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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16  
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of May, 2005  
Commission File Number 001-16429

PROCESSED

MAY 16 2005 E

ABB Ltd

(Translation of registrant's name into English)

THOMSON  
FINANCIAL

P.O. Box 1831, Affolternstrasse 44, CH-8050, Zurich, Switzerland

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

**Note:** Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indication by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

**Note:** Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes

No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):  
82-\_\_\_\_\_



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Handwritten note: P/E, 5-1-05

This Form 6-K consists of the following exhibits attached hereto:

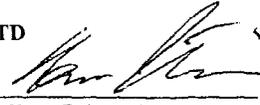
<b>Exhibit</b>	<b>Description</b>
99.1	Annual Report (Operational Review) to shareholders of ABB Ltd for fiscal year 2004.
99.2	Annual Report (Financial Review) to shareholders of ABB Ltd for fiscal year 2004.
99.3	Annual Report (Financial Summary) to shareholders of ABB Ltd for fiscal year 2004.
99.4	Annual Report (Sustainability Review) to shareholders of ABB Ltd for fiscal year 2004

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: May 10, 2005

**ABB LTD**

By:   
Name: Hans Enhoerning  
Title: Group Vice President and  
Assistant General Counsel

By:   
Name: Richard A. Brown  
Title: Group Vice President and  
Assistant General Counsel

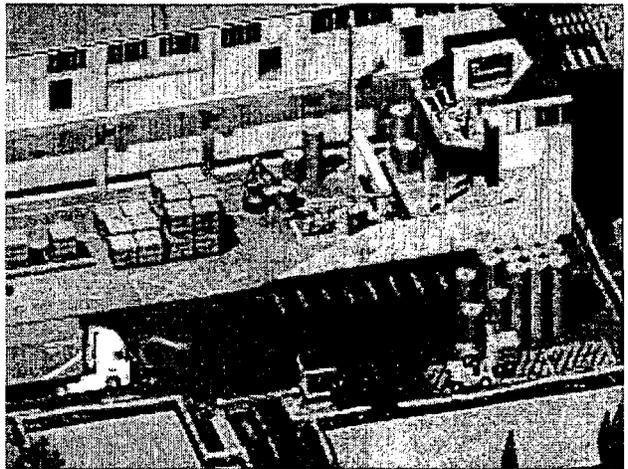
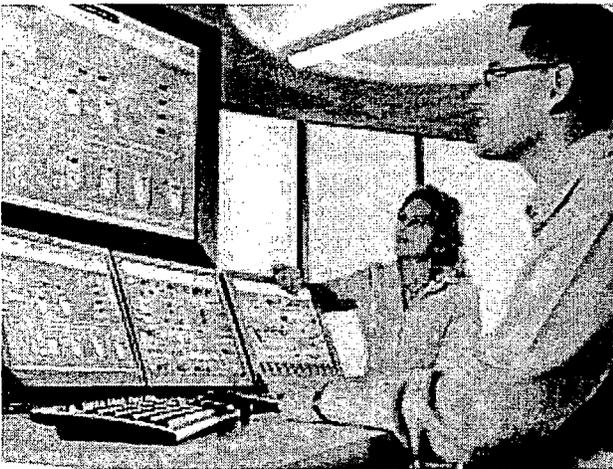
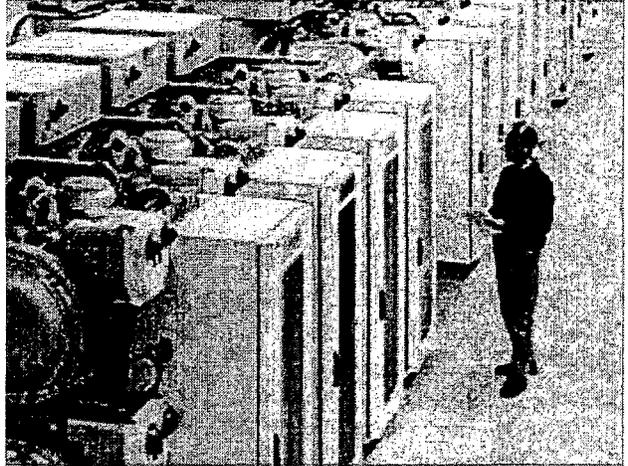
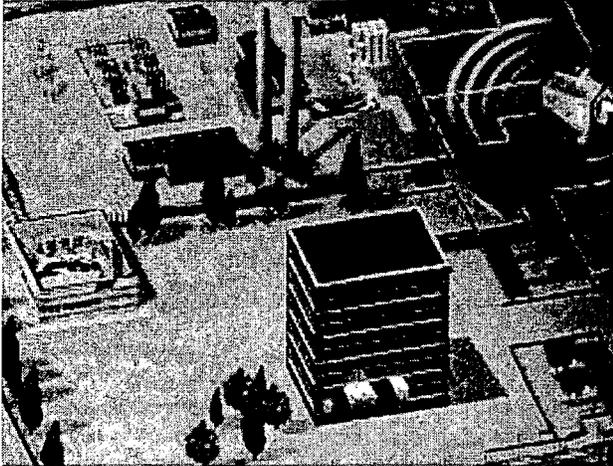
## EXHIBIT LIST

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**EXHIBIT 99.1**

# ABB Annual Report 2004

## Operational review



Improving power supply  
Increasing industrial productivity

# ABB

## Welcome to ABB

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

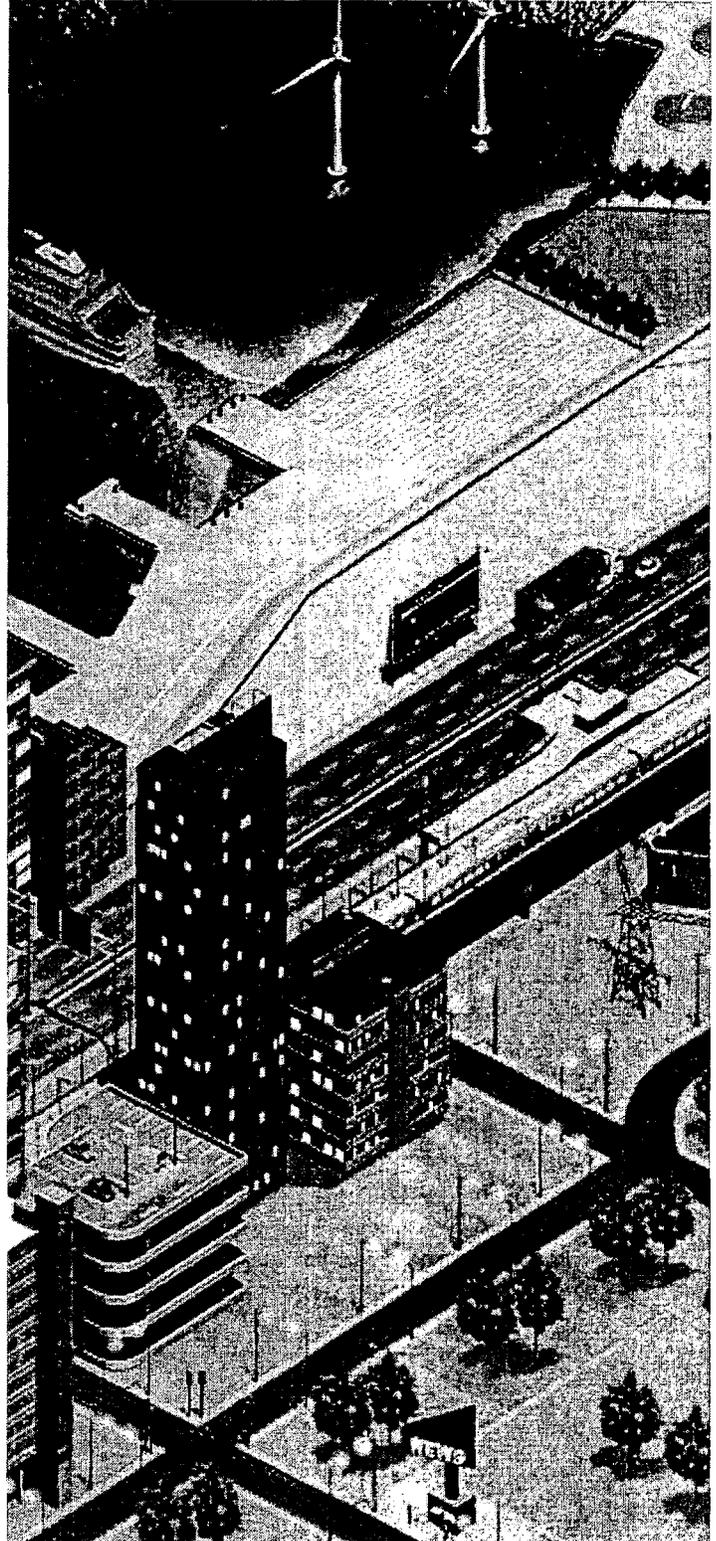
ABB offers a vast array of products, systems, solutions and services that help customers improve power grid reliability and raise industrial productivity. Every day, ABB manufactures and ships hundreds of thousands of products, ranging from tiny low-voltage switches and drives to huge transformers weighing more than 1,000 tons.

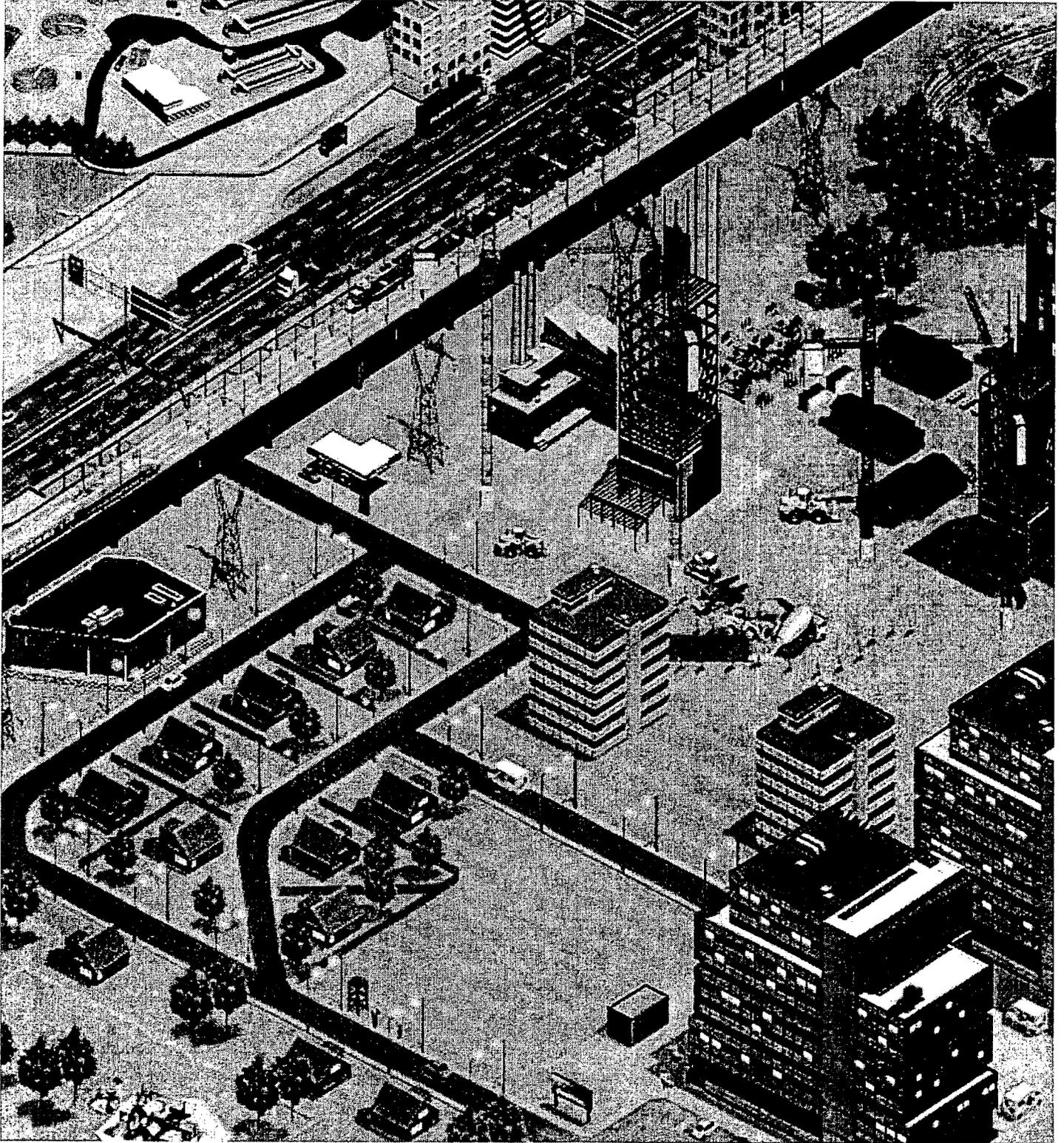
The list includes the transformers, breakers, substations and technology needed to transmit and distribute power from where it is generated to the factory, building or home where it is used. And it includes the automation technologies to improve performance in factories, to operate robots that paint and assemble cars, and the drives that regulate air conditioning and move airport conveyor belts.

On the right is a representation of how ABB's products, systems and solutions are involved in many industries and affect our everyday lives.

### Industries we serve

- Automotive
- Cement, minerals and mining
- Chemical industries
- Commercial and industrial buildings
- Consumer industries
- Electric utilities
- Foundry
- Gas utilities
- Life sciences
- Logistic systems
- Marine and turbocharging
- Metals and foundry
- Oil and gas
- Petrochemicals
- Pharmaceuticals
- Power generation
- Printing
- Pulp and paper
- Railway
- Refining
- System integrators
- Tele and data communication
- Water utilities





**Caution concerning forward-looking statements**

The ABB Annual Report 2004 includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. In the Operational review, such statements are included in the sections entitled "Letter to shareholders", "Power Technologies", "Automation Technologies" and "People". In the Financial review, such statements are included in the section entitled "Management discussion and analysis". We have based these forward-looking statements largely on current expectations, estimates and projections about future events, financial trends and economic conditions affecting our business. The words "believe", "may", "will", "estimate", "continue", "target", "anticipate", "intend", "expect" and similar words and the express or implied discussion of strategy, plans or intentions are intended to identify forward-looking statements. These forward-looking statements are subject to risks, uncertainties and assumptions, including among other things, the following: (i) the difficulty of forecasting future market and economic conditions; (ii) the effects of, and changes in, laws, regulations, governmental policies, taxation, or accounting standards and practices; (iii) our ability to dispose of certain of our non-core businesses on terms and conditions acceptable to us; (iv) our ability to further reduce our indebtedness as planned; (v) the terms and conditions on which asbestos claims can be resolved; (vi) the effects

of competition and changes in economic and market conditions in the product markets and geographic areas in which we operate; (vii) our ability to anticipate and react to technological change and evolving industry standards in the markets in which we operate; (viii) the timely development of new products, technologies, and services that are useful for our customers; (ix) unanticipated cyclical downturns in the industries that we serve; (x) the risks inherent in large, long-term projects served by parts of our business; (xi) the difficulties encountered in operating in emerging markets; (xii) the amount of revenues we are able to generate from backlog and orders received; (xiii) changes in interest rates and fluctuations in currency exchange rates and (xiv) other factors described in documents that we may furnish from time to time with the U.S. Securities and Exchange Commission, including our Annual Reports on Form 20-F. Although we believe that the expectations reflected in any such forward-looking statements are based on reasonable assumptions, we can give no assurance that they will be achieved. We undertake no obligation to update publicly or revise any forward-looking statements because of new information, future events or otherwise. In light of these risks and uncertainties, the forward-looking information, events and circumstances might not occur. Our actual results and performance could differ substantially from those anticipated in our forward-looking statements.

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# Key figures and highlights

## Core businesses post strong results

### 2004 highlights

- March 2005 asbestos agreement turns net profit of \$201 million into \$35 million loss
- Earnings before interest and taxes (EBIT) tripled compared to 2003; EBIT margin sharply higher
- Core Power Technologies and Automation Technologies divisions post double-digit order and revenue growth
- Further divestments, including upstream oil, gas and petrochemicals business, as part of program to sell non-core activities
- Step change business improvement program cuts group's cost base by more than \$1 billion
- Total debt reduced to \$5.5 billion from \$7.9 billion at end of 2003

### Targets for 2005\*

- Revenues: 4 percent compound average growth in local currencies 2002–2005
- Group EBIT margin of 7.7 percent in U.S. dollars (revised from 8 percent to reflect reclassification of remaining oil, gas and petrochemicals business to continuing operations from discontinued operations where it had no impact on revenues or EBIT)
- Divisional EBIT margins: Power Technologies 10 percent, Automation Technologies 10.7 percent
- Gearing ratio (total debt divided by total debt plus equity, including minority interest): 50 percent

\* Revenues and margin targets exclude major acquisitions, divestments and business closures.

### Group\*

Revenues (2003 \$20,427m)

**\$20,721m**

EBIT (2003 \$357m)

**\$1,084m**

Net loss (2003 net loss \$779m)

**\$35m\*\***

\* 2003 figures adjusted to reflect the reclassification of the remaining oil, gas, and petrochemicals business from discontinued operations to continuing operations and certain other businesses from continuing operations to discontinued operations in 2004.

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

## Total ABB Group\*

Year ended December 31 (U.S. dollar amounts in millions except per share and % data)

	2004	2003
Orders received	21,689	19,701
Revenues	20,721	20,427
Earnings before interest and taxes (EBIT)	1,084	357
Loss from discontinued operations	(483)	(408)
Net loss	(35)	(779)
Stockholders' equity	2,824	2,917
Capital expenditure, excluding purchased intangible assets	400	402
Research and development expenditure	690	635
Order-related development expenditure	727	866
EBIT margin	5.2%	1.7%
Return on equity	(1.2%)	(40.5%)
Net cash flow from operating activities	962	(173)
Number of employees	102,537	116,464

### Basic earnings (loss) per share

Income (loss) from continuing operations	0.22	(0.30)
Net loss	(0.02)	(0.64)

### Diluted earnings (loss) per share

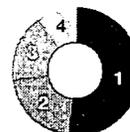
Income (loss) from continuing operations	0.22	(0.30)
Net loss	(0.02)	(0.64)

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## Revenues by region

(in percentages)

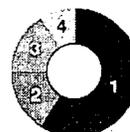
- 1 Europe 52%
- 2 Asia 21%
- 3 The Americas 17%
- 4 Middle East and Africa 10%



## Employees by region

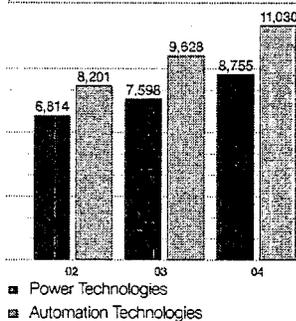
(in percentages)

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



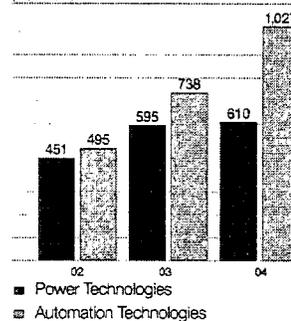
## Core division revenues

(in \$ millions)



## Core division EBIT

(in \$ millions)



# ABB at a glance

## Streamlining operations to strengthen business

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## ABB Group

The ABB Group further streamlined its business operations in 2004 to drive operational excellence and cost competitiveness, to make it simpler to do business with ABB and to better serve our customers.

The Power Technologies division announced organizational changes, which took effect on January 1, 2005. Similar streamlining measures announced by the Automation Technologies division during 2003 took effect at the start of 2004. The Power Technologies division has reduced its five business areas to two, grouping them around power technology products and power technology systems. In this section, we report under the 2004 structure.

From the start of 2004, the Automation Technologies division concentrated its operations in three rather than six business areas: automation products, process automation, and manufacturing automation.

The two core divisions serve many of the same industries and businesses with their products and systems. They include electric, gas and water utilities, automotive, chemical and pharmaceutical, metals, minerals and mining, power generation, cement, commercial and industrial buildings, pulp and paper, oil and gas, refining, railways, petrochemicals, marine and turbocharging, telecommunications and data communication.

ABB finalized the sale of the upstream part of the oil, gas and petrochemicals business in mid-2004.

The downstream oil, gas and petrochemicals business (ABB Lummus Global) is scheduled for divestment. Between 2002 and 2004, it was reported under Discontinued operations, which do not contribute to ABB's revenues and earnings before interest and taxes (EBIT), but are used in the calculation of net income. It was moved in 2004 into continuing operations and is listed as a non-core activity.

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## Power Technologies

Division head: Peter Smits

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

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## Automation Technologies

Division head: Dinesh Paliwal

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

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## Other activities

### Transformers

The Transformers business area is the world's leading supplier of transformers offering a full product range – from single-phase transformers to small, medium and large distribution transformers, reactors, traction, phase-shifting, converter and extra high-voltage transformers.

### Medium-Voltage Products

ABB is the recognized market leader in medium-voltage products. The Medium-Voltage Products business area develops, manufactures and sells a wide range of circuit breakers,

switchgear and compact secondary substations, as well as a variety of indoor and outdoor distribution products.

### High-Voltage Products

The portfolio of the High-Voltage Products business area includes high-voltage switchgear, breakers, high-current systems, components and cables. ABB is the global leader in high-voltage technology.

### Power Systems

ABB is the market leader in Power Systems and the industry benchmark for technology and quality. Transmission and distribution substations are key areas.

Additional highlights include flexible alternating current transmission systems (FACTS) and high-voltage direct current (HVDC) systems.

### Utility Automation

Utility Automation, with its system engineering expertise, is a technology leader in a growing market. The activities range from management systems for transmission and distribution grids to substation automation products and systems, and the instrumentation, control and electrification of power plants.



ABB's vacuum interrupters, produced in clean room environments, ensure the reliability of power distribution systems.

The Power Technologies division merged its five business areas into two, Power Technology Products and Power Technology Systems, as of January 1, 2005.

To find out more visit:  
[www.abb.com/ptd](http://www.abb.com/ptd)

### Automation Products

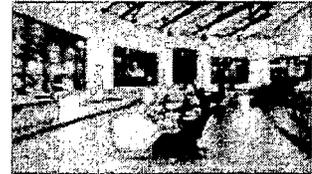
This business area serves customers with the "building blocks" to improve plant performance, including motors, drives, instrumentation, low-voltage devices and power electronics. More than one million products are shipped daily to end customers and channel partners.

### Process Automation

The main focus of this business area is to provide customers with solutions for control, plant optimization, and industry-specific application knowledge. The industries served include oil and gas, power, chemicals and life sciences, pulp and paper, metals and minerals, and marine.

### Manufacturing Automation

This business area provides robots, related equipment and modular manufacturing cells for tasks such as assembly, finishing and machine tending. Key markets include automotive, foundry, packaging and material handling.



Increasing industrial productivity: ABB's automation solutions monitor, control and optimize industrial processes – in this case raising the quality and productivity at a steel plant.

To find out more visit:  
[www.abb.com/atd](http://www.abb.com/atd)

### Non-core activities

- Oil, Gas and Petrochemicals (Downstream)
- Equity Ventures
- Building Systems
- New Ventures

### Corporate

- Headquarters/stewardship
- Research and Development

The downstream oil, gas and petrochemicals business – ABB Lummus Global – was reclassified as a non-core activity from Discontinued operations in 2004.

# Letter to shareholders



Jürgen Dormann, Chairman and CEO

Dear shareholders,

For ABB, 2004 was a year of steady progress – a milestone in our turnaround. We improved our operational performance, strengthened our finances and set ABB back on a path of profitable organic growth.

We maintained the pace of innovation in our offerings, introducing new products, systems, solutions and services to help our utility customers improve power grid reliability and our industry customers increase productivity.

Our spending on research and development was more than \$1.4 billion in 2004, an investment that will safeguard such innovation in the future.

ABB's recovery is also evident in our three biggest markets. In the US, we continued to reduce our losses in 2004, and anticipate further improvement in 2005. We have already achieved a turnaround in Germany, and in 2004 we announced ambitious new plans for China – to double orders and revenues there by 2008.

Our manufacturing is expanding in high growth countries like India and China. Today, regardless of where ABB products are made, their functionality, quality and

reliability must be the same. That is why we say our offerings are "Made in ABB."

Looking at the results, we announced in mid-February 2005 that ABB had achieved net income in 2004 of \$201 million, an improvement of nearly \$1 billion on the previous year.

A few weeks after announcing the results, we reached an agreement with certain representatives of asbestos claimants and that will form the basis for amended plans of reorganization for our U.S. subsidiary, Combustion Engineering, and ABB Lummus Global to resolve the asbestos claims against both companies.

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

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

Our cash flow from operating activities improved by more than \$1 billion. Group earnings before interest and taxes (EBIT) tripled to more than \$1 billion in 2004, and our EBIT margin increased to 5.2 percent from 1.7 percent.

The Power Technologies and Automation Technologies divisions posted double-digit growth in orders and their revenues grew 15 percent in dollar terms.

During the year, we concluded the 18-month Step change business improvement program, cutting our annual cost base by more than \$1 billion.

ABB's balance sheet is now considerably stronger. The proceeds of our ongoing strategic divestment program have reduced total debt by \$2.4 billion in 2004, bringing it down to \$5.5 billion. Net debt was \$1.3 billion, down from \$2.7 billion at the end of 2003.

Looking at 2005, we are committed to our group EBIT margin target of 7.7 percent.

But amid the progress, challenges remain for ABB.

Court approval of the asbestos agreement would remove one major challenge.

Our health and safety performance is also a key challenge. Every incident is a setback, and standards must improve. To heighten awareness and effectively address the issue, we have begun a program to train ABB managers around the world.

Even when we take all available precautions, tragedies can occur. In May, we were sadly reminded of today's political fragility, when six ABB people died in a terrorist attack on a customer compound in Saudi Arabia.

The solidarity shown throughout our worldwide group after this attack highlighted, once again, the strong spirit of ABB.

Our 100,000 employees, guided by this spirit, are the foundation for further success. On behalf of the board of directors, I thank them for their dedication in 2004 – and congratulate them on the results. With our new employee share program, which will be expanded after

its introduction in 11 countries in 2004, our people can now more directly participate in ABB's achievements.

ABB has turned the corner.

Going forward, the company has a strong executive committee to keep the spirit of ABB vibrant, and develop the business further in the years ahead.

After a four-month period with ABB at the end of 2004, Fred Kindle took over as President and Chief Executive Officer from me in a smooth transition at the start of 2005.

Peter Voser, who as Chief Financial Officer, played a significant role in rescuing ABB and restoring our competitiveness, left during the year for Shell. We are grateful for his contributions and wish him success in his new role.

Peter Voser was succeeded by Michel Demaré, who joined ABB at the beginning of 2005.

The company is now in good health.

We have the right focus, the right leadership and committed people at all levels around the world. That is the foundation for ABB's continued contribution – as an employer, business partner and neighbor – to economic, environmental and societal progress.

Sincerely,



**Jürgen Dormann**  
Chairman and CEO, ABB Ltd



**Gary Steel**

Head of Human Resources

British citizen, 52, joined ABB in January 2003. He has a stewardship role for North, Central and Southeast Asia and the Pacific, the U.K. and Ireland. He is chairman of the ABB Lummus Global supervisory board.

**Dinesh Paliwal**

Head of Automation Technologies division

United States citizen, 47, joined ABB in 1985 and became a member of the executive committee in January 2001. He has a stewardship role for India, the Americas and sub-Saharan Africa. He is country manager for ABB in the U.S. and head of group operations in North America.

**Fred Kindle**

President and CEO

Liechtenstein/Swiss citizen, 46, joined ABB on September 1, 2004 as CEO designate, and assumed the roles of President and CEO on January 1, 2005.



**Jürgen Dormann**

Chairman of the board of directors  
German citizen, 65, joined the ABB Board of Directors in 1998 and became chairman in late 2001. He was Chairman and CEO from September 2002 until December 31, 2004. He remains chairman of the board of directors.

**Peter Smits**

Head of Power Technologies division  
German citizen, 53, joined ABB in 1980 and became a member of the executive committee in January 2001. He has a stewardship role for China, the Middle East and North Africa, Russia, and Europe (except the U.K. and Ireland).

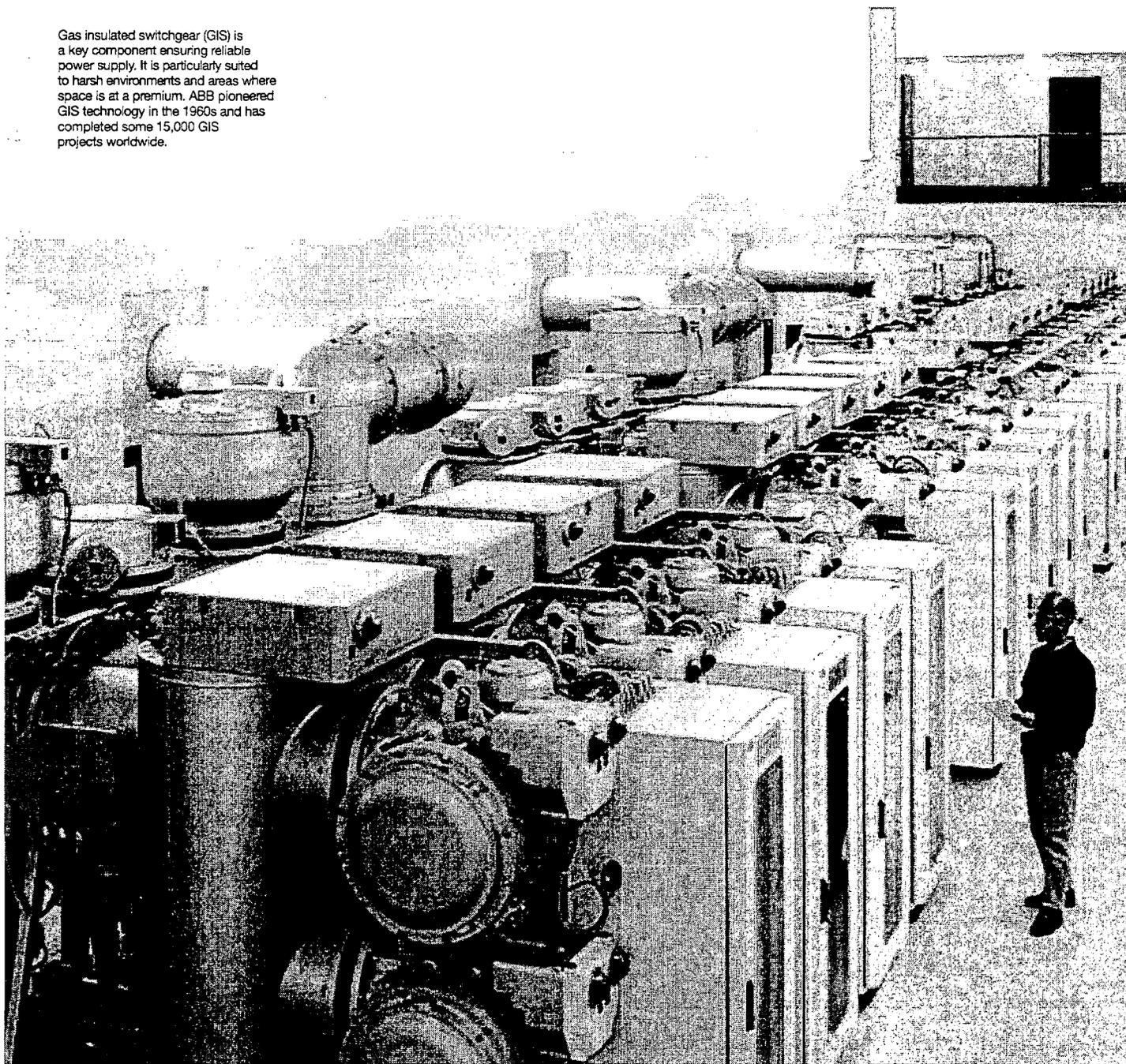
**Michel Demaré**

Chief Financial Officer  
Belgian citizen, 48, joined ABB in January 2005.

# Power Technologies

## Improving power supply

Gas insulated switchgear (GIS) is a key component ensuring reliable power supply. It is particularly suited to harsh environments and areas where space is at a premium. ABB pioneered GIS technology in the 1960s and has completed some 15,000 GIS projects worldwide.





**Peter Smits**, head of Power Technologies  
 “We have the broadest portfolio of products, systems and services for power technologies, which ensure reliable electricity supply and strengthen power grids.”

**Business highlights and key orders**

- Business areas to be streamlined around products and systems to drive profitable growth
- Order for HVDC power link between Three Gorges power plant and Shanghai (\$390 million)
- Go-ahead for world’s longest underwater power transmission link between Norway and Netherlands (\$270 million)
- Orders to strengthen Mexico’s power supply and grid reliability (\$110 million)
- Upgrade of Algeria’s power grid (\$85 million)
- First installation in world of ABB’s Wide Area Monitoring System to improve power supply
- ABB to power “eighth wonder of world” – newly created island off coast of Dubai

**Power Technologies division employs 41,000 people, and has about 150 production sites around the world, as well as engineering centers and service offices.**

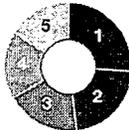
**Division overview for 2004**

Orders were \$9,372 million in 2004, 15 percent higher in local currencies than the year before. Revenues rose to \$8,755 million, up nine percent in local currencies. EBIT grew three percent (in U.S. dollars) to \$610 million while EBIT margin was seven percent. Cash flow from operations amounted to \$499 million, down from \$639 million in 2003, mainly the result of lower customer advances.

**Business areas and revenues 2004**

(in percentages)

- 1 Transformers 26%
- 2 Power Systems 22%
- 3 Medium-Voltage Products 19%
- 4 High-Voltage Products 17%
- 5 Utility Automation 16%



**Revenues by region 2004\***

(in percentages)

- 1 Europe 39%
- 2 Asia 25%
- 3 The Americas 22%
- 4 Middle East and Africa 14%



\* Based on customer location

**Operational excellence**

Power Technologies announced in August 2004 it was streamlining its business activities in order to drive profitable growth and to better serve customers.

From January 1, 2005, the activities of the five business areas were concentrated around products and systems in two business areas. Power Technology Products incorporates ABB’s manufacturing network for power technologies, including all the services needed to extend the life span of products. Power Technology Systems offers systems and services for power transmission and distribution grids, and for power plants.

The division’s broad range of products, systems and services are now sold by a common sales force covering all aspects of the business in each country.

The division has also been driving improvements in efficiency at its production sites and engineering centers around the world, further standardizing processes and speeding up delivery times.

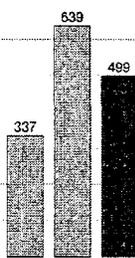
New production lines such as distribution transformers at Vadodara in India and factory extensions for high-voltage breakers and switchgear in China reflect the benefits of investment in high-growth countries.

**EBIT 2002–2004**  
(in \$ millions)



Power Technologies

**Cash flow from operations 2002–2004**  
(in \$ millions)



Power Technologies

### Technology achievements in 2004

A major advance was to modularize the power products portfolio, using common technology platforms and fewer individual parts. An example of this is the UniGear platform (see page 25), a state-of-the-art, modular medium-voltage switchgear that satisfies a wide range of markets and customer needs.

Innovative power systems technologies have been introduced to strengthen grid reliability: in 2004, we saw the first installation in the world of ABB's Wide Area Monitoring System, which controls in real time the essential power corridor between Italy and Switzerland.

The division increased the capacity of its unique HVDC (high-voltage direct current) Light technology, which is designed for underground and underwater power transmission, from 330 megawatts (MW) to 550 MW.

HVDC Light converter stations have also been simplified with the addition of a new high-performance control system. The cost of underground high-voltage DC transmission is now close to conventional AC transmission lines.

The division's strategy of streamlining its product portfolio was complemented in 2004 by the introduction of new and uniform industrial design. This common design underlines how the equipment works together seamlessly.

### Market and regional characteristics

The division's broad portfolio of products, systems and services is deployed in all regions of the world. In all areas, ABB has the proven technologies to increase the efficiency of power plants and to strengthen power transmission grids and power distribution networks.

#### Americas:

The division's orders increased by more than 20 percent in 2004 in North America, the world's largest single market for power technologies. As market leader, ABB is well placed to capture growth opportunities in the U.S. There is a widespread perception that the U.S. needs to invest in its power grid to replace aging infrastructure and prevent further blackouts. Equipment is on average more than 35 years old, underlining the need for service and refurbishment.

Elsewhere in the region, increased concern about power grid reliability is creating a more favorable environment for investment. ABB won several key contracts in Mexico in 2004 to strengthen its grid, and in countries like Brazil and Chile where the demand for a reliable power supply is increasing.

#### Asia:

The division's orders rose by 54 percent in Asia, led by an almost doubling in China. ABB's early investment in India and China, its considerable experience and growing manufacturing base in those markets mean the Power Technologies division is well positioned to meet customer needs.

