.

Accountability and responsibility are key elements of this commitment; to be authentic, these key elements have to be embedded in the company's shared values and beliefs.

Corporate responsibility takes a myriad of forms. Within the company, for example, it includes how research and development experts, working with environmental specialists, create energy-efficient ABB products and systems, and later assess and monitor their environmental and cost benefits for customers.

It includes all employees throughout the company's global operations: How they are trained, challenged and advanced, how their health and safety is ensured, how ABB works with them on common goals and values – in short, how ABB can get the best from its employees and retain their talent.

ABB worked hard in 2006 to further raise standards of behavior, with a new Code of Conduct, and training employees on diverse issues such as leadership development, combating corruption and road safety.

Corporate responsibility also underpins external relationships: With customers, legislators and regulators, non-governmental organizations, and international groups which seek to create a more level business and social playing field.

ABB, among other companies, is increasingly aware it can be more proactive on key issues such as easing poverty, climate change, human rights and the challenges of working in sensitive or weak governance areas.

In 2006, to support some of these commitments, ABB joined the Vattenfall 3C Climate Change initiative, and worked with the World Business Council for Sustainable Development, the UN Global Compact and the Business Leaders Initiative on Human Rights.

ABB can also do much in publicprivate partnerships, such as its Access to Electricity rural electrification work in India and Tanzania, through social programs from China to Chile, and by supporting vulnerable communities through donations and volunteer efforts, in countries such as the United States, Brazil and South Africa.

A company which wants to be a force for good needs to earn a license to operate. ABB is working to meet these challenges.

# Corporate responsibility

The right to education: ABB works with international organizations to strengthen respect for civil and political, and economic, social and cultural rights.



## Supporting human rights

ABB works in a number of international organizations to support awareness of human rights principles and the need for business to embed them in management processes.

As a member of the United Nations Global Compact, ABB has exchanged and taken advice on a range of issues, including human rights associated with working in countries with weak governance.

For its part ABB supported Global Compact work in several ways in 2006, including holding workshops in Ghana as part of the organization's Learning Forum for Africa and supporting its national networks.

ABB continues to work with the 13-member Business Leaders Initiative on Human Rights (BLIHR) in which international companies support and promote human rights awareness and processes in business management.

In 2006, ABB took an active role in international meetings in India, Sweden and South Africa, and contributed to a key BLIHR project – the development of a voluntary common framework on businesses' behavior in sensitive countries.

## Access to electricity success spreads

ABB has extended its Access to Electricity rural electrification program to Rajasthan in western India, following its successful launch in another remote location in southern Tanzania.

The project – based on public-private partnerships – has brought together ABB, the state government of Rajasthan and an NGO to provide power to desert hamlets. The program started with providing one hamlet with power generated by solar panels, and has been extended to four more hamlets covering 500 households. The hamlets' inhabitants who are mainly tailors can now work longer and earn more, and their children can also study at night.

In ABB's original Access to Electricity project in a village in Tanzania, electrification has led to economic, social and environmental gains over the past two years.

A total of 15 businesses, including a guest house, food stores and clothes shops have sprung up in the village, compared to three prior to electrification. Other recent advances include:

- 25 new homes underscoring economic gains and local immigration
- More homes connected to the mini-grid, based on the diesel generator donated by ABB, and a new water pump
- Children who are able to study after dark are passing school exams in increasing numbers
- Training on limiting hunting and sustainable logging

ABB partners with the global conservation organization WWF and local authorities in the project.

The power of power: Electricity supply to a remote hamlet in India is helping people earn more and children to study at night.



### LA10 Training/LA13 Women in management positions

All countries reported figures for the average hours of organized "classroom" training per employee per year, which excludes "on-the-job" training.

All countries and regions also reported figures for the percentage of women in senior executive, senior and middle management ranks.

Figures for a selection of countries for both indicators are given in the table below.

	Training hours per employee	Percentage of women in management
Benelux	15	12
Egypt	2	2
Finland	25	12
Italy	10	4
Japan	20	0
Singapore	15	17
South Africa	16	15
South Korea	20	2
Spain	21	1
UAE	19	25
U.S.	20	2
Venezuela	5	4

#### LA12 Employees receiving performance reviews

In 2005, ABB rolled out to all countries a Group-wide appraisal system to be carried out annually for all skilled staff. In 2006, 27 countries reported 100 percent coverage of all employees in this category, the remaining countries reported over 70 percent coverage.

#### **HR4 Non-discrimination violations**

All countries in ABB's sustainability management program are asked to report any incidents of discrimination. No incidents were reported in 2006.

### HR8 Training of security personnel in human rights

All countries in ABB's sustainability management program are asked to report the percentage of security personnel trained in human rights. Seventeen countries reported a figure of 100 percent. Another six countries reported figures above 50 percent. ABB's training requirements also apply to third party organizations providing security personnel.

#### **HR9 Indigenous rights violations**

All countries in ABB's sustainability management program are asked to report any incidents of indigenous rights violations. No such incidents were reported in 2006.

#### SO2 Business units analyzed for corruption risks

ABB's internal auditors carry out an annual risk assessment encompassing all business units as the basis for their audit planning for the following year. Anti-fraud risk assessment is part of this. In addition, every significant project is included in a risk review process, which also covers corruption considerations.

#### SO3 Employees trained in anti-corruption procedures

In 2006, ABB rolled out an anti-corruption awareness and training program encompassing all employees. By end 2006, 85 percent had completed the training.

#### SO4 Actions taken in response to corruption

ABB applies a strict zero-tolerance policy to combat corruption. Every incident is sanctioned, and may include termination of employment. In 2006, ABB identified two new incidents of corruption. During the year, two employees were dismissed and 17 disciplined for incidents of corruption. There were six incidents where contracts with business partners were terminated or not renewed due to violations related to corruption. During 2006, ABB fought four legal cases against employees dismissed for corruption, winning three and losing one.

#### SO5 Public policy and lobbying

ABB provided input to the European Union on all aspects of energy efficiency, lobbied for more transmission capacity for the integrated European energy market, for undergrounding of transmission lines and for the inclusion of large-scale offshore renewable wind power into the mix of energy resources. In the U.S., ABB has advanced positions at the federal government level concerning trade issues with India, Switzerland and China and has discussed issues related to the Electricity Title of the Energy Policy Act of 2006 and its implementation.

#### **SO6** Political contributions

Under ABB's Code of Conduct, contributions to political parties, politicians and related institutions are not to be made. Any exceptions, for countries whose cultures call for such practices, have to be cleared in advance with Group Legal Affairs and Compliance. In 2006, no payments were made.





## Sustainability in our supply chain

# Seeking higher standards

ABB sees the sustainability performance of its suppliers as a key factor in its own success, and seeks to ensure they adhere to common social and environmental standards.

For many companies like ABB, components and products manufactured by suppliers, and their manufacturing processes and services, contribute heavily to overall sustainability performance.

It is therefore key to ensure that suppliers' sustainability performance is consistent with ABB's standards, codes of conduct and sustainability policies, and does nothing to detract from the company's license to operate.

Through carefully-managed cooperation programs, training and auditing, ABB seeks to lift the sustainability performance of its suppliers. This can trigger knock-on improvements in an industry and within a supplier's country.

ABB categorizes its major and strategic suppliers of materials, components and services according to the severity of their potential environmental and social impact.

For example, suppliers who provide materials and services used in ABB products, and those handling hazardous materials, are required to do the following:

- Implement an environmental and social policy
- Identify the significant environmental and social aspects of manufacturing, components or services they supply
- Ensure all operations and processes comply with environmental and social standards and legislation
- Be in a position to ensure continuous performance improvement

ABB gives priority to suppliers who have implemented formal management systems, such as ISO 14001 for environmental management, AS 8000 for social issues and OHSAS 18001 for managing health and safety risks.

To guide its suppliers, ABB has established a list of prohibited and restricted materials and substances that must be respected when manufacturing ABB products. When necessary, ABB also provides sustainability training for suppliers, as it has done in China.

ABB has also implemented a formal audit process to regularly review suppliers' performance. The generic audit protocol, which contains specific requirements for environmental and social performance, is used by ABB's country sustainability controllers (CSCs) when auditing ABB's main suppliers.

Depending on the outcome of an audit, CSCs can recommend to supply chain managers whether ABB should be involved with a particular supplier.

An open issue which also preoccupies ABB is how far up the supply chain should a company be investigating – the further up, the greater the possibility that an irregularity or human rights abuse may be unidentified. This is an area where ABB will continue to dig deeper in coming years.

## Sustainability in our supply chain

Committed to best practice: Suppliers to ABB SACE in Italy pledged at a meeting to comply with ABB's corporate social responsibility expectations.



## Suppliers in Italy commit to ABB standards

Executives working at ABB SACE in Italy regularly bring together suppliers responsible for about 95 percent of the company's purchases in the country for a program, one of whose objectives is to explain and bind suppliers to ABB's corporate responsibility principles.

The project involves suppliers in meetings, training sessions and brainstorming breakouts on quality, cost and reliability issues.

After a successful first conference in 2005 at which ABB's corporate responsibility policies were presented and discussed, the suppliers formally committed themselves to comply with ABB's expectations on corporate responsibility performance.

Suppliers are invited to attend followup meetings twice a year to share best practice and identify improvement opportunities.

The project has now entered a second phase where key suppliers are audited by ABB-trained internal auditors on issues such as quality, environmental performance, health and safety and corporate social responsibility performance.

## Teaching best environmental practice in China

ABB Xiamen Switchgear, one of ABB's major manufacturing companies in China, held a special environmental training course in 2006 for its suppliers.

Some 80 participants from more than 30 suppliers attended the session in the coastal city of Xiamen. They included participants from environmentally-sensitive businesses such as metal working, electro-plating, epoxy resin molding and paint finishing. ABB's goals were to keep suppliers informed of the latest environmental laws and standards for state-of-the-art products and processes, to communicate the company's requirements on environmental performance, to identify gaps in performance and opportunities for improvement, and to ensure that ABB's supply chain in China is fully compliant with the law.

## Sweden's road to greater efficiency

ABB in Sweden has developed a Webbased tool to streamline the transportation of goods by suppliers and cut pollution.

The online tool, developed with suppliers, makes it possible to log and analyze both the volume of transportation in tons per kilometer, and the environmental metrics – the emissions of carbon dioxide and sulfur dioxide caused by different types of transport used.

By coordinating suppliers' transport, ABB ensures greater logistical efficiency and consequently lower emissions.

The platform is the result of collaboration between ABB, software companies and the transport companies. Key performance indicators were devised in cooperation with Chalmers University of Technology, Sweden.

Transport efficiency: An ABB Web-based platform in Sweden allows the company and suppliers to streamline transportation and cut pollution.



#### EC6 Spending on locally-based suppliers

The table below gives an indication of ABB's highest purchases from outside suppliers, ranked by purchase value per country.

Country	in million \$
Germany	1,163
Italy	962
United States	853
Switzerland	851
China	840
Sweden	810
Finland	776
India	460
France	268
Brazil	257
Norway	224
Spain	208
Poland	174
Saudi Arabia	167
Canada	165
United Kingdom	128
Czech Republic	108
Turkey	86
Mexico	69
Australia	68

#### Auditing of suppliers' sustainability performance

Each country is provided with a generic audit protocol for the screening of suppliers. The protocol is used for the auditing of the five most significant suppliers rated according to the severity of their environmental and social impacts.

For example, ABB has identified a total of 1,233 suppliers which fall in this category. Of this total, 570 already have externally certified environmental management systems to ISO 14001. ABB is now focusing its auditing work on the remaining suppliers. Furthermore, in response to ABB's screening questionnaire, 1,107 of the total confirmed that they are in legal compliance.

ABB's policy concerning the selection of preferred suppliers is given on the first page of this section.

#### HR2 Screening of suppliers on human rights

ABB has incorporated social performance criteria, including human rights performance, into its suppliers' qualification process (SQP) requirements. SQP is now being used in purchasing contracts. To date, 27 countries apply the sustainability section of SQP for their key suppliers and more than 400 SQP assessments have been carried out. The human rights performance of key suppliers forms part of ABB's screening and auditing procedures.

## Stakeholder engagement



## Listening to advice

Stakeholder dialogues at ABB, on both a corporate and country level, present a valuable opportunity to road test ideas and policies for critical comment, and receive independent feedback on performance.

Three key areas of activities – climate change and the challenges and opportunities it presents, how ABB manages its work in sensitive countries, and preparations for a bird flu pandemic – were discussed in detail at the corporate level stakeholder dialogue in 2006 in Zurich, Switzerland.

The meeting, led by Executive Committee member Gary Steel, brought together high-ranking representatives of several leading international companies, including two CEOs, international organizations, human rights specialists and an ABB employee representative.

Among the priorities outlined by ABB were energy efficiency and emissions reduction, safety and business ethics.

Climate change and, in particular, the 3C initiative led by Swedish utility Vattenfall, which ABB has already signed, was discussed in detail. ABB also felt the need to step up cooperation with the World Business Council for Sustainable Development following a discussion of its priorities and challenges.

Among other advice, ABB was urged to define and communicate sustainability more clearly, and externally to work more as an advocate with policy makers rather than as a lobbyist.

ABB representatives outlined how the company decides whether to carry out business in sensitive or weak governance countries, and the challenges and opportunities this presents. In particular, ABB's contributions to furthering human rights were set against the human rights records of certain countries where it is active. One of the issues facing many companies – how to prepare for and respond to a pandemic – was reviewed in detail with input from a medical specialist from SOS International. ABB outlined its detailed plans to cope with an avian flu pandemic, assuring as far as possible employees' health and business continuity.

At a country-level stakeholder dialogue in South Africa – the first to be held by ABB in the country – participants focused on three key issues – technical skills development, HIV/AIDS and business continuity, and climate change and carbon neutrality.

More than 30 key stakeholders representing customers, the government, employee unions, suppliers, community organizations and educational institutions heard about ABB's sustainability priorities. These include Black Economic Empowerment procurement, technical skills development, support of the National Energy Efficiency Accord and care for orphans of HIV/AIDS.

As at a global level, participants felt that ABB has an important role to play on climate change by supplying energyefficient technology to its customers but that the company requires a long-term, coordinated plan for its climate change initiatives.

On skills development, stakeholders praised ABB's efforts to attract, develop and retain technically skilled employees, and urged the company to engage more with key players and support a national skills strategy.

Discussing HIV/AIDS and business continuity, stakeholders said it was important for companies like ABB to stay committed to community programs. They felt that since ABB had completed its own voluntary counseling and testing program, it should be linked to broader health programs for employees.

# Key GRI indicators

#### 4.14 List of stakeholder groups

Main stakeholders engaged by the company in roundtable or bilateral dialogues include the following:

- Business partners (customers, suppliers, consultants, associations)
- Employees, employee representatives, trade unions
- Shareholders and investment communities
- Banks and creditors
- Central and local government in countries where ABB operates
- Local communities where ABB operates, society at large
- Non-governmental organizations (NGOs)
- Academia
- Media

#### 4.15 Identification and selection of stakeholders

Stakeholders with whom ABB wishes to engage are organizations or individuals who may be affected by ABB's activities or whose actions may affect ABB. Also included from the groups listed in 4.14 above are those whose experience and expertise could provide a valuable input to the issues under discussion. No stakeholders wishing to participate in constructive dialogue with the company on particular issues of concern are denied the opportunity.

#### 4.16 Approaches to stakeholder engagement

ABB conducts formal dialogues with stakeholders on two levels: 1. At corporate level, at approximately annual intervals, led by an Executive Committee member.

2. At country and site levels, in countries and regions where ABB's operations have or could have significant sustainability impacts. The respective country managers are recommended to lead these dialogues, supported by their communication managers.

The most recent corporate-level stakeholder consultation was conducted in December 2006. The meeting was timed to coincide with the production schedule of this Sustainability review to include discussion of issues that ABB considers material to its sustainability performance, which are the main focus of this report.

The country-level stakeholder dialogue sessions are "issuedetermined" and held whenever a sustainability issue arises which could affect ABB's activities in the country and where ABB's course of action could benefit from consultation with stakeholders. Typical issues could include suppliers' and customers' sustainability performance and ABB's responsibilities to the local community. During 2006, stakeholder dialogues were held in 13 countries.

#### 4.17 Key topics and concerns

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 and to set the future strategy.

The main areas of focus at the latest ABB Group stakeholder meeting held in December 2006 in Zurich, Switzerland were: The role ABB can play through both energy-efficient products and through multilateral and policy initiatives in combating climate change; how ABB manages its risks and responsibilities in business operations in sensitive countries; and the measures ABB has taken to ensure it is prepared for a potential pandemic like avian flu.

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. The outcome benefits ABB's awareness and strategic direction in the country and is fed back to the corporate sustainability affairs team to assess its relevance to the Group.

# Sustainability professionals



**Tim Li** is occupational health and safety (OHS) advisor in China and to the North Asia region. He has been with ABB since mid-2005.

# ABB has 48 country/regional sustainability controllers around the world, supported by local sustainability officers and occupational health and safety officers, working to embed sustainability in the business and ensure best practice. Here some of them describe their work.

#### Saving lives, preventing injury

Safety work is very pragmatic work. We help employees in very practical ways to identify risks and proper preventive measures to ensure they do not get hurt.

When I joined ABB in China, I found we did not have a satisfactory system to ensure the health and safety of employees working on projects. So I drafted the ABB China Project OHS Plan and delivered project safety training to all project site employees, and prepared a onepage safety checklist for project and site managers.

In addition to global safety training in 2006, we held courses for all our site

staff, including service engineers who probably face more risks than any other employee.

We have also arranged training programs for other groups of people, including production and operations managers, and for high-voltage projects and crane lifting. Our goal is to have no lost time through injury by 2009.

Our management team is giving more and more support to OHS work. There is no other job as noble as OHS. With our efforts we can save lives, prevent injury and help people live more safely. That is the reason why I love this work.

## Tough challenges, gratifying work

My work in sustainability focuses on social investment, the environment and economic contribution and development.

South Africa is a vibrant country, but millions of people still suffer from poverty, high unemployment and HIV/AIDS. Primary health care, education and job creation are therefore urgent concerns throughout the country.

My challenges today are to ensure that ABB in South Africa uses its resources in the most effective way possible to help the poor and provide opportunities for skills development among the disadvantaged. In future, as ABB grows its presence in the country, we will support further initiatives to develop skills among the unemployed and to assist with the development of people in the company's supply chain. Also important is ABB's contribution to energy efficiency through its technologies that help reduce environmental impacts.

A program that has brought me much personal satisfaction in the past year has been our support of 1,000 orphans of HIV/AIDS victims in different areas. ABB supports two organizations which care for the orphans. It is gratifying that ABB can open its corporate heart to safeguard these precious young lives so they may one day realize their true human potential.



**Chesney Bradshaw,** country sustainability controller in South Africa, has been with ABB for ten years.



**Grazyna Momot** is country sustainability controller and health and safety advisor. She has worked for ABB in Canada for seven years.

## Embedding sustainability in business

**I** work close to the businesses; it's important that sustainability activities are seen as integral to the businesses and not something separate.

My role is to ensure that employees' health and safety, and protection of the environment, are part of the decisions we take at ABB, and help our people to include sustainability in their work.

The reasons why my work is worthwhile and why I'm passionate about it are the people I work with, the knowledge I gain and can pass on, and the sense that I can make a real difference. I interact with manufacturing supervisors, electrical test technicians, marketing managers, field technicians and others. Not surprisingly, I receive a wide variety of questions: What are the health and safety laws for construction projects? How should hard hats be inspected? What are our environmental and safety requirements for contractors working with particular acids?

Often I can provide clear answers, but sometimes I need to do some research and develop and share best practices.

I am gratified by the results I see. This work makes a difference to how people work and live, and I am proud to be part of this change.

## Corporate responsibility and its rewards

My work focuses on promoting a sustainability culture at all levels of the company. I seek to ensure corporate environmental and social responsibility, and place great emphasis on occupational health and safety.

I manage health and safety along two parallel lines: The first is the traditional preventive way (systems, manuals, risk assessments, instructions, protection) and reactive activities (deep analysis of incidents and corrective actions); the second area is by building a safety leadership culture among managers which they pass on to employees and also adopt in their private lives. We have reported many sustainability achievements in Italy in recent years: Factories certified according to ISO 14001 for ten years, the first environmental product declarations certified in Italy, and awards, such as the Ecohitech 2006 award which ABB SACE won for its energy-saving lighting project and its elimination of hazardous substances.

I also attend a lot of external meetings, holding talks with NGOs, and speak at conferences.

My greatest challenges are to embed a sustainability culture and safety leadership. I received an important signal that this is achievable when I was invited to become a member of the Mediterranean region management team. This is very encouraging for all of us.



**Antonio Giacomucci** is country sustainability controller in Italy and health and safety advisor for the Mediterranean region. He has been working at ABB for 14 years.

# Volunteers



Measuring water supply: Fredrik Bjarnegård (in yellow) monitors water flow at a refugee camp pump during his five months in Thailand.

## Employees aid earthquake victims

ABB employees had just completed a transmission line project in the Indonesian city of Yogyakarta in May 2006 when a powerful earthquake struck the area. They reacted immediately and stayed on to help relief efforts for the thousands of victims.

Site vehicles, consisting of seven trucks, six pickups and three tractors, which were scheduled to be sold after the project's completion, were put to immediate use.