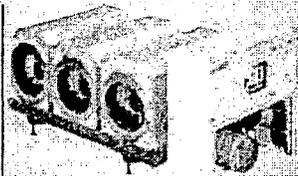
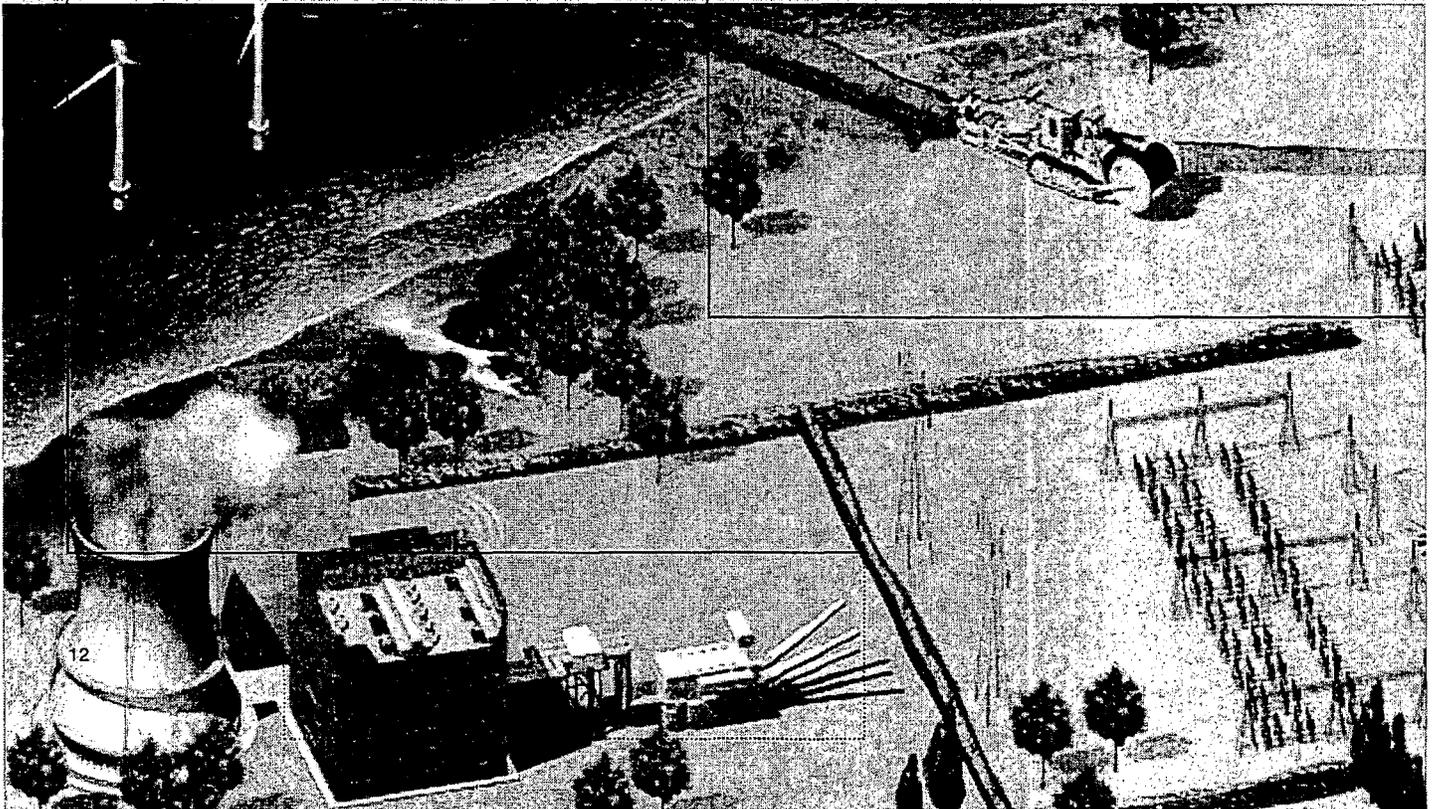


ABB controls and energizes power plants with automation systems and all instrumentation and electrical equipment. ABB holds the world record for current switching by generator circuit breakers.



Transmission substations are used to raise voltages for long-distance power transmission. ABB has built more transmission and distribution substations than any other company - well over 5,000.



The division expects to sustain double-digit order development in China as it expands economically and adds approximately 30 gigawatts of power capacity a year. There is a strong demand for long-distance power transmission, a key strength of ABB.

India is another area of strong ABB order development. India's vision of "Power to all by 2012" underscores the government's commitment to invest in the power distribution network. A new technology center for medium-voltage technology in Nashik, opened in 2004, is catering to the fast-developing power distribution sector in Asia.

#### Europe:

Three main issues dominate the European power sector: ongoing deregulation, which requires further grid integration; possible extension of the synchronous power network to eastern and southern Europe; and large-scale generation and transmission of renewable energy. An increase in interconnections between power grids would help to resolve key issues.

ABB won the two most recent European interconnections – the world's longest underground transmission link (580 kilometers) between Norway and The Netherlands, approved in 2004, as well as the Finland-Estonia link in early 2005. This underlines ABB's ability to contribute to the Trans European network and help the European Union move ahead on its power integration plans.

#### Middle East/Africa:

The Middle East presents considerable opportunity for power technologies. Among the major projects is a plan to create an integrated Gulf-wide power grid.

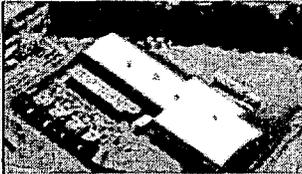
The oil and gas sector is the main demand driver for power transmission and distribution, and ABB won some key contracts in 2004, such as in Algeria. In Africa, especially in the sub-Sahara region, ABB is well placed to provide power equipment upgrades to secure a reliable electricity supply, and to extend rural electrification projects.

#### Looking ahead

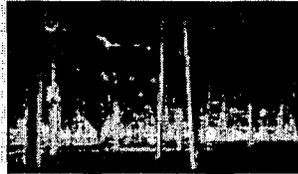
The division expects further operational improvements from ongoing measures to increase productivity and further reduce the cost base. The simplification of front-end sales – giving the customer just one interface per country for the entire range of the division's portfolio – will benefit the customer and boost profitable growth.

The drive to raise cost competitiveness and market share is supported by the division's increasing purchasing volumes from high-productivity countries. This rose from 19 to 30 percent over the past two years and is expected to reach 40 percent in 2005.

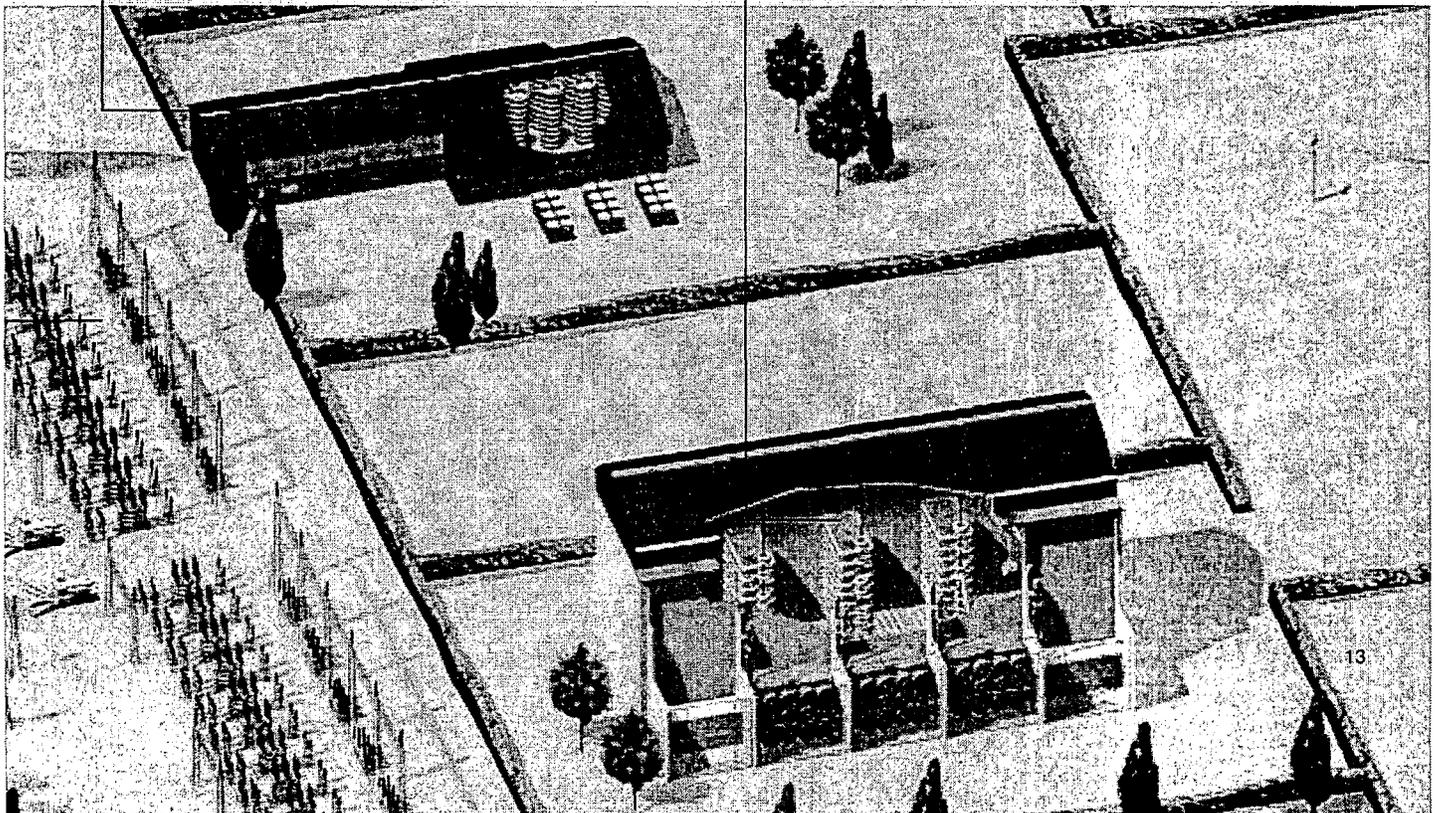
As the world market leader in transmission and distribution, as well as power plant control, the division will maintain momentum to develop innovative, cutting-edge technologies to meet customer needs.



ABB's unique HVDC Light system is designed for underground or underwater power transmission. Its environmental benefits include no overhead power lines and a neutral electromagnetic field.



High-voltage direct current (HVDC) transmission is an efficient means for long-distance bulk power transmission and for connecting asynchronous power grids. ABB pioneered this technology.



### Building China's power superhighways

ABB won a number of power contracts in China in 2004, combining sophisticated technology and broad expertise to help the country meet its burgeoning energy needs.

Three orders were for the Three Gorges Dam, the world's biggest power transmission project. When it is completed in 2009, Three Gorges will be the largest hydropower plant in the world, with a generating capacity of 18.2 gigawatts – enough to bring maximum power to millions of homes.

The power is transmitted over huge distances to the industrial and population centers of the Yangtze and Pearl river deltas using ABB's high-voltage direct current (HVDC) technology.

ABB has already commissioned two power superhighways to Changzhou and Guangdong, and was awarded the contract for a third in June 2004 – a 3,000 megawatt, 1,100-kilometer link to Shanghai. The order, worth \$390 million, includes two HVDC converter stations, 28 power transformers and six smoothing reactors, switchgear and advanced control equipment.

In 2004, the group also won a \$60 million contract to deliver 500 kilovolt gas insulated switchgear (GIS) for the two converter stations and 12 sets of 840 megavoltampere/550 kilovolt Generator step-up transformers for the right-bank power plant.

ABB has received orders worth \$1.3 billion over the past five years for the Three Gorges project and has succeeded in delivering each project at record-breaking speed to considerable benefit for the customer.

### Servicing an installed power base

ABB not only offers customers a state-of-the-art technology portfolio, but cutting-edge services and systems that can upgrade an installed power base and keep it running at peak efficiency.

The end result is the reliable distribution of electricity for Detroit Edison, one of the largest power utilities in the U.S. serving more than 2.1 million customers in the industrial heartland of southeastern Michigan.

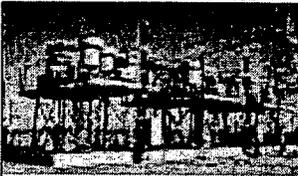
When Detroit Edison had to replace its energy management system – which is how utilities monitor, assess, and enhance the performance of their power networks – the company turned to ABB for a system and regional operations center, and quality assurance system.

They chose ABB because of its large installed power base (ABB has supplied more than 60 percent of the equipment in North American power grids), quick installation times and a cutting-edge distribution management system that improves productivity, reduces operational and maintenance costs, and enhances reliable power supply.

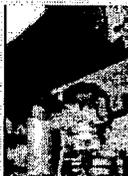
ABB designs and builds management systems for power networks that merge previously separate functions under a single user interface, so that operators can better plan and operate their distribution network.

ABB brings power industry customers a complete service portfolio, including consulting, maintenance and repair, retrofit, testing and analysis, logistics and spare parts.

Customers benefit from the vast ABB product portfolio and a knowledge base that springs from decades of research and worldwide project experience.



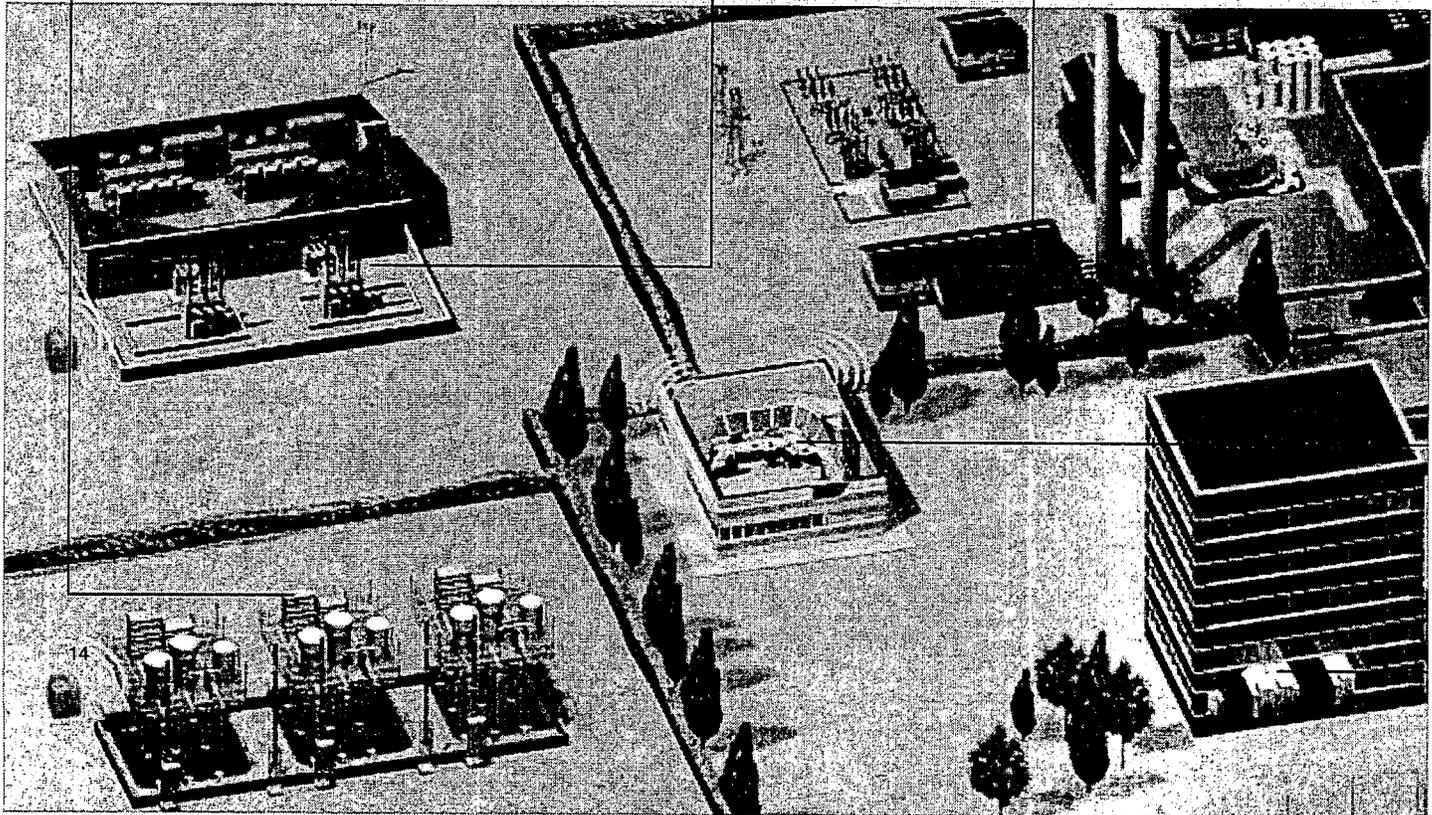
Flexible AC transmission systems (FACTS) enhance the capacity of existing networks and increase power quality. ABB has more than 600 FACTS installations, or 50 percent of the world market.



High-voltage products switch power on and off and interrupt current. Gas insulated switchgear is very compact and particularly useful in indoor substations when space is scarce.



Transformers raise and lower voltage – an essential part of the transmission and distribution process. ABB produces 1,500 power transformers and 400,000 distribution transformers a year.



### Bright lights and cool air for Delhi

ABB is involved in a wide range of complex power distribution projects around the world. In the Indian capital Delhi, for example, ABB is revamping the power network to ensure one of the world's largest cities has a better and more reliable supply of electricity.

With 13 million people and summer temperatures in excess of 45°C, Delhi's power distribution network is strained to the limits by the widespread use of air conditioning. Total peak power demand at these times is more than 3,200 megawatts.

Reliance Energy Ltd. and North Delhi Power Ltd., the two utilities that operate Delhi's distribution network, selected ABB to increase availability and improve reliability of electrical power for their 2.6 million customers.

The scope of the ongoing project is broad and includes system studies to secure grid reliability, reduce network losses, optimize system design and improve network management, as well as delivering products and systems to achieve those objectives.

A major part of the 2,000-kilometer distribution network will be supervised and controlled by ABB's state-of-the-art distribution management system.

ABB has already delivered several hundred flexible, space-saving compact secondary substations, as well as 66/33/11 kilovolt substations, ring main units and switchgear panels, and several thousand distribution transformers.

### Protecting one of Europe's busiest transmission corridors

PSGuard – the world's first commercially operating wide area monitoring system for power networks – is helping enhance the security of one of Europe's main transmission corridors.

The busiest transmission corridor within Europe's Union for the Coordination of Transmission of Electricity network (UCTE) carries some 26,000 gigawatt hours of electricity annually between Switzerland and Italy. (The UCTE coordinates the operation and development of power transmission grids in 23 European countries.)

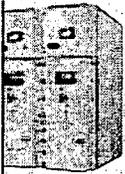
ETRANS, the independent coordinating authority for the Swiss extra high-voltage transmission system and UCTE South coordinator, installed the PSGuard system to increase operational security along this vital link in the European power transmission network.

Developed by ABB, PSGuard gathers streams of data from a series of phasor measurement units (PMUs) placed at key nodes of the network. Measuring current and voltage phasors, PMUs are time synchronized by GPS satellite so network operators get accurate, real-time data from the entire system, taken at precisely the same instant.

Accurate, online information about the dynamic behavior of the power system means network operators can load transmission corridors close to upper security limits for maximum grid efficiency.

They can also detect and correct disturbances in time to prevent the kinds of large-scale blackouts experienced in many countries during 2003 and 2004.

Another PSGuard system monitors the primary transmission corridor linking southeast Europe with the remaining UCTE network.



Medium-voltage breakers and switchgear turn electricity on and off to protect installations and electrical equipment. High-speed transfer switches protect critical power flow in hospitals and industries.



Our network management solutions keep power flowing around the world. The latest innovation is the satellite-based Wide Area Monitoring System. ABB's software also enables power trading.

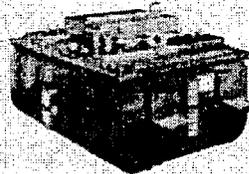
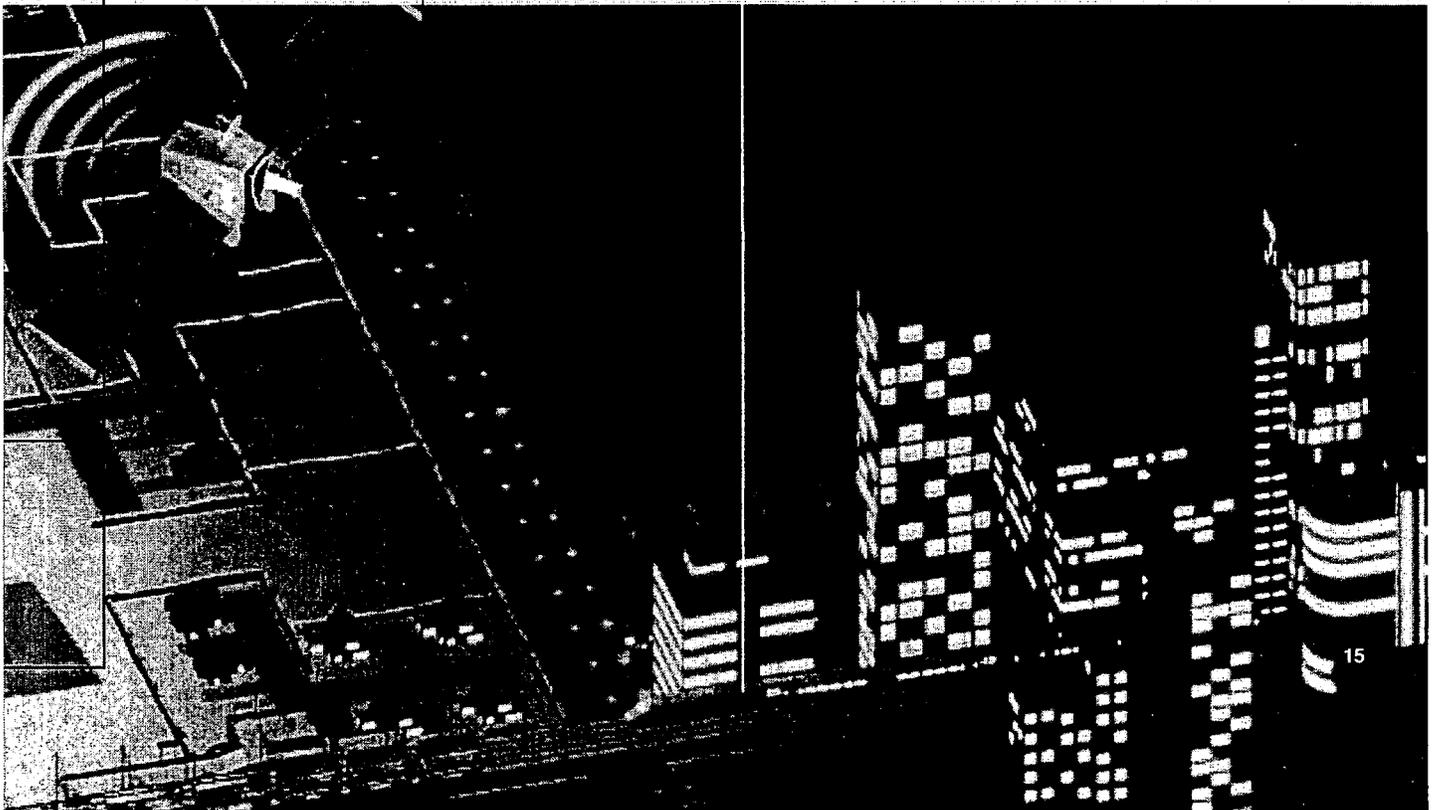
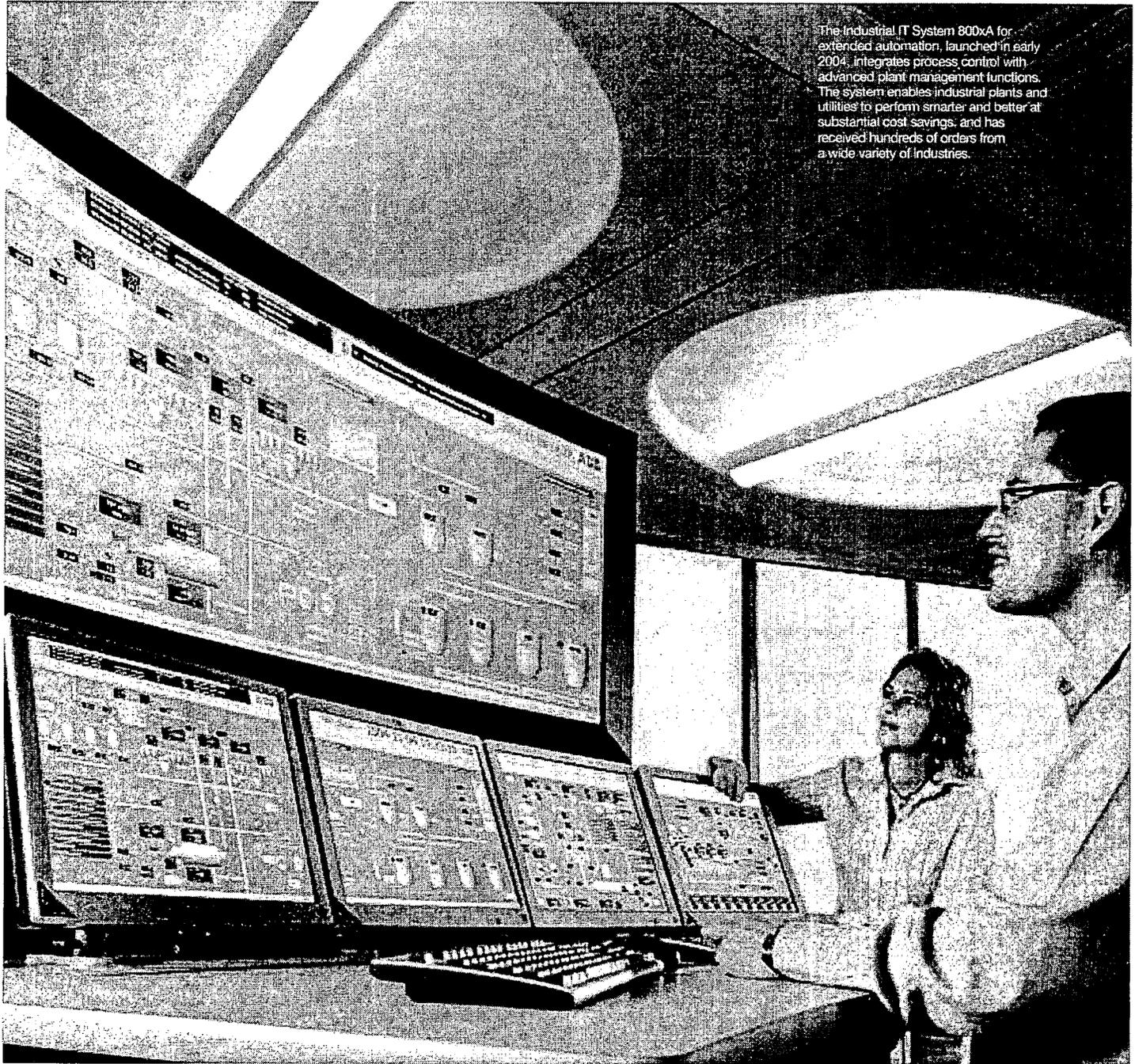


ABB is a major supplier to railway networks and trains. High quality, medium-voltage distribution systems and special products like traction transformers ensure reliable power supply for rail transport.



# Automation Technologies

Increasing industrial productivity



The Industrial IT System 800xA for extended automation, launched in early 2004, integrates process control with advanced plant management functions. The system enables industrial plants and utilities to perform smarter and better at substantial cost savings, and has received hundreds of orders from a wide variety of industries.



**Dinesh Paliwal**, head of Automation Technologies  
 "We provide our customers with a smarter way to do business, raising their industrial productivity and lowering energy costs."

**Business highlights and key orders**

- Streamlined business structure takes full effect, driving profitable growth
- New Industrial IT System 800xA for extended automation generates hundreds of orders for installed base upgrades
- Contract for new compressor station in Poland (\$96 million) to serve the trans-Europe natural gas pipeline
- Contract for robotics containerization systems (\$48 million) to improve efficiency at the US Postal Service
- Strong demand from European and Asian shipbuilders for Azipod propulsion and vessel automation systems
- Order from Algerian energy company (\$90 million) for improvements to country's pipeline system
- Contract from Iceland (\$37 million) to double capacity of aluminum smelting operations

**Automation Technologies division employs 55,000 people, and has more than 140 manufacturing, application and software centers worldwide.**

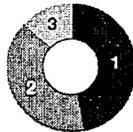
**Division overview for 2004**

Orders were \$11,334 million in 2004, nine percent higher in local currencies than the year before. Revenues rose to \$11,030 million, up seven percent in local currencies. EBIT was strongly higher in all business areas, resulting in a 39-percent increase (in U.S. dollars) to \$1,027 million, and an EBIT margin of 9.3 percent. Cash flow from operations rose to more than \$1 billion, up 34 percent compared to 2003.

**Business areas and revenues 2004**

(in percentages)

- 1 Automation Products 47%
- 2 Process Automation 40%
- 3 Manufacturing Automation 13%



**Operational excellence**

Automation Technologies continued to decrease costs and increase productivity in 2004 as part of ongoing initiatives for operational excellence.

The division streamlined its operations into three business areas at the beginning of 2004 (see pages 4–5), compared to 11 business areas managing equivalent activities at the end of 2002. The new divisional structure simplifies communications and customer interaction, and further reduced jobs by about two percent during 2004, while both top and bottom line grew significantly.

**Revenues by region 2004\***

(in percentages)

- 1 Europe 60%
- 2 Asia 19%
- 3 The Americas 15%
- 4 Middle East and Africa 6%

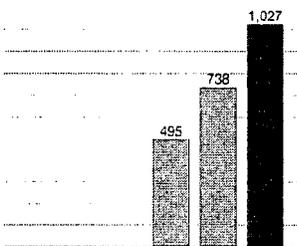


Global sourcing of goods and services was another key focus, to take advantage of the competitive skills and cost structure of emerging markets.

**EBIT**

2002–2004

(in \$ million)

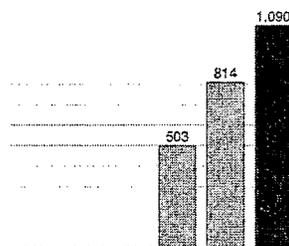


Automation Technologies

**Cash flow from operations**

2002–2004

(in \$ million)



Automation Technologies

An R&D center for robotics products was established in China, and additional resources were deployed in Asia for the engineering of automation projects in metals, cement, cranes and process electrification.

A new engineering operations center was established in India which is now focused on project-based engineering, material cost migration, supply chain systems, and core research. Manufacturing capacity for automation products was increased in China, India and eastern Europe.

## Technology achievements

A number of significant automation products, systems and services were introduced in 2004. The launch of the ACS50 component drive extended energy savings to smaller applications by controlling the speed of devices such as pumps, fans, conveyors and home appliances.

Customers can now remotely manage various ABB instruments with the addition of wireless GSM communications, the same standard used by mobile telephones worldwide.

The Industrial IT System 800xA for process automation, launched in early 2004, received strong market acceptance from customers seeking to upgrade earlier systems. Among the hundreds of new orders booked in 2004, many were to convert ABB and competitive control systems installed ten or more years ago.

In the robotics area, the new IRC5 controller (see page 26) broke new ground, letting customers synchronize the movements of up to four robots working together. The resulting mechanical "teamwork" allows the robots to perform either sequential or parallel operations on the same piece of work without danger of collision and with maximum precision.

In services, the division continued its focus on performance-based activities. A systems retrofit for a European copper producer increased mine productivity by nearly 15 percent. A major paper maker projected

annual cost savings of \$18 million from its mill-wide contract for ABB asset management services.

## Market and regional characteristics

The Automation Technologies division continues to serve a diverse range of both industry and geographic market sectors. Regardless of market, improving productivity and reducing energy consumption are key among the benefits our customers seek, and these are important unifying themes for the division.

Sales to most industry markets developed favorably in 2004, with premium stand-alone products such as drives, motors, control products and circuit breakers enjoying particularly strong growth. These ABB products are respected automation "building blocks" both for end users and for channel partners such as Original Equipment Manufacturers (OEMs) who integrate them within larger systems.

For larger projects, ABB's proven expertise in application-specific process solutions remains attractive to customers whose own integration resources are stretched thin by downsizing. Performance-based services from ABB are another important component of solutions for squeezing maximum value both from new systems and installed assets.

Among specific end markets served by the division, the oil and gas area experienced growth in 2004 as the U.S., China and India strive to meet ever-increasing energy needs.

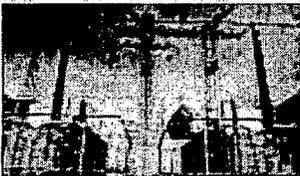
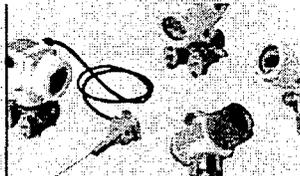
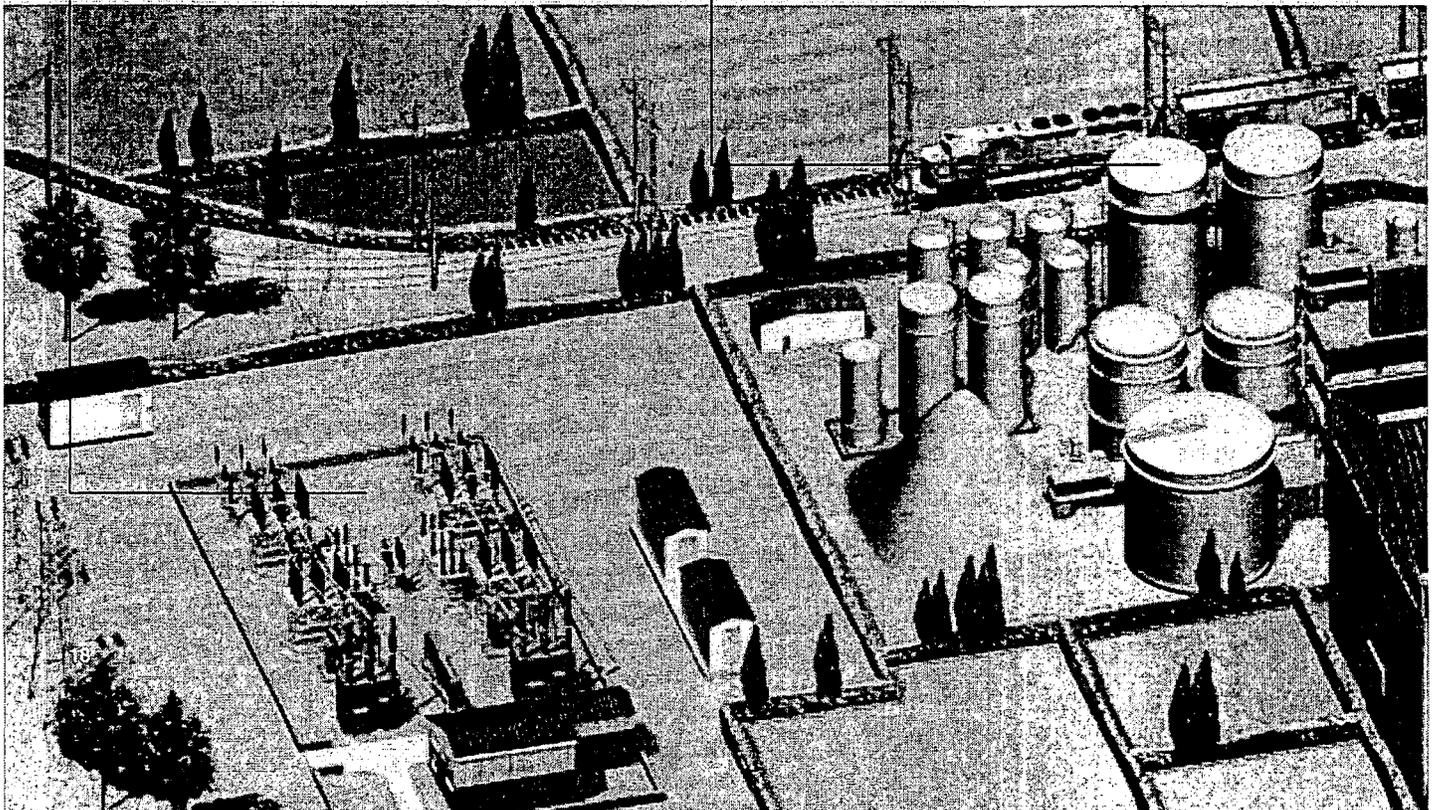


ABB power solutions deliver electricity from the grid to systems throughout the mill, and manage on-site generation of primary or backup power.



Our instruments, control systems and software ensure precision blending of process chemicals and raw materials. They can detect impurities as small as one part in 50 million.



The chemicals market continues to grow modestly, with most activity focused on improving efficiency rather than on new capacity. Pharmaceuticals show a similar pattern, with most new automation activity due to regulatory needs for better information management.

In metals and minerals, rising prices for commodities such as cement, steel and aluminum are spurring new capital investment, and ABB continued its success in such projects as mining, smelting and rolling mills. Investment in pulp and paper remained modest in 2004.

In the marine sector, the strong Euro has accelerated the move of many shipbuilding projects to Asia. The demand for larger vessels, where ABB is well equipped to participate with propulsion and automation solutions, is increasing.

In the automotive market, a key driver for ABB robotics systems, demand has developed positively in North America and Asia, while western Europe continues to be flat or slightly negative. The construction sector, which relies upon ABB automation products, shows continued weakness, particularly in Germany, although China and India registered robust growth.

Around the world, Automation Technologies continues to deploy its manufacturing resources to take advantage of both proximity to key markets and competitive labor costs. The division launched or expanded more than 20 factories in the high-opportunity markets of Asia, Eastern Europe and Latin America during 2004.

As noted earlier, the division has also established key centers of excellence for engineering and systems integration to support regions. Within the past 18 months, new project centers for cranes, electrification, metals and robotics have been established in China. A cement process center of excellence for Asia and an engineering operations center with global reach were launched in India.

### Looking ahead

Operational excellence and global sourcing, which have contributed markedly to the division's results, will continue to be critical focus areas. While improving the efficiency of local operations, the division will increasingly implement larger projects through a diverse "global value chain" which integrates skills, components and services from multiple locations.

Channel partners such as distributors, wholesalers, and OEMs will handle an increasing share of stand-alone product sales.

Innovation is a key element in the ongoing success of the portfolio, distinguishing it from our competitors. The division will focus on areas such as wireless communications, remote asset management and smaller, smarter automation devices. Performance-based services that help customers improve the efficiency of installed assets will represent an increasing share of overall division volume.