"We were able to drive doctors to remote locations, enabling them to provide

India

As part of its support program for primary schools for underprivileged children, employees contributed toys, books, games and stationery to collection points at ABB offices. Some 2,500 children received Christmas parcels under the "Share your joy" initiative. ABB employees volunteer for a variety of projects in many different parts of the world. Here is a selection of some of the highlights from 2006.

#### Powering up jungle areas

In remote areas of Thailand, the government installed 200,000 solar cell units to ease the shortage of electricity. ABB sales manager Fredrik Bjarnegård took time off work to train villagers how to run and maintain their new electrical lifeline.

Bjarnegård was given five months leave of absence from his substations unit in Västerås, Sweden to work with Border Green Energy Team, an international volunteer program focusing on povertystricken areas.

Solar energy helped to light up the villages, raise living standards and improve medical care, and drove cookery and

immediate assistance and carry the sick and injured to their hospitals," said ABB project manager Jörg Holzapfel.

"The trucks were also used to transport food and relief supplies from government collection points to areas affected by the earthquake. Two soldiers were assigned to each of our trucks for protection against looters."

No ABB employees or family members were injured but the company's offices in Yogyakarta were among the thousands of buildings destroyed by the earthquake. ABB also donated money from the project to help quake victims. water pumping projects at a United Nations-funded camp close to the Thai-Myanmar border.

Among those Bjarnegård coached on how to run the equipment were doctors working in very difficult situations along the border. "Some of the so-called barefoot doctors walked through the jungle for several days, some on artificial legs, to get to our training sessions," he says.

Bjarnegård happily compares his volunteer mission with large-scale ABB projects. "I'm used to transformers weighing in at hundreds of tons. In these villages, smaller transformers could fit into bamboo huts. Local people built everything with pickaxes, spades and local material. Fantastic!"



Reacting to an emergency: ABB volunteers used company trucks to deliver emergency supplies after an earthquake hit Indonesia in May 2006.

#### United States

Among the many activities and donations in the U.S., volunteers from Wickliffe, Ohio roll up their sleeves to help build homes for needy families, while colleagues in New Berlin, Wisconsin, rolled up their sleeves for a blood donor drive.

#### Brazil

Some 1,400 employees donate a total of nearly \$100,000 a year to support social institutions near ABB's sites. Employees also collect home appliances, clothing and food for distribution to needy people, and help in construction and renovation work in homes.



The joy of winning: Every participant and volunteer is a winner at the annual Special Olympics in Germany.

## Making Special Olympics even more special

Special Olympics, organized for mentally challenged people, have a special place in the hearts of ABB volunteers. They support events in a number of countries, including Germany, Italy, the United Kingdom and the United States.

ABB is the biggest sponsor of the Special Olympics in Germany and more than 200 ABB employees from locations throughout the country gave up a week of their annual leave in 2006 to help manage the event. "It is a wonderful experience because you can see that the athletes are enjoying themselves and approach everything in such a positive and uninhibited way," said Judith Pietsch from ABB in Friedberg. "That's an attitude one can learn from."

About 2,700 mentally-challenged people competed in events like swimming, athletics, tennis and judo. Volunteers organize them into groups, accompany them to the starting line, cheer them on and gather them at the other end to make sure they are reunited with their carers.

## Supporting the fight against cancer

ABB and its employees have raised nearly \$1 million over the past ten years for Macmillan Cancer Support, a major United Kingdom charity which aims to improve the lives of people affected by the disease. The organization provides practical, medical, emotional and financial support and pushes for better cancer care.

As well as making a corporate donation of \$20,000 per year and giving help in kind, such as letting out meeting rooms free of charge, ABB encourages its 2,400-strong U.K. team and contractors to participate in fundraising events during and outside of the working day.

From Aberdeen in Scotland to the south coast of England, ABB staff take part in activities ranging from the strenuous, such as marathons and fun runs, to the frivolous, including paying for the privilege to "bring a hat to work day." Many ABB employees are also members of a give-as-you-earn scheme.

Corporate donations account for about \$20 million of the charity's \$180 million annual income.



Hats off to ABB staff: Employees in the U.K. pay for the privilege of wearing their favorite hats to work, with the proceeds going to charity.

#### South Africa

Volunteers support many social projects in different parts of the country. One example: A project management team took a day off work to paint the local community center near Johannesburg, where an NGO provides a day-care service for orphans of HIV/AIDS.

#### Chile

Employees try to stave off chilly winters in Chile by collecting non-perishable foods and warm clothes for distribution to the needy in the winter months. They also collect clothes and toys at Christmas for children from low-income families.

#### United Arab Emirates

Gary Foote shares his passion for soccer by training children in Dubai in his spare time. His juniors club now comprises 18 nationalities. "It's a fantastic melting pot of cultures having fun together playing the world's most enjoyed sport," he says.

# 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

#### **ABB's environmental policy**

ABB is committed to developing resource-efficient products and systems and to conducting ongoing dialogue with cus-

tomers to help them select the most environmentally friendly products, systems and solutions. The environmental policy focuses on 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:

- 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.
- 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 applies to all employees 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.

#### **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.
- Human rights: To support and respect the protection of internationally proclaimed human rights. To ensure that employees and contractors engaged as security personnel 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.

- 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. Promoting leadership and accountability, with clearly defined responsibilities, resources, and accountability for managers.
- 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.
- 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. Requiring routine reviews of health and safety performance by managers, supported by a reporting process.

#### **ABB's business ethics policy**

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

# **Business** ethics

Business ethics belongs to the company's core set of values and guiding principles. It is incorporated in ABB's new Code of Conduct, which replaced the former business ethics principles and reiterates ABB's zero-tolerance policy on non-compliance.

In ABB's vision for the future, ethics will be one of the hallmarks of the company: By 2009, ABB wants to be recognized as the top global engineering company in terms of market impact, growth and profitability, value creation, sustainability and ethical behavior.

#### Policy

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

#### **Global compliance organization**

ABB is committed at its highest level to forcefully address compliance issues and to enforce zero tolerance.

The Finance, Audit and Compliance Committee – one of the two board committees – oversees ABB's compliance program and reports to the Board of Directors on a regular basis. At the operating level, ABB's specialist headquarter resources in the areas of compliance, legal and audit, work together in the Group Compliance Team.

Under the direction of the Group Chief Compliance Officer, regional and local compliance officers in more than 50 countries train, advise and monitor employees in all parts of the organization. This global organization distributes information and guidance, fosters internal dialogue, and supports ethical education and training.

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. Response helpdesks and details of the compliance organization are also provided to facilitate consultation or questions.

#### Achievements in 2006

Culminating in 2006, ABB has carried out a rigorous compliance, awareness and training drive, which has demanded the participation of every employee. Achievements during the year have been:

- Creation of the Executive Compliance Task Force, comprising four members of ABB's Executive Committee, tasked to design and implement an improved compliance framework and to manage compliance cases.
- Expansion of the Special Investigations Organization with officers based in three main regions – the Americas, Asia-Pacific, and Europe/Middle East/Africa.
- Roll-out of ABB's new Code of Conduct, which builds on ABB's business principles of responsibility, respect and determination. The Code was launched in 45 languages in 100 countries to all 108,000 employees and includes an acknowledgement form to confirm acceptance and commitment. It is available on ABB's website www.abb.com.
- ABB Group Charter launched and communicated Group-wide, describing the structure and contents of corporate governance within ABB. It includes five Group directives addressing intermediaries and agents, bribery and corruption, political contributions, lender and export credit agency compliance, and gifts, entertainment and expenses.
- Anti-fraud program launched and first fraud risk assessment carried out
- E-learning on ABB's new Code of Conduct and OECD's anti-bribery course launched for all ABB employees, as part of a new, ongoing e-learning program.
- New, external 24-hour Business Ethics hotline, where potential compliance violations can be reported in about 90 languages; if desired by the caller in an anonymous manner.

#### **External liaisons and commitments**

ABB is a group contributor and donor to Transparency International, the coalition against corruption, and liaises with the Basel Institute on Governance.

ABB is also a signatory to the World Economic Forum's Partnering Against Corruption Initiative (PACI), which has been signed by around 120 companies. As a signatory, ABB has committed to strengthening efforts to counter corruption and bribery, and has signed a statement supporting the PACI Principles. These principles call for a commitment to two fundamental actions:

- Zero-tolerance policy towards bribery
- Development of a practical and effective implementation program

As a signatory to the United Nations Global Compact, ABB also adheres to its tenth principle, which calls on businesses to work against all forms of corruption, including extortion and bribery.

ABB representatives actively participate in PACI and UN Global Compact working meetings.

#### **Going forward**

Awareness of ABB's Code of Conduct and zero-tolerance response to non-compliance has now reached a high level among all employees.

Compliance matters are reviewed and discussed at each quarterly board meeting, each monthly Executive Committee meeting, Project Risk Review Committee meetings and by Executive Committee members when visiting countries and business units.

The aim is to strive for continuous improvement – in our processes and in the behavior of our employees and our stakeholders – so that we can better focus on our mission of providing power and productivity for a better world.

# UN Global Compact reporting

	ABB has been a member of the UN Global Compact since 2000. In common with other members, ABB reports every year on progress on the Compact's ten principles.
Human Rights	
<b>Principle 1:</b> Businesses should support and respect the protection of internationally-proclaimed human rights.	<ul> <li>Human rights considerations embedded in new internal protocol for deciding where ABB should have business activities</li> <li>New Code of Conduct</li> </ul>
numan ngnts.	Active participation in international organizations and workshops seeking to promote business awareness and support for human rights
Principle 2: Make sure they are not	■ New Code of Conduct
complicit in human rights abuses.	<ul> <li>Active participation in international organizations and workshops seeking to promote business awareness and support for human rights</li> </ul>
	<ul> <li>Wide-ranging stakeholder dialogue in Africa to ensure ABB is non-complicit in abuses</li> </ul>
	Internal protocol formally introduced in 2006 for deciding where ABB should have business activities. Among the aims: To avoid complicity
Labour	
<b>Principle 3:</b> Businesses should uphold the freedom of association and the effective recognition of the right	Code of Conduct and Principle 6 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2006.
to collective bargaining.	In countries where the law does not permit this right, ABB facilitates regular consultation with employees to address areas of concern.
<b>Principle 4:</b> The elimination of all forms of forced and compulsory labour.	Code of Conduct and Principle 4 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2006.
Principle 5: The effective abolition of child labour.	Code of Conduct and Principle 3 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2006.
	The principle of "no child labor" included in ABB's protocol for supplier audits.
<b>Principle 6:</b> Eliminate discrimination in respect of employment and	Code of Conduct and Principle 7 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2006.
occupation.	ABB also has procedures and programs in different countries to ensure that policies are fully observed.

Environment		
<b>Principle 7:</b> Business should support a precautionary approach	<ul> <li>Environmental considerations mandatory in the ABB GATE model for product and process development</li> </ul>	
to environmental challenges.	Standardized Life Cycle Assessment procedures used to assess new products' environmental impact throughout their life cycle	
	<ul> <li>Ongoing program to phase out use of hazardous substances in manufacturing and products</li> </ul>	
	Two-year initiative launched to cut ABB's energy use by five percent per manufactured unit	
	New guidelines and instructions introduced in 2006 for social and environmental risk in projects	
<b>Principle 8:</b> Undertake initiatives to promote greater environmental	Work with international organizations and initiatives, such as World Economic Forum's Climate Change roundtable, WBCSD and 3C initiative	
responsibility.	ABB has implemented a new and strengthened audit protocol for auditing of suppliers' environmental performance.	
	ABB's ongoing Access to Electricity rural electrification programs in India and Tanzania	
Principle 9: Encourage the develop- ment and diffusion of environmentally	Transfer of technologies and best practice between countries to ensure same level of environmental performance throughout Group	
friendly technologies.	<ul> <li>Group-wide list of prohibited substances for products and processes strengthened in 2006</li> </ul>	
	Code of Conduct and Principle 5 of ABB Environmental Policy	
Anti-corruption		
<b>Principle 10:</b> Businesses should work against corruption in all its forms,	New Code of Conduct, rolled out in 45 languages to all employees	
including extortion and bribery.	<ul> <li>Compulsory e-learning courses on Code of Conduct and OECD's anti-bribery course</li> </ul>	
	New external 24-hour Business Ethics hotline	
	Group Charter launched and communicated worldwide, describing the structure and contents of corporate governance	
	Creation of Executive Compliance Task Force	
	Special Investigations Organization expanded with officers based in three regions	

# Human rights

#### Managing business dilemmas

How does ABB decide where to do business? The company took steps in 2006 to strengthen and fine-tune the process it uses for deciding whether to be involved in a particular country or project.

A new Group-wide protocol, designed to evaluate different types of risks in countries, was introduced based on five factors: Financial considerations, legal constraints, security assessments, human rights issues and potential reputation risks. This complements existing detailed economic analyses of individual countries and markets, and legal regulations.

At the same time, further social, environmental and human rights criteria have been added to the existing checklist which managers use when tendering for particular projects.

The aims are clear: To ensure ABB is only involved in countries or projects where potential risks are low or non-existent. Easy to say, sometimes difficult to manage – particularly for a company with highly diverse business activities in some 100 countries where risks may not be immediately apparent.

Where to draw a line? Many countries, for example, have an imperfect human rights record but at what stage does a company decide the line has been crossed?

At the start of 2007, ABB added Sudan to a short list of countries – comprising Myanmar and North Korea – where the Group is not undertaking any new business activities. In Sudan, ABB is reviewing existing contracts on a case by case basis.

After lengthy consideration, ABB cited political, legislative and economic reasons for its decision on Sudan. The risks outweighed the benefits, even though ABB maintained that its business activities in the country – primarily involving muchneeded electrification projects in northern Sudan – supported important infrastructure development.

ABB also seeks to proactively manage its risks in projects. One example is the oil pipeline development on Sakhalin island in the Russian Far East where ABB was criticized – and rejected that criticism – for supplying control systems to the project. There are other countries of operation where ABB keeps a daily watch on political, security and human rights developments. The difficulties in evaluating whether to work in sensitive countries – those with weak governance – underline the need to improve current practices by developing a voluntary common framework on standards, agreed with governments, investors, civil society and NGOs, which can provide companies with the behavioral norms appropriate for a country, and help create a level playing field among businesses.

ABB is working with organizations such as the United Nations Global Compact and the Business Leaders Initiative on Human Rights with the aim of clarifying the conditions under which a company can convince itself and its stakeholders that it has earned the right to operate.

The increasing inclusion of non-financial criteria in business decision-making indicates a greater understanding of how these criteria can impact a business, and reflects the company's desire to do the right thing within its spheres of influence. The work is ongoing.

## ABB works with a number of human rights-related organizations

- Amnesty International: ABB is a member of Amnesty International's Business Group which gives advice to member companies on business-related human rights matters and organizes roundtable discussions for its members to share experience and best practice.
- Business Leaders Initiative on Human Rights: ABB was one of the founding members of this initiative, launched in 2003 to help lead and develop the corporate response to human rights. During 2006, ABB supported one of the key areas of BLIHR's work – drawing up guidelines on good business governance in sensitive countries.
- International Committee of the Red Cross (ICRC), Switzerland: ABB was one of seven companies which joined the ICRC Corporate Support Group in October 2005.
- United Nations Global Compact: ABB was one of the 50 companies that supported the inaugural launch of the Global Compact in 2000.

A full list of ABB's memberships appears on our Web site (www.abb.com/sustainability).

# GRI standard disclosures

This section provides a selection of base information, defined by the Global Reporting Initiative Guidelines, comprising a profile of ABB, the scope of this report, ABB's commitments to external initiatives, and sustainability performance indicators. Reference numbers are those used in the GRI Guidelines.

All GRI core performance indicators relevant to ABB are covered in this report – either in this section, or appended to each of the seven key sustainability issues for ABB described on pages 6–33. All additional GRI performance indicators are published on ABB's Web site. The GRI content index table on the inside back cover identifies the location of all standard disclosures.

#### **Organizational profile**

**2.1 Name of the organization** The name of the worldwide ABB Group is ABB Ltd.

#### 2.2 Primary brands, products and services

ABB is a global 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 electricity supply grids, raise industrial productivity and save energy.

The Power Products division manufactures the key components to transmit and distribute electricity, such as transformers, switchgear, circuit breakers and cables. The Power Systems division offers turnkey systems for power transmission and distribution grids, and for power plants. These include complete substations, as well as high-voltage alternating and direct current transmission systems, together with their automation and network management systems.

The Automation Products and Process Automation divisions manufacture a comprehensive range of energy-efficient products and integrated systems to improve customers' productivity and optimize control of their plants. Products include drives, motors and generators, low-voltage products, instrumentation and power electronics.

The Robotics division manufactures industrial robots, together with robot software, peripheral equipment and modular manu-

facturing cells for tasks such as assembly, painting and finishing, packaging and machine tending.

In addition, ABB continues to design and supply oil and gas production facilities, refineries and petrochemical plants. ABB is a manufacturing and services group which outsources only some of its work (for example, information technology support infrastructure).

#### 2.3 Operational structure of the organization

At Group level, ABB comprises five power and automation divisions named in 2.2 above, supported by staff functions (such as sustainability affairs, corporate communications, controlling, legal and compliance, human resources, etc.), all reporting to an 11-member Executive Committee. The president of the Executive Committee is the Chief Executive Officer of the company. Also represented on the committee are the heads of the five divisions, the Chief Financial Officer, the head of Global Markets and Technology, the head of Corporate Development, the head of Legal and Compliance and the head of Human Resources, who is also the Executive Committee member responsible for Sustainability Affairs.

Reporting to the Group are ABB operating companies, subsidiaries and majority-owned joint ventures, located worldwide and employing 108,160 people.

#### 2.4 Location of headquarters

The headquarters of the ABB Group is located in Zurich, Switzerland.

#### 2.5 Countries where the organization operates

The ABB Group of companies operates in around 100 countries. ABB's formal sustainability reporting system covers 99,000 employees in 50 countries and regions, which are those where ABB has significant manufacturing and workshop operations. ABB's largest operations are in Australasia, China, Finland, France, Germany, India, Italy, Norway, Poland, Spain, Sweden, Switzerland, U.K. and U.S.

#### 2.6 Nature of ownership and legal form

ABB is listed on the SWX Swiss Exchange and the exchanges in Stockholm and New York.

As of December 31, 2005, Investor AB, Stockholm, Sweden, held 166,330,142 ABB shares, representing 8.0 percent of the company's share capital and voting rights. This figure remained unchanged during 2006. However, due to capital increases out of contingent capital in 2006, this quota abated to 7.6 percent.

FMR Corporation, Boston, Massachusetts, U.S., announced that as per November 22, 2006 it, together with its direct and indirect subsidiaries, held for its funds and clients 111,888,682 ABB shares. This corresponded to 5.1 percent of the company's share capital and voting rights. FMR Corporation subsequently announced that as per December 20, 2006 it had reduced its holdings to a total of registered shares which was less than 5 percent of ABB's total capital and voting rights. Thereafter, FMR Corporation announced that as per February 14, 2007 it held 109,485,941 ABB shares. This corresponds to 5.0 percent of the company's share capital and voting rights.

To the best of ABB's knowledge, as of February 28, 2007, no other shareholder holds 5 percent or more of ABB's shares.

ABB Ltd is the holding company for the entire ABB Group and is registered as a corporation (Aktiengesellschaft) in the commercial register of the Canton of Zurich, Switzerland.

#### 2.7 Markets served

ABB's products, systems, solutions and services are supplied directly to many industries worldwide. These industries include: Electric, gas and water utilities, oil, gas and petrochemicals, refining, automotive, railways, marine and turbocharging, foundry, cement, chemical and pharmaceutical, metals, minerals and mining, pulp and paper, power generation, commercial, industrial and residential buildings, food and beverages, packaging, material handling, consumer industries, telecommunications and data communication.

ABB also delivers its expertise to channel partners such as original equipment manufacturers, and engineering, procurement and construction companies.

#### 2.8 Scale of the reporting organization

Number of employees worldwide at end 2006: 108,160 (104,000 end 2005).

Employees by region:	2006	2005	2004
Europe	60,688	58,240	60,000
The Americas	18,653	18,720	16,500
Asia	22,321	18,720	16,500
Middle East and Africa	6,498	8,320	9,500
Total	108,160	104,000	102,500

## Sales (revenues) for 2006: \$24,412 million (\$22,012\* million for 2005)

Sales by region:	2006	2005	2004
Europe	47%	49%	52%
The Americas	18%	19%	17%
Asia	<b>25</b> %	23%	21%
Middle East and Africa	10%	9%	10%

\*Adjusted to reflect the reclassification of activities to Discontinued operations

Total capitalization on December 31, 2006, (short-term borrowings and current maturities of long-term borrowings plus long-term borrowings and total stockholders' equity including minority interest) was \$9.8 billion (\$7.9 billion end 2005).

Debt (short-term borrowings and current maturities of longterm borrowings and long-term borrowings) was \$3.3 billion (\$4.1 billion end 2005).

Equity (total stockholders' equity including minority interest) was \$6.5 billion (\$3.8 billion end 2005).

Total assets were \$25.1 billion (\$22.3 billion end 2005).

The single largest shareholder of ABB is Investor AB, Stockholm, with a shareholding of 7.6 percent, as detailed in 2.6 above.

Investor AB, Stockholm, an investment company, is the largest listed industrial holding company in the Nordic region. At the end of 2006, Knut and Alice Wallenberg Foundation was the largest owner in Investor with a quota of 40.0 percent of votes and 18.6 percent of capital.