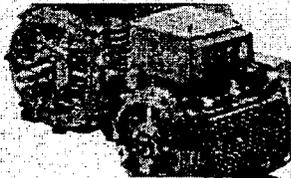


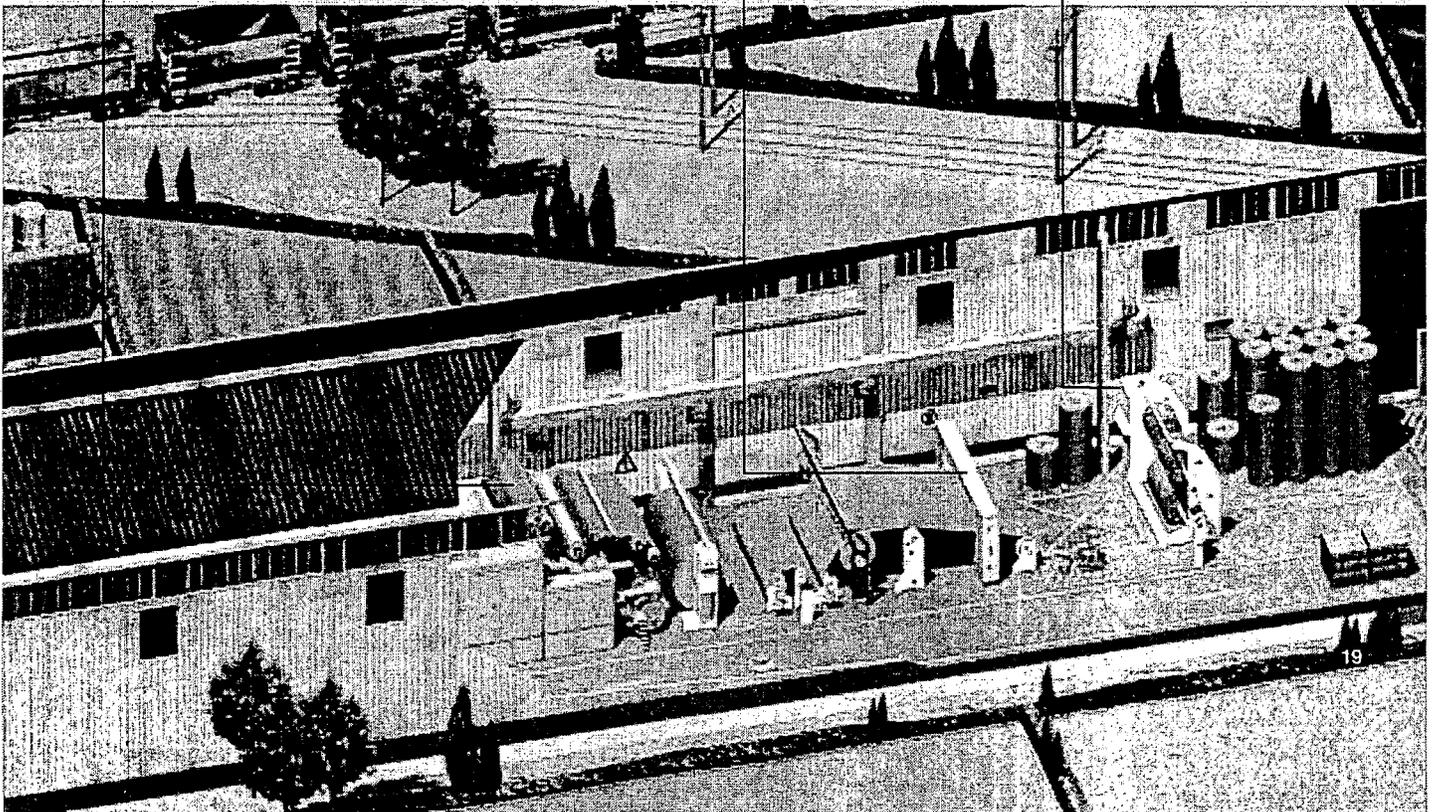
ABB motors and drives provide correct motion and torque for rotating machinery while improving energy efficiency. Our products help to reduce harmful emissions by millions of tons annually.



Our analyzers and quality control systems monitor and adjust product characteristics to meet customer specifications, performing online measurements at up to hundreds of meters per minute.



ABB force measurement systems manage machine tension and balance for smooth operation at varying line speeds. Our first precision force measurement patents date back 50 years.



### Moving the mail more efficiently

ABB robots are well known for such tasks as welding, painting and heavy lifting, but few people realize these precision machines also help deliver the mail.

The United States Postal Service (USPS) ordered 67 robotic containerization systems from ABB in 2004 to improve processing facilities for the millions of pieces of mail the post office handles every day across the U.S.

Each of ABB's systems includes two robots that automatically sort, move and stack mail trays based on postal code information embedded in bar codes on the containers.

The new systems will support the next phase of the USPS mail processing automation program, which is designed to improve efficiency.

"Substantial time and effort is associated with verifying, lifting, stacking, pushing, unloading and re-verifying trays of mail across our processing operations," said Tom Day, USPS vice president of engineering. "The flexibility and modular design of ABB's gantry robot solution will enhance our automation program."

ABB's scope of supply includes all equipment, training, installation, documentation, spare parts and system tools. Shipment of the systems will begin in mid-2005, and the installation is scheduled for completion by the end of 2006.

It is the second such order for ABB from this customer. In an earlier project, ABB supplied 100 similar robotic containerization systems to 50 different USPS facilities.

### Heavy lifting... high performance

When KGHM of Poland, one of the world's largest producers of copper and silver, chose ABB to upgrade a mine hoist, they got more than they expected – including a record-breaking installation time and a 15 percent increase in productivity.

Located at the Rudna mine in southwestern Poland, the hoist is one of KGHM's most important, and one of the most productive in Europe.

After 30 years of service, it was in need of modernization. KGHM asked ABB to complete the upgrade in just 16 days, which is about one-third the industry standard for an installation of this complexity.

As the recognized market and technology leader in mine hoists, ABB was able to meet this record-breaking deadline. Key to the achievement were detailed planning, excellent organization and round-the-clock work by the installation and services team.

But ABB did more than just finish the project on time. It also improved hoist acceleration and deceleration times by 25 and 20 percent respectively, and these improvements cut overall cycle time from 103 seconds to 88 seconds for the 1,053-meter hoisting distance.

The resulting hoist performance represents a significant improvement on the customer's specifications, and has enabled KGHM to increase production by 14.5 percent.

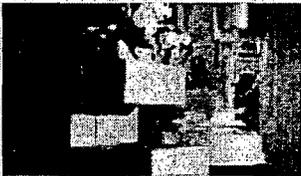
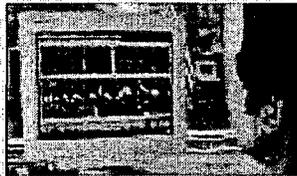
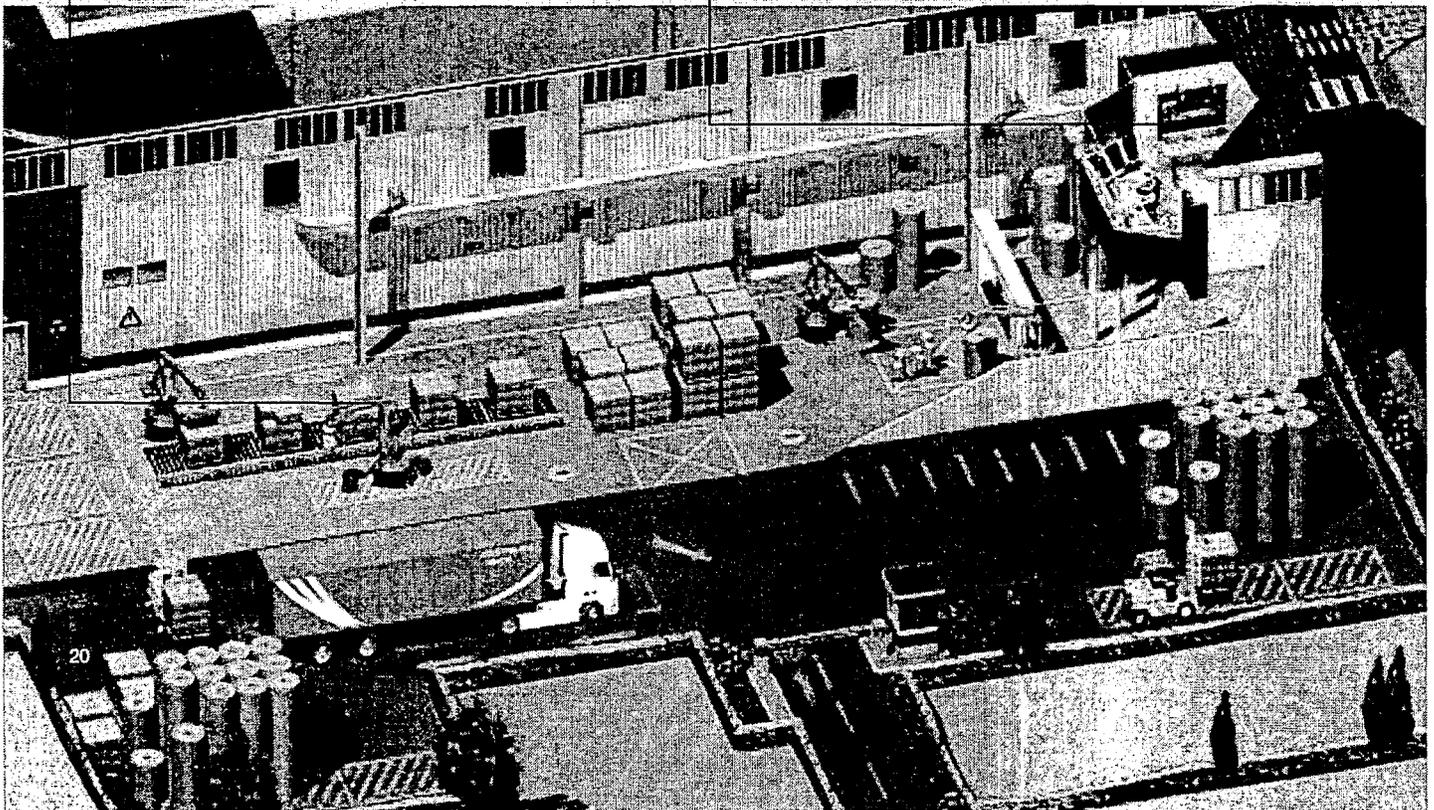


ABB robots lift heavy loads with precision for material handling, finishing and assembly applications. We have more than 120,000 industrial robots installed worldwide.



Our asset management software constantly monitors plant devices for real-time efficiency and is in high demand across an automation technologies installed base worth more than \$100 billion globally.



### Raising productivity, saving energy

ABB's System 800xA for extended automation, which was launched early in 2004, has in its first year proved highly successful among customers in a wide range of industries.

Hundreds of orders were received in 2004 for the system, which integrates ABB and customer platforms, and enables industrial plants to raise productivity with substantial cost and energy savings.

Just one example: automation solutions based on System 800xA are delivering big improvements in operational reliability, working conditions, safety and sustainability for Finnish company Outokumpu Stainless Oy, as it seeks to become the world's number one stainless steel producer.

As Finland's largest single energy user, Outokumpu's Tornio facility has made improving environmental performance a key issue. System 800xA is helping the company's hot rolling mill to become a national leader in implementing high-efficiency electrification and automation solutions.

ABB's wide-ranging scope of supply to Tornio underlines the importance of high-quality system integration. For the hot rolling mill, it includes process electrification, power distribution, and medium- and low-voltage drives with all related services.

At the adjacent smelting plant, ABB systems manage more than 6,000 input and output connections. This includes control room equipment, connection stations for the control room and process, plus process application design and software. ABB also took responsibility for testing, start-up and training services, and spare parts.

### Leadership through partnership

ABB has become the leading supplier of AC drives in China in the past year, capturing a 15 percent share of the market despite strong competition from more than 50 local and 40 global rivals. Key to success is local partnership.

ABB Beijing Drive Systems Co., Ltd. (China) celebrated its tenth anniversary during 2004, marking a milestone in serving local customers. The Beijing factory manufactures ACS 400 and ACS 550 drives and installs various other drive modules into cabinets.

A key ingredient of the company's rapid growth and success is a network of some 60 channel partners and 32 service partners across China.

These partners stock, sell, distribute and service ABB drives for customers in a market where long distances and geographically dispersed clients pose special challenges.

ABB provides comprehensive support to these partners with sales and ordering processes, and with training. This support has helped several partners grow from one or two person operations into full-service drive centers.

Variable speed drives have become a popular tool in China's dynamic building industry for improving the energy efficiency of air-handling systems. Original equipment makers, both domestic and global, incorporate our drives into pumps, fans, compressors, and a wide range of similar systems.



ABB logistics services and software help to minimize inventory and track the movement of products and services across the value chain – from the supplier through to end use.

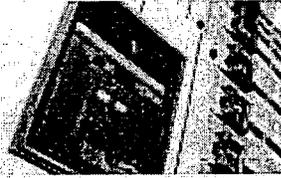
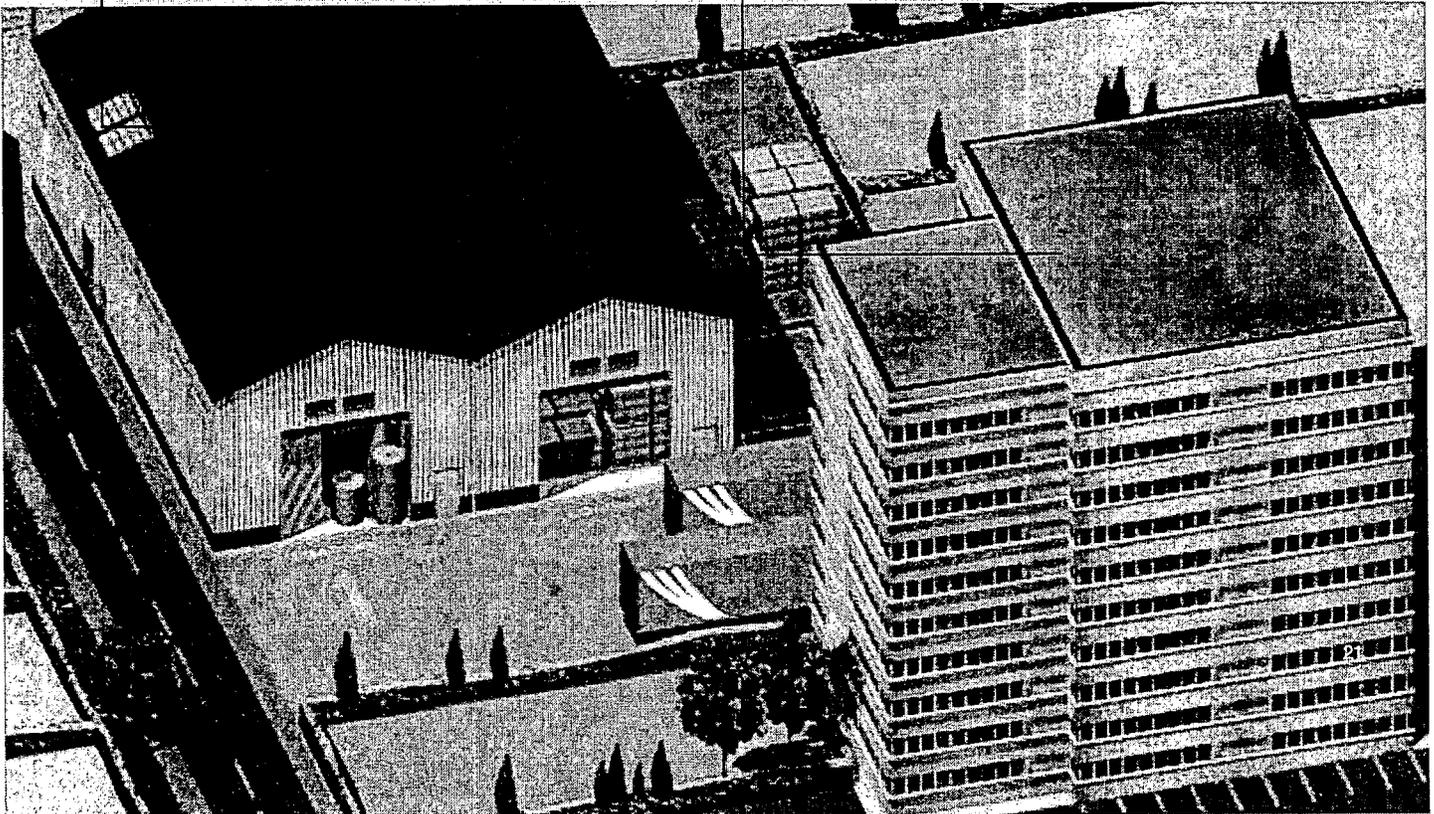
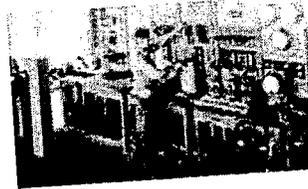
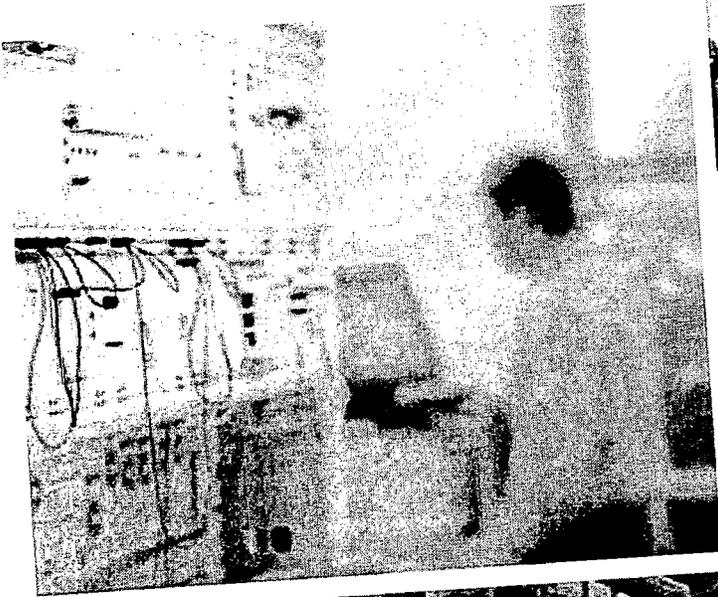


ABB low-voltage devices and energy management systems ensure a comfortable, energy-efficient building environment. We ship more than one million products daily to facility contractors and installers.



Technology  
Innovation is our business

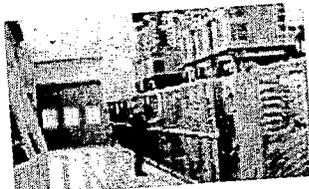
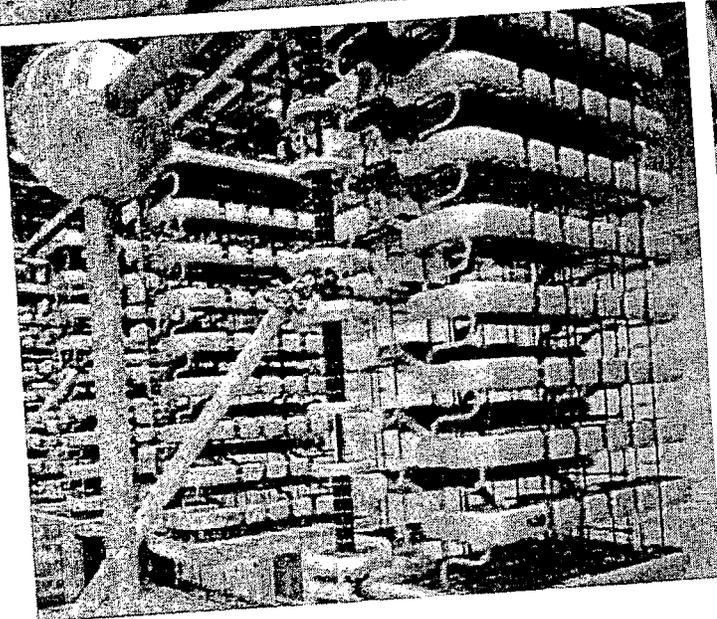
ABB's solid technology base is the result of 120 years of pioneering research and development. Nearly every utility and grid operator in the world, as well as most of the top 500 industrial companies, use ABB technology to serve customers and ensure growth and profitability. Presented here are some of ABB's historical milestones from 2004.



### Busch-Jaeger Lüdenscheid, Germany, 1879

**125 years ago**  
The Jaeger brothers open a factory for the manufacture of wiring accessories, merging the business with J. Bergmann and F.W. Busch in 1918. Busch-Jaeger becomes part of ABB in 1969.

**today**  
Busch-Jaeger is a market leader in low-voltage automation products, supplying some 6,000 devices and systems for commercial and residential buildings to more than 60 countries worldwide.

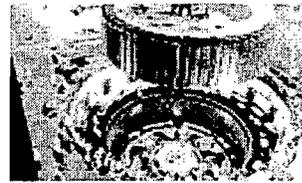
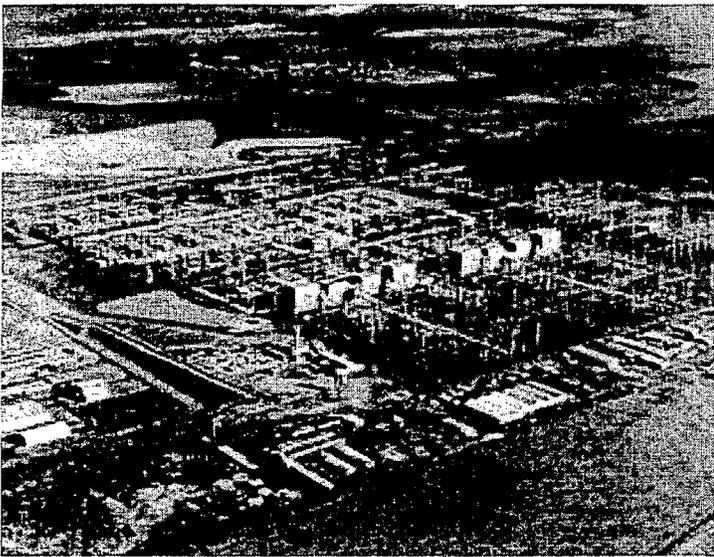


### HVDC Gotland, Sweden, 1954

**50 years ago**  
ABB delivers the world's first high voltage direct current (HVDC) link – a 90-kilometer line from the Swedish mainland to the island of Gotland. HVDC proves to be the most cost-effective and efficient means to transport large amounts of electric power over long distances.

**today**  
ABB has completed 60 percent of the world's HVDC projects, including record-breaking installations like Itaipu in Brazil, key links in the United States, India, Scandinavia and Australia, and power superhighways in China.

ABB Operational review 2004



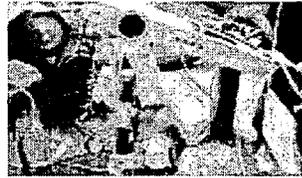
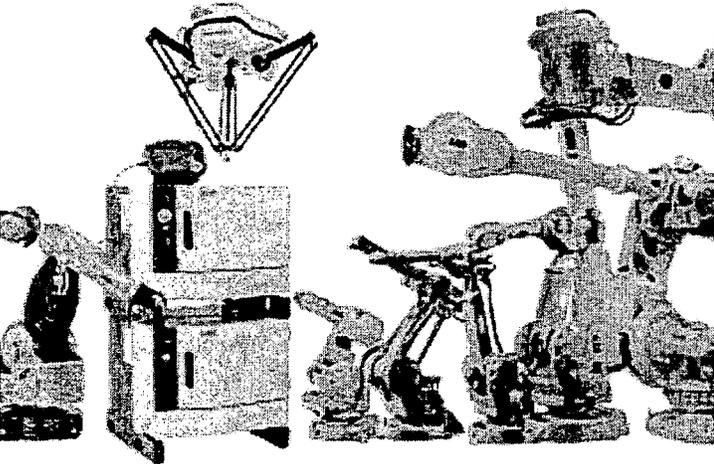
## HVDC Itaipu, Brazil, 1984

### 20 years ago

ABB delivers the world's largest HVDC link, transmitting 6,300 megawatts of power at 600 kilovolt from the 12.6 gigawatt Itaipu hydropower plant to South America's largest city, São Paulo.

### today

Twenty years on, Itaipu is still the world's largest HVDC link, the world's largest installation of 550 kilovolt gas insulated switchgear, and a milestone in 800 kilovolt series compensation – all delivered by ABB.



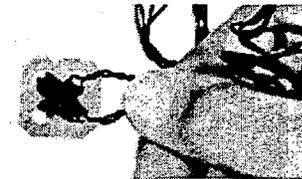
## Robots Västerås, Sweden, 1974

### 30 years ago

ABB launches the world's first fully electrical, microprocessor-controlled industrial robot. The electrically-driven aluminum arm and powerful new microprocessor take industrial robotics into a new dimension of speed, accuracy and flexibility.

### today

ABB has delivered some 120,000 robots worldwide – more than any other supplier – and pioneered technologies like modular design, simulation for offline programming, and platforms for wireless communication and wireless power supply.



## Force measurement Västerås, Sweden, 1954

### 50 years ago

ABB launches Pressductor, the first of many force measurement innovations that enable steel and paper mills to measure and control critical parameters like flatness, tension, positioning, and thickness – the keys to product quality and process productivity.

### today

More than 50 percent of force measurement products and systems in the world's mills and factories are made by ABB.

# Technology

## Harnessing innovation

**“ABB’s leadership in power and automation technologies springs from our ability to develop innovative solutions for our customers that meet current and future challenges of improving energy supply and industrial productivity,” says Markus Bayegan, ABB’s chief technology officer.**

Backed by 120 years of technology development, innovation and our pioneering spirit ensure ABB’s continued competitiveness. We hold some 16,000 patents, and between 30 and 80 percent of current sales in our various businesses are based on product innovations from the last five years.

The fruits of this technology focus are clear: more than 80 percent of all car manufacturers use ABB robots; ABB has installed one-third of the world’s \$60 billion process automation systems base; ABB has supplied more than 60 percent of the equipment in North American power grids.

Around the world, our customers rely on technology made in ABB.

### **R&D spending on core businesses increases**

R&D and order-related investments in the core divisions amounted to \$905 million in 2004, up 10 percent compared to \$826 million in 2003. Expressed as a percentage of core division revenues, total R&D and order-related development in the core divisions was 4.6 percent in 2004 compared to 4.8 percent in 2003.

### **Strategy**

Our research and development strategy for value creation is three-fold:

- To monitor and develop emerging technologies and create a pioneering, sustainable technology base for the company
- To develop technology platforms that enable efficient product design for our power and automation customers
- To create the next generation of power and automation products and systems that will be the engines of profitable growth

Universities are the incubators of future technology, and a central task of our R&D team is to transform university research into industry-ready technology platforms.

### **Recent technology highlights**

- Upgrades in flexible AC transmission systems (FACTS)
- Industrial IT-System 800xA significantly improves plant productivity
- Wide area monitoring and control system stabilizes power transmission grid in Europe
- Motors, drives and soft starters developed with improved functionality
- New software solutions to simplify and improve robot programming
- For the third year in a row, MIT names an ABB researcher one of world’s top 100 young innovators

ABB-university cooperation builds research networks to foster new technologies. It shortens the time from basic ideas to viable products and helps us recruit and train new people.

We have built more than 50 university partnerships in the U.S., Europe and Asia, including long-term, strategic relationships with institutions like Stanford University, the Massachusetts Institute of Technology, Carnegie Mellon University, Cambridge University and Imperial College London.

Our collaborative projects include research on materials, sensors/micro-engineered mechanical systems, robotics, controls, manufacturing, software, distributed power and communication.

Common platforms for automation and power technologies are developed around advanced materials, lean manufacturing, information technology and data communication, as well as sensor and actuator technology. Common applications of basic technologies can also be found in power electronics, electrical insulation, and control and optimization.

In power, ABB’s insulation technologies, current interruption and limitation devices, power electronics, flow control and power protection processes apply as much to large, reliable, blackout-free transmission systems as they do to everyday household needs.

In automation, our control and optimization processes, software technologies, power electronics, sensors and microelectronics, mechatronics and wireless communication are designed to improve efficiency in plants and factories around the world – including our own.

### Global laboratories

Group R&D is carried out in two global laboratories for power and automation technologies, combining research units in the U.S., Europe and Asia. The cultural diversity and closeness to ABB's customers and the world's best universities creates a breeding ground for success. ABB continues to build up R&D activities in India, Singapore and China, reflecting its growth strategy in Asia.

Our corporate research center in Bangalore, India was launched in early 2002. As a focal point for software research, it develops platforms for both automation and power technologies.

In China – our fastest-growing market – R&D activity is focused on power transmission and distribution, manufacturing and robotics. It is centered in new facilities in Beijing and Shanghai, where our researchers are in close contact with Chinese universities and customers.

ABB researchers have been recognized in recent years for contributions in areas like HCI (human-computer interface); safeguarding power transmission systems; faster and more efficient automation systems; improved electrical insulation; and industrial applications of nanotechnology and wireless technology.

To find out more visit: [www.abb.com/technology](http://www.abb.com/technology)

### Current research programs

- Power device technology
- Power transmission and distribution applications
- Power electronics
- Mechatronics and robotics application
- Control and optimization
- Automation networks and devices
- Software architecture and processes
- Advanced materials
- Manufacturing technologies

### Switchgear that is at home everywhere

ABB has developed an extremely versatile platform for medium-voltage switchgear in the 12-24 kilovolt (kV) range. The new UniGear ZS1 panel is unique because it satisfies both the detailed specifications of local markets and the global customer's demand for standardization.

The medium-voltage primary air-insulated switchgear market is diverse and highly fragmented, as each country traditionally has unique specifications for the product.

ABB once offered 18 product platforms in the 12-24 kV rating, and manufactured numerous versions in no less than 32 countries.

ABB now has a single platform that can meet individual specifications in each market, so global operators have a standardized product of consistent quality suitable for all regions.



ABB's UniGear ZS1 panel is an extremely versatile platform for medium-voltage switchgear in the 12-24 kilovolt range.

### ABB products are smaller, smarter, faster

ABB is the leading manufacturer of variable speed AC drives, with a massive installed base – more than one million in the past 20 years – and a market share nearly twice as big as its nearest rival.

Variable speed drives can cut the average running speed of a pump or fan in half, reducing energy consumption to one-eighth the power used by machines running at top speed.

ABB's unique Direct Torque Control platform is the most important drive innovation in a decade, ensuring the fastest torque and speed response times for all ABB drives.

Recent ABB innovations in power semiconductors and cooling techniques have reduced the size of drives by as much as 80 percent, and the number of components needed by up to 70 percent.



ABB innovations in power semiconductors and cooling techniques have massively reduced the size and number of parts needed in AC drives.

# Technology

## Harnessing innovation

### Powerful semiconductors

Power semiconductors are extremely compact electronic switches that need only microseconds to turn current on and off at high voltage levels, with very low losses:

This makes them the ideal component to transform the shape of electrical current and voltage from alternating current to direct current and vice versa, and from one frequency to another.

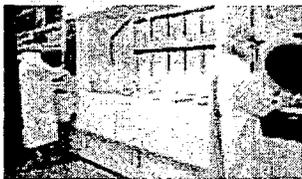
Power semiconductors are used in power transmission systems and in electrical drives to make motors universal and efficient.

Three types of power semiconductor – thyristors, insulated gate bipolar transistors (IGBTs) and integrated gate commutated thyristors (IGCTs) – dominate high-power switching. Each one has been developed by ABB into unique systems that have revolutionized the transmission of electricity in the past half-century.

Thyristor valves were first used by ABB for high-voltage direct current (HVDC) converter stations in 1967, and thyristor technology is the foundation of every HVDC project since, including the HVDC power superhighways in China (see page 14).

Combining insulated gate bipolar transistors with voltage source converter (VSC) technology, ABB was able to launch even more compact, environmentally friendly versions of high-voltage direct current systems and static var compensators (SVC). Both technologies – HVDC Light and SVC Light – remain unique to ABB.

The innovative ABB semiconductor housing called *StakPak™* – which makes it possible to connect IGBTs in series simply by stacking them on top of each other – was a key leap forward in compact design. This design was selected for the Swiss Technology Award in 2004.



ABB's power semiconductors have revolutionized the transmission of electricity in the past half-century.

### IRC5 controller builds robot teamwork

ABB is already well known for leading motion technologies such as TrueMove and QuickMove programming tools for robots.

With the introduction of the IRC5 robot controller, ABB takes the lead again by combining these strengths with another innovative technology – MultiMove – to offer a true offline programming process based on virtual robot technology.

MultiMove technology makes it possible to control up to four robots from a single control module. Previously, each robot required its own control unit, which made robot coordination a tedious and difficult task.

The IRC5 controller allows robots to work simultaneously on an object or task within the same production cell, which means our second-generation virtual robot technology can take full advantage of new manufacturing solutions that until now have been technically impossible.

For instance, one robot can lift and hold a car door, a second can pick up a hinge, and a third can weld it into place. Previously, this would have required three separate robot cells and three robot controllers. Now, they can be combined in a single manufacturing step with a single IRC5 controller module, which can be easily programmed and validated without building a complete cell.

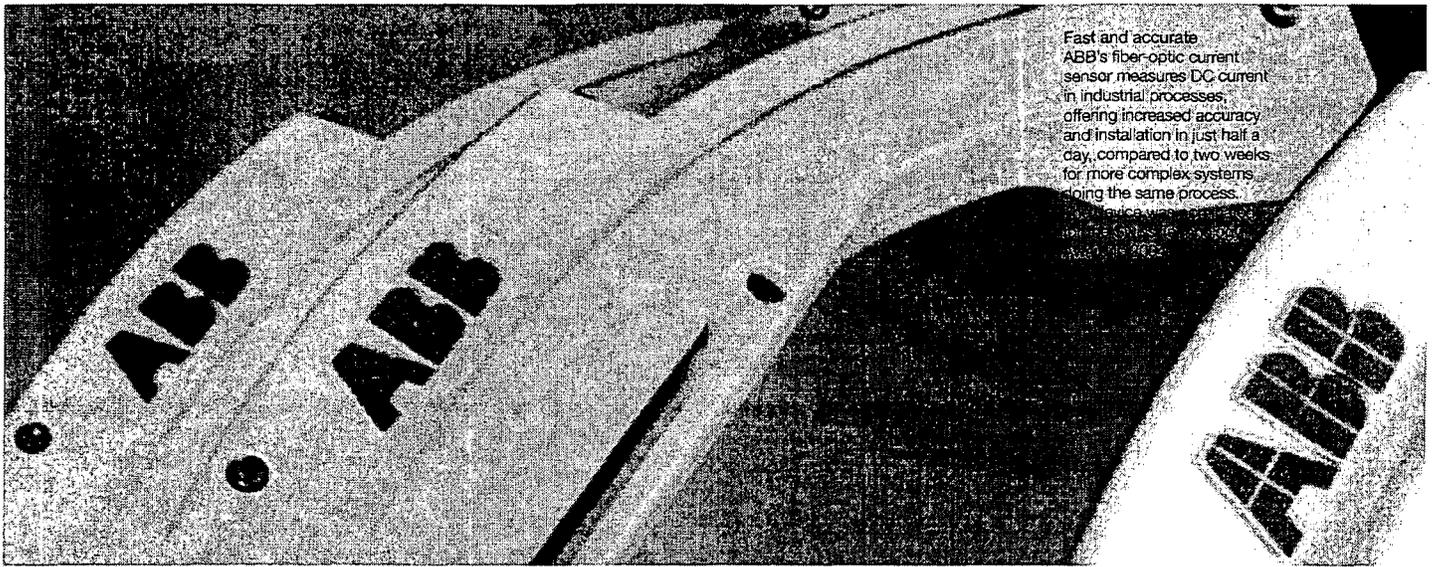
IRC5 saves valuable space, reduces cycle times by at least 15 percent and, as a result, significantly increases production.

In other robotics breakthroughs, ABB created the first wireless platform for industrial automation, eliminating the need for communication and power cables that are time consuming to install and vulnerable to breakage.

To simplify robot programming, ABB has developed an "augmented reality" process called ArtVis that lets robotic system engineers see program input overlaid on an actual object under development, using a wearable vision device (see page opposite).

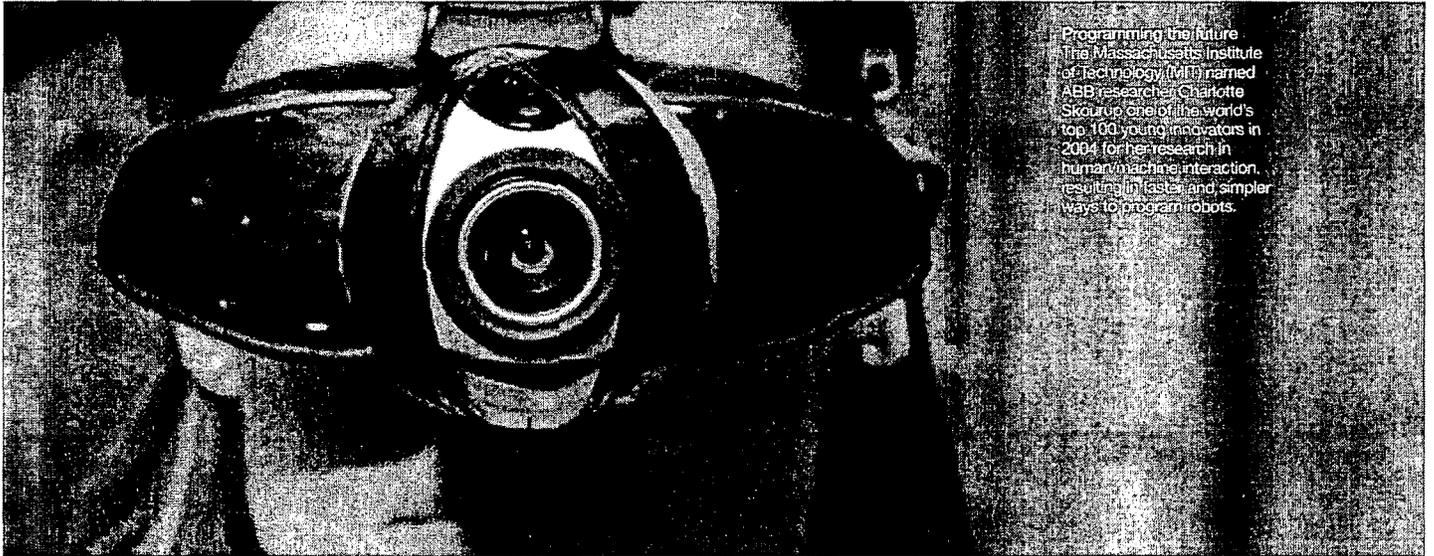


The IRC5 controller saves valuable space, reduces cycle times by at least 15 percent and significantly increases production.