FMR Corporation, Boston, is the parent holding company of Fidelity Management & Research Company, an investment manager for U.S. mutual funds, and Fidelity Management Trust Company, a U.S. state chartered bank which acts as a trustee or investment manager.

**2.9 Significant changes in size, structure and ownership** There were no significant changes in size and structure during the fiscal year 2006.

The Executive Committee increased from ten to 11 members following the appointment of a new general counsel who was also appointed secretary to the Board and head of Legal and Compliance.

FMR Corporation, Boston, U.S., which during 2005 reduced its holdings in ABB shares to a total below the 5 percent thresh-

old, subsequently announced in 2006 that as per November 22, 2006 it held 111,888,682 ABB shares corresponding to 5.1 percent of total capital and voting rights. FMR Corporation subsequently reported that as per December 20, 2006 it had reduced its holdings in ABB shares to a total below the 5 percent threshold. Thereafter, FMR Corporation announced that as per February 14, 2007 it held 109,485,941 ABB shares. This corresponds to 5.0 percent of the company's share capital and voting rights.

#### 2.10 Awards received

During 2006, ABB received awards in 17 countries for its sustainability achievements.

#### **Report parameters**

**3.1 Reporting period** Fiscal year 2006.

#### 3.2 Date of previous report

April 2006, covering fiscal year 2005.

#### 3.3 Reporting cycle

Annual. Next report to be released in April 2008, covering fiscal year 2007.

#### 3.4 Contact point for the report

E-mail: sustainability.abbzh@ch.abb.com Web address: www.abb.com/sustainability

#### 3.5 Process for defining report content

ABB identified seven issues it considers material to its sustainability impacts, challenges and opportunities: Energy efficiency, climate change, managing its environmental performance, product innovation, health and safety, corporate responsibility, and sustainability in the supply chain. The seven issues are not ranked in any order of priority in this report.

They were brought up in brief at a Group-level Stakeholder Forum chaired by a member of ABB's Executive Committee and attended by top-level representatives from clients, peer companies, non-governmental organizations, sustainability associations and academia.

All core and additional performance indicators published in Version 3 of the GRI Guidelines have been reviewed, and their relevance to each of the seven issues assessed. High priority indicators have been incorporated in the write-up of each relevant issue, which appears in the front part of this report, while other priority indicators are presented on ABB's Web site (see 3.12 for the location of all GRI indicators).

#### 3.6 Boundary of the report

The Sustainability review covers all ABB Group companies, wholly-owned subsidiaries and majority-owned joint ventures worldwide, having significant sustainability impacts.

In all such countries where ABB entities have or could have significant sustainability impacts, ABB has appointed country/regional sustainability controllers responsible for ABB's sustainability management program and gathering the data consolidated in this report.

The country/regional sustainability controllers are supported by about 350 local sustainability officers reporting confirmed data gathered through ABB's formal sustainability reporting system from 50 countries/regions, excluding any units being divested. The data relating to social performance covers a total of 92 percent of ABB employees, whereas data relating to environmental performance covers 83 percent of employees.

#### 3.7 Limitations on the scope of the report

The report does not cover work carried out by ABB on our customers' sites. However, health and safety data covers all ABB employees wherever they work and all contractors for whom ABB is contractually responsible.

#### 3.8 Comparability

As in previous years, the Sustainability review covers all employees working in premises owned or leased by ABB. During 2006, there has been no change in ABB's portfolio of businesses that could significantly affect comparability of the data between this and the previous report.

#### 3.9 Data measurement

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

The reporting scope is extensive, with data collected against defined performance indicators, which is consolidated and checked at country level and then against GRI definitions at Group level. Country sustainability controllers audit the data from each site.

Help texts are provided in the reporting questionnaires to define the data required and to ensure accuracy and consistency.

The data relating to social performance covers a total of 92 percent of ABB employees, whereas data relating to environmental performance covers 83 percent of employees. The environmental performance of the remaining 17 percent of employees, located in non-manufacturing entities without significant impacts, is covered by estimated data. The estimates are based on assumptions of the levels of their main environmental aspects, such as the use of energy, water consumption and waste output per person, in comparison with similar premises. When we have made such an assumption, it is stated in the text.

#### 3.10 Effect of restatement of information

Nothing significant has arisen during 2006 which would require a re-statement of information provided in earlier ABB Sustainability reviews.

The number of ABB employees was around 108,000 in 2006, compared to around 104,000 in 2005, and the number of manufacturing sites and workshops covered by the sustainability management program was approximately 350 in 2006.

#### 3.11 Significant changes

There were no significant changes during 2006 in the scope, boundary, or measurement methods applied in the report.

However, as a result of addressing the new concepts contained in Version 3 of the GRI Guidelines, particularly the focus on the issues considered material to the sustainability impacts of the organization, the format and presentation of the report has changed considerably from previous years. It is intended to maintain this new format in future reports to ensure consistency.

In addition, some parts of the standard disclosures (such as 4. Governance, and some of the less significant indicators in 5. Performance) have been transferred to ABB's Web site so as not to overload the printed report. The locations on the Web site are given in the GRI content index below.

#### 3.12 GRI content index

A table appears on the inside back cover page of this report, which identifies the page numbers or Web site location of all the standard disclosures required by Version 3 of the GRI Guidelines.

#### 3.13 Independent assurance

ABB believes in the importance of independent external assurance to enhance the credibility of its Sustainability review. ABB's triple bottom line performance, as covered in this Sustainability review, has been verified by independent external organizations. Economic data comprises extracts from ABB's Annual Report 2006. ABB's main environmental and social performance indicators have been verified by the independent verification body Det Norske Veritas (DNV) through a review of documents, country visits and interviews at various levels of the company prior to publication. Their statement appears at the back of this report.

#### **Commitments to external initiatives**

#### 4.11 Precautionary approach

ABB has Group-wide mandatory sustainability checks in place which are applied in the development of new products and projects. This precautionary approach is also integrated into the GATE model – a seven-step internal approvals process governing the development of new products and projects which requires documented assessment in the development phase of their life-long sustainability objectives and performance.

The GATE model requires a Life Cycle Assessment study of each new product and project, and provides the opportunity to correct deficiencies and adopt new designs. It also provides advice on how to reduce the use of unwanted substances and avoid other environmental risks.

Backing up the GATE model is ABB's intranet-based sustainability toolbox which contains comprehensive information and guidance about sustainability criteria for new products and projects. For example, it contains information on restricted substances and European Union directives, such as those on the restriction of hazardous substances (RoHS) and on waste electrical and electronic equipment (WEEE). The toolbox also provides guidance on how to apply Life Cycle Assessments and environmental assessments to products and projects.

ABB has also integrated further sustainability criteria into its risk assessment process for projects, as part of ongoing efforts to minimize any potential negative impacts on the environment and local community.

ABB carries out impact assessments of its scope of work for such projects, comparing the potential negative impacts with alternative technical solutions. These assessments may cover direct impacts such as land use, optical appearance, noise and material use, and indirect effects such as power losses in cables, overhead lines, transformers and other electrical equipment.

**4.12 Externally developed charters, principles and initiatives** 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 Assessments; 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.

ABB facilities are encouraged to produce integrated management systems for environmental and quality issues, and for occupational health and safety. More than 200 sites now use integrated systems, several of which have been externally certified. The most recent sites are in Colombia, Germany and Norway.

ABB is a signatory to the World Economic Forum's "Partnering Against Corruption Initiative" (PACI), signed by 120 companies committed to strengthening efforts to counter corruption and bribery. ABB was one of ten companies to also sign the forerunner of this initiative at the WEF's annual meeting in 2004 in Davos, Switzerland.

#### 4.13 Memberships in associations

Listed below are some of the principal associations and initiatives with which ABB is involved in the area of sustainability:

Amnesty International, AI, U.K. Business Leaders Initiative on Human Rights, BLIHR, U.K. Chalmers University of Technology, CPM, Sweden CSR Europe, Belgium Global Village Energy Partnership, GVEP, U.S. Global Reporting Initiative, GRI, Netherlands International Committee of the Red Cross, ICRC, Switzerland International Institute for Management Development, IMD, Switzerland International Organization for Standardization, ISO, Switzerland oikos International, Switzerland Pew Center on Global Climate Change, U.S. Transparency International, TI, Germany United Nations Global Compact, U.S. World Business Council for Sustainable Development, WBCSD, Switzerland

World Childhood Foundation, Sweden

- World Economic Forum, Switzerland
- WWF, Switzerland

See ABB's Web site (www.abb.com/sustainability) for details of these memberships.

#### Performance indicators Biodiversity

#### Biodiversity

EN11 Land used in protected or high biodiversity value areas ABB's manufacturing and workshop facilities are not located in, or adjacent to, protected areas or areas of high biodiversity value, as defined in internationally-recognized listings or national legislation.

## EN12 Significant impacts on biodiversity in protected or high biodiversity value areas

See EN11.

#### Effluents

#### EN21 Total water discharge by quality and destination

About 75 percent of ABB's process plants discharge process water to the public sewers. The remaining 25 percent discharge process water to local water sources such as lakes and rivers. These figures have remained unchanged from previous years. The water discharge to local water sources is returned without contamination and comes mainly from surface treatment plants, cooling water systems and test plants.

#### Employment

LA1 Full-time workforce by region See 2.8.

#### LA1 Part-time workforce by region

Total numbers of part-time employees included in the figures for 2.8.

Part-time employees by region:	2006	2005	2004
Europe	2,786	2,200	2,600
The Americas	60	190	130
Asia	76	190	140
Middle East and Africa	111	48	130
Total	3,033	2,628	3,000

#### LA2 Rate of employee turnover by region

Turnover of all employees, including part-time (as a percentage of the total workforce):

Turnover by region:	2006	2005	2004
Europe	7%	n.a.	n.a.
The Americas	11%	n.a.	n.a.
Asia	9%	n.a.	n.a.
Middle East and Africa	6%	n.a.	n.a.
Total turnover for whole Group	8%	n.a.	n.a.

Turnover of all female employees, including part-time (actual numbers):

Turnover by region:	2006	2005	2004
Europe	1,147	n.a.	n.a.
The Americas	315	n.a.	n.a.
Asia	391	n.a.	n.a.
Middle East and Africa	43	n.a.	n.a.
Total turnover for whole Group	1,896	n.a.	n.a.

#### Labor/management relations

LA4 Employees covered by collective bargaining agreements In 2006, approximately 52 percent of ABB employees were covered by collective bargaining agreements. This corresponds to a total of 56,000 employees.

## LA5 Minimum notice periods regarding significant operational changes

During 2006, ABB began collecting data for this new core indicator, to be published in future reports.

#### **Diversity and equal opportunity**

#### LA14 Ratio of basic salary of men to women

In ABB, salaries are decided according to the nature of duties to be performed.

#### Investment and procurement practices

HR1 Significant investment agreements that include human rights ABB maintains and regularly reviews a list of sensitive countries where it has, or considers engaging in, business operations.

Human rights, as well as financial, environmental and social criteria, are included in risk assessments, and are among the factors in deciding whether ABB does business in a particular country.

As of January 2007, Myanmar, North Korea and Sudan were on the list of countries where ABB is not undertaking any new business activities. In Sudan, ABB is reviewing existing contracts on a case by case basis.

#### Freedom of association and collective bargaining, child labor, forced or compulsory labor HR5, HR6, HR7 Operations at risk

There were no ABB operations identified during 2006 to be at significant risk concerning employee rights to freedom of association and collective bargaining, incidents of child labor, or incidents of forced or compulsory labor.

#### Community

#### SO1 Impacts of operations on communities

Through its social policy, ABB is committed to promote and participate in community activities that foster environmental, social, economic and educational development in the communities where it operates.

In 2006, ABB companies in 38 countries supported community development projects, donating approximately \$3.5 million in funding, and employees volunteered more than 2,500 man-days of work. See pages 38-39 for examples of these projects.

#### **Compliance – society**

## SO8 Significant fines and sanctions for non-compliance with laws and regulations

ABB has not identified any significant administrative or judicial sanctions, fines or non-monetary sanctions levied against the company during 2006 for failure to comply with laws or regulations.

#### Compliance – product responsibility

#### PR9 Significant fines for non-compliance with laws and regulations concerning products and services

ABB has not identified any significant administrative or judicial sanctions or fines levied against the company during 2006 for failure to comply with laws or regulations concerning the provision and use of its products and services.

# Sustainability ratings

ABB is convinced that high rankings in reputable sustainability performance indices translate into tangible benefits for its customers and investors.

#### **Dow Jones Sustainability Indices (DJSI)**

In 2006, ABB was again selected for the Dow Jones Sustainability World Index (DJSI World) and the Dow Jones STOXX Sustainability Index (DJSI STOXX) as part of the industry group Electronic Equipment.

In the economic dimension, ABB achieved the best score in its industry group for its codes of conduct, compliance and procedures to combat bribery and corruption, and was rated above average for corporate governance.

In the environmental dimension, ABB achieved a near top score for its environmental reporting and scored substantially above the industry average for its environmental performance and eco-efficiency achievements. ABB was further rated above average in all other environmental criteria such as environmental management systems and product stewardship.

In the social dimension, ABB achieved the best score for social reporting, but was rated below average for human capital development.

#### FTSE4Good

In 2006, ABB again featured in both the FTSE4Good Europe Index and in the FTSE4Good Global Index.

#### **Business in the Environment (BiE)**

In the latest ranking, published in 2006, covering 155 companies, ABB held its position at the top of its sector Engineering and Machinery with a score of 94 percent. During 2006, ABB was one of seven organizations featured in a best-practice publication "Looking Back, Moving Forward." The BiE publication gives examples from companies which have recognized the business benefits of improving their environmental management and performance. ABB's case study described how the company achieves its commitment to continually improving the environmental performance of its products.

#### **Sarasin Bank**

Bank Sarasin, based in Basel, Switzerland, assesses companies' environmental and social performance as a basis for its socially responsible investment funds and services. In the assessment for 2006, ABB scored above the industry average for its sustainability performance.

On the environmental side it was above the industry average in most aspects. On the social side it scored well in some categories, especially its strategy and management, community relations and supplier relations. Its involvement in controversial projects and illegal business practice (corruption, price fixing) were criticized, but the analysis appreciated ABB's engagement in human rights initiatives and its stringent business ethics policies and programs.

#### 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 released in December 2006, ABB scored 70.1 out of 100 – an improvement over its 2005 score of 65.5. In 2005, the industry average was 53.5. (The industry average for 2006 will not be available until after this report is published.)

#### Innovest

In its latest review of ABB's environmental performance, published in 2006, Innovest gives ABB a positive rating outlook and states:

"Innovest has maintained ABB's AAA rating for the past three years, despite its financial struggles, and the company has now borne out its promise of sustainability for the long term. It looks to have now resolved its major asbestos liability associated with its subsidiary Combustion Engineering Inc., has achieved its cost reductions and is very well placed in terms of sustainability initiatives to enhance reputation and continue to improve its revenues going forward."

In the sub-factors of its overall rating, ABB scored 9.3 out of 10 for stakeholder capital, 8.7 for strategic governance, 8.3 for human capital and 7.6 for environment.

#### Robur

Robur is one of Scandinavia's largest mutual fund managers and a wholly-owned subsidiary of Swedbank, Sweden, and serves close to three million customers.

ABB is approved by Robur for investments in its ethical and environmental fund, Ethica Miljö Sverige.

# ABB's sustainability organization

ABB's Sustainability Affairs organization consists of about 400 people in 50 countries and regions, and directs ABB's sustainability management program relating to environmental, social, and health, safety and security performance.

Sustainability Affairs is an ABB Group function led by a fiveman management team, based at the company's Zurich headquarters. The head of Sustainability Affairs reports to an Executive Committee member responsible for the implementation of ABB's sustainability policies throughout the Group.

The team also develops policies and procedures to safeguard the security of all ABB employees from outside threats, as well as from pandemic diseases. It also coordinates Group-wide common efforts programs and commissions audits to verify that the Group is in compliance with its sustainability commitments.

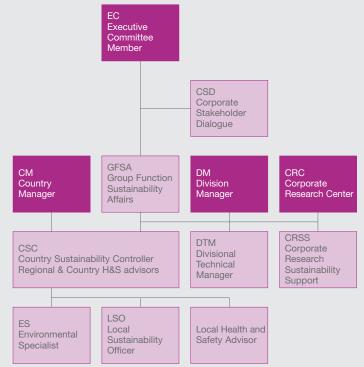
Some 48 country sustainability controllers implement sustainability business plans within 50 countries and regions, covering environmental, social and communication policies and procedures. The plans are first endorsed by the respective country manager before being submitted to the head of ABB's Sustainability 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 have additional environmental specialists to support their environmental management programs.

To ensure the effective implementation of ABB's health and safety strategy, each country and region has a health and safety advisor. These specialists support senior management and work through a network of local occupational health and safety advisors at facility and project site level. Meetings are held regularly, both within and between regions to share health and safety experience.

A sustainability support group within ABB's corporate research organization develops and maintains sustainability tools and training, which cover the Life Cycle Assessment of products and systems, life cycle costs and design tools – with the task of integrating the tools into daily business activities. The group also plays an 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 number of external sustainability partnerships.

#### **ABB's Sustainability Affairs organization**



Country	Sites	Name	Function
Argentina	5	Justo Gonzalez Litardo Juan C. Poma	CSC OHS
Australia New Zealand	33	Peter Kinsey Marian McLean Craig McEwan	CSC OHS OHS
Austria	0	Arnd Schneider	CSC & OHS
Benelux	6	Bart Maes	CSC & OHS
Brazil	7	Carlos-Roberto Hohl Gerson Arra	CSC OHS
Canada	13	Grazyna A. Momot	CSC & OHS
China	24	Vincent Lim Tim-LingYe Li	CSC OHS
Colombia	1	Albert Tibavizco	CSC & OHS
Czech Republic	5	Miroslav Silar	CSC & OHS
Denmark	1	Jan F. Relster	CSC & OHS
Egypt	4	Said Ismail Mohsen William	CSC OHS
Estonia	13	Andres Oja	CSC & OHS
Finland	13	Hannu Rintala	CSC & OHS
France	13	Valérie Rimonteil	CSC & OHS
Germany	21	Klaus Epe Lothar Kinzig	CSC OHS
Greece	1	Andreas Mamalis Caterina Paleorouta	CSC OHS
Hungary	2	Zsolt Horváth	CSC & OHS
India	10	Harmeet Bawa Sanjeev Nagpal	CSC OHS
Indonesia	3	Sofyan Akib	CSC & OHS
Ireland	2	Anthony McFeely	CSC & OHS
Italy	16	Antonio Giacomucci Cesare Guida	CSC OHS
Japan	3	Nobuo Kawakami Takashi Mizuno	CSC OHS
Kuwait	1	Lourdes Machado	CSC & OHS
Latvia	4	Peteris Gals	CSC & OHS
Lithuania	0	Ineta Mensikovaite	CSC & OHS
Malaysia	1	Karel Fuksa Ming-Eng Lee	CSC
Mexico	2	Luis Eduardo Martinez	CSC & OHS

<b>Country sustainability</b>	controllers and	occupational health
and safety advisors		