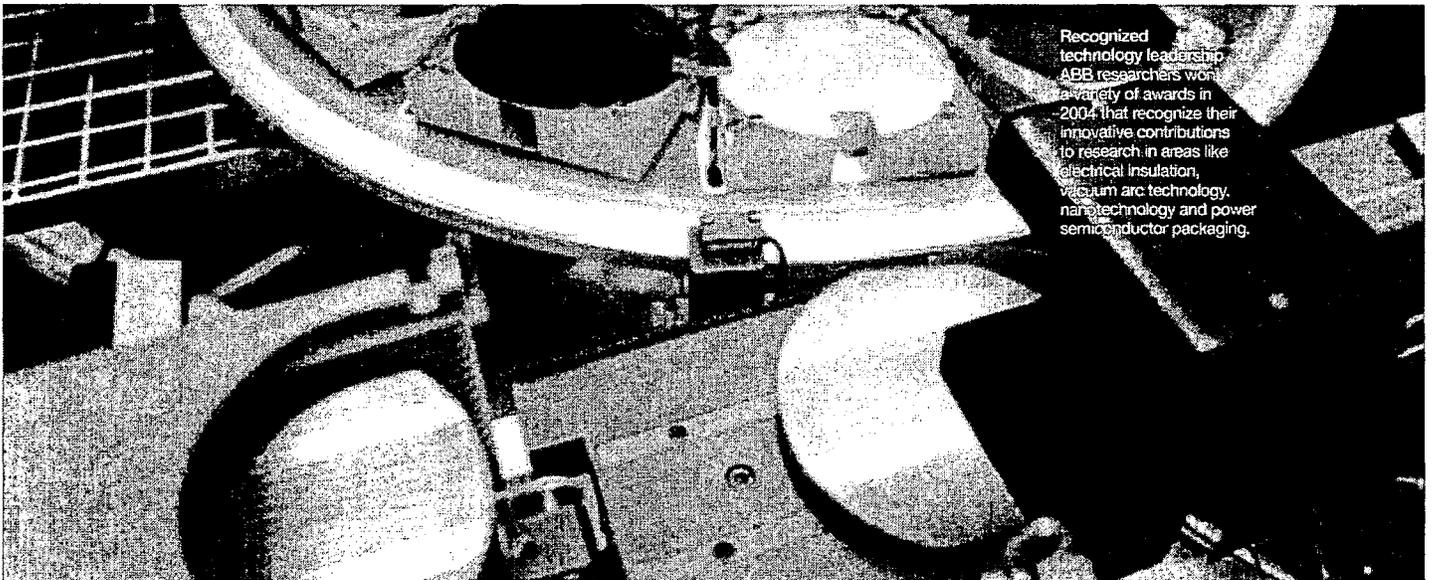


Fast and accurate  
ABB's fiber-optic current  
sensor measures DC current  
in industrial processes,  
offering increased accuracy  
and installation in just half a  
day, compared to two weeks  
for more complex systems  
doing the same process.

The device was patented  
in 1998 (US 6,155,161) and  
ABB's 1998 patent  
number is 2002.



Programming the future  
The Massachusetts Institute  
of Technology (MIT) named  
ABB researcher Charlotte  
Skourup one of the world's  
top 100 young innovators in  
2004 for her research in  
human-machine interaction,  
resulting in faster and simpler  
ways to program robots.



Recognized  
technology leadership  
ABB researchers won  
a variety of awards in  
2004 that recognize their  
innovative contributions  
to research in areas like  
electrical insulation,  
vacuum arc technology,  
nanotechnology and power  
semiconductor packaging.

# People

## Building better business relationships

**It takes time to develop a company culture that can fully support the needs of a business, and ABB made good progress towards that goal in 2004. We have made employee training and development a key element of our business, but still face challenges in the area of health and safety performance.**

One of the key achievements has been to embed our people-development strategy in the business.

Our "people strategy" drives the development of employees' leadership potential and skills in a variety of ways, and rewards them for positive behavioral performance, as well as on the more traditional basis of financial results.

This commitment to behavior-related incentives is helping to transform company culture, and reinforce our three business principles – responsibility, respect and determination – which we define as essential to underpin ABB's healthy development.

Training is key: more than 2,000 people at all levels of the company took part in 56 leadership development courses in 18 countries in 2004. By the end of 2005, we plan to have trained a total of 10,000 people through a further 200 courses.

Emphasis has also been placed on developing the management tools and processes that ABB is now using to assess and track talent within the organization around the world.

ABB's decision to start an employee share acquisition program in late 2004 was another way of linking personal performance with business results, as well as increasing employee identification with the company.

In the first part of the program, more than 13,000 people in 11 countries opted into the program – some 23 percent of those eligible. This is above the industry norm for such schemes.

There were downsides in 2004. We made good progress on implementing and tightening health and safety plans and procedures, and on training, but regrettably ABB still had a number of incidents.

Every incident is one too many, and our record is unacceptable.

A total of 21 people died and 47 were seriously injured in 2004 as a result of our operations. Eleven employees and eight contractors were killed in work-related incidents, and another two employees died while commuting by road.

Six of the victims were employees of ABB Lummus Global who were killed in a terrorist attack while working on a customer site in western Saudi Arabia. ABB publicly deplored the attack, and evacuated remaining personnel and their families from the area.

Training has been stepped up to improve health and safety performance and strengthen leadership. ABB's top 100 managers received intensive training at five health and safety workshops held in different parts of the world in 2004.

A series of measures, such as safety management systems, have been introduced in the countries where ABB operates to strengthen responsibility and accountability. The group executive committee monitors performance.

ABB recognizes that considerable work lies ahead to ensure that managers and employees, as well as contractors and suppliers, are not only aware of all the rules but also observe them rigorously.



**Gary Steel**, head of Human Resources  
 "ABB employees are building more productive business relationships within the company and with all of our stakeholders."

Another area where ABB is enforcing policy strictly is legal compliance. ABB has a policy of zero tolerance of non-compliance. Questionable integrity damages a company's reputation and harms business.

A total of 65 people were dismissed for non-compliance in 2004. Offences ranged from petty theft to taking part in a price-fixing cartel for gas insulated switchgear and irregularities at a plant in Italy.

These are isolated cases, but unacceptable. Customers, employees, suppliers, authorities, the media – and our shareholders – all have a right to expect that we conduct our business with integrity, in strict accordance with laws and regulations.

ABB intends in 2005 to fulfill the terms of the Sarbanes-Oxley Act, which is designed to strengthen corporate governance in companies that do business or have investors in the U.S. For ABB, this is another opportunity to improve our processes and assure integrity.

Our 18-month Step change business improvement program has provided further evidence that a change in company culture has been taking place.

The program formally ended in 2004 with a reduction in our cost base of more than \$1 billion, but the changes in behavior, increased discipline and cost consciousness needed to support a period of transformation remain. The company and our employees are benefiting from this.

ABB employees in general have a strong sense of pride and job satisfaction. Through ongoing training and application of the business principles of responsibility, respect and determination, they are building more productive business relationships – both within the company and with all of our stakeholders.

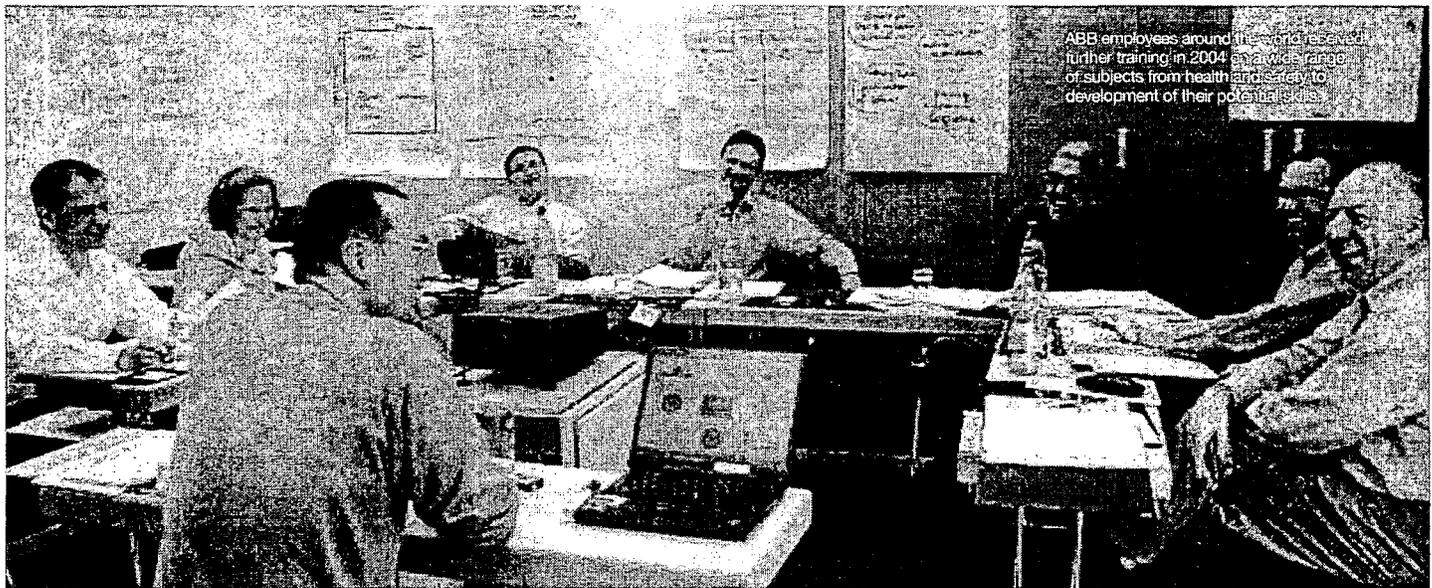


ABB employees around the world received further training in 2004 on a wide range of subjects from health and safety to development of their potential skills.

# Sustainability

## A competitive edge

ABB advanced its commitment to sustainable development in a number of areas in 2004, ranging from individual social and environmental projects and work with multilateral organizations, to campaigns within ABB to raise health and safety standards.

For the fourth year running, we have followed the Global Reporting Initiative's triple bottom line approach, meaning we report in detail on the economic, environmental and social aspects of our business.

Sustainability is at the core of our business. Our products and systems raise energy efficiency, reduce environmental impact and costs (see examples on opposite page), and help ABB and our customers achieve lasting profitable growth.

Together with our customers, we seek to contribute to economic growth, environmental stewardship and societal development.

One area we are now assessing is what measures ABB needs to take to become a carbon-neutral company in the medium-term. We produce about 1.5 million tons of CO<sub>2</sub> per year, a relatively modest amount for an international company, and we are looking for ways to eliminate this output by cutting our emissions and taking part in projects which offset our impact.

In 2004, we pursued a series of partnerships and initiatives to raise awareness among businesses of their role in achieving long-term progress on the issue of CO<sub>2</sub> production.

Two key initiatives (described on page 32) saw the first concrete results in Africa from ABB's Access to Electricity rural electrification program, and we developed and road tested a human rights checklist for the Business Leaders Initiative on Human Rights, which helps businesses find pragmatic ways to protect and promote human rights.

One of our key areas of focus in 2004 was to ensure the full implementation of our health and safety policy, making it an integral part of our working culture at every level of the organization.

### Sustainability highlights

- Health and safety training courses for top managers held worldwide in campaign to improve group performance
- Assessment starts to determine if ABB will become CO<sub>2</sub>-neutral company
- ABB develops and road tests human rights checklist as part of international business initiative to protect and promote human rights
- Power turned on in remote Tanzanian village, marking first concrete results of Access to Electricity program
- Progress in phasing out hazardous substances, including chlorinated volatile organic compounds
- Stakeholder dialogues held in 20 countries
- ABB in Italy wins prestigious Sodalitas award for sustainability policies – mainly for wide range of social programs
- More than 200 volunteers from ABB in Germany work at Special Olympics for disabled held in Hamburg
- ABB receives environmental leadership award from Ford Motor Company for product performance

Special emphasis has been placed on leadership training. Five health and safety workshops, designed to train our top 100 managers, were held in 2004 in different parts of the world. The process is ongoing and more training is scheduled.

We also committed considerable resources in 2004 to implement the internationally recognized OHSAS 18001 management standard in all business units, including manufacturing, office work, construction projects and service.

Much remains to be done in different parts of our business and sphere of influence, and we can no doubt improve our record.

We are convinced that the sustainable approach to business will continue to provide ABB with a significant competitive edge. We will further sharpen our sustainability focus.

# Energy efficient technology

## Major energy savings with ABB drives

ABB has the world's largest installed base of variable speed drives, which reduce energy consumption by adjusting the speed of motors.

Our drives are used in a wide range of applications: from factory production lines, to regulating air conditioning in buildings, and adjusting the speed of ski lifts and baggage conveyor systems at airports.

In total, ABB's drives reduce CO<sub>2</sub> emissions by 68 million tons per year, more than the annual emissions of Finland.

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

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



ABB's drives sharply reduce energy consumption and cut costs.

## Power transmission with added benefits

ABB's high-voltage direct current (HVDC) technology – the most efficient means for bulk power transmission over long distances – provides customers with economic and environmental benefits.

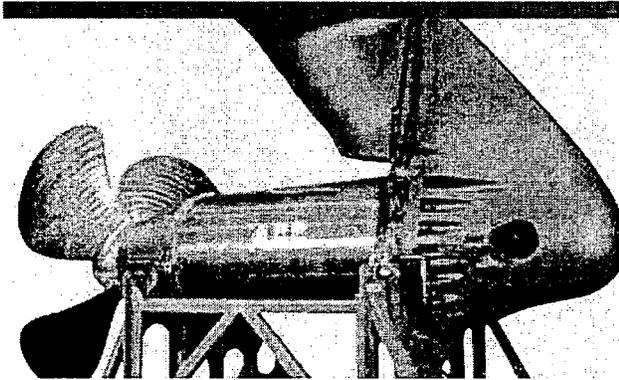
HVDC transmission on land or under water has minimal losses, and its small footprint helps to preserve farmland and forests. Power supply to remote locations is also cost-effective because of low losses and efficient transmission.

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

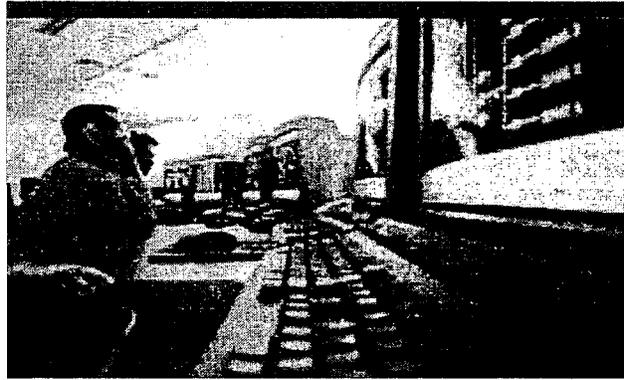
An example: ABB's underwater HVDC link connecting the power grids of Norway and The Netherlands, which was given the green light in 2004, will lead to a more efficient use of renewable hydro energy produced in Norway. It may also boost the development of wind power in The Netherlands because the HVDC link should help to compensate the effect of wind fluctuations.



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



**Saving fuel at sea**  
The Azipod podded propulsion system, used in an increasing range of ships, ferries and luxury cruise liners, increases a vessel's maneuverability and reduces fuel consumption by up to 15 percent.



**Increasing power plant efficiency**  
ABB's new Lifecycle Optimizer solution evaluates the data of a power plant's performance during its lifetime to calculate optimum levels of activity, ensuring efficient operation and low emissions.

# Sustainability

## Supporting social progress

### **One village in Africa – two key initiatives**

ABB is actively involved in a number of multilateral initiatives to promote sustainable development and greater awareness among international business of its responsibilities in society.

Partnerships are key to achieving this. ABB works with a wide range of organizations, ranging from the World Business Council for Sustainable Development and the Business Leaders Initiative on Human Rights (BLIHR) to the World Wide Fund for Nature (WWF) and other non-governmental organizations.

A remote and poor village in southern Tanzania became the focal point in 2004 of two key ABB initiatives.

The 1,800-strong village of Ngarambe is the first to receive power under ABB's Access to Electricity program. And ABB has also started road testing a new checklist on human rights which it drew up for BLIHR, a group of international businesses trying to develop practical ways for companies to protect and promote human rights.

In Ngarambe, power from a diesel-fired generator supplied by ABB was turned on in 2004, sparking immediate economic, environmental and social benefits for the community.

The village school, medical dispensary, local government office, mosque, small businesses and a number of homes now have electrical power. The result: extra teaching after nightfall, the dispensary can stay open longer, and additional income for small shops and restaurants at night.

ABB's Access to Electricity program is designed to promote sustainable development in rural and semi-urban communities in Africa and Asia. It was launched in response to the United Nations Global Compact, which urged companies and organizations to provide greater assistance to the least developed countries.

Apart from the generator, ABB provided cables, low-voltage equipment and training so villagers can operate the machines. The WWF is ABB's partner in the project, and provides guidance on such issues as reducing deforestation, improving health care and environmental education.

Access to Electricity is a commercial, as well as a social venture, so external financing is key. Partnership with other stakeholders – governments, companies, non-governmental organizations, aid agencies, civil society – is also vital, with each partner bringing its complementary skills to the project.

Ngarambe has been an early success. Further projects are now being planned in other parts of Tanzania, Senegal, Yemen and India.

The village is also the scene of another initiative. ABB agreed in 2004 to road test proposed United Nations human rights rules for business, known as the UN draft norms, by developing a human rights checklist that managers can use when preparing infrastructure projects.

The checklist mirrors the universally recognized human rights categories that underpin the commitment of companies that, like ABB, have signed the UN Global Compact. These categories are the rights of workers, occupational health and safety, non-discriminatory treatment and the rights of local communities.

ABB recognizes that a business approach which is aware of human rights benefits all stakeholders – the villagers, local authorities, suppliers and the companies and organizations.

Initial results from introducing the questionnaire in Ngarambe have been positive, and its use has now been extended to other ABB projects in Africa. The project will be evaluated and further developed in 2005.

## The triple bottom line in action



**Helping people help themselves**  
In 2004, ABB turned ten hectares of vacant land adjacent to one its factories in Argentina into a farming school for people hard hit by an economic downturn. After learning how to raise crops and run farms, the people are now working for themselves and, in most cases, enjoying a higher standard of living.



**Offering children a future**  
ABB supports schools for less privileged children in many parts of the world, including Brazil, India and South Africa. In India, ABB adopted a government primary school in Vadodara in 2004, and has provided clean drinking water, renovated washrooms, strengthened walls and painted classrooms.



**Ships plug in to environmental success**  
Ships entering Sweden's Gothenburg harbor – Scandinavia's largest port – are now connected to electricity onshore using ABB high-voltage cables and technology, instead of burning fuel to generate their own power on board. The ship-to-shore power link reduces harmful emissions, and won Gothenburg a 2004 European Union Clean Marine Award.

# Corporate governance

## 1. Principle

ABB is committed to the highest international standards of corporate governance, and supports the general principles as set forth in the Swiss Code of Best Practice, as well as those of the capital markets where ABB is listed: the SWX Swiss Exchange and exchanges in London, Stockholm, Frankfurt and New York (where its shares are traded in the form of American depositary shares).

In addition to the provisions of the Swiss Code of Obligations, ABB's principles and rules on corporate governance are laid down in its articles of incorporation, its standards for corporate governance, the charters of the board committees, the board membership guidelines, several directives (e.g. on insider information) and the code on business ethics. It is the duty of ABB's board of directors to review and amend or propose amendments to those documents from time to time to reflect the most recent developments and practices, as well as to ensure compliance with applicable laws and regulations.

This section of the annual report is based on the Directive on Information relating to Corporate Governance published by the SWX Swiss Exchange. Where an item listed in the directive is not addressed in this report, it is either inapplicable to, or immaterial for, ABB.

In accordance with the requirements of the New York Stock Exchange ("NYSE"), a comparison of how the corporate governance practices followed by ABB differ from those required under the NYSE listing standards can be found on ABB's Web site under: [www.abb.com/about](http://www.abb.com/about)

## 2. Group structure and shareholders

### 2.1 Group structure

ABB Ltd, Zurich, Switzerland is the ultimate parent company of the ABB Group, which is comprised of 415 subsidiaries (operating and holding companies) worldwide. Besides ABB Ltd, listed on the SWX Swiss Exchange (virt-x) and the exchanges in London, Stockholm, Frankfurt and New York, the only other listed company in the ABB Group is ABB Limited, Bangalore, India, which is listed on the National Stock Exchange of India and the local exchanges in India at Mumbai, Ahmadabad, New Delhi and Kolkata.

Stock exchange	Security	Market capitalization	ABB interest	Ticker symbol	Security number	ISIN code
SWX Swiss Exchange (virt-x)	ABB Ltd, Zurich, Share	12.9 billion CHF	Parent	ABBN	1222171	CH0012221716
London Stock Exchange	ABB Ltd, Zurich, Share	12.9 billion CHF	Parent	ANN	7108899	CH0012221716
Stockholm Stock Exchange	ABB Ltd, Zurich, Share	12.9 billion CHF	Parent	ABB	-	CH0012221716
Frankfurt Stock Exchange	ABB Ltd, Zurich, Share	12.9 billion CHF	Parent	ABJ	919730	CH0012221716
New York Stock Exchange	ABB Ltd, Zurich, ADS	12.9 billion CHF	Parent	ABB	000375204	US0003752047
National Stock Exchange of India	ABB Limited, Bangalore, Share	21.5 billion INR	52.11	ABB	-	INE117A01014
Mumbai	ABB Limited, Bangalore, Share	21.5 billion INR	52.11	ABB	500002	INE117A01014
Ahmadabad	ABB Limited, Bangalore, Share	21.5 billion INR	52.11	ABB	-	INE117A01014
New Delhi	ABB Limited, Bangalore, Share	21.5 billion INR	52.11	ABB	-	INE117A01014
Kolkata	ABB Limited, Bangalore, Share	21.5 billion INR	52.11	ABB	-	INE117A01014

All data as of December 31, 2004.

The following table sets forth, as of December 31, 2004, the name, country of incorporation, ownership interest and share capital of ABB Ltd, Zurich, Switzerland and its significant subsidiaries:

Company name/Location	Country	ABB interest %	Share capital in in 1,000	Currency
ABB S.A., Buenos Aires	ARGENTINA	100.00	10,510	ARS
ABB Australia Pty Limited, Sydney	AUSTRALIA	100.00	122,436	AUD
ABB AG, Vienna	AUSTRIA	100.00	15,000	EUR
ABB Ltda., Osasco	BRAZIL	100.00	506,026	BRL
ABB Bugaria EOOD, Sofia	BULGARIA	100.00	10	BGL
ABB Inc., St. Laurent, Quebec	CANADA	100.00	301,957	CAD
ABB (China) Ltd., Beijing	CHINA	100.00	120,000	USD
Asea Brown Boveri Ltda., Bogotá	COLOMBIA	99.99	485,477	COP
ABB Ltd., Zagreb	CROATIA	100.00	2,730	HRK
ABB s.r.o., Prague	CZECH REPUBLIC	100.00	100,100	CZK
ABB A/S, Skovlunde	DENMARK	100.00	241,000	DKK
Asea Brown Boveri S.A., Quito	ECUADOR	96.87	315	USD
Asea Brown Boveri S.A.E., Cairo	EGYPT	100.00	82,490	EGP
ABB AS, Tallinn	ESTONIA	100.00	25,985	EEK
ABB Oy, Helsinki	FINLAND	100.00	168,188	EUR
ABB S.A., Rueil-Malmaison	FRANCE	100.00	38,921	EUR
ABB AG, Mannheim	GERMANY	100.00	167,500	EUR
ABB Automation Products GmbH, Eschborn	GERMANY	100.00	20,750	DEM
ABB Beteiligungs- und Verwaltungsges. mbH, Mannheim	GERMANY	100.00	120,000	DEM
ABB Gebäudetechnik AG, Mannheim	GERMANY	100.00	12,315	DEM
ABB Process Industries GmbH, Eschborn	GERMANY	100.00	18,870	EUR
Asea Brown Boveri S.A., Metamorphosis Attica	GREECE	100.00	1,182	EUR
ABB (Hong Kong) Ltd., Hong Kong	HONG KONG	100.00	20,000	HKD
ABB Engineering Trading and Service Ltd., Budapest	HUNGARY	100.00	114,300	HUF
ABB Limited, Bangalore	INDIA	52.11	423,817	INR
ABB Ltd, Dublin	IRELAND	100.00	2,871	EUR
ABB Technologies Ltd., Tirat Carmel	ISRAEL	99.99	420	ILS
ABB S.p.A., Milan	ITALY	100.00	107,000	EUR
ABB SACE S.p.A., Sesto S. Giovanni (MI)	ITALY	100.00	60,000	EUR
ABB Trasmissione & Distribuzione S.p.A., Milan	ITALY	100.00	3,300	EUR
ABB Technology SA, Abidjan	IVORY COAST	99.00	178,540	XOF
ABB K.K., Tokyo	JAPAN	100.00	1,000,000	JPY
ABB Ltd., Seoul	KOREA, REPUBLIC OF	100.00	18,670,000	KRW
ABB Holdings Sdn. Bhd., Subang Jaya	MALAYSIA	100.00	4,490	MYR
Asea Brown Boveri S.A. de C.V., Tlalnepantla	MEXICO	100.00	419,096	MXN
ABB BV, Rotterdam	NETHERLANDS	100.00	9,076	EUR
ABB Holdings BV, Amsterdam	NETHERLANDS	100.00	119	EUR
Luwoco Lummus World-wide Contracting (Netherlands) B.V	NETHERLANDS	100.00	19	EUR
ABB Limited, Auckland	NEW ZEALAND	100.00	34,000	NZD
ABB Holding AS, Billingstad	NORWAY	100.00	800,000	NOK
Asea Brown Boveri S.A., Lima	PERU	99.99	17,152	PEN
Asea Brown Boveri Inc., Paranaque, Metro Manila	PHILIPPINES	100.00	123,180	PHP
ABB Sp. z o.o., Warsaw	POLAND	96.01	208,843	PLN

Continued on the next page.

# Corporate governance

Company name/Location	Country	ABB interest %	Share capital in 1,000	Currency
ABB S.G.P.S. S.A., Amadora	PORTUGAL	100.00	4,117	EUR
Asea Brown Boveri Ltd., Moscow	RUSSIA	100.00	333	USD
ABB Contracting Company Ltd., Riyadh	SAUDI ARABIA	65.00	10,000	SAR
ABB Holdings Pte. Ltd., Singapore	SINGAPORE	100.00	25,597	SGD
ABB Holdings (Pty) Ltd., Sunninghill	SOUTH AFRICA	80.00	4,050	ZAR
Asea Brown Boveri S.A., Madrid	SPAIN	100.00	33,318	EUR
ABB AB, Västerås	SWEDEN	100.00	400,000	SEK
ABB Norden Holding AB, Stockholm	SWEDEN	100.00	459,000	SEK
ABB Asea Brown Boveri Ltd, Zurich	SWITZERLAND	100.00	2,768,000	CHF
ABB Ltd, Zurich	SWITZERLAND	Parent	5,175,787	CHF
ABB Schweiz AG, Baden	SWITZERLAND	100.00	55,000	CHF
ABB LIMITED, Bangkok	THAILAND	100.00	1,034,000	THB
ABB Holding A.S., Istanbul	TURKEY	99.95	12,844	USD
ABB Ltd., Kiev	UKRAINE	100.00	5,860	USD
ABB Industries (L.L.C), Dubai	UNITED ARAB EMIRATES	49.00	5,000	AED
ABB Holdings Inc., Norwalk	UNITED STATES	100.00	2	USD
ABB Inc., Raleigh, NC	UNITED STATES	100.00	901	USD
ABB Lummus Global Inc., Bloomfield, NJ	UNITED STATES	100.00	12,400	USD
Asea Brown Boveri S.A., Caracas	VENEZUELA	100.00	4,899,373	VEB
ABB (Private) Ltd., Harare	ZIMBABWE	100.00	1,000	ZWD

ABB's operational group structure is described in the "Financial review" part of this annual report.

## 2.2 Significant shareholders

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

The Capital Group Companies, Inc., Los Angeles, CA, U.S., announced that as of April 23, 2004, it reduced its holdings for its clients in ABB shares – which as of December 31, 2003 were 133,888,830 ABB shares, corresponding to 6.5 percent of ABB's total share capital – to a total which is less than 5 percent of total capital and votes.

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

## 2.3 Cross-shareholdings

There are no cross-shareholdings in excess of 5 percent of the share capital or the voting rights between ABB and another company.

## 3. Capital structure

### 3.1 Ordinary share capital

As of December 31, 2004, ABB's ordinary share capital (including treasury shares) amounts to CHF 5,175,787,367.50 divided into 2,070,314,947 fully paid registered shares with a par value of CHF 2.50 per share.

### 3.2 Changes to the share capital

At ABB Ltd's annual general meeting held on March 20, 2001, its shareholders approved a share split in a four-for-one ratio to reduce the par value of the shares from CHF 10 each to CHF 2.50 each. Consequently, the number of issued shares changed from 300,002,358 to 1,200,009,432, whereas the share capital remained at CHF 3,000,023,580. The share split was registered in the commercial register on May 7, 2001.

On November 20, 2003, ABB's extraordinary shareholders' meeting resolved to increase ABB's share capital by CHF 2,100,016,505 by issuing 840,006,602 new shares.

Shareholders who did not want to exercise their rights to subscribe for new shares could sell them. A total of 99.4 percent of the rights were exercised. The shares related to unexercised rights were sold in the market and the proceeds were received by ABB.

ABB's new share capital of CHF 5,100,040,085, divided into 2,040,016,034 shares, was registered in the commercial register on December 9, 2003.

Subsequently, ABB issued 30,298,913 shares out of its authorized capital for purposes of fulfilling ABB's obligations under the pre-packaged plan of reorganization of Combustion Engineering. In accordance with its then-current articles of incorporation, the pre-emptive rights of the shareholders have been excluded and allocated to an ABB subsidiary, which has subscribed for these shares and holds them until they will be contributed to the Asbestos PI Trust, once the pre-packaged plan of reorganization of Combustion Engineering has become effective (for the accounting treatment of these "Asbestos shares" please refer to Notes 18 and 23 of the "Financial review" part of this annual report).

The new share capital of CHF 5,175,787,367.50 divided into 2,070,314,947 shares was registered in the commercial register on December 15, 2003.

### 3.3 Contingent share capital

ABB's share capital may be increased in an amount not to exceed CHF 550,000,000 through the issuance of up to 220,000,000 fully paid shares with a par value of CHF 2.50 per share (a) up to the amount of CHF 525,000,000 (equivalent to 210,000,000 shares) through the exercise of conversion rights and/or warrants granted in connection with the issuance on national or international capital markets of newly or already issued bonds or other financial market instruments, and (b) up to the amount of CHF 25,000,000 (equivalent to 10,000,000 shares) through the exercise of warrant rights granted to its shareholders. ABB's board of directors may grant warrant rights not taken up by shareholders for other purposes in the interest of ABB.

The pre-emptive rights of the shareholders are excluded in connection with the issuance of convertible or warrant-bearing bonds or other financial market instruments or the grant of warrant rights. The then-current owners of conversion rights and/or warrants will be entitled to subscribe for the new shares. The conditions of the conversion rights and/or warrants will be determined by ABB's board of directors.

The acquisition of shares through the exercise of conversion rights and/or warrants and each subsequent transfer of the shares will be subject to the transfer restrictions of ABB's articles of incorporation (see section 3.5).

In connection with the issuance of convertible or warrant-bearing bonds or other financial market instruments, the board of directors is authorized to restrict or deny the advance subscription rights of shareholders if such bonds or other financial market instruments are for the purpose of financing or refinancing the acquisition of an enterprise, parts of an enterprise, participations or new investments or an issuance on national or international capital markets. If the board of directors denies advance subscription rights, the convertible or warrant-bearing bonds or other financial market instruments will be issued at the relevant market conditions and the new shares will be issued pursuant to the relevant market conditions taking into account the share price and/or other comparable instruments having a market price. Conversion rights may be exercised during a maximum ten-year period, and warrants may be exercised during a maximum seven-year period, in each case from the date of the respective issuance. The advance subscription rights of the shareholders may be granted indirectly.

ABB's share capital may be increased by an amount not to exceed CHF 200,000,000 through the issuance of up to 80,000,000 fully paid shares to employees. The pre-emptive and advance subscription rights of ABB's shareholders are excluded. The shares or rights to subscribe for shares will be issued to employees pursuant to one or more regulations to be issued by the board of directors, taking into account performance, functions, levels of responsibility and profitability criteria. ABB may issue shares or subscription rights to employees at a price lower than that quoted on the stock exchange. The acquisition of shares within the context of employee share ownership and each subsequent transfer of the shares will be subject to the transfer restrictions of ABB's articles of incorporation (see section 3.5).

### 3.4 Authorized share capital

ABB's board of directors is authorized to increase ABB's share capital in an amount not to exceed CHF 174,252,717.50 through the issuance of up to 69,701,087 fully paid shares with a par value of CHF 2.50 per share by not later than May 19, 2005. Increases in partial amounts shall be permitted. The subscription and acquisition of the shares issued under ABB's authorized capital, as well as each subsequent transfer of the shares, will be subject to the transfer restrictions of ABB's articles of incorporation (see section 3.5).

The board of directors will determine the issue price, the type of payment, the date of issue of new shares, the conditions for the exercise of pre-emptive rights, and the beginning date for any dividend entitlement. In this regard, the board of directors may issue new shares by means of a firm underwriting through a banking institution, a syndicate or another third party and a subsequent offer of these shares to current shareholders. ABB's board of directors may permit pre-emptive rights that have not been exercised to expire or may place these rights and/or shares as to which pre-emptive rights have been granted but not exercised at market conditions or use them for other purposes in ABB's interest.

The board of directors is further authorized to restrict or deny the pre-emptive rights of the shareholders and to allocate such rights to third parties if the shares are to be used (a) for the acquisition of an enterprise, parts of an enterprise, participations or for new investments, or, in case of a share placement, for the financing or refinancing of such transactions, (b) for the purpose of broadening ABB's shareholder constituency in connection with a listing of shares on domestic or foreign stock exchanges, or (c) for employee participation plans.

### 3.5 Limitations on transferability of shares and Nominee registration

ABB may decline a registration with voting rights if a shareholder does not declare that it has acquired the shares in its own name and for its own account. If the shareholder refuses to make such declaration, it will be registered as a shareholder without voting rights.

A person failing to expressly declare in its registration application that it holds the shares for its own account (a "Nominee"), will be entered in the share register with voting rights, provided that such Nominee has entered into an agreement with the board of directors concerning its status, and further provided that the Nominee is subject to a recognized bank or financial market supervision. In special cases the board of directors may grant exemptions. There were no exemptions granted in 2004.

# Corporate governance

## 3.6 Convertible bonds and warrants

For information about outstanding convertible bonds and options on shares issued by ABB, please refer to Notes 15 and 22 of the "Financial review" part of this annual report.

## 4. Shareholders' participation

### 4.1 Shareholders' dividend rights

For shareholders who are residents of Sweden, ABB has established a dividend access facility under which such shareholders have the option to be registered with VPC AB in Sweden and to receive the dividend in Swedish kronor from ABB Participation AB. For further information on the dividend access facility please refer to the articles of incorporation.

### 4.2 Shareholders' voting rights

ABB has one class of shares and each registered share carries one vote at the general meeting. Voting rights may be exercised only after a shareholder has been registered in the share register of ABB as a shareholder with the right to vote, or with VPC AB in Sweden, which maintains a sub-register of the share register of ABB.

A shareholder may be represented at the general meeting by another shareholder with the right to vote, its legal representative, a corporate body (Organvertreter), an independent proxy (unabhängiger Stimmrechtsvertreter), or a depositary (Depotvertreter). All shares held by one shareholder may be represented by only one representative.

For practical reasons shareholders must be registered in the share register no later than ten days before the general meeting in order to be entitled to vote. Except for the cases described under section 3.5 there are no voting rights restrictions limiting ABB's shareholders' rights.

### 4.3 General meeting

Shareholders' resolutions at general meetings are approved with an absolute majority of the votes represented at the meeting, except for those matters described in article 704 of the Swiss Code of Obligations and for resolutions with respect to restrictions on the exercise of the right to vote and the removal of such restrictions, which all require the approval of two-thirds of the votes represented at the meeting.

Shareholders representing shares of a par value of at least CHF 1,000,000 may request items to be included in the agenda of a general meeting. Such request must be made in writing at least 40 days prior to the date of the general meeting and specify the items and the motions of such shareholder(s). ABB's articles of incorporation do not contain provisions on the convocation of the general meeting of shareholders which differ from the applicable legal provisions.

## 5. Board of directors

### 5.1 Responsibilities and organization

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

The internal organizational structure and the definition of the areas of responsibility of the board of directors, as well as the information and control instruments vis-à-vis the group executive committee, are set forth in the regulations of the board of directors.

Board meetings are convened by the chairman or upon request by a director or the chief executive officer (CEO).

### 5.2 Term and members

The members of the board of directors are elected at the ordinary general meeting of the shareholders for a term of one year; re-election is possible.

ABB's board membership guidelines require that the board of directors is comprised of a substantial majority of independent directors. Currently all board members are non-executive and independent directors (see also section 5.4), with the exception of Jürgen Dormann who was also CEO until December 31, 2004 in addition to his ongoing function as chairman.

Members of the board of directors of ABB:

#### Jürgen Dormann

Chairman, board member since 1998; from September 5, 2002 until December 31, 2004 also president and CEO of ABB

Vice-chairman of sanofi aventis (France)

Board member: Adecco (Switzerland), IBM (U.S.), as of February 22, 2005

#### Roger Agnelli

President and CEO of Companhia Vale do Rio Doce (Brazil)

Non-executive board member of ABB, since 2002

Board member: Duke Energy (U.S.)

#### Louis R. Hughes

Chairman of Manager Technology (U.S.), appointed CEO of GBS Laboratories (U.S.)