Peru1Olenka Espinoza Martin AsencioCSC OHSPhilippines3T.J. Ponce Agnes MagpileCSC Agnes MagpileCSC Agnes MagpilePoland5Aleksander Sosnowski Anna SwiernogaCSC OHSPortugal0Joac Oliveira Diogo TeixeiraCSC OHSRomania0Rares LutiaCSC & OHSRussia8Alexander BurovCSC & OHSSaudi Arabia1Khizar Usmani Robert ReberniggCSC OHSSingapore2Emely Tan Dorothy TanCSC OHSSouth Africa5Chesney Bradshaw Marius SnymanCSC OHSSouth Korea1Kyeong-Hee Lee Angel MadridCSC OHSSweden35Gunnel Wisén-Persson Edrick MwendaCSC OHSSwitzerland11Remo Kuery Andreas Merz (BDS)CSC OHSTanzania1Ian Robertson Edrick MwendaCSC OHSThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited Kingdom10Elaine M. Hammick CSC Dazara PerezCSC OHSTotal sites348StateState	Norway	9	Kjell Brandal	CSC & OHS
Agnes MagpileOHSPoland5Aleksander SosnowskiCSCPortugal0Joao OliveiraCSCPortugal0Joao OliveiraCSCBromania0Rares LutiaCSC & OHSRussia8Alexander BurovCSC & OHSSaudi Arabia1Khizar UsmaniCSCSingapore2Emely TanCSCSouth Africa5Chesney BradshawCSCSouth Africa5Chesney BradshawCSCSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCSweden35Gunnel Wisén-PerssonCSCSwitzerland11Remo KueryCSCAndreas Merz (BDS)OHSOHSTanzania1Ian RobertsonCSCThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUAE1Bary FooteCSC & OHSUAE1Bary FooteCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDarryl HillOHSOHSDarryl HillVenezuela1Elvira CovaCSCDarryl HillOHSOHSOHSRate1Elvira CovaCSCDarara PerezOHSOHS </td <td>Peru</td> <td>1</td> <td>•</td> <td></td>	Peru	1	•	
Anna SwiernogaOHSPortugal0Joao OliveiraCSCDiogo TeixeiraOHSRomania0Rares LutiaCSC & OHSRussia8Alexander BurovCSC & OHSSaudi Arabia1Khizar UsmaniCSCSingapore2Emely TanCSCSouth Africa5Chesney BradshawCSCSouth Africa5Chesney BradshawCSCSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCAngel MadridOHSSweden35Sweden35Gunnel Wisén-PerssonCSCAndreas Merz (BDS)OHSOHSTanzania1Pornchai SatheinsepCSC & OHSThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUAE1Elaine M. HammickCSCUAE1Elaine M. HammickCSCUAE1Elaine M. HammickCSCUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDaryl HillOHSOHSOHSOHS0Elvira CovaCSCDarara PerezOHSOHS	Philippines	3		
Diogo TeixeiraOHSRomania0Rares LutiaCSC & OHSRussia8Alexander BurovCSC & OHSSaudi Arabia1Khizar UsmaniCSCSingapore2Emely TanCSCSouth Africa5Chesney BradshawCSCSouth Africa5Chesney BradshawCSCSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCSweden35Gunnel Wisén-PerssonCSCSwitzerland11Remo KueryCSCAndreas Merz (BDS)OHSOHSTanzania1Ian RobertsonCSCThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDazara PerezOHSOHSCSC & OHSUnited States40Elaine M. HammickCSCDazara PerezOHSOHSOHS	Poland	5		
Russia8Alexander BurovCSC & OHSSaudi Arabia1Khizar UsmaniCSCSingapore2Emely TanCSCDorothy TanOHSOHSSouth Africa5Chesney BradshawCSCSouth Africa5Chesney BradshawCSCSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCSweden35Gunnel Wisén-PerssonCSCSwitzerland11Remo KueryCSCAndreas Merz (BDS)OHSOHSTanzania1Ian RobertsonCSCThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDarryl HillOHSOHSOHSVenezuela1Elvira CovaCSC & OHSUnited States40Elaine M. HammickCSCDarara PerezOHSOHSOHSVenezuela1Elvira CovaCSCDarara PerezOHSOHS	Portugal	0		
Saudi Arabia1Khizar Usmani Robert ReberniggCSC OHSSingapore2Emely Tan Dorothy TanCSC OHSSouth Africa5Chesney Bradshaw Marius SnymanCSC OHSSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José Vera Angel MadridCSC OHSSweden35Gunnel Wisén-Persson Lena WesterholmCSC Andreas Merz (BDS)Switzerland11Remo Kuery Andreas Merz (BDS)CSC OHSTanzania1Ian Robertson Edrick MwendaCSC OHSThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova CSC & OHSCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova CSC CSC Dazara PerezCSC OHS	Romania	0	Rares Lutia	CSC & OHS
Robert ReberniggOHSSingapore2Emely TanCSCDorothy TanOHSSouth Africa5Chesney BradshawCSCSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCSweden35Gunnel Wisén-PerssonCSCSwitzerland11Remo KueryCSCAndreas Merz (BDS)OHSSmitzerland1Ian RobertsonCSCTanzania1Ian RobertsonCSCThailand1Pornchai SatheinsepCSC & OHSUAE1Gary FooteCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDazara PerezOHSOHSOHSVenezuela1Elvira CovaCSCObernol0OHSOHSObernol0OHSOHSObernol10OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHSOHSObernol0OHS <t< td=""><td>Russia</td><td>8</td><td>Alexander Burov</td><td>CSC &amp; OHS</td></t<>	Russia	8	Alexander Burov	CSC & OHS
Dorothy TanOHSSouth Africa5Chesney Bradshaw Marius SnymanCSC Marius SnymanSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José Vera Angel MadridCSC Angel MadridSweden35Gunnel Wisén-Persson Lena WesterholmCSC OHSSwitzerland11Remo Kuery Andreas Merz (BDS)CSC OHSTanzania1Ian Robertson Edrick MwendaCSC & OHSThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden Turktan Levent BaserCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova CSC CSC Dazara PerezCSC OHS	Saudi Arabia	1		
Marius SnymanOHSSouth Korea1Kyeong-Hee LeeCSC & OHSSpain7José VeraCSCSweden35Gunnel Wisén-PerssonCSCSwitzerland11Remo KueryCSCAndreas Merz (BDS)OHSSmitzerland1Ian RobertsonCSCTanzania1Ian RobertsonCSCThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden TurktanCSCUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDarryl HillOHSOHSOHSVenezuela1Elvira CovaCSCCoreDazara PerezOHSOHSCoreOHS	Singapore	2		
Spain7José Vera Angel MadridCSC Angel MadridSweden35Gunnel Wisén-Persson Lena WesterholmCSC OHSSwitzerland11Remo Kuery Andreas Merz (BDS)CSC OHSTanzania1Ian Robertson Edrick MwendaCSC OHSThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden Turktan Levent BaserCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova CSC QHSCSC CSC QHS	South Africa	5		
Angel MadridOHSSweden35Gunnel Wisén-PerssonCSCLena WesterholmOHSSwitzerland11Remo Kuery Andreas Merz (BDS)CSCTanzania1Ian Robertson Edrick MwendaCSCThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden Turktan Levent BaserCSC & OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova CSC CSC Dazara PerezCSC OHS	South Korea	1	Kyeong-Hee Lee	CSC & OHS
Lena WesterholmOHSSwitzerland11Remo Kuery Andreas Merz (BDS)CSC OHSTanzania1Ian Robertson Edrick MwendaCSC OHSThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden Turktan Levent BaserCSC OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova OHSCSC OHS	Spain	7		
Andreas Merz (BDS)OHSTanzania1Ian RobertsonCSCEdrick MwendaOHSOHSThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden TurktanCSCLevent BaserOHSOHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. HammickCSCDarryl HillOHSOHSVenezuela1Elvira CovaCSCDazara PerezOHSOHS	Sweden	35		
Edrick MwendaOHSThailand1Pornchai SatheinsepCSC & OHSTurkey2Gulden Turktan Levent BaserCSC OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova Dazara PerezCSC	Switzerland	11		
Turkey2Gulden Turktan Levent BaserCSC OHSUAE1Gary FooteCSC & OHSUnited Kingdom10John WatsonCSC & OHSUnited States40Elaine M. Hammick Darryl HillCSC OHSVenezuela1Elvira Cova Dazara PerezCSC OHS	Tanzania	1		
Levent Baser     OHS       UAE     1     Gary Foote     CSC & OHS       United Kingdom     10     John Watson     CSC & OHS       United States     40     Elaine M. Hammick     CSC       Darryl Hill     OHS     OHS       Venezuela     1     Elvira Cova     CSC       Dazara Perez     OHS     OHS	Thailand	1	Pornchai Satheinsep	CSC & OHS
United Kingdom         10         John Watson         CSC & OHS           United States         40         Elaine M. Hammick         CSC           Darryl Hill         OHS         OHS         OHS           Venezuela         1         Elvira Cova         CSC           Dazara Perez         OHS         OHS         OHS	Turkey	2		
United States         40         Elaine M. Hammick         CSC           Darryl Hill         OHS           Venezuela         1         Elvira Cova         CSC           Dazara Perez         OHS	UAE	1	Gary Foote	CSC & OHS
Darryl Hill         OHS           Venezuela         1         Elvira Cova         CSC           Dazara Perez         OHS	United Kingdom	10	John Watson	CSC & OHS
Dazara Perez OHS	United States	40		
Total sites 348	Venezuela	1		
	Total sites	348		

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

#### **Environmental specialists**

Country	Name
Argentina	Leandro Doglio
Australia	Jaroslav Kovar
Brazil	Manoel Siqueira
China	ShiWen Zheng
Colombia	Paula Mesa
Finland	Roope Jokela
Germany	Lothar Kinzig
Hong Kong	Barry Kam
India	S. Ramamoorthy
Ireland	David Maguire
Italy	Gianluca Donato
Malaysia	Chung-Seng Lee
Mexico	Gabriela Salas
Norway	Kirsten Knudsen
Poland	Jolanta Szczepaniak
Singapore	SoonHeng Chua
Spain	Laurent Menard
Switzerland	Jakob Weber
Thailand	Sutthi Sangarunsiri
Turkey	Levent Baser
UAE	Liis Metusala
United States	Clair Claiborne

# Position statements

#### ABB's position on climate change and global warming

The United Nations Intergovernmental Panel on Climate Change presents increasingly convincing evidence that manmade emissions of greenhouse gases – mainly carbon dioxide  $(CO_2)$  – are influencing global climate.

ABB shares the concern about global warming and is committed to the pursuit of emission reductions. We support the Kyoto Protocol and other national and international efforts to lower greenhouse gas emissions and stabilize global temperatures. ABB takes part in the Gleneagles Dialogue on Climate Change, which aims at shaping constructive policy recommendations, in particular for post-2012 commitments.

While recognizing that reshaping the world's energy supply sources will take time, ABB believes that other actions to cut greenhouse gas emissions can already be taken now: For example, pursuing energy savings and energy efficiency throughout the value chain from suppliers to end-users of energy will have an immediate beneficial impact on emissions.

#### **Our contribution**

In 1999, ABB set a target to reduce our own greenhouse gas emissions by one percent per year over the following five years. We accomplished this through a large number of improvement projects throughout ABB. In 2006, we set a new target to reduce the use of energy per output unit by five percent over a two-year period. The Executive Committee also 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 its products. For example, our advanced industrial information technology for the control and optimization of integrated systems, electrical power grids, buildings and industrial processes saves energy and reduces emissions.

The interconnection of power systems with high-voltage direct current (HVDC and HVDC Light) technology makes large savings through a more even distribution of loads and a more efficient use of primary energy resources, thereby reducing  $CO_2$  emissions. It also enables large-scale integration of renewable energy into the power grids.

ABB's high-efficiency motors and variable-speed drives for motors contribute to large emission reductions. ABB drives installed worldwide save some 115 million megawatt-hours of energy per year, corresponding to an ongoing reduction of  $CO_2$  emissions of 97 million tons each and every year.

ABB's products are designed to give optimal performance 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 lower greenhouse gas emissions – particularly over long operating lifetimes.

#### ABB's position on sulfur hexafluoride (SF<sub>6</sub>)

Sulfur hexafluoride (SF<sub>6</sub>) 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 in some countries. It is one of the most potent greenhouse gases listed in the Kyoto Protocol.

Compared to 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 22,200 times greater than carbon dioxide,  $SF_6$  probably accounts for about 0.1 percent of man's contribution to the greenhouse effect.

 $SF_6$  requires controlled handling. Accidental releases of  $SF_6$  due to mishaps during manufacturing, installation, maintenance and decommissioning are a greater concern than leaks.

#### **Our contribution**

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 systems sealed for life that require no gas handling.

Our current closed systems guarantee a maximum leakage rate of 0.5 percent per year, which is 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.

To minimize emissions, 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 the 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. We also have ongoing research programs into alternatives to  ${\rm SF}_6$ , and we make  ${\rm SF}_6$ -free products available whenever feasible.