Non-executive board member of ABB, since 2003

Board member: BT Group (U.K.) and Suizer (Switzerland)

As announced on October 28, 2004, Louis R. Hughes has taken a temporary leave of absence from the board to serve the United States government as chief of staff of the Afghanistan Reconstruction Group

#### Hans Ulrich Märki

Chairman of IBM Europe, Middle East and Africa (France)

Non-executive board member of ABB, since 2002

Board member: Mettler Toledo International (Switzerland)

**Michel de Rosen**

Chairman, president and CEO of ViroPharma (U.S.)

Non-executive board member of ABB, since 2002

Board member: Ursinus College and Pennsylvania Biotech (both U.S.)

Member of the advisory board of Paul Capital Partners Royalty Fund and the Global Business Coalition on HIV/AIDS (both U.S.)

**Michael Treschow**

Chairman of Ericsson, Electrolux and the Confederation of Swedish Enterprise (all Sweden)

Non-executive board member of ABB, since 2003

**Bernd W. Voss**

Member of the supervisory board of Dresdner Bank (Germany)

Non-executive board member of ABB, since 2002

Board member: Allianz Leben, Continental, Quelle, Hapag-Lloyd, Wacker Chemie, Osram (all Germany)

**Jacob Wallenberg**

Chairman of SEB Skandinaviska Enskilda Banken and W Capital Management (both Sweden)

Non-executive board member of ABB, since 1999

Vice-chairman: Investor, Knut and Alice Wallenberg Foundation, Atlas Copco, SAS (all Sweden)

Board member: Confederation of Swedish Enterprise, Nobel Foundation (both Sweden) and the Wharton European Advisory Board (U.S.)

Other than Louis R. Hughes (see above) none of ABB's board members holds any official functions or political posts. Further information on ABB's board members, including details about their nationality, education and professional experience, as well as other activities and functions, is available on ABB's Web site under: [www.abb.com/about](http://www.abb.com/about)

**5.3 Cross-involvement**

There is no cross-involvement among ABB's board members and the boards of directors of other listed companies.

**5.4 Business relationships**

This section describes business relationships between ABB and its non-executive board members, or companies and organizations represented by them.

On November 17, 2003, ABB entered into a new unsecured syndicated \$1 billion three-year revolving credit facility, which became available in December 2003 after the fulfillment of certain conditions including the repayment and cancellation of the former \$1.5 billion facility. Each of Skandinaviska Enskilda Banken ("SEB") and Dresdner Bank Luxembourg S.A. has committed to \$70.8 million out of the \$1 billion total. Jacob Wallenberg is the chairman of SEB and Bernd W. Voss is a member of the supervisory board of Dresdner Bank AG.

In June 2003, ABB entered into a ten-year agreement with IBM pursuant to which IBM took responsibility for the operation and support of information systems infrastructure in 15 countries (status as of December 31, 2004) in Europe and North America, representing approximately 90 percent of ABB's information systems infrastructure. The agreement involved the transfer to IBM of 800 ABB employees, in addition to the 380 employees transferred under pilot programs prior to 2003. The final transfer of responsibilities took place in September 2003. The value of the agreement will approach \$1.7 billion over ten years. Hans Ulrich Märki is chairman of IBM Europe, Middle East and Africa. Jürgen Dormann has been appointed member of IBM's board of directors as of February 22, 2005.

During 2004, ABB was party to several contracts with Companhia Vale do Rio Doce (CVRD) and its subsidiaries. The largest contracts are for engineering services and supply of electrical equipment for generation and distribution of power energy with value of approximately \$1.7 million and \$1.6 million, respectively. There are also various purchase orders for spare parts and machinery in general, amounting to approximately \$8.3 million. Roger Agnelli is president and CEO of CVRD.

ABB is a supplier of transmission and distribution equipment to Duke Power. In 2004, ABB supplied turnkey installation support for both capital improvements and operation and maintenance projects. Sales volume in 2004 was \$10 million with a turnkey circuit breaker replacement order representing \$3 million of that total. Roger Agnelli is a member of the board of directors of Duke Energy, the parent corporation of Duke Power.

ABB's board of directors has determined that these transactions do not constitute material business relationships, comparing the revenues generated from the business described above to the annual revenues of SEB, Dresdner Bank, IBM, CVRD and Duke Energy. ABB's board of directors therefore considers Wallenberg, Voss, Märki and Agnelli – as well as the other board members, with the exception of Jürgen Dormann as chairman and former CEO (until December 31, 2004) – to be independent directors. This determination was made in accordance with the Swiss Code of Best Practice and the independence criteria set forth in the corporate governance rules of the New York Stock Exchange.

# Corporate governance

## 5.5 Board committees

The board of directors of ABB has appointed from among its members three board committees: the nomination and compensation committee, the finance and audit committee and the strategy committee. The duties and objectives of the board committees (except for the strategy committee, due to its temporary nature) are set forth in charters issued or approved by the board of directors. These committees assist the board in its tasks and report regularly to the board.

### 5.5.1 Nomination and compensation committee

The nomination and compensation committee determines the selection of candidates for the board of directors and its committees, plans for the succession of directors and ensures that newly elected directors receive the appropriate introduction and orientation, and that all directors receive adequate continuing education and training to fulfill their obligations. The nomination and compensation committee proposes the remuneration of the members of the group executive committee. It also governs the deployment of the ABB people strategy.

The nomination and compensation committee comprises three or more independent directors. Upon invitation by the committee's chairman, the CEO or other members of the group executive committee may participate in the committee meetings, provided that any potential conflict of interest is avoided and confidentiality of the discussions is maintained.

Members and secretary of the nomination and compensation committee:

Members: Hans Ulrich Märki (chairman)  
Michel de Rosen  
Jacob Wallenberg  
Secretary: Gary Steel

### 5.5.2 Finance and audit committee

The finance and audit committee oversees the financial reporting processes and accounting practices, evaluates the independence, objectivity and effectiveness of external and internal auditors, reviews audit results and monitors compliance with the laws and regulations governing the preparation of ABB's financial statements and assesses the processes relating to risk management and internal control systems.

The finance and audit committee comprises three or more independent directors who have a thorough understanding of finance and accounting. As determined by the committee's chairman for matters related to their respective functions, the head of internal audit, as well as the external auditors, may participate in the finance and audit committee meetings. As required by the U.S. Securities and Exchange Commission (SEC) the board of directors has determined that Mr. Bernd W. Voss is an audit committee financial expert.

Members and secretary of the finance and audit committee:

Members: Bernd W. Voss (chairman)  
Roger Agnelli  
Jacob Wallenberg  
Secretary: Michel Demaré

Peter Voser acted as secretary until his departure, then Alfred Storck, deputy CFO, on an interim basis until Michel Demaré joined ABB.

### 5.5.3 Strategy committee

During a review of the group's medium-term strategy in 2003 and 2004, the board's strategy committee worked in cooperation with the ABB Group executive committee to discuss proposals for the group's future focus and direction. The committee completed its work in 2004 and was then dissolved.

Its members and secretary were:

Members: Louis R. Hughes (chairman)  
Hans Ulrich Märki  
Michael Treschow  
Secretary: Peter Smits

### 5.6 Meetings and attendance

The table below shows the number of meetings held by the board of directors and its committees, their average duration, as well as the attendance of the individual board members:

	Board of directors	Nomination and compensation committee	Finance and audit committee	Strategy committee
Average duration (hrs.)	7	2	3	2
Number of meetings	5	7	6	4*
Meetings attended:				
Jürgen Dormann	5	-	-	-
Roger Agnelli	5	-	6	-
Louis R. Hughes**	3	-	-	3
Hans Ulrich Märki	5	7	-	4
Michel de Rosen	5	6	-	-
Michael Treschow	4	-	-	4
Bernd W. Voss	5	-	6	-
Jacob Wallenberg	5	6	6	-

\* Most meetings of the strategy committee were also attended by the complete group executive committee.

\*\* Louis R. Hughes could only attend the first three meetings of the board of directors and the strategy committee due to his leave of absence (see section 5.2).

### 5.7 Lead director

Jacob Wallenberg held the position of lead director to address potential conflict of interests, which Jürgen Dormann in his dual role as chairman of the board and CEO could have experienced.

The additional tasks of the lead director were to act as counselor to the chairman and facilitate the dialogue between the members of the board and the chairman. He held special sessions without the chairman's presence where the chairman's role and performance was discussed.

The position of lead director ceased to exist as of January 1, 2005, when Fred Kindle took over the position of CEO from Jürgen Dormann, who remains chairman of the board of directors.

**5.8 Ownership of ABB shares and options**

The table below shows the number of ABB shares, or equivalent U.S. American depositary shares (ADS), held by each board member as of December 31, 2004.

	Number of shares
Jürgen Dormann	673,797
Roger Agnelli	98,243
Louis R. Hughes	44,504
Hans Ulrich Märki	240,499
Michel de Rosen	68,843
Michael Treschow	51,898
Bernd W. Voss	136,970
Jacob Wellenberg	124,017

With the exception of Jürgen Dormann (see section 6.4) none of the board members holds any options in ABB shares. No person closely linked to any of the board members holds any shares of ABB or options in ABB shares. Persons closely linked is understood to mean: 1) the spouse; 2) children below the age of 18; 3) legal or natural persons acting as fiduciary; 4) legal entities controlled by a board member.

**5.9 Secretary to the board of directors**

John G. Scriven is secretary to the board of directors.

**6. Group executive committee**

**6.1 Responsibilities and organization**

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

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

**6.2 Members**

**Jürgen Dormann**  
President and CEO until December 31, 2004, chairman of the board

**Fred Kindle**  
President and CEO as of January 1, 2005

**Dinesh Paliwal**  
Executive vice president  
Automation Technologies

**Peter Smits**  
Executive vice president  
Power Technologies

**Gary Steel**  
Executive vice president  
Human Resources

**Peter Voser**  
Executive vice president  
CFO until September 30, 2004

**Michel Demaré**  
Executive vice president  
CFO as of January 1, 2005

For the period from October 1, 2004 until December 31, 2004, the position of CFO was held by Alfred Storck, deputy CFO, on an interim basis.

Further information about the members of the group executive committee, including their nationality, education and professional experience, as well as other activities and functions, is available on ABB's Web site under: [www.abb.com/about](http://www.abb.com/about)

**6.3 Management contracts**

There are no management contracts between ABB and companies or natural persons not belonging to the ABB Group.

## 6.4 Ownership of ABB shares and options

As of December 31, 2004, the members of the group executive committee held (which does not necessarily equal the numbers granted, if the vesting period has lapsed) the following numbers of shares and options (based on the categorizations described in sections 7.8 and 7.9) provided in the table below. The number of shares to be received under the performance incentive share plan is conditional on achieving the criteria as summarized in section 7.9. The exact number will only be known in March 2006.

	Number of shares		Number of options			
	Shares	Conditional grants under performance incentive share plan	Launch year 1999 (exercise price CHF 32.73)	Launch year 2000	Launch year 2001	Launch year 2003
Jürgen Dormann*		0	0	0	0	1,000,000
Fred Kindle	2,500	130,480	0	0	0	0
Dinesh Paliwal	120,000	110,475	100,000	250,000	1,000,000	1,000,000
Peter Smits	51,000	113,282	100,000	250,000	1,000,000	1,000,000
Gary Steel	0	89,193	0	0	0	1,000,000
Michel Demaré**	500	0	0	0	0	0

\* For Jürgen Dormann's share ownership see section 5.8

\*\* Shares held jointly with his wife. In January 2005, Michel Demaré received a conditional grant of 59,001 shares under the 2004 launch of the performance incentive share plan.

Other than as stated in the table above no person closely linked to any member of the group executive committee holds any shares of ABB or options in ABB shares.

## 7. Compensation

### 7.1 Principles of board compensation

For the period from the annual general meeting of shareholders in 2004 to the annual general meeting of shareholders in 2005, the compensation of the board of directors was kept at the previous year's level, which is:

▪ Chairman:	CHF 1,000,000
▪ Member:	CHF 250,000
▪ Committee chairman:	CHF 50,000
▪ Committee member:	CHF 20,000

Payments to board members are made in May and November in advance of each term. Board members receive at least 50 percent (and may elect to receive a higher ratio) of their net compensation, i.e. after deduction of social security costs and withholding tax (where applicable), in ABB shares, which they are entitled to receive with a discount of 10 percent of the average share price during a 30-day reference period. During the term of board membership, the ABB shares are kept in a blocked account and may only be disposed of after the respective person has left the board of directors.

### 7.2 Details of board compensation

In 2004, the current board members received the following compensation (the calculation of the number of shares and the cash amount varies according to whether the respective person is subject to taxation at source):

	Total annual compensation (gross), in CHF	Amount received in cash (net), in CHF	Number of shares received
Jürgen Dormann*	1,000,000	0	93,382
Roger Agnelli	270,000	0	27,630
Louis R. Hughes**	150,000	52,202	7,848
Hans Ulrich Märki	320,000	0	44,922
Michel de Rosen	270,000	93,901	13,815
Michael Treschow	270,000	93,901	13,815
Bernd W. Voss	300,000	0	30,832
Jacob Wallenberg	290,000	0	29,688
Total	2,870,000	240,004	261,932

\* Jürgen Dormann received this compensation in addition to his compensation as CEO (see section 7.4).

\*\* Louis R. Hughes received compensation only for the first semester as thereafter he took a temporary leave of absence (see section 5.2).

With the exception of Jürgen Dormann while having been both chairman of the board and CEO, board members do not receive pension benefits and are not eligible to participate in any of ABB's incentive programs.

No compensation was paid to former board members.

### 7.3 Principles of group executive committee compensation

Members of the group executive committee receive annual base compensation. They are further eligible for annual bonus compensation, determined in accordance with the principles explained in section 7.5.

In addition to receiving annual base and bonus compensation, members of the group executive committee may participate in the newly created employee share acquisition plan and performance incentive share plan. Some members of the group executive committee have participated in the earlier launches of ABB's management incentive plan (MIP). Group executive committee members receive customary additional benefits such as a company car and health insurance compensation, which are not material in the aggregate.

### 7.4 Details of group executive committee compensation

In applying the "cash-out principle" the table below shows the gross payments (i.e. compensation before deduction of employee social insurance and pension contributions) that were made to the members of the group executive committee, the bonuses paid in 2004 which are based on 2003 business performance, as well as the employer's part of the ordinary pension contributions. All members of the group executive committee are insured in the ABB Pension Fund, the ABB Supplementary Insurance Plan and the Tödi Foundation (the regulations are available under [www.abbvorsorge.ch](http://www.abbvorsorge.ch)), with the exception of Dinesh Paliwal, who is insured under the U.S. pension plan (see footnote below). The table also shows the numbers of conditionally granted shares under the performance incentive share plan (see section 7.9). The exact number of shares to be received will only be known in March 2006. In addition to the figures provided in the table below, Peter Smits and Gary Steel, but none of the other members of the group executive committee, participate in the employee share acquisition plan (see section 7.7) with the maximum annual savings amount of CHF 9,000.

	Currency	Salary paid in 2004	Bonus 2003 received	Additional compensation	Total annual compensation	Employer's pension contributions	No. of shares conditionally granted under performance incentive share plan
Jürgen Dormann*	CHF	3,372,508	799,680	0	4,172,188	1,352,544	0
Fred Kindle**	CHF	433,336	0	200,000	633,336	99,607	130,480
Dinesh Paliwal***	USD	654,167	374,000	0	1,028,167	370,970	110,475
Peter Smits	CHF	862,500	561,000	0	1,423,500	237,407	113,282
Gary Steel	CHF	670,840	408,000	0	1,078,840	170,134	89,193
Peter Voser****	CHF	600,837	776,000	498,000	1,874,837	132,997	0
Total*****	CHF	6,686,556	2,971,489	698,000	10,356,045	2,416,039	443,430

\* This compensation as CEO is in addition to the compensation received as chairman of the board.

\*\* As Fred Kindle joined ABB on September 1, 2004, this table shows his salary from September 1, 2004 until December 31, 2004. The additional compensation was for share options due to change of employment. The number of shares conditionally granted under the performance incentive share plan is pro-rated.

\*\*\* As Dinesh Paliwal has a U.S. employment contract, he received his salary in U.S. dollars. His pension contributions are based on the U.S. pension plan.

\*\*\*\* As Peter Voser left ABB on September 30, 2004, this table shows his salary from January 1, 2004 until September 30, 2004. His bonus for 2003 is comprised of an ordinary bonus of CHF 476,000 plus a special bonus of CHF 300,000, which he received for the successful management of the capital strengthening program. The additional compensation of CHF 498,000 is a pro-rated performance bonus for 2004.

\*\*\*\*\* For the purpose of calculating the total, the U.S. dollar amounts relating to Dinesh Paliwal have been converted into CHF at a year-end conversion rate of 1.1412.

# Corporate governance

## 7.5 Bonus determination

In 2003, ABB introduced a structure for aligning the performance expectations of its senior managers.

Group executive committee members, corporate staff and country managers of the 19 largest countries receive targets and are measured on ABB Group results, rather than on the basis of individual businesses. Business area managers and local country divisional managers receive targets and are measured on ABB Group results (60 percent) and on their business area or divisional results (40 percent). At least 20 percent of this "scorecard" must be made up of qualitative measurements relating, for example, to customers, employees or an issue of focus for the ABB Group.

In addition to this group of senior managers, all other participating managers are measured with a minimum of 30 percent on ABB Group results. Resulting bonuses are paid in March each year after full-year results are announced. In applying the scorecard principles, group executive committee members have a maximum bonus opportunity of 100 percent of their base salary.

## 7.6 Employee participation programs

In order to align its employees' interests with the business goals and financial results of the company, ABB operates a number of participation programs, linked to ABB's shares, which are described below.

## 7.7 Employee share acquisition plan (ESAP)

To incentivize employees, ABB granted stock options under an employee share acquisition plan (ESAP Plan) in November 2004. In the initial launch of the ESAP Plan, employees in 11 countries, including the United States, were invited to participate. The ESAP Plan is an employee stock option plan with a savings feature. Employees save over a twelve-month savings period, by way of monthly salary deductions. The maximum monthly savings amount is the lower of ten percent of gross monthly salary or the local currency equivalent of CHF 750. At the end of the savings period, employees choose whether to exercise their stock options using their savings plus interest to buy ABB Ltd shares (American Depository Shares (ADS) in the case of employees in the United States – each ADS representing one registered share of the company) at the exercise price set at the grant date, or have their savings returned with interest. The savings are accumulated in a bank account held by a third-party trustee on behalf of the participants and earn interest.

The maximum number of shares that each employee can purchase has been determined based on the exercise price and the aggregate savings for the 12-month period, increased by ten percent to allow for currency fluctuations. If, at the exercise date, the balance of savings plus interest exceeds the maximum amount of cash the employee must pay to fully exercise his stock options, the excess funds will be returned to the employee. If the balance of savings and interest is insufficient to permit the employee to fully exercise his stock options, the employee has the choice but not the obligation, to make an additional payment so that the employee may fully exercise his stock options.

If an employee ceases to be employed by ABB, the accumulated savings as of the date of cessation of employment will be returned to the employee and the employee's right to exercise his stock options will be forfeited. Employees can withdraw from the ESAP Plan at any time during the savings period and will be entitled to a refund of their accumulated savings.

The exercise price per share and ADS of CHF 6.95 and \$5.90, respectively, was determined using the respective closing price of the ABB Ltd share on SWX Swiss Exchange (virt-x) and ADS on the New York Stock Exchange on November 9, 2004, the grant date. The Company granted stock options, such that, if fully exercised, the Company would issue 7,548,360 registered shares (including shares represented by ADS). The aggregate fair value of the awards at date of grant was \$5 million, assuming a zero percent dividend yield, expected volatility of 28.25 percent, a risk-free interest rate of 0.97 percent and a life of one year from grant date. Forfeitures since grant date have been insignificant.

## 7.8 Management incentive plan (MIP)

Under this program approximately 1,200 key employees received warrants and warrant appreciation rights for no consideration over the course of eight launches from 1998 to 2004. The warrants are exercisable for shares at a predetermined price, not less than the shares market price at date of grant. Participants may also sell the warrants rather than exercise the right to purchase shares. Equivalent warrants are listed on the SWX Swiss Exchange, which facilitates valuation and transferability of warrants granted under the management incentive plan. Each warrant appreciation right entitles the holder to an amount in cash equal to the market price of one equivalent warrant on the SWX Swiss Exchange on the date of exercise of the warrant appreciation right. Warrant appreciation rights are not transferable. Members of the group executive committee participated in the management incentive plan until the year 2003.

The details of the various, unexpired launches are as follows:

Launch year	Vesting period	Term life	Subscription ratio	Exercise price CHF
1999	3 years	6 years	5:1.26	29.75
1999	3 years	6 years	5:1.26	32.73
2000	3 years	6 years	5:1.26	42.05
2001	3 years	6 years	5:1.26	13.49
2003	3 years	6 years	5:1	7.00
2004	3 years	6 years	5:1	7.50

The subscription ratios and exercise prices of MIP launches 1999 to 2001 were adjusted due to the increase of ABB's share capital in December 2003 (see section 3.2).

### 7.9 Performance incentive share plan

In December 2004, ABB introduced a performance incentive share plan (Performance Plan) for group executive committee members (EC Members). EC Members did not participate in the management incentive plan in 2004 (see section 7.8).

The Performance Plan involves annual conditional grants of ABB Ltd shares (or ADSs where deemed appropriate by the nomination and compensation committee). The number of shares conditionally granted is dependent upon the base salary of the EC Member. The actual number of shares that the participants will receive free of charge at a future date is dependent on a) the performance of ABB Ltd shares during a defined period (Evaluation Period) compared to those of a selected peer group of publicly-listed multinational companies and b) the term of service of the respective EC member in that capacity during the Evaluation Period. The actual number of shares received after the Evaluation Period cannot exceed 100 percent of the conditional grant.

The Evaluation Period of the initial launch was defined as the period from March 15, 2004, to March 15, 2006. The reference price of CHF 7.68 for the purposes of comparison with peers was calculated as the average of the closing prices of the ABB Ltd share on SWX Swiss Exchange (virt-x) over the 20 trading days preceding March 15, 2004. The performance of ABB compared to its peers over the Evaluation Period will be measured as the sum, in percentage terms, of the average percentage price development of the ABB share price over the Evaluation Period and an average annual dividend yield percentage (ABB's Performance). In order for shares to vest, ABB's Performance over the Evaluation Period must be positive and equal to or better than half of the defined peers. The actual number of shares to be delivered will be dependent on ABB's ranking in comparison with the defined peers. The full amount of the conditional grant will vest when ABB's Performance is better than three-quarters of the defined peers.

If an EC Member gives notice of resignation or, under certain circumstances is given notice of termination, and the vesting period has not expired, then the right to shares is forfeited. In the event of death or disability during the vesting period, the conditional grant size for that participant is reduced pro rata based on the remaining vesting period. An evaluation of ABB's Performance for the Evaluation Period up to the date of death or disability is made to establish the number of shares that vest. If a Performance Plan participant ceases to be an EC Member for reasons other than described above, the conditional grant size is reduced pro rata based on the portion of the vesting period remaining when the participant ceases to be an EC Member. In respect of a Performance Plan grant for which the vesting period has not expired, the nomination and compensation committee can invite a new EC Member to receive a conditional grant, adjusted to reflect the shorter service period.

In 2004, 443,430 shares were conditionally granted to EC Members (for details see section 7.4). In January 2005, a further 59,001 shares were conditionally granted under the 2004 launch to Michel Demaré as a new EC Member.

### 7.10 Compensation to former members of the group executive committee

In 2004, ABB made a total payment of CHF 1,454,722 gross to two former members of the group executive committee who departed before the calendar year 2004, in fulfillment of contractual pension commitments (whereof CHF 589,592 was already reported in the 2003 annual report).

### 7.11 Additional fees and remuneration

Other than as disclosed herein, none of ABB's members of the board of directors, the group executive committee, or persons closely linked to them received any additional fees and remunerations for services rendered to ABB.

### 8. Loans and guarantees granted to the board of directors or group executive committee

ABB has not granted any loans or guarantees to its board members or members of the group executive committee.

### 9. Duty to make a public tender offer

ABB's articles of incorporation do not contain any provisions raising the threshold (opting-up) or waiving (opting-out) the duty to make a public tender offer pursuant to article 32 of the Swiss Stock Exchange and Securities Trading Act.

## 10. Change of control provisions

ABB does not offer "golden parachutes" to its members of the board of directors or senior executives. Consequently none of ABB's board members, group executive committee members or members of senior management is benefiting from clauses on changes of control. Employment contracts normally contain notice periods of 12 months for group executive committee members and three to six months for members of senior management, during which they are entitled to running salaries and bonuses.

## 11. Auditors

### 11.1 Group auditors and special auditors

Ernst & Young is the group and statutory auditor of ABB. OBT has been elected as special auditor to issue special review reports required in connection with capital increases.

### 11.2 Duration of the mandate and term of office of the group auditor

Ernst & Young assumed the existing auditing mandate as auditor of the ABB Group in 1994. The head auditor responsible for the mandate, Charles Barone, began serving in this function in May 2003.

### 11.3 Auditing and additional fees paid to group auditor

The audit fees charged by Ernst & Young for the legally prescribed audit amounted to \$30 million in 2004. Audit services are defined as the standard audit work performed each fiscal year necessary to allow the auditor to issue an opinion on the consolidated financial statements of ABB and to issue an opinion on the local statutory financial statements.

This classification may also include services that can only be provided by the group auditor such as assistance with the application of new accounting policies, pre-issuance reviews of quarterly financial results and comfort letters delivered to underwriters in connection with debt and equity offerings.

Included in 2004 audit fees is \$6 million related to the 2003 audit, which fees were not agreed until after the Company had published its 2003 Annual Report to Shareholders and also fees associated with the Company's restatement, in 2004, of its previously issued Consolidated Financial Statements to correct the effect of earnings overstatements by the medium-voltage business unit of our Power Technologies division in Italy.

In addition, Ernst & Young charged \$8 million for non-audit services performed during 2004. Non-audit services include primarily accounting consultations and audits in connection with divestments, audits of pension and benefit plans, accounting advisory services, tax, compliance and other tax services. In accordance with the requirements of the U.S. Sarbanes-Oxley Act and rules issued by the U.S. Securities and Exchange Commission (SEC), ABB has, on a global basis, a process for the review and pre-approval of audit and non-audit services to be performed by Ernst & Young.

### 11.4 Supervisory and control instruments vis-à-vis the group auditors

Ernst & Young periodically reads the approved minutes of meetings of our board of directors. Ernst & Young is present at the finance and audit committee meetings where audit planning is discussed and the results of our internal audit department's audit procedures are presented. Ernst & Young also periodically meets with the finance and audit committee to discuss the results of its audit procedures.

## 12. Information policy

ABB, as a publicly traded company, is committed to communicating in a timely and consistent way to shareholders, potential investors, financial analysts, customers, suppliers, the media and other interested parties. ABB ensures that material information pertaining to its businesses is disseminated in a manner that complies with its obligations under the rules of the stock exchanges where its shares are listed: the SWX Swiss Exchange (virt-x) and exchanges in London, Stockholm, Frankfurt and New York.

ABB publishes an annual report consisting of an Operational review, a Financial review and a Sustainability review. The Operational and Financial reviews provide information on the results of ABB's businesses. The Operational review also provides information on human resources, sustainability and corporate governance. The Financial review provides the audited financial statements for the reported year, as well as a management discussion and analysis of ABB's business results. The Sustainability review provides information on the company's performance in environmental management, social responsibility and employee health and safety.

Apart from this annual report, ABB also submits an annual report on Form 20-F to the U.S. stock exchange supervision authority, the SEC. In addition, ABB publishes its results on a quarterly basis as press releases, distributed pursuant to the rules and regulations of the stock exchanges on which its shares are listed. Press releases relating to financial results and material events are also filed with the SEC on Form 6-K. An archive containing annual reports, Form 20-F reports, quarterly results releases and related presentations and conference call webcasts can be found on the ABB Web site ([www.abb.com/investorrelations](http://www.abb.com/investorrelations)). These presentations are not regularly updated but reflect developments within the company over time. The quarterly results press releases contain unaudited financial statements in accordance with U.S. GAAP.

ABB's official means of communication is the Swiss Official Gazette of Commerce ([www.shab.ch](http://www.shab.ch)). The invitation to the company's annual general meeting is sent to registered shareholders by mail.

Inquiries may also be made to ABB Investor Relations:

Telephone: +41 43 317 71 11

Fax: +41 44 311 98 17

ABB's Web site is [www.abb.com](http://www.abb.com)

### 13. Further information on corporate governance

The list below contains references to additional information concerning the corporate governance of ABB, which can be accessed at: [www.abb.com](http://www.abb.com)

- articles of incorporation
- regulations of the board of directors
- CVs of members of the board of directors
- CVs of members of the group executive committee
- corporate governance charter
- charter of the nomination and compensation committee
- charter of the finance and audit committee
- business ethics
- comparison of ABB's corporate governance practices to the New York Stock Exchange rules

## Division management team Automation Technologies

Division head	Dinesh Paliwal
CFO	Herbert Parker

### Business area managers:

Automation Products	Tom Sjökvist
Manufacturing Automation	Bo Elisson
Process Automation	Veli-Matti Reinikkala

### Local division manager, China and Division Operational excellence

Local division manager, China and Division Operational excellence	Anders Jonsson
Country manager, Finland	Mikko Niinivaara
Country manager, Germany	Bernhard Jucker
Country manager, India	Ravi Uppal
Country manager, Ireland and Head of Group Account Management	Frank Duggan
Country manager, Sweden	Sten Jakobsson

### Division functional managers:

Communications	Brad Hoffman
Human Resources	Jeff Halsey
IS	Haider Rashid
Strategic Marketing	Girish Nadkarni
Technology	Peter Terwiesch

## Group Functions reporting to CEO, Fred Kindle

Corporate Communications	Björn Edlund
Corporate Strategy	Tobias Becker
Group Internal Audit	Markus Kistler
Legal Affairs and Compliance	John Scriven
Research and Development	Markus Bayegan

## Group Functions reporting to head of Human Resources, Gary Steel

Executive Remuneration	Jimmy Yap
HR Operations	Paul Lewis
Sustainability Affairs	Björn Edlund

## Division management team Power Technologies

Division head and Business area manager Power Technology Products	Peter Smits
CFO	Victor Bolt

### Business area/unit managers:

High Voltage Products	Stefan Ranstrand
Medium Voltage Products	Guido Traversa
Power Technology Systems	Michael Hirth
Transformers	Brice Koch

### Country manager, China

Country manager, China	Peter Leupp
Local division manager, Germany	Joachim Schneider
Local division manager, North America	Enrique Santacana
Local division manager, Sweden	Per Haugland
Country manager, Switzerland	Hanspeter Fässler

### Division functional managers:

Communications	Klaus Treichel
Human Resources	Ulla Jonsson
IS	Wes Patterson
Marketing	Jasmin Staiblin
Project Management	Jim Triompo
Quality	Steven Hegyi
Supply Management	John Walker
Technology	Georg Schett

## Group Functions reporting to CFO, Michel Demaré

Chief Information Officer	Haider Rashid
Corporate Finance and Taxes	Alfred Storck
Finance Advisory	Johan Löwenhielm
Group Controlling	Hannu Kasi
Investor Relations	Michel Gerber
Merger and Acquisitions and New Ventures	Eric Elzvik
Risk Management	Charles Salek

## Group Account Management\*

Head of Group Account Management	Frank Duggan
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\* Reporting to Dinesh Paliwal

## ABB Lummus Global\*\*

CEO	Samir Brikho
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\*\* Reporting to Gary Steel

**Region/Country managers****Europe**

Austria	Rudolf Petsche
Baltic States	Bo Henriksson
Benelux	Marco Croon
Czech Republic	Olle Jarleborg
Denmark	Claus Madsen
Finland	Mikko Niirivaara
France	Allan Huidt
Germany	Bernhard Jucker
Greece	Costas Cosmadakis
Hungary	Peter Hegedus
Ireland	Frank Duggan
Italy	Gian-Francesco Imperiali
Norway	Peer-Hakon Jensen
Poland	Miroslaw Gryszka
Portugal	Carlos Dias
Region Central and Eastern Europe	Bruno Berggren
Romania	Peter Simon
Russia	Michel Tcheshnakoff
Slovak Republic	Andrej Toth
Spain	Carlos Marcos
Sweden	Sten Jakobsson
Switzerland	Hanspeter Fässler
Turkey	Ovind Lund
United Kingdom	Trevor Gregory

**Region/Country managers****Middle East and Africa**

Israel	Ronen Aharon
Region Middle East and North Africa, Sub region Gulf/UAE	Faraj AlJarba
Sub region Eastern Africa/Kenya	Martin De Grijp
Sub region Egypt	Bassim Youssef
Sub region Near East/Jordan	Hisham Othman
Sub region North Africa/Morocco	Jean-Claude Lanzi
Sub region Sahara Africa/South Africa	Carlos Pone
Sub region Saudi Arabia	Mahmoud Shaban
Sub region Western Africa/Nigeria	Paul Mair

**Region/Country managers****Americas**

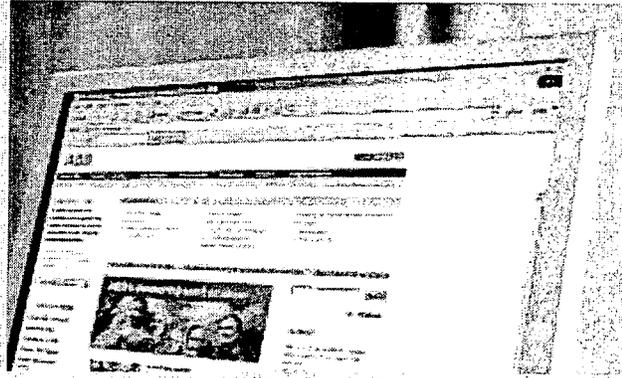
Canada	Sandy Taylor
Chile	Renato Valdivia
Colombia	Ramon Monras
Mexico	Armando Basave
Panama/Central America, Caribbean	Alvaro Malveiro
Peru	Eduardo Soldano
Region Americas, Sub region North America/USA	Dinesh Paliwal
Sub region Brazil	Sergio Gomes
Sub region Central America and Caribbean	Victor Ballivian
Sub region Southern Cone & Andean/Argentina	Ulises de la Orden
Venezuela	Carmine Tedino

**Region/Country managers****Asia**

Australia	John Gaskell
China	Peter Leupp
India	Ravi Uppal
Indonesia	BoonKiat Sim*
Japan	Isamu Suzuki
Malaysia	Bengt Andersson
New Zealand	John Gaskell
Philippines	Magnus Wibling
Region North and South East Asia/Singapore	BoonKiat Sim
South Korea	Yun-Sok Han
Taiwan	Göran Sundin
Thailand	Jonny Axelsson
Vietnam	Erik Rydgren

\* Acting

Our Web site serves every stakeholder group, from customers and suppliers to NGOs, journalists, investors, potential employees and academics.



**ABB had about 15 million visits to its Web site in 2004.**

#### **About ABB**

This section offers a comprehensive overview of ABB products, services, systems and solutions, and outlines the ABB Group strategy, our organizational structure, business principles, corporate governance charter and 120-year history.

#### **Products and services**

Products, systems and services are the essence of ABB's business. In this section, you will find our product guide – an A to Z list of the products, systems and services we have to offer. Here you will also find our service guide and contact list, with detailed information regarding the upkeep of power plants and factories, a section for suppliers and sales contacts to help you get whatever you need, wherever you may be.

#### **Sustainability**

ABB follows the Sustainability Reporting Guidelines first published in mid-2000 by the Global Reporting Initiative (GRI) – an international, multi-stakeholder undertaking supported by the United Nations. GRI guidelines are based on a “triple bottom line” report of ABB's economic, environmental and social performance. The section has links to ABB Sustainability Reports, from 1998 to the present.

#### **News center**

This section is for the media, and includes all press releases – past and present, news about our products, systems and services, speeches and presentations, downloadable pictures of our people and technology, and an up-to-date library of ABB reports, publications, videos, and a calendar of important ABB dates.

#### **Technology**

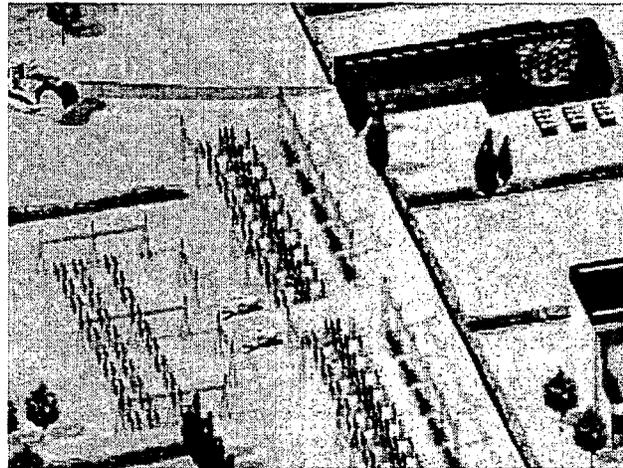
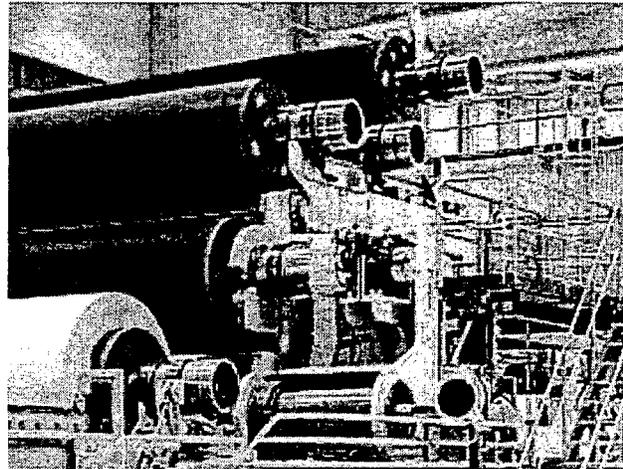
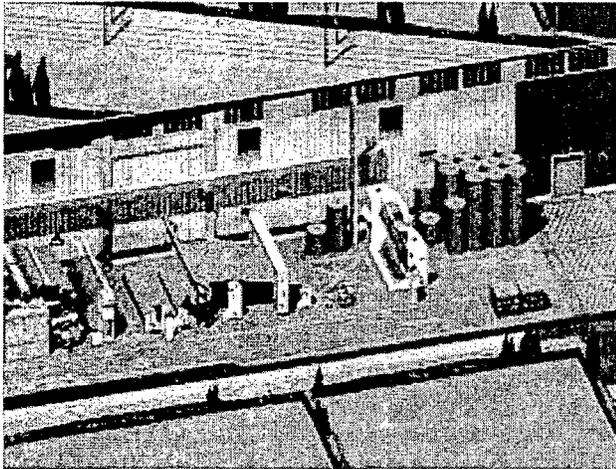
ABB's business is based on technology, and we run two global research and development labs and nine research programs focused on power and automation. You can watch streaming video interviews and listen to our experts explain strategy and the future direction of R&D. Here you will also find links to electronic versions of ABB research papers, periodicals, technology reviews and reports.

#### **Careers**

The careers section on ABB's Web site offers a wealth of information for students, recruits or professionals looking for new challenges. You will find the most recent job postings at ABB, background information on the company, interviews plus videos-on-demand with current employees. You can also register your CV and apply for a job with ABB online. For students and interns, ABB offers a variety of international assignments for trainees.

#### **Investor relations**

This section includes ABB's share price ticker, listings and ticker symbols. It displays per share, dividend and stock split history and has all of ABB's quarterly financial releases, an information archive, outlook statement, annual reports and shareholder updates.



# ABB

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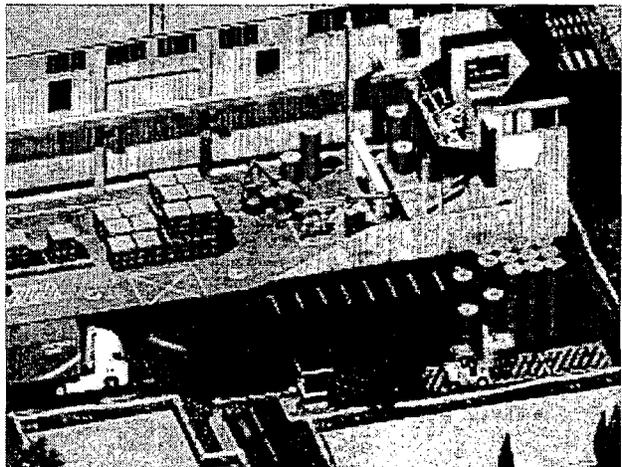
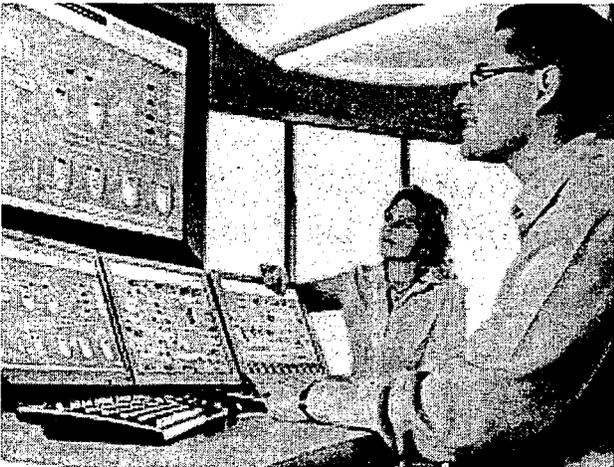
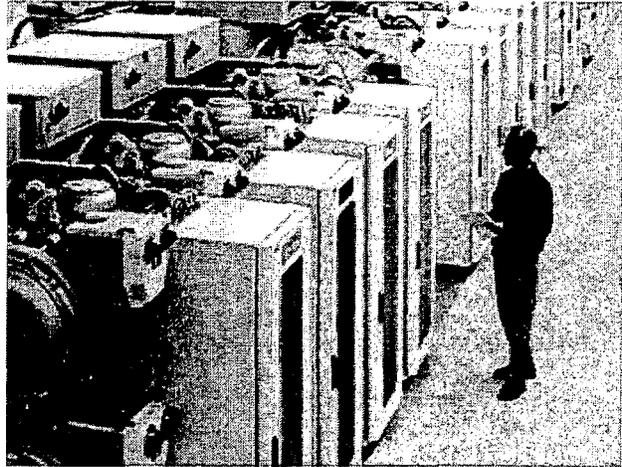
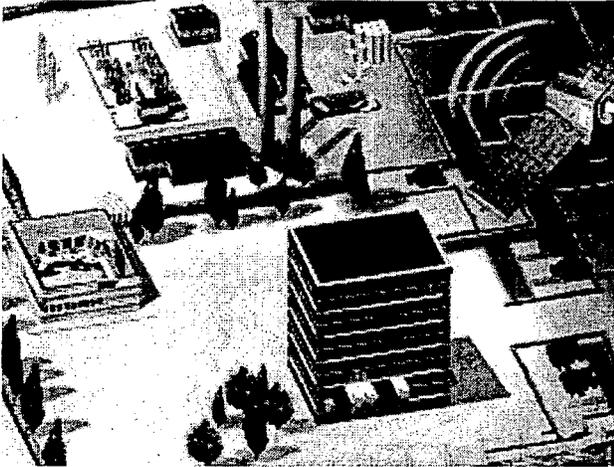
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**EXHIBIT 99.2**

**ABB Annual Report 2004**  
Financial review



Improving power supply  
Increasing industrial productivity

**ABB**

#### Caution concerning forward-looking statements

The ABB Annual Report 2004 includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. In the Operational review, such statements are included in the sections entitled "Letter to shareholders", "Power Technologies", "Automation Technologies" and "People". In the Financial review, such statements are included in the section entitled "Management discussion and analysis". We have based these forward-looking statements largely on current expectations, estimates and projections about future events, financial trends and economic conditions affecting our business. The words "believe", "may", "will", "estimate", "continue", "target", "anticipate", "intend", "expect" and similar words and the express or implied discussion of strategy, plans or intentions are intended to identify forward-looking statements. These forward-looking statements are subject to risks, uncertainties and assumptions, including among other things, the following: (i) the difficulty of forecasting future market and economic conditions; (ii) the effects of, and changes in, laws, regulations, governmental policies, taxation, or accounting standards and practices; (iii) our ability to dispose of certain of our non-core businesses on terms and conditions acceptable to us; (iv) our ability to further reduce our indebtedness as planned; (v) the terms and conditions on which asbestos claims can be resolved; (vi) the effects

of competition and changes in economic and market conditions in the product markets and geographic areas in which we operate; (vii) our ability to anticipate and react to technological change and evolving industry standards in the markets in which we operate; (viii) the timely development of new products, technologies, and services that are useful for our customers; (ix) unanticipated cyclical downturns in the industries that we serve; (x) the risks inherent in large, long-term projects served by parts of our business; (xi) the difficulties encountered in operating in emerging markets; (xii) the amount of revenues we are able to generate from backlog and orders received; (xiii) changes in interest rates and fluctuations in currency exchange rates and (xiv) other factors described in documents that we may furnish from time to time with the U.S. Securities and Exchange Commission, including our Annual Reports on Form 20-F. Although we believe that the expectations reflected in any such forward-looking statements are based on reasonable assumptions, we can give no assurance that they will be achieved. We undertake no obligation to update publicly or revise any forward-looking statements because of new information, future events or otherwise. In light of these risks and uncertainties, the forward-looking information, events and circumstances might not occur. Our actual results and performance could differ substantially from those anticipated in our forward-looking statements.

# Financial review

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# Operating and financial review and prospects

*You should read the following discussion of our financial condition and results of operations in conjunction with our Consolidated Financial Statements and the related notes and other financial information contained elsewhere in this annual report. This discussion contains forward-looking statements that involve risks and uncertainties. See "Forward-looking statements" at the beginning of this annual report. The financial statements and certain financial data set forth in our Consolidated Financial Statements for the years ended December 31, 2003 and 2002, reflect restatements made in September 2004 of our previously issued financial statements for those periods. This restatement was intended to correct the effect of earnings overstatements by the medium-voltage business unit of our Power Technologies division (or PT-MV BAU) in Italy on its previously reported financial statement results.*

## **About ABB**

We are a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. At December 31, 2004, we employed approximately 102,500 people.

Our business is international in scope and we operate in approximately 100 countries. We generate revenues in numerous currencies, principally in four main regions of the world: Europe; the Americas; Asia; and the Middle East and Africa (or MEA).

We are headquartered in Zurich, Switzerland, and our shares are traded on the stock exchanges in Zurich, Stockholm, New York (in the form of American Depositary Shares), Frankfurt and London.

We were formed in 1988, when Asea AB of Sweden and BBC Brown Boveri of Switzerland merged. We reorganized our business in 1999 under a single parent holding company, ABB Ltd. Asea AB's history dates back to 1883. BBC Brown Boveri was founded in 1891.

## **Organizational structure**

We manage our business based on a divisional structure. Each of our divisions manages several business areas, which in turn are subdivided into business units.

Our core business consists of two divisions, Power Technologies and Automation Technologies and our management intends to continue to focus its attention on, and future investments in, these divisions. In addition, certain of our operations are classified in Non-core activities and Corporate/Other.

Non-core activities comprise businesses and activities that are not integral to our focus on power and automation technologies and that we are considering for sale, winding down or otherwise exiting.

Effective January 1, 2003, some business areas within our business divisions were reorganized or combined. Consequently, the results of operations in 2002 for certain of the affected business areas are not directly comparable to our results in 2003. When our results of operations in 2003 on a business area basis are not directly comparable to our results of operations in 2002, we combine the results of the affected business areas to create an aggregated basis on which we can compare and discuss our results of operations.

Effective January 1, 2005, some business areas within our business divisions were combined. These changes are further discussed within the "Our business divisions" section below.

## **Our business divisions**

### **Power Technologies division**

The Power Technologies division serves electric, gas and water utilities, as well as industrial and commercial customers, with a broad range of products, systems and services for power transmission, distribution and power plant automation. The division had approximately 40,500 employees at December 31, 2004. As of January 1, 2005, our Power Technologies division reduced its five business areas into two, organized around products and systems.

The businesses combined into our Power Technology Products business area generated approximately \$5.3 billion in revenues during 2004 and had approximately 27,500 employees at December 31, 2004. This business area, which incorporates the businesses previously held in the former Medium-Voltage Products, High-Voltage Products and Transformers business areas, develops, manufactures and sells a wide range of products, such as high- and medium-voltage switchgear, breakers for all current and voltage levels, power and distribution, transformers and cables, apparatus and sensors. The Power Technologies Products business area sells primarily to utilities, distributors, wholesalers, installers and original equipment manufacturers in the utilities and the power generation industries. In 2004, revenues from the businesses combined into this business area were generated in roughly even proportions from Europe, Asia and the Americas, with a slightly lower share from the MEA.

The businesses combined into our Power Technology Systems business area generated approximately \$3.5 billion in revenues during 2004 and had approximately 13,000 employees at December 31, 2004. This business area,

which incorporates the businesses previously held in the former Power Systems and Utility Automation Systems business areas, offers automation, control and protection systems and related services for power plants and power transmission and distribution networks, as well as utility communication systems and transmission and distribution substations, flexible alternating current transmission systems (FACTS) and high-voltage direct current (HVDC) systems. Our FACTS and HVDC business lines, which are based on technologically advanced products designed to increase transmission capacity and stability in power networks, are supported by our in-house power semiconductor factory. This business area sells primarily to the utilities and power generation industries. In 2004, revenues from the businesses combined into this area were generated primarily from Europe followed by roughly equal proportions from Asia, America and the Middle East.

#### **Automation Technologies division**

The Automation Technologies division provides products, systems, software and services for the automation and optimization of industrial and commercial processes. The division had approximately 55,000 employees at December 31, 2004.

The Automation Products business area generated approximately \$5.2 billion in revenues in 2004 and had approximately 28,500 employees at December 31, 2004. Products in the Automation Products business area include low- and medium-voltage drives, as well as low- and high-voltage motors, that are used in the building automation, marine, power, transportation, manufacturing and process industries. This business area also offers power electronics systems, which are sold to metals smelters, railway manufacturers and power plants, and low-voltage devices for power quality and protection, wire management, switching and motor control. In addition, the Automation Products business area sells instrumentation products, including actuators and positioners, analytical instruments and devices to measure flow, pressure, level, temperature and similar process variables. Many of this business area's automation products are sold through distributors, wholesalers, installers, and original equipment manufacturers. Revenues of the Automation Products business area in 2004 were generated primarily in Western Europe, Asia and North America.

The Process Automation business area generated approximately \$4.4 billion in revenues in 2004, and had approximately 20,500 employees at December 31, 2004. This business area includes control, force measurement and marine systems, including systems for control and plant optimization in the process and utility industries and systems for electric propulsion, power generation and distribution, automation, heating, ventilation and air conditioning aboard

cruise, cargo and other offshore vessels. Turbochargers sold by the Process Automation business area add performance, environmental and fuel efficiency to large gasoline and diesel engines. In 2004, revenues for the Process Automation business area were generated primarily in Western Europe and Asia, followed by North America and the Middle East.

The Manufacturing Automation business area generated approximately \$1.4 billion in revenues in 2004, and had approximately 6,000 employees at December 31, 2004. Our Manufacturing Automation business has an installed base of approximately 90,000 industrial robots, and sells robots and related equipment and software to the automotive, material handling, foundry and packaging industries. This business area also develops standardized manufacturing cells for machine tending, welding, cutting, painting and finishing and provides packaged systems to automobile manufacturers for press automation, paint process automation and power train assembly. This business area's research and development and manufacturing locations are focused near major automotive centers in the United States and Sweden. Revenues for the Manufacturing Automation business area in 2004 were generated primarily in Western Europe, North America and China.

#### **Non-core activities**

These activities at December 31, 2004 constituted primarily the Oil, Gas and Petrochemicals, Building Systems, New Ventures, Equity Ventures and Structured Finance business areas and a number of other activities, including Customer Service Workshops and the Logistic Systems business areas. Non-core activities generated revenues in 2004 of approximately \$1.7 billion, and had approximately 5,000 employees at December 31, 2004.

Our Oil, Gas and Petrochemicals business is principally a full service engineering company that serves the downstream oil, gas and petrochemicals markets. The downstream markets typically relate to the processing and transportation of hydrocarbon raw materials in and through refineries, petrochemicals and chemical plants and pipelines. In addition to expertise in engineering, procurement and construction (or EPC) projects to engineering and project management services, this business also licenses process technologies to the refining, petrochemicals and polymer industries. In July 2004, we divested substantially all of our Oil, Gas and Petrochemicals business operating in the upstream oil, gas and petrochemicals markets. We refer to this divested portion as the Upstream Oil, Gas and Petrochemicals business. In December 2004, we reclassified our remaining Oil, Gas and Petrochemicals business into continuing operations from discontinued operations as it did not meet the accounting criteria required to be classified in discontinued operations.

Our Building Systems business area designs, builds and maintains installations for industrial, infrastructure and commercial facilities. Following our decision to divest our Building Systems business area in 2002, we substantially reduced the number of businesses held in the Building Systems business area during 2003 and 2004. However, we remain involved in a number of these divested businesses through a combination of technology licenses, supplier relationships and participation on such businesses' board of directors. In addition, in February 2004, we sold our Building Systems business located in Switzerland, but retained a 10 percent equity interest. During 2004, we took steps to close down the Building Systems businesses in the United States and Egypt and to sell the business in Hong Kong. In 2004, revenues for the Building Systems business area were generated principally in Germany.

Our New Ventures business area was established in 2001 as a business incubator that would find, develop and invest in new and mature business opportunities, both internally and externally. New Ventures had three investment portfolios, two of which focused on investment opportunities externally, and one of which focused on opportunities internally. This business area also directly managed several majority-owned companies. Since October 2002, we have been restructuring the New Ventures business area to transfer core activities to other business areas and to dispose of the remaining businesses. At December 31, 2004, this business area principally consisted of the Distributed Energy business and certain portfolio investments in emerging technology businesses.

Our Equity Ventures business area focused its activities on investments in and the operation of independent power projects that would provide business opportunities for our former power generation division or that would develop opportunities to sell our equipment and systems. At December 31, 2004, this business area managed investments in power plants in Brazil, Colombia, India, Morocco and the Ivory Coast and an airport in South Africa. Our Equity Ventures business has not pursued further project development or significant additional investments since its classification to Non-core activities in 2002.

*Our Structured Finance business area provided financing, including export, trade and project financing, and asset-based leasing and lending. We sold a significant part of this business area in 2002 and we continued our divestments in 2003 and 2004, including the sale of certain lease and loan portfolios, ownership interests in infrastructure projects and other financial assets. At December 31, 2004, the Structured Finance business area consisted of a portfolio of loans, leases and unfunded commitments which were available for sale or run-off, with net operating assets of \$524 million and off balance sheet instruments valued at \$27 million.*

Our Other Non-core activities principally consist of our Customer Service Workshops and Logistic Systems business areas. Our Customer Service Workshops business area overhauls, repairs, rewinds and lubricates rotating machine products manufactured by the Automation Technologies division as well as those from third-party suppliers. Most of our Customer Service Workshops businesses have been transferred to the core divisions, closed or divested. The Logistic Systems business area provides air traffic management, turnkey electromechanical and airfield lighting systems, and information technology packages and automation services for airport baggage and material handling. Other Non-core activities also included our Group Processes business area, which was responsible for our shared services, common processes and IT infrastructure. This business area generated revenue by providing selling, general and administrative services to our other business areas, and by December 31, 2003 all Group Processes operations had been transferred to other business areas or closed.

#### **Corporate/Other**

Our Corporate/Other division comprises headquarters and stewardship activities, research and development activities and other activities. The Corporate/Other division had approximately 1,500 employees at December 31, 2004.

Headquarters and stewardship activities include the operations of our corporate headquarters in Zurich, Switzerland, as well as corresponding local holding companies in approximately 65 countries. These activities cover staff functions with group-wide responsibilities, such as group accounting and consolidation, finance and controlling, audit, tax, financial advisory, legal affairs, risk management and insurance, communications, investor relations and human resources.

Group Research and Development consists of two Group R&D laboratories: Power Technologies and Automation Technologies. Each laboratory collaborates with universities and other external partners to support our divisions in developing cross-divisional technology platforms and focusing on core areas of power, automation and emerging technologies. The Global R&D laboratories have operations in nine countries: the United States, Sweden, Switzerland, Finland, Poland, China, Germany, Norway and India.

Other activities include our Real Estate and Group Treasury Operations. Our Real Estate business area principally manages the use of our real estate assets and facilities. Group Treasury Operations act as a cost center for internal treasury activities.

## Application of critical accounting policies

### General

We prepare our Consolidated Financial Statements in accordance with United States generally accepted accounting principles (U.S. GAAP).

The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis, including, but not limited to, those related to: costs expected to be incurred to complete projects; costs of product guarantees and warranties; provisions for bad debts; recoverability of inventories, investments, goodwill and intangible assets; income tax related costs and accruals; provisions for restructuring; gross profit margins on long-term contracts; pensions and other post-retirement benefit assumptions; and contingencies and litigation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We deem an accounting policy to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or if changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact our Consolidated Financial Statements. We also deem an accounting policy to be critical when the application of such policy is essential to our ongoing operations. We believe the following critical accounting policies reflect the accounting policies relating to our more significant estimates and assumptions that we use in the preparation to our Consolidated Financial Statements. These policies should be considered in reviewing our Consolidated Financial Statements.

### Revenues and cost of sales recognition

We recognize revenues from the sale of manufactured products when persuasive evidence of an arrangement exists, the price is fixed and determinable, collectibility is reasonably assured and upon transfer of title, including the risks and rewards of ownership, to the customer. When multiple elements, such as products and services, are contained in a single arrangement or in a series of related arrangements with the same customer, we allocate revenue to each element based on its relative fair value, provided that such element meets the criteria for treatment as a separate unit of accounting. The allocation of the sales price between

delivered elements and undelivered elements might affect the timing of revenue recognition, but would not change the total revenue recognized on the contract. Revenues from short-term or non customer specific contracts to deliver products or services are recognized upon completion of required services to the customer. Revenues from contracts that contain customer acceptance provisions are deferred until customer acceptance occurs, we have tested to the level required to ensure that acceptance will occur or the contractual acceptance period has lapsed. As a result, judgment in the selection of revenue recognition methods must be made.

These revenue recognition methods require the collectibility of the revenues recognized to be reasonably assured. When recording the respective accounts receivable, allowances are calculated to estimate those receivables that will not be collected. These reserves assume a level of default based on historical information, as well as knowledge about specific invoices and customers. The risk remains that a greater number of defaults will occur than originally estimated. As such, the amount of revenues recognized might exceed that which will be collected, resulting in a deterioration of earnings in the future. This risk is likely to increase during periods of significant negative industry or economic trends.

Revenues under long-term contracts are recognized using the percentage-of-completion method of accounting. We principally use the cost-to-cost or delivery events methods to measure progress towards completion on contracts. We determine the method to be used by type of contract based on our experience and judgment as to which method best measures actual progress towards completion.

The percentage-of-completion method of accounting involves the use of assumptions and projections, relating to future material, labor, construction and overhead costs. As a consequence, there is a risk that total contract costs will exceed those we originally estimated. This risk increases if the duration of a contract increases or if the project is a fixed price turnkey project, because there is a higher probability that the circumstances upon which we originally developed estimates will change, resulting in increased costs that we will not recover. Factors that could cause costs to increase include:

- unanticipated technical problems with equipment supplied or developed by us which may require that we incur additional costs to remedy;
- changes in the cost of components, materials or labor;
- difficulties in obtaining required governmental permits or approvals;
- project modifications creating unanticipated costs;

- suppliers' or subcontractors' failure to perform;
- penalties incurred as a result of not completing portions of the project in accordance with agreed upon time limits; and
- delays caused by unexpected conditions or events.

Changes in our initial assumptions, which we review on a regular basis between balance sheet dates, may result in revisions to total estimated costs, current earnings and anticipated earnings. We recognize these changes in the period in which the changes in estimate are determined. By recognizing changes in estimates cumulatively, recorded revenue and costs to date reflect the current estimates of the stage of completion. Additionally, losses on long-term contracts are recognized in the period when they are identified and are based upon the anticipated excess of contract costs over the related contract revenues. Any such losses are recorded as a component of cost of sales.

We accrue anticipated costs for warranties when we recognize the revenue on the related contracts. Warranty costs include calculated costs arising from imperfections in design, material and workmanship, performance guarantees (technical risks) and delays in contract fulfillment. Although we generally make assessments on an overall, statistical basis, we make individual assessments on contracts with risks resulting from order-specific conditions or guarantees, such as plants or installations. There is a risk that actual warranty costs may exceed the amounts provided for, which would result in a deterioration of earnings in the future when these actual costs are determined.

Revenues under cost-reimbursement contracts are recognized as costs are incurred. Shipping and handling costs are recorded as a component of cost of sales.

#### **Accounting for discontinued operations**

Our strategy is to focus on power and automation technologies for utility and industry customers. In accordance with our strategy, we have sold and plan to sell certain businesses that are not part of our core power and automation technologies businesses. Statement of Financial Accounting Standards No. 144 (SFAS 144), *Accounting for the Impairment or Disposal of Long Lived Assets*, broadened the presentation of discontinued operations to include disposal transactions involving less than an entire reporting segment, if certain criteria are met. The purpose of SFAS 144 is to allow for historically comparable data to be available to investors without the distortions created by divestments or the closure or abandonment of businesses, thereby improving the predictive value of financial statements. SFAS 144 requires the revenues and associated costs, net of taxes, of certain divestments and abandonments, to be classified as discontinued operations, net of taxes, below income from continuing operations in our Consolidated

Income Statement and requires the related assets and liabilities to be classified as assets or liabilities held for sale and in discontinued operations in our Consolidated Balance Sheet.

In order to classify a business as a discontinued operation, SFAS 144 requires that certain criteria be met. In certain cases, significant interpretation is required to determine the appropriate classification. Changes in plans regarding the sale of a business may change our interpretation as to whether a business should be classified as a discontinued operation. Any such reclassification may have a material impact on our income from continuing operations and the individual components thereof.

In the Consolidated Statement of Cash Flows, we have included the businesses classified as discontinued operations together with continuing operations in the individual line items within cash from operating, investing and financing activities, as permitted by U.S. GAAP.

For a description of our discontinued operations, see Note 3 to our Consolidated Financial Statements.

#### **Goodwill and other intangible assets impairment**

We review goodwill for impairment annually on October 1 and additionally whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable in accordance with Statement of Financial Accounting Standards No. 142 (SFAS 142), *Goodwill and Other Intangible Assets*. SFAS 142 requires that a two-step impairment test be performed on goodwill. In the first step, we compare the fair value of each reporting unit to its carrying value. Our reporting units are one level below the reportable segments identified in Note 26 to our Consolidated Financial Statements. We use a discounted cash flow model to determine the fair value of reporting units unless there is a readily determinable fair market value. If the fair value of the reporting unit exceeds the carrying value of the net assets assigned to that unit, goodwill is not impaired and no further testing is performed. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then we must perform the second step to determine the implied fair value of the reporting unit's goodwill and compare it to the carrying value of the reporting unit's goodwill. If the carrying value of a reporting unit's goodwill exceeds its implied fair value, then we must record an impairment loss equal to the difference.

The discounted cash flow model, which we use to estimate the fair value of our reporting units, is dependent on a number of factors including estimates of future cash flows, appropriate discount rates and other variables. Estimating future cash flows requires us to make significant estimates and judgments involving variables such as sales volumes, sales prices, sales growth, production and operating costs, capital expenditures, market conditions and other economic factors. We base our fair value estimates on assumptions we believe to be reasonable, but which are unpredictable and inherently uncertain. Actual future results may differ from those estimates.

We review intangible assets in accordance with SFAS 144, and accordingly test for impairment upon the occurrence of certain triggering events, such as a decision to divest a business or projected losses of an entity.

We record any related impairment charge in other income (expense), net, in our Consolidated Income Statements, unless it is related to a discontinued operation, in which case the charge is recorded in loss from discontinued operations, net of tax.

#### **Pension and post-retirement benefits**

As more fully described in Note 21 to our Consolidated Financial Statements, we operate pension plans that cover the majority of our employees. We use actuarial valuations to determine our pension and post-retirement benefit costs and credits. The amounts calculated depend on a variety of key assumptions, including discount rates and expected return on plan assets. We are required to consider current market conditions, including changes in interest rates, in selecting these assumptions. The discount rates are reviewed annually and considered for adjustment based on changes in long-term, highly rated corporate bond yields. Decreases in the discount rate result in an increase in the projected benefit obligation and to pension costs.

The expected return on plan assets is reviewed annually and considered for adjustment based on current and expected asset allocations and represents the long-term return expected to be achieved. Decreases in the expected return on plan assets result in an increase to pension costs. An increase or decrease of 0.5 percent in the expected long-term rate of asset return would have decreased or increased, respectively, the net periodic benefit cost in 2004 by approximately \$30 million.

Under U.S. GAAP, we accumulate and amortize over future periods actual results that differ from the assumptions used. Therefore, actual results generally affect our recognized expense and recorded liabilities for pension and other post-retirement benefit obligations in future periods.

The "unfunded" balance, which can increase or decrease based on the performance of the financial markets or changes in our assumptions regarding rates, does not represent a mandatory short-term cash obligation. Instead, the unfunded balance of a pension plan is the difference between the projected obligation to employees (PBO) and the fair value of the plan assets. While we comply with appropriate statutory funding requirements, at December 31, 2004, the unfunded balance of our pension plans was \$1,451 million. In accordance with Statement of Financial Accounting Standards No. 87 (SFAS 87), *Employers' Accounting for Pensions*, we have recorded on the Consolidated Balance Sheet a net liability of \$410 million in relation to this unfunded benefit balance. The difference is primarily due to an unrecognized actuarial loss of \$1,019 million, which is amortized using the "minimum corridor" approach as defined by SFAS 87.

In May 2003, the Emerging Issues Task Force of the Financial Accounting Standards Board reached a consensus on Emerging Issues Task Force No. 03-4 (EITF 03-4), *Determining the Classification and Benefit Attribution Method for a "Cash Balance" Pension Plan*, which requires the "traditional unit credit method" to be used for the calculation of the liability and attribution of the costs for pension plans with certain characteristics. We determined that certain of our pension plans covering the employees of Switzerland had the characteristics described in EITF 03-4 and therefore we changed the approach to calculating the PBO from the projected unit credit method to the traditional unit credit method. The change in cost attribution methods resulted in an actuarial gain of \$406 million in 2003 that is included in the unrecognized actuarial loss of \$1,019 million and as described above, will result in lower net pension costs in future years.

We have multiple non-pension post-retirement benefit plans. Our health care plans are generally contributory with participants' contributions adjusted annually. For purposes of estimating our health care costs, we have assumed health care cost increases per annum to be 11.76 percent for 2005, then gradually declining to 6.24 percent per annum in 2013, and to remain at that level thereafter.

## **Taxes**

In preparing our Consolidated Financial Statements, we are required to estimate income taxes in each of the jurisdictions in which we operate. We account for deferred taxes by using the asset and liability method. Under this method, we determine deferred tax assets and liabilities based on temporary differences between the financial reporting and the tax bases of assets and liabilities. The differences are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. We recognize a deferred tax asset when it is probable that the asset will be realized. We regularly review our deferred tax assets for recoverability and establish a valuation allowance based upon historical losses, projected future taxable income and the expected timing of the reversals of existing temporary differences. To the extent we increase or decrease this allowance in a period, we recognize the change in the allowance within provision for taxes in the Consolidated Income Statement unless the change relates to discontinued operations, in which case the change is recorded in loss from discontinued operations, net of tax. Unforeseen changes in tax rates and tax laws as well as differences in the projected taxable income compared to the actual taxable income may affect these estimates.

We operate in numerous tax jurisdictions and, as a result, are regularly subject to audit by tax authorities. Although we believe that our tax estimates are reasonable and that appropriate tax reserves have been made, the final determination of tax audits and any related litigation could be different than that which is reflected in income tax provisions and accruals.

Accounting for tax contingencies requires that an estimated loss from a contingency such as a tax claim should be accrued as a charge to income if it is probable that an asset has been impaired or a liability has been incurred, and the amount of the loss can be reasonably estimated. The required amount of provision for contingencies of any type may change in the future due to new developments.

## **Consolidation**

We evaluate our investments in joint ventures and other types of investments for purposes of determining whether consolidation or the cost or equity method of accounting is appropriate. This determination is based upon our ability to retain and exercise control through our decision-making powers and our ability to exercise significant influence over the entity, as well as our ownership interests in the entity.

Material changes in our ability to retain control and exercise significant influence over an entity could change the accounting method between consolidation or the cost or equity methods, which could have a material impact on our Consolidated Financial Statements.

In January 2003 and December 2003, the Financial Accounting Standards Board issued Interpretation No. 46 (FIN 46) *Consolidation of Variable Interest Entities – an Interpretation of ARB No. 51* and revised Interpretation No. 46 (FIN 46(R)), respectively, requires variable interest entities (VIEs) to be consolidated by their primary beneficiaries. Accordingly, effective January 31, 2003, we consolidate VIEs when we are considered the primary beneficiary. Also effective January 31, 2003, previously consolidated VIEs would be deconsolidated when a triggering event, as defined by FIN 46(R), indicates we are no longer the primary beneficiary. For those VIEs where we are not the primary beneficiary, we apply our existing consolidation policies in accordance with U.S. GAAP.

In determining the primary beneficiary of a VIE, we are required to make projections of expected losses and expected residual returns to be generated by that VIE. The projected expected losses and expected residual returns are critical to the identification of the primary beneficiary. These projections require us to use assumptions, including assumptions regarding the probability of cash flows. Expected losses and expected residual returns materially different from those projected could identify another entity as the primary beneficiary. A change in the contractual arrangements or ownership between the parties involved in the VIE could have an impact on our determination of the primary beneficiary, which in turn, could have a material impact on our Consolidated Financial Statements.

## **Contingencies**

As more fully described in Note 18 to our Consolidated Financial Statements, we are subject to proceedings, lawsuits and other claims related to asbestos, environmental, labor, product and other matters. We are required to assess the likelihood of any adverse judgments or outcomes to these matters, as well as potential ranges of probable losses. A determination of the amount of provision required, if any, for these contingencies is made after analysis of each individual issue, often with assistance from both internal and external legal counsel and technical experts. The required amount of provision for a contingency of any type may change in the future due to new developments in the particular matter, including changes in approach to its resolution.

## **Restructuring**

Certain restructuring provisions include estimates pertaining to employee termination costs and the settlements of contractual obligations resulting from our actions. Although we do not anticipate significant changes, the actual costs may differ from these estimates due to subsequent developments such as voluntary retirement of employees and other business developments. Restructuring costs are recorded in other income (expense), net, in the Consolidated Income Statements. However, restructuring costs relating to discontinued operations are recorded in loss from discontinued operations, net of tax.

## **Insurance**

In April 2004, we completed the sale of substantially all of our business operating in the reinsurance industry. We refer to the divested portion of this business as the Reinsurance business. Consequently, we have reflected the results of operations of the Reinsurance business in loss from discontinued operations, net of tax, and the assets and liabilities in assets and liabilities held for sale and in discontinued operations for all periods presented.

We generally recognized premiums in earnings on a pro rata basis over the period coverage was provided. Premiums earned included estimates of certain premiums not yet collected. These premium receivables included premiums relating to retrospectively rated contracts. For such contracts, a provisional premium was collected that will eventually be adjusted. We included an estimated value of the actual premium in receivables. Unearned premiums represented the portion of premiums written that was applicable to the unexpired terms of reinsurance contracts or certificates in force. These unearned premiums were calculated by the monthly pro rata method or were based on reports from ceding companies that we reinsure.

Insurance liabilities were reflected in liabilities held for sale and in discontinued operations, in our Consolidated Balance Sheet and represented unpaid claims, losses, and related loss expenses based upon estimates for losses reported, estimates received from ceding reinsurers, and estimates of incurred but not reported losses related to direct and assumed business, less amounts ceded to reinsurers. Reserves for unreported losses were determined by an estimate established using various statistical and actuarial techniques reflecting historical patterns of development of paid and reported losses adjusted for current trends. The inherent variability of the estimate was analyzed in order to ascertain whether it was reasonable before application. We did not discount loss and loss adjustment expense reserves.

We developed our estimate considering a range of reserve estimates bounded by a high and a low estimate. The high and low ends of the range did not correspond to an absolute best and worst case scenario of ultimate settlements because such estimates may have been the result of unlikely assumptions. Our best estimate therefore did not include the set of all possible outcomes but only those outcomes that were considered reasonable. Those estimates were subject to the effects of trends in loss severity and frequency. Although considerable variability was inherent in such estimates, we believed the reserves for losses and loss adjustment expenses were adequate. The estimates were continually reviewed and adjusted as necessary as experience developed or new information became known; such adjustments were included in discontinued operations. Adjustments to reserves were reflected in the loss from discontinued operations, net of tax, in the periods in which the estimates were changed.

We reflected our liability for losses net of anticipated salvage and subrogation recoveries. Salvage and subrogation received and changes in estimates of future recoveries were reflected in current year underwriting results. We believe the liabilities for losses and loss adjustment expenses were adequate to cover the ultimate liability; however, due to the underlying risks and high degree of uncertainty associated with the determination of the liability for losses, such estimates may have been more or less than the amounts ultimately paid when the claims were settled.

We sought to reduce the loss from our underwriting liabilities by reinsuring certain levels of risks with other insurance enterprises or reinsurers. We used recoverable amounts for both paid and unpaid losses. We estimated these recoverable amounts in a manner consistent with the claim liability associated with the reinsurance policy. The risk of collectibility of these reinsurance receivables arose from disputes relating to the policy terms and the ability of the reinsurer to pay.

## **New accounting pronouncements**

In December 2004, the Financial Accounting Standards Board issued Statement No. 123R (SFAS 123R), *Share-Based Payment*, which replaces Statement No. 123, *Accounting for Stock Based Compensation*, and APB Opinion No. 25 (APB 25), *Accounting for Stock Issued to Employees*, and requires us to measure compensation cost for all share-based payments at fair value. We plan to adopt SFAS 123R as of July 1, 2005. We will recognize share-based employee compensation cost from July 1, 2005 as if the fair-value-based accounting method had been used to account for all employee awards granted, modified, or settled after the effective date and for any awards that were not fully vested as of the effective date. Based on currently existing share-based compensation plans, we do not expect

the adoption of SFAS 123R to have a material impact on our financial position or results of operations.

In January 2003, the Financial Accounting Standards Board issued Interpretation No. 46 (FIN 46), *Consolidation of Variable Interest Entities – an Interpretation of ARB No. 51*. FIN 46 requires variable interest entities (VIEs) to be consolidated by their primary beneficiaries. During 2003, we adopted the requirements of FIN 46 and applied the guidance to VIEs in which we have an interest. See Note 8 to the Consolidated Financial Statements for information relating to the impact of adopting FIN 46. FIN 46 was revised in December 2003. We adopted the December revision (FIN 46(R)) effective March 31, 2004. The adoption of FIN 46(R) did not have a material impact on our financial position or results of operations.

### **Restructuring expenses**

We have implemented several major restructuring programs during the past three years (see Note 25 to the Consolidated Financial Statements).

#### **2001 program**

Our restructuring program announced in July 2001 (the 2001 program) was substantially completed at September 30, 2002. Restructuring charges relating to workforce reductions, lease terminations and other exit costs associated with the 2001 program, along with changes in estimates accrued for any of these charges, are included in other income (expense), net. Termination benefits were paid to approximately 100, 2,270 and 4,000 employees in 2004, 2003 and 2002, respectively. As a result of the 2001 program, certain assets, inventories and property, plant and equipment were identified as being impaired or would no longer be used in continuing operations. We recorded in 2002 a charge of \$18 million to write down these assets to their fair values, and such costs are included in cost of sales and other income (expense), net.

#### **Step change program**

In October 2002, we announced the Step change program. The goals of the Step change program were to increase competitiveness of our core businesses, reduce overhead costs and streamline operations. At June 30, 2004, the Step change program was substantially complete.

Restructuring charges relating to workforce reductions, lease terminations and other exit costs associated with the Step change program are included in other income (expense), net. Termination benefits were paid to approximately 950, 1,500 and 200 employees in 2004, 2003 and 2002, respectively. Workforce reductions occurred principally from production, managerial and administrative employees. Changes in management's original estimate of the amounts accrued for workforce reductions, lease terminations and other exit costs were included in other income (expense), net.