# Summary of main performance indicators

GRI Ref.	Indicator description			
Environmental		2006	2005	2004
EN1	Materials		40	
	Phthalates (tons)	42	<u> </u>	1.7
	Brominated flame retardants (tons)	3.1	-	<u> </u>
	Lead in submarine cables (tons) Lead in other products (tons), e.g. counterweights in robots	6,900 222	4,306 316	2,810
	Cadmium in industrial batteries (tons)	222	26	69
	Cadmium in rechargeable batteries (tons)	4	20	1.9
	Cadmium in lead alloy (tons)	5	3	2
	Mercury in products (tons)	0.009	0.014	0.020
	$SF_6$ insulation gas (inflow to ABB facilities) (tons)	815	481	388
	$SF_6$ insulation gas (outflow to customers) (tons)	596	441	353
	No. of transformers with PCB oil in ABB facilities	14	21	17
	No. of capacitors with PCB oil in ABB facilities	2,145	2,837	2,369
	Mercury in instruments in ABB facilities (kg)	366	129	62
EN3	Direct energy consumption (Gigawatt-hours – GWh)			
	Oil (11.63 MWh/ton)	117	134	126
	Coal (7.56 MWh/ton)	8	8	17
	Gas	435	460	417
	District heat	239*	217	256
	Electricity	1,265*	1,304	1,212
	Total direct energy used	2,064	2,123	2,028
	Megawatt-hours (MWh) per employee	19	20	20
EN4	Indirect energy consumption (Gigawatt-hours – GWh)			
	District heat (total including losses at utilities)	275	249	294
	Electricity (total including losses at utilities)	3,012	3,105	2,886
EN8	Water withdrawal (kilotons)			
	Purchased from water companies	3,431**	3,432	3,200
	Groundwater extracted by ABB***	2,700	2,500	2,500
	Surface water extracted by ABB***	2,500	1,700	1,000
	Total water consumption	8,631	7,632	6,700
EN16	Direct and indirect greenhouse gas emissions (kilotons)			
	CO <sub>2</sub> from use of energy	833	870	824
	SF <sub>6</sub> (in CO <sub>2</sub> equivalents)	558	295	253
	CO <sub>2</sub> from transport by own fleet	350	350	350

### GRI Ref.

### Indicator description

				2004
EN19	Emissions of ozone-depleting substances (tons)			
	Volatile organic substances VOC	992	981	861
	Volatile organic substances VOC-CI	29	13.5	22
EN20	Emissions of NOx and SOx (tons SO <sub>2</sub> and NO <sub>2</sub> )			
	SOx from burning coal	6	6	12
	SOx from burning oil	86	97	92
	NOx from burning coal	4	4	(
	NOx from burning oil	65	73	69
	NOx from burning gas	89	99	90
N21	Discharge of process water (percentage of ABB plants)			
	Discharge to public sewer	75	75	75
	Discharge to water sources	25	25	25
N22	Waste (tons)	444.074	05 4 04	70.00
	Waste sent for recycling	111,674	85,131	70,29
	General waste sent for disposal	30,994****	28,514	
	Hazardous waste	4,296	5,775	3,719
N23	Significant spills			
	Total number of spills	4	18	1:
N27	Products and services			
	Percentage of reclaimable material in products	90	90	90
Social		2006	2005	200
Jocial		2006	2005	200
A1	Employment			
	Total workforce by region (ABB employees)			
	Europe	60,688	58,240	60,000
	The Americas	18,653	18,720	16,50
	Asia	22,321	18,720	16,500
	Middle East and Africa	6,498	8,320	9,50
	Total	108,160	104,000	102,50
	Total numbers of part-time employees included above			
	Europe	2,786	2,200	2,600
	The Americas	60	190	130
	Asia	76	190	14(
	Middle East and Africa	111	48	130
	Total	3,033	2,628	3,000

#### GRI Ref.

### Indicator description

# LA2

Social		2006	2005	2004
LA2	Employee turnover			
	Turnover of all employees, including part-time (percentage)			
	Europe	6.9	_	_
	The Americas	10.8	_	_
	Asia	8.9	_	_
	Middle East and Africa	5.8	_	_
	Total turnover for whole Group	7.9	_	_
	Turnover of all female employees, including part-time (actual numbers)			
		1,147	_	_
	The Americas	315	_	_
	Asia	391	_	_
	Middle East and Africa	43	_	_
	Total turnover for whole Group	1.896	_	_
		1,000		
LA7	Occupational health and safety			
	Fatalities, injuries, lost days, diseases			
	Employee work-related fatalities	5	4	5
	Incident rate	0.05	0.04	0.05
	Employee work-related serious injuries	15	18	13
	Incident rate	0.15	0.17	0.13
	Employee security and crime-related fatalities	0.15	0.17	6
	Incident rate	0	0	0.06
	Employee security and crime-related serious injuries	0	0	1
	Incident rate	0	0	0.01
		3	5	
	Employee commuting/business travel fatalities			2
	Incident rate	0.03	0.05	0.02
	Employee commuting/business travel serious injuries	2	9	8
	Incident rate	0.02	0.09	0.08
	Contractor work-related fatalities	6	7	5
	Contractor work-related serious injuries	6	18	13
	Employee lost-days due to industrial incidents	22,076	25,750	27,762
	Employee occupational health diseases	117	162	384
1.4.40	Training and a location			
LA10	Training and education			
	Training per year per employee (average hours)	45		
	Benelux	15	-	
	Egypt	2	_	
	Finland	25	_	_
	Italy	10	-	-
	Japan	20	_	_
	Singapore	15	-	_
	South Africa	16	-	-
	South Korea	20		
	Spain	21		
	UAE	19	_	
	U.S.	20	-	-
	Venezuela	5	-	-

### GRI Ref.

Indicator description

Social		2006	2005	2004
LA13	Diversity and equal opportunity			
	Women in senior management (percentage)			
	Benelux	12	-	_
	Egypt	2	-	_
	Finland	12	_	_
	Italy	4	_	
	Japan	0	_	_
	Singapore	17	_	_
	South Africa	15	_	
	South Korea	2	_	
	Spain	1	_	_
	UAE	25	_	
	U.S.	2		
	Venezuela	4		
	Venezueia	*	_	
1104	New discrimination			
HR4	Non-discrimination	0		
	Total number of incidents of discrimination	0	-	
	Public policy			
SO6	Financial and in-kind political contributions	0	_	
PR2	Customer health and safety			
	Number of non-compliance incidents of products/services	0	-	
*	The figures are based on reported data from 83 percent of employees			
	and an assumed energy use of 3 MWh/employee for district heat and			
	12 MWh/employee for electricity for the remaining 17 percent of			
	employees.			
**	The figures are based on reported data from 83 percent of employees			
	and an assumed water consumption of ten tons/year/employee for the			
	remaining 17 percent of employees.			
***	Estimated (rounded) figures			
****				
****	The figures are based on reported data from 83 percent of employees			
	and an assumed waste output of 0.28 tons/year/employee for the			
	remaining 17 percent of employees.			

## Independent verification statement

DET NORSKE VERITAS

#### INDEPENDENT VERIFICATION STATEMENT 2006

#### Scope and method of Work

Det Norske Veritas AS has been engaged to verify the environmental and social performance indicators presented in the table on pages 58 - 61 in the Sustainability review of the ABB Group Annual Report 2006, (the 'Table'). The scope and process for this work is that agreed upon with ABB Group Sustainability Affairs. The verification was conducted in February 2007.

As part of the verification process we have:

- Interviewed two people in ABB Group Sustainability Affairs with responsibility for collecting, aggregating and presenting the data in this review
- Conducted telephone interviews with nine local sustainability officers to assess the validity of the environmental indicators reported
- Visited five country sustainability controllers (in Estonia, Germany, Singapore, Spain and UAE) to asses the validity of the social indicators reported
- Reviewed documents and information in the database made available to us in connection with the above interviews

The verification was limited to assess the quantitative indicators for 2006 reported in the review. For the environmental indicators, special focus was given to energy use, waste production, and to  $SF_{\alpha}$  and VOC emissions.

#### Conclusions

ABB has presented a selection of the Global Reporting Initiative (GRI-2006) social and environmental indicators. The 20 indicators presented in the Table cover data for the last three years in a consistent way. For six indicators, only data for 2006 are presented.

In our opinion, ABB has a well-established web-based internal reporting system, which has been continually improved during recent years.

During the interviews some errors were discovered in the reports. However, none of these were systematic. The errors were immediately corrected, and the Table that is presented includes the updated numbers.

ABB should continue its focus on improving Group-wide understanding of how certain environmental and social indicators should be interpreted and reported.

During our investigations, nothing has come to our attention that causes us to believe that the numbers presented in the Table do not give a reasonable representation of ABB's sustainability indicators in 2006.

Høvik, Norway, 20th February 2007

Magne Tørhaug Director of Operations

**DNV Energy** 

Jon Jene Projecte Project manager

Head Office: Verilasvn. 1, N-1322 HOVIK, Norway

ABB Sustainability review 2006



Vacianmian 1 1322 Havia, Narway Tat. +47 67 57 90 00 Fas: +47 67 57 99 11 http://www.das.com Org.No: NO 945 748 811 MVA

DET NORSKE VERITAS AS DNV Energy

# 3.12 GRI content index table

GRI Ref.	Description	Location
	Decemption	Looation
1.	Strategy and analysis	
1.1	CEO's letter	pages 2-3
1.2	Contributing to a better world	pages 4-5
1.2	Contributing to a bottor world	
2.1-2.10	Organizational profile	page 47-49
		10.50
3.1-3.13	Report parameters	page 49-50
4.1-4.10	Governance	www.abb.com/sustainability
4.11-4.13	Commitments to external initiatives	pages 50-51
4.11-4.13	Details of association memberships	www.abb.com/sustainability
4 1 4 4 17		
4.14-4.17	Stakeholder engagement	pages 34-35
5.	Management approach	
	ABB's sustainability policies	pages 40-42
	Economic performance indicators	
	EC1	inside front cover
	EC2	page 13
	EC6	page 33
	Environmental performance indicators	
	Environmental performance indicators	page 9
	EN16-18, EN29	page 13
	EN1-2, EN8, EN19-20, EN22-23, EN28	page 17
	EN26-27,	page 21
	EN11-12, EN21	page 51
	Social performance indicators	54.50
	LA1-2, LA4-5, LA14, HR1, HR5-7, SO1, SO8, PR9	page 51-52
	LA6-9	page 25
	LA10, LA12-13, HR4, HR8-9, SO2-6	page 29
	HR2	page 33
	PR1-3, PR5-6	page 21
	Other GRI performance indicators	www.abb.com/sustainability



#### ABB Ltd

Corporate Communications P.O.Box 8131 CH-8050 Zurich Switzerland Tel: +41 (0)43 317 7111 Fax: +41 (0)43 317 7958

#### ABB Ltd

Sustainability Affairs P.O.Box 8131 CH-8050 Zurich Switzerland Tel: +41 (0)43 317 7111 Fax: +41 (0)44 317 6550

www.abb.com