As a result of the Step change program, certain assets, inventories and property, plant and equipment were identified as being impaired or would no longer be used in continuing operations. We recorded \$0 million, \$3 million and \$2 million in 2004, 2003 and 2002, respectively, to write down these assets to their fair value, and such costs were included in cost of sales and other income (expense), net.

#### **Other**

Certain restructuring programs were initiated primarily during 2003 at specified locations not included in the Step change program. The goals of these programs are to increase efficiencies by reducing headcount and streamlining operations. These programs are expected to increase productivity of the non-core businesses. Anticipated savings will be recognized through the strategic divestment of these operations.

Restructuring charges related to workforce reductions, lease terminations and other exit costs associated with these other programs are included in other income (expense), net. Termination benefits were paid to approximately 1,290 and 1,300 employees in 2004 and 2003, respectively. Workforce reductions occurred principally from production, managerial and administrative employees. Changes in management's original estimate of the amounts accrued for workforce reductions, lease terminations and other exit costs have been included in other income (expense), net.

As a result of other restructuring programs, certain assets, inventories and property, plant and equipment have been identified as being impaired or would no longer be used in continuing operations. We recorded \$5 million and \$11 million in 2004 and 2003, respectively, to write down these assets to fair value and such costs are included in cost of sales and other income (expense), net.

## Restructuring liabilities

Restructuring liabilities consist of the following:

	2001 program		Step change		Other		Total
	Workforce reductions	Lease terminations and other exit costs	Workforce reductions	Lease terminations and other exit costs	Workforce reductions	Lease terminations and other exit costs	
	(\$ in millions)						
<b>Balance at January 1, 2002</b>	<b>78</b>	<b>39</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>12</b>	<b>149</b>
Restructuring expense	168	40	51	26	-	-	285
Cash paid	(156)	(29)	(13)	(1)	-	-	(199)
Exchange rate differences	20	5	-	-	-	-	25
Changes in estimate	(16)	(5)	-	-	(9)	-	(30)
<b>Balance at December 31, 2002</b>	<b>94</b>	<b>50</b>	<b>38</b>	<b>25</b>	<b>11</b>	<b>12</b>	<b>230</b>
Restructuring expense	-	-	181	56	110	25	372
Cash paid	(99)	(10)	(143)	(48)	(43)	(12)	(355)
Exchange rate differences	14	9	24	4	7	3	61
Changes in estimate	-	(22)	(4)	-	(6)	-	(32)
<b>Balance at December 31, 2003</b>	<b>9</b>	<b>27</b>	<b>96</b>	<b>37</b>	<b>79</b>	<b>28</b>	<b>276</b>
Restructuring expense	-	-	42	17	98	31	188
Cash paid	(9)	(9)	(137)	(18)	(103)	(16)	(292)
Exchange rate differences	-	2	6	3	5	4	20
Changes in estimate	-	(6)	(7)	-	(5)	(5)	(23)
<b>Balance at December 31, 2004</b>	<b>-</b>	<b>14</b>	<b>-</b>	<b>39</b>	<b>74</b>	<b>42</b>	<b>169</b>

We expect that we will continue to expend cash and incur restructuring expenses. In particular, we expect that we will pay in 2005 a significant portion of our total restructuring liabilities at December 31, 2004. We also expect to incur restructuring expenses in an amount equal to approximately 0.5 to 0.7 percent of our revenues in each year as part of our routine assessment of our business practices and strategy. These expenses will be recorded in cost of sales, selling, general and distribution expenses and other income (expense), net, in the Consolidated Income Statements according to the nature of the expenses, except for restructuring expenses incurred by businesses classified in discontinued operations, which will be recorded in income (loss) from discontinued operations. We expect to fund our cash expenditures under our restructuring programs through cash generated from our continuing operations. The benefits of these restructuring programs are expected to be realized through reductions in selling, general and administrative expenses and cost of sales in the subsequent years. These benefits, however, may be offset by increases in cost of sales, selling, general and administrative expenses and other income (expense), net, due to various other factors, which cannot be predicted in advance.

### Cumulative

The cumulative amounts at December 31, 2004, for each plan are given below:

	2001 program	Step change	Other	Total
	(\$ in millions)			
Restructuring charge for workforce reduction	282	274	228	784
Restructuring charge for lease terminations and other	111	99	68	278
Changes in estimate	(49)	(11)	(25)	(85)
<b>Total restructuring charges</b>	<b>344</b>	<b>362</b>	<b>271</b>	<b>977</b>

### Division information

Restructuring charges by division and business activity consist of the following:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Power Technologies	51	61	57
Automation Technologies	72	139	126
Non-core activities:			
Oil, Gas and Petrochemicals	20	20	-
Equity Ventures	-	-	-
Structured Finance	-	-	-
Building Systems	11	43	22
New Ventures	1	1	2
Other Non-core activities	-	47	15
Total Non-core activities	32	111	39
Corporate/Other	10	29	33
<b>Total restructuring charges</b>	<b>165</b>	<b>340</b>	<b>255</b>

## Acquisitions, investments and divestitures

### Acquisitions and investments

In 2004, 2003 and 2002, we paid aggregate consideration of \$24 million, \$55 million and \$154 million, respectively, related to acquisitions and investments in new businesses, joint ventures and affiliated companies.

### Divestitures of businesses, joint ventures and affiliated companies

In 2004, 2003 and 2002, we received cash, net of cash disposed, from sales of businesses, joint ventures and affiliated companies of \$1,182 million, \$543 million and \$2,509 million, respectively. In relation to these dispositions we recognized net gains in 2004, 2003, and 2002 within other income (expense), net, of \$52 million, \$43 million and \$98 million, respectively. We also recognized net losses in 2004, 2003, and 2002 within loss from discontinued operations, net of tax, of \$63 million, \$38 million and \$194 million, respectively.

Our material and certain other dispositions are described below.

#### Divestitures in 2004

In December 2004, we sold our entire 15.7 percent equity interest in IXYS Corporation for approximately \$42 million and recorded a gain, before tax, of \$20 million in other income (expense), net.

In July 2004, we sold the Upstream Oil, Gas and Petrochemicals business to a consortium of private equity investors (collectively, the Purchasers). We received net cash proceeds of approximately \$800 million, which reflects an initial sales price of \$925 million adjusted for approximately \$85 million of unfunded pension liabilities and changes in net working capital. We recognized in 2004 a loss on disposal of \$26 million in loss from discontinued operations, net of tax. On February 9, 2005, we and the Purchasers entered into a Settlement Agreement and Amendment (the Settlement Agreement) finalizing the sales price. This Settlement Agreement contains provisions to indemnify the Purchasers with respect to certain incomplete projects. We believe the provisions we have accrued for such indemnified projects are adequate.

In June 2004, we sold a business in the Automation Technologies division operating in Sweden, for gross and net proceeds of approximately \$11 million, and recorded a gain on disposal of \$7 million, before tax, in other income (expense), net.

In April 2004, we completed the sale of our Reinsurance business to White Mountains Insurance Group Limited, a Bermuda based insurance holding company, receiving gross cash proceeds of \$415 million and net proceeds of

approximately \$280 million. In anticipation of the sale of this business, we recorded in 2003 an impairment charge of \$154 million in loss from discontinued operations, net of tax. We recognized in 2004 a net loss of \$41 million in loss from discontinued operations, net of tax, that related primarily to currency translation effects from December 2003 through the date of sale in April 2004 (as explained in "Note 2 Significant accounting policies – Translation of foreign currencies and foreign exchange transactions" to our Consolidated Financial Statements).

In February 2004, we sold our Swiss Building Systems business to a Swiss private equity company, for gross cash proceeds of approximately \$39 million, but retained a 10 percent ownership interest. We recognized in 2004 a net gain on disposal of \$12 million, before tax, in other income (expense), net.

In January 2004, we sold our MDCV (Mitsubishi-Dainichi Continuous Vulcanization) Cables business. We recorded in 2003 asset write-downs of \$10 million in anticipation of the sale of this business in loss from discontinued operations, net of tax.

#### Divestitures in 2003

In December 2003, as part of the divestment of our Structured Finance business, we sold ABB Export Bank. We received cash proceeds of approximately \$50 million from the sale and recorded in 2003 a loss on disposal of \$12 million, in loss from discontinued operations, net of tax.

In December 2003, as part of the divestment of the Wind Energy business (which was held in the New Ventures business area prior to its classification to discontinued operations), we sold the majority of the business for total consideration of \$35 million, which included a vendor note of \$10 million. We recognized in 2003 a loss on disposal from this sale of approximately \$25 million in loss from discontinued operations, net of tax.

In August 2003, as part of the divestment of our Building Systems businesses, we sold to YIT Corporation of Finland our Building Systems businesses located in Sweden, Norway, Denmark, Finland, Russia and the Baltic states for consideration of \$213 million. We recorded a gain on disposal of approximately \$124 million, before tax, in other income (expense), net. Additionally, throughout 2003, we sold other Building Systems businesses in a number of countries, including Belgium, the Netherlands, Austria, Hungary and the United Kingdom, for aggregate proceeds of \$21 million. We recorded in 2003 a loss on disposal from the sale of these businesses of approximately \$41 million, before tax, in other income (expense), net.

In June 2003, we sold our entire 35 percent interest in the Swedish Export Credit Corporation to the government of Sweden for net proceeds of approximately \$149 million, and recorded a loss on disposal of approximately \$80 million, before tax, included in other income (expense), net.

Also in June 2003, we sold our interests in certain equity investments in Australia for cash proceeds of approximately \$90 million, and recorded in 2003, a gain on disposal of approximately \$28 million, before tax, in other income (expense), net.

In March 2003, we sold our aircraft leasing business for approximately \$90 million. This business consisted of a portfolio of loans and leases related to commuter aircraft and helicopters used primarily in Northern Europe. We provided significant financial support to the entity formed by the buyer for the acquisition. Following the introduction of FIN 46 in 2003, we determined that this entity should be treated as a variable interest entity and, as a result of the financial support we provided, that we are the primary beneficiary of this entity. Accordingly, we consolidated this entity in our Consolidated Financial Statements.

#### **Divestitures in 2002**

In December 2002, we completed the sale of our Metering business to Ruhrgas Industries GmbH for consideration of approximately \$223 million. We recorded in 2002 a loss on disposal of approximately \$48 million from this sale in loss from discontinued operations, net of tax. Cash held in escrow of \$15 million was released after resolution of certain disputed items in 2003.

In November 2002, we completed the sale of most of our Structured Finance business to General Electric Capital Corporation (GE) and received cash proceeds of approximately \$2.0 billion, including a contingent payment of \$20 million to be released to us should amounts ultimately collected by GE, from a portfolio transferred by us to GE, reach specified targets. Collection of the last portion of the contingent payment, which culminated our collection of substantially all of the contingent payment, took place on August 3, 2004. We recorded in 2002 a loss on disposal from this sale of approximately \$146 million in loss from discontinued operations, net of tax. Pursuant to the sale and purchase agreement for this transaction, we provided GE with cash collateralized letters of credit in the aggregate amount of \$202 million as security for certain performance-related obligations retained by us, of which approximately \$63 million were outstanding as of December 31, 2004. The remaining cash collateralized letters of credit will further be reduced as our performance related obligations expire. The sale and purchase agreement also provided GE with the option to require us to repurchase designated financial assets transferred to GE. The fair value of GE's right to require us to repurchase the designated assets was

\$11 million at December 31, 2003. On January 26, 2004, we repurchased the designated financial assets for approximately \$28 million. No further obligation exists for us to repurchase any assets under the sale and purchase agreement.

In January 2002, we sold our Air Handling business for cash proceeds of \$113 million, which was the sales price of \$147 million less a vendor note of 39 million euro principal value (approximately \$34 million at the date of issuance) issued by the purchaser, Global Air Movement (Luxembourg) Sarl. We recognized in 2002 a gain on disposal from this sale of \$74 million, before tax, in other income (expense), net.

#### **Other divestitures**

In May 2003, we sold our interest in China National Petrochemical Corporation (Sinopec Corp.) for approximately \$82 million and recorded in 2003 a loss on disposal of \$40 million, before tax, in interest and other finance expense, net.

During 2004, 2003 and 2002, we sold several operating units and investments not described above for total proceeds of \$39 million, \$31 million and \$209 million, respectively, and recognized net gains, before tax, on disposal of \$13 million, \$12 million and \$24 million, respectively, in other income (expense), net. Net income from these businesses and investments was not significant in 2004, 2003 and 2002.

In addition, throughout 2003, we engaged in a number of sales and terminations of lease portfolios and individual financing receivables resulting in cash proceeds of approximately \$400 million. These disposals continued in 2004, generating cash proceeds of approximately \$180 million. The gains (losses) on such disposals were not material.

#### **Exchange rates**

We report our financial results in U.S. dollars. A significant amount of our revenues, expenses, assets and liabilities are denominated in other currencies due to our global operations. As a consequence, movements in exchange rates between currencies may affect:

- our profitability,
- the comparability of our results between periods, and
- the carrying value of our assets and liabilities.

We must translate non-U.S. dollar denominated results of operations, assets and liabilities to U.S. dollars in our Consolidated Financial Statements. Balance sheet items are translated to U.S. dollars using year-end currency exchange rates. Income statement and cash flow items are translated to U.S. dollars using the average currency exchange rate over the relevant period. As a consequence, increases and decreases in the value of the U.S. dollar against other currencies will affect our reported results of operations in our Consolidated Income Statement and the value of certain of our assets and liabilities in our Consolidated Balance Sheet, even if our results of operations or the value of those assets and liabilities have not changed in their original currency. Because of the impact foreign exchange rates have on our reported results of operations and the reported value of our assets and liabilities, changes in foreign exchange rates could significantly affect the comparability of our reported results of operations between periods and result in significant changes to the reported value of our assets, liabilities and shareholders' equity, as has been the case during the period from 2002 through 2004.

While we operate globally and report our financial results in U.S. dollars, because of the location of our significant operations and because our headquarters are in Switzerland, exchange rate movements between the U.S. dollar and both the euro (EUR) and the Swiss franc (CHF) are of particular importance to us. The decline in the value of the U.S. dollar against the euro and Swiss franc between 2002 and 2004 has had a material impact on our financial statements.

The exchange rates between the U.S. dollar and the EUR and the U.S. dollar and the CHF at December 31, 2004, 2003, and 2002, are as follows.

December 31	2004	2003	2002
	Exchange rates into \$		
EUR 1.00	1.37	1.26	1.05
CHF 1.00	0.88	0.81	0.72

The average exchange rates between the U.S. dollar and the EUR and the U.S. dollar and the CHF for the years ended December 31, 2004, 2003 and 2002, are as follows.

December 31	2004	2003	2002
	Exchange rates into \$		
EUR 1.00	1.25	1.13	0.94
CHF 1.00	0.81	0.75	0.64

When we incur expenses that are not denominated in the same currency as the related revenues, foreign exchange rate fluctuations could adversely affect our profitability. To mitigate the impact of exchange rate movements on our profitability, it is our policy to enter into forward foreign exchange contracts to manage the foreign exchange risk of our operations.

In 2004, approximately 84 percent of our consolidated revenues were reported in currencies other than U.S. dollars. Of that amount, the following percentages were reported in the following currencies:

- Euro, approximately 37 percent,
- Chinese renminbi, approximately 6 percent,
- Swedish krona, approximately 6 percent,
- Swiss franc, approximately 5 percent, and
- Pound sterling, approximately 3 percent.

In 2004, approximately 83 percent of our consolidated cost of sales and selling, general and administration expenses were reported in currencies other than U.S. dollars. Of that amount, the following percentages were reported in the following currencies:

- Euro, approximately 37 percent,
- Chinese renminbi, approximately 5 percent,
- Swedish krona, approximately 6 percent,
- Swiss franc, approximately 5 percent, and
- Pound sterling, approximately 4 percent.

Foreign exchange rate changes resulted in an increase in our reported revenues and EBIT by 6 percent and 18 percent in 2004 and 12 percent and 42 percent in 2003, respectively.

We also incur expenses other than cost of sales and selling, general and administration expenses in various currencies.

The results of operations and financial position of most of our non-U.S. subsidiaries are reported in the currencies of the countries in which those subsidiaries reside. We call these "local currencies." That local currency financial information is then translated into U.S. dollars at applicable exchange rates for inclusion in our Consolidated Financial Statements.

The discussion of our results of operations below provides certain information with respect to orders, revenues, EBIT and other measures as reported in local currencies (as well as in U.S. dollars). We measure period-to-period variations in local currency results by using a constant foreign exchange rate for all periods under comparison. Differences in our results of operations as reported in local currencies as compared to our results of operations as reported in U.S. dollars are caused exclusively by changes in currency exchange rates.

While we consider our results of operations as measured in local currencies to be a significant indicator of business performance, local currency information should not be relied upon to the exclusion of U.S. GAAP financial measures. Instead, local currencies reflect an additional measure of comparability and provide a means of viewing aspects of our operations that, when viewed together with the U.S. GAAP results and our reconciliations, provide a more complete understanding of factors and trends affecting the business. Because local currency information is not standardized, it may not be possible to compare our local currency information with other companies' financial measures having the same or a similar name. Management strongly encourages investors to review our financial statements and publicly-filed reports in their entirety, and not to rely on any single financial measure.

### **Orders**

We book and report an order when a binding contractual agreement has been concluded with the customer covering, at a minimum, the price and scope of products or services to be supplied, the delivery schedule and payment terms. The reported value of an order corresponds to the undiscounted value of revenues that we expect to recognize following our delivery of the goods or services subject to the order, less any trade discounts and excluding any value added or sales tax. The value of orders received during a given period of time represents a sum of the value of all orders received during the period, adjusted to reflect the aggregate value of any changes to the value of orders received during the period and orders existing at the beginning of the period. These adjustments, which may in the aggregate increase or decrease the orders reported during the period, may include changes in the estimated order price up to the date of contractual performance, changes in the scope of products or services ordered, cancellations of orders, returns of delivered goods, and the recognition of operating or financial services income relating to the order (except that the cancellation of orders with an expected revenue value of over \$10 million that were received in a previous period are not deducted from the value of orders received during the present period, and instead, are balanced against order backlog only).

The undiscounted value of revenues we expect to generate from our orders at any point in time is represented by our order backlog. Approximately 12 percent of the value of the orders we booked in 2004 were "large orders," which we define as orders from third parties involving at least \$15 million worth of products or systems. Of the total value of orders in the Power Technologies and Automation Technologies divisions in 2004, approximately 11 percent and 7 percent, respectively, represented large orders. Within Non-core activities, large orders represented 49 percent of total orders in 2004, as large orders accounted for 68 percent of the value of orders received by the Oil, Gas and Petrochemicals business.

The level of orders fluctuates from year to year. Arrangements included in particular orders can be complex and unique to the order. Portions of our business involve orders for long-term projects that can take months or years to complete and many large orders result in revenues in periods after the order is booked. However, the level of large orders, and orders generally, cannot be used to accurately predict future revenues or operating performance. Orders that are placed can be cancelled, delayed or modified by the customer. These actions can reduce or delay any future revenues from the order, or may result in the elimination of the order.

### **Performance measures**

We evaluate the performance of our divisions based on orders received, revenues, earnings before interest and taxes (or EBIT), EBIT as a percentage of revenues (or EBIT margin) and net cash provided by (used in) operating activities. The orders, revenues and EBIT of our divisions include interdivisional transactions. In 2004, approximately 95 percent of our core divisions' orders and revenues were from third-party customers. EBIT, which is commonly referred to as operating profit, is the amount resulting from the subtraction of our cost of sales, selling, general and administrative expenses, amortization expense and other income (expense), net, from our revenues. EBIT margin is the percentage amount resulting from the division of EBIT by revenues. Net cash provided by (used in) operating activities represents the cash provided by or used in a business before cash inflows and outflows from investing and financing activities, and, as relates to our divisions, includes interdivisional transactions.

## Restatement

The financial statements and other financial data included in this report reflect restatements we made in September 2004, when we restated certain financial statements contained in our annual report for the year ended December 31, 2003 as published in our Form 20-F filed with the U.S. Securities and Exchange Commission in April 2004. The amendments reflected restatements of our consolidated financial statements at December 31, 2003 and 2002 and for each of the years in the three-year period ended December 31, 2003, and of certain financial data at December 31, 2001, 2000 and 1999 and for each of the years in the two-year period ended December 31, 2000. These changes were intended to correct the effect of earnings overstatements by the PT-MV BAU in Italy on its previously reported financial statement results.

The cumulative effect of these overstatements on our EBIT and net income was approximately \$73 million and \$89 million, respectively, from the first quarter of 1998 through the end of March 2004. The negative impact on income tax expense results from the inability to claim tax benefits under Italian tax law for adjustments made to improperly filed tax returns for the years 1998 through 2002, as well as a reassessment of the probability of realization of our deferred tax assets due to a cumulative loss position after the restatement. As compared with financial data originally published, the corrections increased net loss by \$12 million (\$0.01 per share basic and diluted), \$36 million (\$0.04 and \$0.03 per share basic and diluted, respectively) and \$14 million (\$0.02 per share basic and diluted) in 2003, 2002 and 2001, respectively, decreased net income by \$17 million (\$0.01 and \$0.02 per share basic and diluted, respectively) and \$6 million (\$0.01 per share basic and diluted) in 2000 and 1999, respectively, and decreased stockholders' equity by \$109 million at December 31, 2003.

## Differences from preliminary earnings announcement

On February 17, 2005, we announced, in an unaudited earnings release, net income for the year ended December 31, 2004 totaling \$201 million. Following extensive negotiations between various representatives of asbestos claimants and us, on March 21, 2005, we announced that we reached an agreement with those parties on the basic terms of an amended plan of reorganization for Combustion Engineering and ABB Lummus Global to resolve the asbestos claims against both companies.

This event, and the resulting change in estimate relating to our potential asbestos-related liabilities, is required under accounting rules to be recorded in our results for the year ended December 31, 2004. As a result of the changes required to reflect that change in estimate, our Consolidated Financial Statements included in this report differ in certain respects from the financial information stated in the February 17, 2005 earnings release.

In the Consolidated Financial Statements, we have adjusted the preliminary amounts announced in the earnings release as follows:

Selected Financial Data			
Year ended December 31, 2004			
	As reported on February 17, 2005	Adjustments <sup>(1)</sup>	As adjusted
(\$ in millions, except per share data)			
Loss from discontinued operations, net of tax	(247)	(236)	(483)
Net income (loss)	201	(236)	(35)
Net income (loss) per share	0.10	(0.12)	(0.02)
Accrued liabilities and other	6,200	236	6,436
Total stockholders' equity	3,060	(236)	2,824

<sup>(1)</sup> Adjustments due to changes in asbestos related cost provision.

## Analysis of results of operations

### Consolidated

Our results from operations were as follows:

Year ended December 31,	2004	2003	2002
(\$ in millions, except per share data)			
Orders	21,689	19,701	19,153
Order backlog <sup>(1)</sup>	12,364	11,306	12,127
Revenues	20,721	20,427	19,472
Cost of sales	15,757	15,928	15,098
Selling, general and administrative expenses	3,786	3,917	4,050
EBIT	1,084	357	199
Interest and other finance expense, net	(223)	(417)	(133)
Loss from discontinued operations	(483)	(408)	(693)
Net loss	(35)	(779)	(819)
Basic earnings (loss) per share:			
Income (loss) from continuing operations	0.22	(0.30)	(0.11)
Net loss	(0.02)	(0.64)	(0.74)
Diluted earnings (loss) per share:			
Income (loss) from continuing operations	0.22	(0.30)	(0.27)
Net loss	(0.02)	(0.64)	(0.86)

<sup>(1)</sup> at December 31

A more detailed discussion of the orders, revenues, cost of sales, selling, general and administrative expenses and EBIT for each of our individual divisions and segments follows in sections entitled "Power Technologies," "Automation Technologies," "Non-core activities" and "Discontinued operations" below.

## Orders

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Power Technologies	9,372	7,682	6,686
Automation Technologies	11,334	9,691	8,428
Total Core Divisions	20,706	17,373	15,114
Non-core activities			
Oil, Gas and Petrochemicals	1,216	1,156	2,123
Building Systems	388	1,616	2,351
New Ventures	41	45	70
Equity Ventures	7	26	19
Structured Finance	6	48	77
Other Non-core activities	36	469	960
Total Non-core activities	1,694	3,360	5,600
Corporate/Other and inter-division eliminations	(711)	(1,032)	(1,561)
<b>Total</b>	<b>21,689</b>	<b>19,701</b>	<b>19,153</b>

In 2004, orders increased by \$1,988 million, or 10 percent (3 percent in local currencies), to \$21,689 million.

Orders received by the core divisions increased by 19 percent in 2004 (12 percent in local currencies), with orders received by the Power Technologies and Automation Technologies divisions increasing 22 percent and 17 percent (15 percent and 9 percent in local currencies), respectively. Orders received by Non-core activities decreased by 50 percent (53 percent in local currencies) in 2004 as compared to 2003. Orders valued at approximately \$92 million, or 0.4 percent of 2004 orders, were received prior to 2004 and were cancelled, but not deducted from the reported value of orders received, during 2004.

In 2003, orders increased by \$548 million, or 3 percent (decreased by 9 percent in local currencies), to \$19,701 million from \$19,153 million in 2002. This small increase in orders was due to a 40 percent (43 percent in local currencies) decline in orders received by Non-core activities that substantially offset increases in orders received by each of the Power Technologies and Automation Technologies divisions of 15 percent (5 percent and 1 percent, respectively, in local currencies). Orders valued at approximately \$136 million, or 0.7 percent of 2003 orders, were received prior to 2003 and were cancelled, but not deducted from the reported value of orders received, during 2003. Orders valued at approximately \$644 million, or 3.4 percent of 2002 orders, were received prior to 2002 and

were cancelled, but not deducted from the reported value of orders received, during 2002.

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Europe	11,009	11,024	10,915
The Americas	3,797	3,227	3,862
Asia	5,013	3,460	2,822
MEA	1,870	1,990	1,554
<b>Total</b>	<b>21,689</b>	<b>19,701</b>	<b>19,153</b>

Orders from Europe remained flat in 2004 and 2003, but declined 8 percent and 12 percent in local currencies, respectively. Changes in our orders from Europe from 2002 to 2004 were primarily the result of divestments from the Building Systems business and a shift to reimbursable contracts in the Oil, Gas and Petrochemicals business. Orders from the Americas increased 18 percent (15 percent in local currencies) during 2004, driven largely by automotive industries after a decline of 16 percent (18 percent in local currencies) during 2003.

Asian orders increased 45 percent and 23 percent (38 percent and 15 percent in local currencies) in 2004 and 2003, respectively, principally resulting from an increase in orders from China in the same respective periods driven by economic growth and infrastructure development. South Asian orders were predominantly from India, where orders grew in 2004 and 2003, following the Indian government's economic liberalization and initiatives. In 2004, orders from the MEA declined by 6 percent (14 percent in local currencies) in 2004 compared to 2003, which included several large orders received by the Power Technologies division's Power Systems business area thereby resulting in an increase of 28 percent (20 percent in local currencies) in 2003 as compared to 2002.

## Order backlog

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Power Technologies	6,874	6,030	5,682
Automation Technologies	4,322	3,826	3,486
Non-core activities	1,533	1,865	3,579
Corporate/Other and inter-division eliminations	(365)	(415)	(620)
<b>Total</b>	<b>12,364</b>	<b>11,306</b>	<b>12,127</b>

Order backlog increased by \$1,058 million, or 9 percent (3 percent in local currencies), to \$12,364 million in 2004 as an increase in order backlog in the core divisions exceeded an 18 percent decline (24 percent in local currencies) in the order backlog in Non-core activities. In 2003, order backlog decreased by \$821 million, or 7 percent (17 percent in local currencies), to \$11,306 million from \$12,127 million in 2002, as an increase in order backlog in the core divisions was more than offset by a 48 percent (53 percent in local currencies) decline in order backlog in Non-core activities.

## Revenues

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Power Technologies	8,755	7,598	6,814
Automation Technologies	11,030	9,628	8,201
Core Divisions	19,785	17,226	15,015
Non-core activities			
Oil, Gas and Petrochemicals	1,079	1,895	2,321
Building Systems	508	1,829	2,375
New Ventures	49	53	50
Equity Ventures	7	26	19
Structured Finance	6	48	66
Other Non-core activities	44	471	783
Total Non-core activities	1,693	4,322	5,614
Corporate/Other and inter-division eliminations	(757)	(1,121)	(1,157)
<b>Total</b>	<b>20,721</b>	<b>20,427</b>	<b>19,472</b>

Revenues increased in each of 2004, 2003 and 2002, driven by growth in our core divisions partially offset by declines in Non-core activities.

Revenues increased by \$294 million, or 1 percent (decreased by 5 percent in local currencies), to \$20,721 million in 2004 from \$20,427 million in 2003. The relatively flat revenue growth in 2004 was due to a 61 percent decrease (63 percent in local currencies) in revenues generated by Non-core activities that substantially offset revenue increases of 15 percent and 15 percent (9 percent and 7 percent in local currencies) in the Power Technologies and Automation Technologies divisions, respectively. In 2003, revenues increased by \$955 million, or 5 percent (decreased by 7 percent in local currencies), to \$20,427 million from \$19,472 million in 2002. The increase in revenues in 2003 was due to increases in revenue of 12 percent and 17 percent (2 percent and 3 percent in local currencies) in the Power Technologies and Automation Technologies divisions, respectively, partially offset by a 23 percent decrease (36 percent in local currencies) in revenues in Non-core activities.

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Europe	10,764	10,963	10,461
The Americas	3,524	3,900	4,177
Asia	4,296	3,519	2,860
MEA	2,037	2,045	1,974
<b>Total</b>	<b>20,721</b>	<b>20,427</b>	<b>19,472</b>

European revenues decreased 2 percent (10 percent in local currencies) in 2004 after increasing 5 percent (declining 10 percent in local currencies) in 2003. These changes were primarily the result of revenue reductions associated with the Building Systems divestments in the Nordic countries, Switzerland and in the United Kingdom, substantially offset by exchange rate effects related to the declining value of the U.S. dollar over this period. Within Europe, Central and Eastern European revenues decreased in 2004 after increasing substantially in 2003. Improvement by the core divisions in this region was more than offset in 2004 by the shift to reimbursable contracts in our Oil, Gas and Petrochemicals business and the sale of businesses from the Building Systems business. Revenues from the Americas decreased 7 percent in both 2004 and 2003 (9 percent and 8 percent in local currencies respectively) across all divisions, primarily reflecting the relatively weak markets in the previous periods. North American revenues declined in 2003 reflecting a decline in sales of distribution transformers by the Power Technologies division. Revenues from Asia increased 22 percent and 23 percent (17 percent and 15 percent in local currencies) in 2004 and 2003, respectively, primarily reflecting growth in China. Revenues from India almost doubled in 2004, after a small decline in 2003. The increase in Indian revenue in 2004 was across all business areas, whereas the decline in 2003 reflects the revenues pertaining to an oil and petrochemical refinery project in India that stalled during 2003 due to complications encountered by the customer in obtaining necessary additional financing. Revenues in the MEA remained flat (decline of 6 percent in local currencies) in 2004 after a period of growth in 2003, principally due to higher revenues from an Angolan oil and gas project completed in 2003 resulting in an increase of MEA revenues in 2003 of 4 percent (2 percent in local currencies) as compared to 2002.

## Cost of sales

Cost of sales decreased by \$171 million, or 1 percent (7 percent in local currencies), to \$15,757 million in 2004 after increasing by \$830 million, or 5 percent (decreased 7 percent in local currencies), to \$15,928 million from \$15,098 million in 2002.

Cost of sales consists primarily of labor, raw materials and related components. Cost of sales also includes provisions for warranty claims, contract losses and project penalties, as well as order-related development expenses incurred in connection with projects for which we have recognized corresponding revenues. Order-related development is recorded in cost of sales, and amounted to \$727 million, \$886 million and \$719 million in 2004, 2003 and 2002, respectively. Order-related development amounts are initially recorded in inventories as works in progress, and reflected in cost of sales at the time revenue is recognized.

The gross profit margin on a consolidated basis and for each core division and Non-core activities, calculated as gross profit divided by revenues, were as follows:

Year ended December 31,	2004	2003	2002
Power Technologies	20.3%	22.0%	22.1%
Automation Technologies	29.4%	29.0%	29.8%
Non-core activities <sup>(1)</sup>	6.7%	(0.5%)	5.0%
Consolidated	24.0%	22.0%	22.5%

<sup>(1)</sup> Excludes revenues of \$0 million, \$421 million and \$758 million and gross profit of \$0 million, \$378 million and \$707 million of the Group Processes business area in 2004, 2003 and 2002, respectively.

The gross profit margin improved in 2004 as compared to 2003, principally due to an improvement in gross profit margin in the Oil, Gas and Petrochemicals business area from negative 9.5 percent in 2003 to 9.9 percent in 2004 following a \$1,103 million reduction in costs of sales related to the winding down or culmination of long-term fixed price contracts.

#### Selling, general and administrative expenses

Selling, general and administrative expenses decreased by \$131 million, or 3 percent (10 percent in local currencies), to \$3,786 million in 2004 from \$3,917 million in 2003. In 2003, selling, general and administrative expenses decreased by \$133 million, or 3 percent (15 percent in local currencies), to \$3,917 million from \$4,050 million in 2002.

The components of selling, general and administrative expenses were as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Selling expenses	1,910	1,830	1,815
General and administrative expenses	1,876	2,087	2,235
Total selling, general and administrative expenses	3,786	3,917	4,050
Total selling, general and administrative expenses as a percentage of revenues	18.3%	19.2%	20.8%

Selling, general and administrative expenses as a percentage of revenues have decreased in Power Technologies, Automation Technologies and Non-core activities in each of the past two years as compared to the previous period.

Selling expenses increased 4 percent and 1 percent (decreased 3 percent and 11 percent in local currencies) in 2004 and 2003, respectively. The increase in 2004 was due to growth in selling expense in each of the Power Technologies and Automation Technologies divisions of 13 percent (6 percent and 5 percent in local currencies, respectively), partially offset by business divestments and closures in Non-core activities.

General and administrative expenses decreased by 10 percent and 7 percent (16 percent and 17 percent in local currencies) in 2004 and 2003, respectively. General and administrative expenses decreased in 2004 as a result of business sales and closures in Non-core activities, partially offset by increases of 2 percent and 15 percent (a decrease of 5 percent and an increase of 5 percent in local currencies) in the Power Technologies and Automation Technologies divisions, respectively. General and administrative expenses decreased in 2003 as a result of business sales and closures in Non-core activities, as well as a decrease of 3 percent (13 percent in local currencies) in the Power Technologies division and partially offset by an increase of 6 percent (a decrease of 10 percent in local currencies) in the Automation Technologies division.

General and administrative expenses include non-order related research and development not related to a specific order or project, which increased 9 percent and 11 percent (decreased 1 percent and 1 percent in local currencies) in 2004 and 2003, respectively. Research and development costs not related to a specific order or project were \$690 million, \$635 million and \$572 million in 2004, 2003 and 2002, respectively.

General and administrative expenses in 2002 additionally include the recovery of payments to two former chief executive officers.

#### Amortization expense

Amortization expense of other intangibles was \$45 million, \$31 million and \$45 million in 2004, 2003 and 2002, respectively. Amortization expense of other intangibles primarily reflects the amortization of intellectual property related to an acquisition made in 1999 and the amortization of patents and other intangible assets from acquisitions held by the Oil, Gas and Petrochemicals business. The increase in amortization expense in 2004 was primarily due to the reclassification of the Oil, Gas and Petrochemicals business in 2004, and the related recognition of amortization expense not recorded while this business was classified in discontinued operations. Amortization of assets ceases

when the assets meet the criteria to be classified as held for sale. Amortization expenses for businesses classified in discontinued operations are not recorded as an amortization expense in our consolidated results of operations. When a business is reclassified from discontinued operations, we recognize in the period of reclassification all amortization expense that would have been recognized by the reclassified business during the period of time the business was classified in discontinued operations as long as this amount is less than the fair value of the assets on the date the business is reclassified into continuing operations.

#### Other income (expense), net

Other income (expense), net, typically consists of: restructuring expenses; gains or losses from the sale of businesses, gains or losses from the sale or disposal of property, plant and equipment; asset write-downs; our share of income or loss from equity accounted companies, principally from our Equity Ventures business; and license income.

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Restructuring expenses	(165)	(340)	(255)
Capital gains, net	73	69	107
Asset write-downs	(71)	(35)	(94)
Income from licenses, equity accounted companies and other	114	112	162
<b>Total</b>	<b>(49)</b>	<b>(194)</b>	<b>(80)</b>

Restructuring expenses are described above in "Restructuring expenses."

Capital gains, net in 2004 included gains of \$33 million on the sale of land and buildings, \$20 million on the sale of our shares of IXYS Corporation and lesser amounts from a number of smaller transactions. Capital gains, net in 2003 included gains of \$83 million from the sale of businesses from the Building System business area, \$28 million from the sale of equity investments in Australia, \$26 million from the sale of land and buildings and lesser amounts from a number of smaller transactions, partly offset by an \$80 million loss on the sale of our equity interest in the Swedish Export Credit Corporation. Capital gains in 2002 included a \$74 million gain on the sale of our Air Handling business, a \$22 million gain from the sale of machinery, land and buildings and a number of smaller gains.

Asset write-downs in 2004 included charges of \$21 million in respect of goodwill, \$14 million in respect of an e-business investment, \$8 million in respect of property impairments, \$2 million in respect of machinery and equipment, approximately \$20 million in a write-down of notes receivable in the Power Technologies division and a number of smaller write-downs. Asset write-downs in 2003 related to software, several equity investments, impairments of property and a number of smaller write-downs. Asset write-downs in 2002 included \$25 million in respect of software, \$30 million in respect of a number of equity investments, approximately \$30 million in respect of impairments of property and a number of smaller write-downs.

License income was \$24 million, \$25 million and \$14 million in 2004, 2003 and 2002, respectively, primarily reflecting income from liquid crystal display licenses.

Income from equity accounted companies was \$87 million, \$96 million and \$220 million in 2004, 2003 and 2002, respectively. Included in these values is income from our investment in Jorf Lasfar, which operates a power plant in Morocco, of \$68 million, \$62 million and \$73 million in 2004, 2003 and 2002, respectively. The decline in 2003 of income from equity accounted companies is primarily due to the sale of our investment in the Swedish Export Credit Corporation, which we divested in the second quarter of 2003.

#### Earnings before interest and taxes

Our EBIT for the years ended December 31, 2004, 2003 and 2002 was as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Power Technologies	610	595	451
Automation Technologies	1,027	738	495
Core Divisions	1,637	1,333	946
Non-core activities			
Oil, Gas and Petrochemicals	(4)	(296)	(142)
Building Systems	(70)	(104)	(113)
New Ventures	(5)	(21)	(37)
Equity Ventures	69	76	43
Structured Finance	(14)	(65)	96
Other Non-core activities	(22)	(57)	(157)
Total Non-core activities	(46)	(467)	(310)
Corporate/Other and inter-division eliminations	(507)	(509)	(437)
<b>Total</b>	<b>1,084</b>	<b>357</b>	<b>199</b>

EBIT increased by \$727 million, or 204 percent (186 percent in local currencies), to \$1,084 million in 2004 and by \$158 million, or 79 percent (37 percent in local currencies), to \$357 million in 2003.

The EBIT margin for our core divisions and on a consolidated basis for the years ended December 31, 2004, 2003 and 2002, are as follows:

Year ended December 31,	2004	2003	2002
Power Technologies	7.0%	7.8%	6.6%
Automation Technologies	9.3%	7.7%	6.0%
Core Divisions	8.3%	7.7%	6.3%
<b>Total</b>	<b>5.2%</b>	<b>1.7%</b>	<b>1.0%</b>

The 2004 EBIT margin decline in the Power Technologies division principally reflected a \$26 million (of which approximately \$20 million was included in other income (expense), net) write-down of notes receivable, the increase in raw materials costs (especially for steel, copper, aluminum and transformer oil) during the year, \$14 million in project-related hedging costs incurred following our decision to cease accounting for certain hedges under Statement of Accounting Financial Standards No. 133 (or SFAS 133), *Accounting for Derivative Instruments and Hedging Activity* and lower margin turnkey projects in the Utility Automation Systems business area including, in certain instances, cost overruns. Lower margin levels in the Power Systems business area due to continued low capacity utilization also contributed to the declining EBIT margin in 2004, caused principally by a lack of large orders received by the high-voltage direct current business unit and a related declining order backlog relating to our performance in China and Brazil of orders with a combined value of approximately \$553 million received in 2001. These developments were partially offset by strong, productivity-driven margin improvements in the Medium-Voltage Products business area. The EBIT margin increased in 2003 as compared to 2002, primarily due to the elimination of overlapping product lines and production sites, as well as productivity improvements.

The EBIT margin in the Automation Technologies division increased in 2004 due to increases in EBIT in all business areas resulting from productivity improvements and operational excellence initiatives along with a decrease in restructuring costs in 2004 from 2003. The EBIT margin increased in all Automation Technologies business areas in 2003 as compared to 2002, primarily due to productivity improvements and cost savings programs, partially offset by higher restructuring expenses in 2003 than 2002.

The EBIT margin in Non-core activities improved in 2004 as compared to 2003, primarily due to charges and losses realized in 2003 relating to certain large projects in the Oil, Gas and Petrochemicals business, the \$80 million loss on the sale of our investment in the Swedish Export Credit Corporation and the cessation or transfer of the Group Processes business. Non-core activities EBIT margin declined in 2003 due to the aforementioned items in the Oil, Gas and Petrochemicals business and the Structured Finance business.

### Net interest and other finance expense

Net interest and other finance expense consists of interest and dividend income and interest and other finance expense. Interest and other finance expense includes expenses associated with the change in fair value of the embedded derivative that was in our \$968 million convertible bonds, the amortization of costs associated with our credit facility, the issuance of our debt securities, gains (losses) on marketable securities and interest expense on our borrowings.

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Interest and dividend income	164	152	194
Interest and other finance expense	(387)	(569)	(327)
Net interest and other finance expense	(223)	(417)	(133)

Net interest and other finance expense decreased by 47 percent in 2004 after rising 214 percent in 2003.

Interest and dividend income increased in 2004 due to higher average balances of cash and marketable securities in 2004 compared to 2003, as well as higher average market interest rates. Interest and dividend income decreased in 2003 because market interest rates were lower than those in 2002 and because our divestments reduced our previous sources of dividend income.

Interest and other finance expense decreased in 2004 due to lower average debt levels in the period, partially offset by higher average interest rates on our borrowings. The debt repaid in 2004 was largely debt that had been swapped into floating interest rates. Consequently, fixed rate debt, with higher average interest rates than our floating rate debt during 2004, represented an increased proportion of our total debt balance. Interest and other finance expense in 2004 also included a \$43 million non-cash gain on available for sale marketable securities contributed to our German pension funds in 2004 and a \$20 million expense relating to our securitization programs. In 2003, these expenses included a \$40 million loss on the sale of our shares in the China National Petrochemical Corporation (Sinopec), a \$36 million impairment charge for available-for-sale marketable securities in Germany and a \$21 million expense relating to our securitization programs. The change in fair value of the embedded derivative and the amortization of the related discount on issuance from our \$968 million convertible bonds resulted in an expense of \$52 million in 2004, as compared to an expense of \$84 million in 2003 and a decrease in expense of \$215 million in 2002.

## Provision for taxes

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Income (loss) from continuing operations, before taxes and minority interest	861	(60)	66
Provision for taxes	(311)	(245)	(81)
Effective tax rate for the year	36.1%	(408.3%)	122.7%

The provision for taxes in 2004 was \$311 million, representing an effective tax rate for the year of 36.1 percent. The provision for taxes in 2004 includes an expense relating to a valuation allowance of \$107 million, predominantly relating to our operations in certain countries including Canada and France, and a benefit of approximately \$45 million from the losses of a post divestment reorganization and of \$39 million relating to the favorable resolution in 2004 of certain prior year tax matters.

In 2003, the loss from continuing operations before taxes and minority interest of \$60 million included an \$84 million expense comprising the change in fair value of the embedded derivative and the amortization of the related discount on issuance from our \$968 million convertible bonds combined with the continued amortization of the discount on issuance of these bonds. Furthermore, the provision for taxes includes the release of an approximately \$38 million tax provision related to a tax case ruled in our favor, an expense of approximately \$16 million related to a tax claim filed in Central Europe. In addition, the provision for taxes includes a valuation allowance of approximately \$258 million on deferred tax assets as a result of the determination that it was more likely than not that such deferred tax assets would no longer be realized within our Oil, Gas and Petrochemicals business. The effective tax rate in 2003 applicable to income from continuing operations excluding the tax effect of these items would have been 37.5 percent.

The effective tax rate in 2002 was 122.7 percent, in part as a result of a valuation allowance of approximately \$33 million on deferred tax assets in the Oil, Gas and Petrochemicals business. Furthermore, the provision for taxes in 2002 includes a valuation allowance of \$17 million on deferred tax assets and an increased tax expense of \$7 million related to non-deductible expenses under Italian tax law as a result of the overstatement within the PT-MV BAU in Italy. The effective tax rate in 2002 applicable to income from continuing operations excluding the tax effect of these items would have been 36.4 percent.

## Income (loss) from continuing operations

Income (loss) from continuing operations increased by \$819 million to an income of \$448 million in 2004 compared to a loss of \$371 million in 2003. The increase reflects improved EBIT and reduced net interest and other finance expense in 2004.

Income (loss) from continuing operations deteriorated by \$245 million to a loss of \$371 million in 2003 compared to a loss of \$126 million in 2002. The deterioration reflects increased net interest and other finance expense and increased tax expense in 2003.

## Loss from discontinued operations, net of tax

The loss from discontinued operations, net of tax, are as set forth below:

### Discontinued operations

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Combustion Engineering (Asbestos)	(262)	(142)	(395)
Powerlines	(75)	(10)	(17)
Upstream Oil, Gas and Petrochemicals	(70)	(44)	14
Reinsurance	(41)	(97)	22
Wind Energy	(25)	(42)	(1)
Foundry	(17)	-	-
MDCV Cables	-	(24)	(1)
Export Bank	-	(9)	10
Metering	12	(3)	(54)
Structured Finance	14	(29)	(183)
Other abandoned or sold businesses	(19)	(8)	(88)
<b>Loss from discontinued operations, net of tax</b>	<b>(483)</b>	<b>(408)</b>	<b>(693)</b>

Tax expense, net, in discontinued operations was \$41 million, \$42 million and \$91 million in 2004, 2003 and 2002, respectively.

A detailed discussion of the results of the significant discontinued businesses follows in the section entitled "Discontinued operations."

## Net loss

As a result of the factors discussed above, net loss improved by \$744 million to a loss of \$35 million in 2004 from a loss of \$779 million in 2003. The net loss in 2003 decreased by \$40 million to a net loss of \$779 million in 2003 from a net loss of \$819 million in 2002.

## Earnings (loss) per share

### Basic and Diluted earnings (loss) per share

Year ended December 31,	2004	2003	2002
	(\$)		
Income (loss) from continuing operations			
Basic	0.22	(0.30)	(0.11)
Diluted	0.22	(0.30)	(0.27)
Loss from discontinued operations			
Basic	(0.24)	(0.34)	(0.63)
Diluted	(0.24)	(0.34)	(0.59)
Net loss			
Basic	(0.02)	(0.64)	(0.74)
Diluted	(0.02)	(0.64)	(0.86)

Basic earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year. Diluted earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise: outstanding written call options, if dilutive; the securities issued under our employee incentive plans, if dilutive; and shares issuable in relation to our convertible bonds, if dilutive.

Basic loss per share was \$0.02 in 2004 compared to \$0.64 in 2003. Basic loss per share was \$0.64 in 2003 compared to \$0.74 in 2002.

The difference between the basic and diluted earnings per share in 2002 primarily reflects the effect of the gain of \$215 million recognized in 2002 under SFAS 133 with respect to changes in the fair value of the embedded derivative and the amortization of the related discount on issuance from our \$968 million convertible bond.

### Power Technologies

Effective January 1, 2005, the business areas within the Power Technologies division were reorganized into two businesses areas. The Transformers, Medium-Voltage Products and High-Voltage Products business areas were combined to form the Products business area, while the Power Systems and Utility Automation Systems business areas were combined to form the Systems business area. We expect to report future financial results for the Power Technologies business area based on the Products and Systems business areas.

The financial results of the Power Technologies division were as follows:

### Power Technologies

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Orders	9,372	7,682	6,686
Order backlog	6,874	6,030	5,682
Revenues	8,755	7,598	6,814
Cost of sales	6,976	5,927	5,306
Selling, general and administrative expenses	1,097	1,020	989
EBIT	610	595	451

### Orders

Orders increased by \$1,690 million, or 22 percent (15 percent in local currencies), to \$9,372 million in 2004. Orders in 2004 grew at a rate between 18 percent and 27 percent (11 percent and 19 percent in local currencies) in all business areas except for Utility Automation Systems, where orders increased approximately 12 percent (6 percent in local currencies). Both base and large orders improved in 2004, with the large order growth driven by an order for the Three Gorges project in China of approximately \$390 million. Orders from other divisions were \$500 million in 2004 as compared to \$435 million in 2003, representing 5 percent and 6 percent of division orders, respectively.

The proportionate geographic distribution of orders of the Power Technologies division (based on the location of the customer, which may be different from the ultimate destination of the products' end use) were approximately as follows:

Year ended December 31,	2004	2003
Europe	37%	40%
The Americas	22%	22%
Asia	29%	21%
MEA	12%	17%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Order growth in 2004 was particularly strong in Asia, led by China where orders almost doubled, making Asia the Power Technologies division's second largest regional source of orders. Orders also grew in Europe in 2004, which continued to be the division's largest regional source of orders. Orders in North America increased significantly while orders from South America decreased slightly. Orders from MEA were down due mainly to a lower level of large orders in 2004 than in 2003.

In 2003, orders increased by \$996 million, or 15 percent (5 percent in local currencies), to \$7,682 million. Orders increased in all business areas, with increases of 30 percent (20 percent in local currencies) in our Medium-Voltage Products business area following growth in our base orders, and 26 percent and 16 percent (13 percent and 8 percent in local currencies) in the Utility Automation Systems and Power Systems business areas, respectively. Orders grew by 13 percent (flat in local currencies) in our High-Voltage Products business area as large orders from Eastern Europe and the MEA were partially offset by a decrease from the United States. Orders in our Transformers business area increased by 5 percent (decreased by 5 percent in local currencies).

Order growth in 2003 was driven by growth in the MEA, Asia and Europe, moderated by a decrease in the Americas. Orders from other divisions were \$435 million in 2003 compared to \$433 million in 2002, representing 6 percent of division orders in both the periods.

#### Order backlog

Order backlog increased by \$844 million, or 14 percent (6 percent in local currencies), to \$6,874 million as at December 31, 2004 from \$6,030 million as at December 31, 2003.

Order backlog increased by \$348 million, or 6 percent (decreased by 6 percent in local currencies), to \$6,030 million as at December 31, 2003 from \$5,682 million as at December 31, 2002.

#### Revenues

The distribution of revenues of the Power Technologies division by business area for the years ended December 31, 2004 and 2003, were approximately as follows:

#### Business area

Business area	Percentage of revenues for the Year ended December 31,	
	2004	2003
Transformers	26%	25%
Power Systems	22%	25%
Medium-Voltage Products	19%	18%
High-Voltage Products	17%	16%
Utility Automation Systems	16%	16%

Revenues increased by \$1,157 million, or 15 percent (9 percent in local currencies), to \$8,755 million in 2004 from \$7,598 million in 2003, principally reflecting a 22 percent (16 percent and 15 percent in local currencies, respectively) revenue growth in the Medium-Voltage Products and High-Voltage Products business areas, and a 19 percent (13 percent in local currencies) increase in the Transformers business area. Revenues in the Utility Automation Systems

business area increased by 11 percent (5 percent in local currencies), whereas revenues in the Power Systems business area increased by 1 percent (down 5 percent in local currencies), reflecting a lower level of order backlog of large projects than in 2003.

Revenues increased by \$784 million, or 12 percent (2 percent in local currencies), to \$7,598 million in 2003 from \$6,814 million in 2002. Revenues from our Medium-Voltage Products business area increased 30 percent (20 percent in local currencies) in 2003, based mainly on growth in China and Eastern Europe, while revenues from the High-Voltage Products business area decreased by 8 percent (4 percent in local currency terms), as a result of lower order backlog at the beginning of 2003. Revenues in our Power Systems and Utility Automation Systems business areas decreased by 8 percent and 10 percent (1 percent and 1 percent in local currencies), respectively, due to a reduced number of short-term orders received in the second half of 2002. Revenues for the Power Technologies division were also negatively affected by the loss of revenues from three businesses that were divested in each of the United States, Poland and Italy.

The proportionate geographic distribution of revenues of the Power Technologies division (based on the location of the customer, which may be different from the ultimate destination of the products' end use) were approximately as follows:

Year ended December 31,	2004	2003
Europe	39%	38%
The Americas	22%	25%
Asia	25%	24%
MEA	14%	13%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Regionally, revenues were higher in Europe, MEA and Asia. Asian revenues in 2004 reflected relatively modest growth in China, where revenues from the Power Systems business area declined from a peak in 2003. Revenue growth in the Americas in 2004 was flat, principally resulting from a decline in revenues in the United States.

Regionally, in 2003 revenues from Asia and the MEA significantly increased primarily driven by increased revenues in China and Saudi Arabia. Revenues from Europe increased in U.S. dollar terms but decreased slightly in local currencies. These increases in revenues for 2003 were partly offset by decreases in the Americas, with the Americas revenues decline in 2003 reflecting a decline in sales of distribution transformers by the Power Technologies division.

Revenues from other divisions were \$499 million in 2004 (representing 6 percent of the Power Technologies division's revenues), \$476 million in 2003 (representing 6 percent of division revenues) compared to \$298 million in 2002 (representing 4 percent of division revenues).

### Cost of sales

Cost of sales increased by \$1,049 million, or 18 percent (11 percent in local currencies), to \$6,976 million in 2004 from \$5,927 million in 2003. The Power Technologies division's gross profit margin decreased from 22.0 percent in 2003 to 20.3 percent in 2004, reflecting higher input prices of raw materials, particularly steel, copper, aluminum and transfer oil, that principally impacted the Transformers business area, low capacity utilization of the Power Systems business area and project-related hedging costs incurred following our decision to cease accounting for certain hedges under SFAS 133, offset in part by savings in supply chain management and productivity improvements.

Cost of sales increased by \$621 million, or 12 percent (2 percent in local currencies), to \$5,927 million in 2003 from \$5,306 million in 2002. The Power Technologies division's gross profit margin decreased from 22.1 percent in 2002 to 22.0 percent in 2003. Despite difficult markets in 2003 characterized by a less favorable product mix and price level erosion, most noticeably in our High-Voltage Products and Transformers business areas, gross profit margin remained relatively flat mainly due to ongoing productivity improvements and cost savings.

### Selling, general and administrative expenses

Selling, general and administration expenses increased by \$77 million, or 8 percent (flat in local currencies), to \$1,097 million in 2004 from \$1,020 million in 2003. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 12.5 percent in 2004 from 13.4 percent in 2003, reflecting productivity gains from improved sales and administrative processes and our restructuring under the Step Change program.

Selling, general and administration expenses increased by \$31 million, or 3 percent (decreased by 8 percent in local currencies), to \$1,020 million in 2003 from \$989 million in 2002. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 13.4 percent in 2003 compared to 14.5 percent in 2002, reflecting the benefits of restructuring and efficiency improvement programs.

### Earnings before interest and taxes

EBIT grew \$15 million, or 3 percent (2 percent in local currencies) to \$610 million in 2004. EBIT reflected restructuring expenses of \$51 million and \$61 million in 2004 and 2003, respectively.

EBIT margin for the Power Technologies division was 7.0 percent in 2004 compared to 7.8 percent for 2003. The decrease in EBIT margin in 2004 principally reflected the increase in raw materials costs (especially for steel, copper, aluminum and transformer oil) during the year, a \$26 million (of which approximately \$20 million was included in other income (expense), net) write-down of notes receivable, \$14 million in project-related hedging costs incurred following our decision to cease accounting for certain hedges under SFAS 133, lower margin levels in the Power Systems business area due to continued low capacity utilization and lower margin turnkey projects in the Utility Automation Systems business area including, in certain instances, cost overruns. These decreases were partially offset by strong, productivity-driven margin improvements in the Medium-Voltage Products business area.

EBIT increased by \$144 million, or 32 percent (28 percent in local currencies), to \$595 million in 2003 from \$451 million in 2002. EBIT margin increased from 6.6 percent in 2002 to 7.8 percent in 2003, caused principally by comparatively significant improvements from the Medium-Voltage Products, Utility Automation Systems and Power Systems business areas due to the elimination of overlapping product lines and production sites, as well as productivity improvements. EBIT margin in the Transformers business area remained flat.

### Automation Technologies

The financial results of the Automation Technologies division were as follows:

#### Automation Technologies

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Orders	11,334	9,691	8,428
Order backlog	4,322	3,826	3,486
Revenues	11,030	9,628	8,201
Cost of sales	7,785	6,835	5,760
Selling, general and administrative expenses	2,147	1,889	1,786
EBIT	1,027	738	495

### Orders

Orders increased by \$1,643 million, or 17 percent (9 percent in local currencies), from \$9,691 million in 2003 to \$11,334 million in 2004. Orders received by the Automation Products business area increased by 21 percent (13 percent in local currencies) in 2004 led by an increase in orders from process industries and building installations customers. Orders received by the Process Automation business area grew at 11 percent (3 percent in local currencies) in 2004, as growth in orders from the mining, cement, metals, the cruise and ferry and oil and gas industries exceeded declining orders from businesses operating in the chemicals, pharmaceuticals

and pulp and paper markets. Orders received by the Manufacturing Automation business area increased by 23 percent (16 percent in local currencies), primarily driven by orders for automotive systems from North America and China. Orders from other divisions were \$355 million in 2004, compared to \$344 million in 2003 representing 3 percent and 4 percent of the division orders, respectively.

The proportionate geographic distribution of orders of the Automation Technologies division (based on the location of the customer, which may be different from the ultimate destination of the products' end use) were approximately as follows:

Year ended December 31,	2004	2003
Europe	59%	61%
The Americas	16%	15%
Asia	19%	18%
MEA	6%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>

The ultimate destination of our products' end use is relevant for the Automation Technologies division as some global distributors and wholesalers in Europe sell our products in Asia, the Americas, and MEA. We estimate this volume to be approximately 10 percent of the division orders, divided between the ultimate destinations of Asia, the Americas, and MEA.

In 2004, orders from Asia increased faster than in any other region. Orders from the Americas also grew, driven by a large order from the United States automotive sector. European orders grew in 2004, as increases in orders from Western Europe, which accounted for more than 90 percent of European orders, more than offset a reduction in orders from Eastern Europe following the receipt of a large order in Poland during 2003. Orders from the MEA increased moderately.

Orders increased by \$1,263 million, or 15 percent (1 percent in local currencies), to \$9,691 million in 2003 compared to \$8,428 million in 2002. Over this period, the Automation Products business area experienced significant growth in Asia, which was partially offset by lower orders from Europe and America. The Process Automation business area increased the volume of large orders during 2003 by approximately 87 percent (59 percent in local currencies), led by a large order for \$173 million in the fourth quarter for turnkey gas compressors for a pipeline project in Poland. This increase in large orders, however, could not offset a lower volume of base orders from the paper and minerals industries. Orders in the Manufacturing Automation business area decreased on lower orders from the automotive industries in North America and Europe. Orders from other divisions were \$344 million in 2003 compared to \$311 million in 2002.

European orders increased, reflecting strong order increases in Eastern Europe moderated by the slower growth in Western Europe. Orders from the Americas declined in 2003, primarily reflecting lower orders from the automotive and other industrial sectors. Orders from Asia increased significantly in 2003, driven by China and India. Orders from the MEA in 2003 increased in U.S. dollar terms but decreased slightly in local currencies.

#### Order backlog

Order backlog increased by \$496 million, or 13 percent (7 percent in local currencies), to \$4,322 million as at December 31, 2004 from \$3,826 million as at December 31, 2003, principally as a result of increased order intake during 2004.

Order backlog increased by \$340 million, or 10 percent (decreased by 4 percent in local currencies), to \$3,826 million as at December 31, 2003 from \$3,486 million as at December 31, 2002.

#### Revenues

The distribution of revenues of the Automation Technologies division by business area were approximately as follows:

##### Business area

	Percentage of revenues for the Year ended December 31,	
	2004	2003
Automation Products	47%	46%
Process Automation	40%	40%
Manufacturing Automation	13%	14%

Revenues increased by \$1,402 million, or 15 percent (7 percent in local currencies), to \$11,030 million in 2004 from \$9,628 million in 2003, principally due to 17 percent (9 percent in local currencies) revenue growth in the Automation Products business area. Revenues in 2004 for the Process Automation business area increased by 13 percent (5 percent in local currencies), reflecting growth in the Oil and Gas, Minerals, Turbocharging and Control Products business units moderated by declines in the Pulp and Paper and Marine business units. Our Manufacturing Automation business area, which accounted for 13 percent of Automation Technologies' 2004 revenues, grew more slowly at 4 percent (decreased 4 percent in local currencies) as a result of a weak backlog of system orders. Revenues from other divisions were \$391 million in 2004 compared to \$356 million in 2003 representing 4 percent of the division orders for both periods.

Revenues in the Automation Technologies division increased by \$1,427 million, or 17 percent (3 percent in local currencies), to \$9,628 million in 2003 compared to \$8,201 million in 2002. Revenues increased 14 percent (flat in local currencies) in 2003 in the Manufacturing Automation business area. Revenues in the businesses now constituting the Automation Products and Process Automation business areas increased 17 percent (2 percent in local currencies), as sales of products and services increased and despite declining revenues generated from the paper industry. Revenues from other divisions were \$356 million in 2003 compared to \$328 million in 2002, representing approximately 4 percent of division revenues in both periods.

The proportionate geographic distribution of revenues of the Automation Technologies division (based on the location of the customer, which may be different from the ultimate destination of the products' end use) were approximately as follows:

Year ended December 31,	2004	2003
Europe	60%	61%
The Americas	15%	17%
Asia	19%	16%
MEA	6%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>

The ultimate destination of our products' end use is relevant for the Automation Technologies division as some global distributors and wholesalers in Europe sell our products in Asia, the Americas, and MEA. We estimate this volume to be approximately 10 percent of the division revenues, divided between the ultimate destinations of Asia, the Americas, and MEA.

Revenues generated in Asia grew significantly in 2004, reflecting sales growth in China and India, with the result that Asia became Automation Technologies' second largest regional source of revenues. Revenues increased in Europe, which remained Automation Technologies' largest revenue contributor. Revenues from the Americas fell slightly in 2004 due to lower orders in 2003, principally from the automotive industry. Revenues from the MEA increased following the receipt of several large orders in 2003.

In 2003, revenues from Europe increased, as increases in Eastern Europe were tempered by slower growth in Western Europe due to lower order backlog at the beginning of 2003. The Americas increased slightly as compared to 2002, while revenues from Asia and the MEA increased significantly, driven by higher revenues in 2003 from China, India, Algeria and the United Arab Emirates.

### Cost of sales

Cost of sales increased \$950 million, or 14 percent (6 percent in local currencies), to \$7,785 million in 2004 from \$6,835 million in 2003. The Automation Technologies division's gross profit margin increased to 29.4 percent in 2004 from 29.0 percent in 2003 following cost reduction and productivity gains from the Step Change program and operational excellence initiatives, offset in part by increasing costs for raw materials, particularly steel, copper and oil.

Cost of sales increased \$1,075 million, or 19 percent (4 percent in local currencies), to \$6,835 million in 2003 from \$5,760 million in 2002. The Automation Technologies division's gross profit margin decreased to 29.0 percent in 2003 from 29.8 percent in 2002. Gross profit margin in 2003 decreased as savings in supply chain management and manufacturing and engineering activities were more than offset by increased input prices from our suppliers following the strengthening of the euro against the U.S. dollar and price reductions on certain of our products. In 2003, the gross profit margin remained flat in the Manufacturing Automation business area, as operational improvements were offset by an increase in material costs. For the businesses now constituting the Process Automation and Automation Products business areas, gross profit margin declined following cost increases related to systems projects, despite the declining percentage of revenue represented by such projects.

### Selling, general and administrative expenses

Selling, general and administration expenses increased by \$258 million, or 14 percent (5 percent in local currencies), to \$2,147 million in 2004 from \$1,889 million in 2003. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 19 percent in 2004 from 20 percent in 2003, reflecting cost reductions primarily from the Step change program.

Selling, general and administration expenses increased by \$103 million, or 6 percent (decreased 8 percent in local currencies), to \$1,889 million in 2003 compared to \$1,786 million in 2002. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 20 percent in 2003 from 22 percent in 2002, reflecting the impact of the various restructuring and efficiency improvement programs.

### Earnings before interest and taxes

EBIT grew \$289 million, or 39 percent (30 percent in local currencies) to \$1,027 million in 2004. EBIT margin increased to 9.3 percent in 2004 from 7.7 percent in 2003. EBIT margin increased in all business areas reflecting productivity improvements, benefits from operational excellence initiatives and a decrease in restructuring costs in 2004 to \$72 million from \$139 million in 2003.

EBIT increased by \$243 million, or 49 percent (30 percent in local currencies), to \$738 million in 2003 compared to \$495 million in 2002. All business areas improved in operating income in 2003, mainly due to productivity improvements and our cost savings programs. The increase in operating income was partially offset by higher restructuring costs in 2003, at \$139 million, as compared to \$126 million during 2002. As a result, the EBIT margin increased to 7.7 percent in 2003 compared to 6.0 percent in 2002.

## Non-core activities

### Orders

Orders received by Non-core activities were as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Oil, Gas and Petrochemicals	1,216	1,156	2,123
Building Systems	388	1,616	2,351
New Ventures	41	45	70
Equity Ventures	7	26	19
Structured Finance	6	48	77
Other Non-core activities	36	469	960
<b>Total Non-core activities</b>	<b>1,694</b>	<b>3,360</b>	<b>5,600</b>

Orders received declined by 50 percent and 40 percent (53 percent and 43 percent in local currencies) in 2004 and 2003, respectively. The reductions in orders over these periods were primarily due to ongoing divestments, declining orders in the Building Systems business area, the discontinuation and reduction of activities in the Group Processes business area and a shift in our Oil, Gas and Petrochemicals business away from entering into long-term fixed price contracts toward reimbursable contracts. Non-core activities orders from other divisions amounted to \$36 million in 2004 (representing 2 percent of the division orders in 2004), \$445 million in 2003 (representing 13 percent of the division orders in 2003) and \$980 million in 2002 (representing 17 percent of the division orders in 2002). The orders received by the Group Processes business area, which only received internal orders from other divisions, constituted \$413 million and \$755 million of Non-core activities orders received in 2003 and 2002, respectively.

In 2004, orders for Oil, Gas and Petrochemicals business area increased mainly through base orders (orders below \$15 million). Large orders in 2004, 2 percent below 2003, included major projects in Sweden, Russia, China, Poland and Middle East. Orders increased in all regions during 2004 compared to 2003.

Within the Building Systems business area, 91 percent of the orders in 2004 were received by our German business and 6 percent by the now-sold Swiss business.

In 2004, Non-core activities orders predominantly came from Europe, with approximately 50 percent of our orders from Western Europe and approximately 20 percent from Eastern Europe. The remaining orders were received in roughly equal proportions from the Americas (principally from the United States), Asia (principally from China) and the MEA.

In 2003, orders decreased by \$2,240 million, or 40 percent (43 percent in local currencies), to \$3,360 million. This reduction in orders is partially due to the divestment of businesses, the performance of the remaining businesses in the Building Systems business area and the discontinuation and reduction of activities in the Group Processes business area. Additionally, this reduction resulted in part from a decrease in large orders in our Oil, Gas and Petrochemical business, mainly attributable to our strategic decision to de-emphasize fixed priced EPC contracts in favor of lower-risk reimbursable contracts (which generally have lower order values) and to more selectively tender for project work.

### Order backlog

Order backlog in Non-core activities was as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Oil, Gas and Petrochemicals	1,251	1,264	2,143
Building Systems	255	554	1,263
New Ventures	8	14	79
Equity Ventures	-	-	-
Structured Finance	-	2	3
Other Non-core activities	19	31	91
<b>Total Non-core activities</b>	<b>1,533</b>	<b>1,865</b>	<b>3,579</b>

### Revenues

Revenues from Non-core activities were as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Oil, Gas and Petrochemicals	1,079	1,895	2,321
Building Systems	508	1,829	2,375
New Ventures	49	53	50
Equity Ventures	7	26	19
Structured Finance	6	48	66
Other Non-core activities	44	471	783
<b>Total Non-core activities</b>	<b>1,693</b>	<b>4,322</b>	<b>5,614</b>

Revenues decreased by 61 percent and 23 percent (63 percent and 36 percent in local currencies) in 2004 and 2003, respectively. Revenues from other divisions amounted to \$52 million, \$476 million and \$882 million (representing 3 percent, 11 percent and 15 percent of Non-core activities revenues) in 2004, 2003 and 2002, respectively.

Oil, Gas and Petrochemicals revenues in 2004 were 43 percent (46 percent in local currencies) lower than 2003, primarily due to the winding down and reduced scope of large projects. Revenues from the licensing of process technologies significantly increased, led by revenues from the licensing of ethylene and novolen technologies. Revenues decreased by 18 percent (28 percent in local currencies) in 2003 compared to 2002, primarily due to the lower volume of order backlog going into 2003 as a consequence of our focus in pursuing reimbursable EPC projects. In an effort to reduce our exposure to risks associated with long-term fixed price contracts, particularly in our Oil, Gas and Petrochemicals business, we have been pursuing instead long-term reimbursable contracts in which we charge our customers the sum of our materials, production, logistics, administrative and financial costs, together with a negotiated operating profit. We believe that long-term reimbursable contracts, while not eliminating the risk of loss completely, should generally enable us to recover from the customer costs relating to contract delays or cost increases more easily than we can with fixed price contracts, where we generally must demonstrate that the delays and increased costs were a direct result of the customer's action or omission. Despite our strategy of focusing on reimbursable contracts, we may continue to experience losses on our contracts.

Building Systems revenues decreased by 72 percent and 23 percent (74 percent and 34 percent in local currencies) in 2004 and 2003, respectively, primarily resulting from the sale of businesses. Building Systems revenues in 2004 were primarily generated in Germany, with 79 percent of 2004 business area revenues, the United States (which we plan to close) with 10 percent, and Switzerland (sold in February 2004) with 6 percent.

New Ventures revenues came from distributed energy operations in Europe.

Equity Ventures includes mainly equity accounted companies, the income from which are recorded in other income (expense), net.

Structured Finance revenues decreased in each of 2004 and 2003 due to the ongoing portfolio reduction.

Other Non-core activities include Group Processes, Customer Service Workshops and Logistic Systems business areas. Group Processes revenues decreased by \$421 million, or 100 percent, to \$0 million in 2004. In 2003, Group Processes revenues decreased by \$183 million, or 44 percent (51 percent in local currencies), to \$421 million in 2003 from \$758 million in 2002. This business area does not generate revenue from third-party sales, with all the revenues of this business area resulting from internal charges to other divisions. These decreases were due principally to the transfer of activities to the other business

areas or cessation of activities. Of the remaining businesses, revenues decreased by \$6 million and \$129 million in 2004 and 2003, respectively, due to the ongoing divestment and related closing processes in our Customer Service Workshop and Logistic Systems business areas.

#### Earnings before interest and taxes

EBIT for Non-core activities was as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Oil, Gas and Petrochemicals	(4)	(296)	(142)
Building Systems	(70)	(104)	(113)
New Ventures	(5)	(21)	(37)
Equity Ventures	69	76	43
Structured Finance	(14)	(65)	96
Other Non-core activities	(22)	(57)	(157)
<b>Total Non-core activities</b>	<b>(46)</b>	<b>(467)</b>	<b>(310)</b>

The Oil, Gas and Petrochemicals business area in 2004 improved as compared to 2003, reflecting better project execution capabilities across the organization as well as a significant reduction in project-related write-offs in 2004. Stronger performance following the winding down or culmination of unprofitable long-term, fixed price EPC projects and increased revenue related to the licensing of process technologies was partially offset by under absorption of operating costs by the Floating Production Systems business. EBIT in 2004 was also negatively impacted by a charge to depreciation and amortization of \$26 million for the years 2003 and 2004. This charge was required in 2004 following the reclassification of this business area from discontinued operations to continuing operations (see the section entitled "Discontinued operations" below).

EBIT losses generated by the Oil, Gas and Petrochemicals business area increased in 2003 compared to 2002, primarily due to charges in 2003 of approximately \$399 million relating to four large, long-term fixed price projects booked prior to the implementation of our current bidding strategy that focuses on reimbursable contracts. The customers and countries in which these four projects were located are unrelated. The charges are related to delays, project cost overruns and write-downs of assets that we no longer considered recoverable.

EBIT losses generated by the Building Systems business area decreased by \$34 million in 2004 as compared to 2003, primarily due to operational improvements and a reduction in restructuring expenses, primarily in Germany, partially offset by losses in the United States and the loss of income from the profitable Nordic businesses sold in 2003 and the Swiss business sold in February, 2004. In 2003, EBIT losses decreased by \$9 million as compared to 2002. EBIT for 2003 included the gain on sale of the Nordic businesses for approximately \$124 million, partially offset by a loss on sale of businesses located in several other countries, principally Belgium, the Netherlands, Austria and the UK, of approximately \$41 million.

EBIT losses in the New Ventures business area decreased by \$16 million in 2004 compared to 2003. This improvement resulted partly because in 2004 this area no longer included the income from our investment in Turbec AB, which generated negative earnings recognized in 2003. Turbec was sold in the fourth quarter of 2003. The 2004 operating loss also includes a \$20 million gain on the divestment of our equity interest in IXYS Corporation. In 2003, EBIT losses decreased by \$16 million as compared to 2002, largely due to restructuring activities leading to a significant reduction in selling, general and administrative expenses and lower asset write-downs, offset in part by negative earnings from equity accounted companies related to our investment in Turbec AB.

EBIT generated by the Equity Ventures business area decreased by \$7 million in 2004 as compared to 2003. The decline from the EBIT generated in 2003, which included a \$28 million gain on the sale of investments in Australia, was offset in part by an increase in EBIT from savings in sales, general and administrative expenses following the cessation of development activities and from a gain on the sale of an investment in Oman. In 2003, EBIT increased by \$33 million as compared to 2002, due to the gain realized from divestments in Australia and savings in sales, general and administrative expenses.

EBIT losses in the Structured Finance business area decreased by \$51 million in 2004 as compared to 2003, principally because 2003 included a loss of \$80 million on the disposal of our investment in the Swedish Export Credit Corporation (which was offset in part in 2003 by income from Swedish Export Credit Corporation of \$13 million recognized in other income (expense), net). In 2003, EBIT decreased by \$161 million as compared to 2002 due to the loss on disposal of our investment in the Swedish Export Credit Corporation and a reduction in income from the Swedish Export Credit Corporation of \$112 million.

EBIT generated by the businesses in Other Non-core activities increased by \$35 million in 2004 as compared to 2003. This improvement was due to the dissolution of the Group Processes business area, which represented \$0 million and \$42 million of the losses in 2004 and 2003, respectively. EBIT generated by the Customer Service Workshops business area improved in 2004 due to a reduction in restructuring expenses and improved operational performance by the few remaining units. The Logistic Systems business area recognized an operating loss of \$24 million in 2004 due to issues relating to the Harare airport project completed in 2001. In 2003, EBIT losses in Other Non-core activities decreased by \$100 million as compared to 2002. Group Processes represented approximately \$42 million and \$105 million of the losses in 2003 and 2002, respectively.

#### Corporate/Other

Corporate and other activities comprise headquarters and stewardship, research and development and other activities. EBIT for Corporate and other activities are as follows:

Year ended December 31.	2004	2003	2002
	(\$ in millions)		
Headquarters and stewardship	(421)	(352)	(202)
Research and Development	(91)	(92)	(93)
Other	5	(65)	(142)
<b>Total</b>	<b>(507)</b>	<b>(509)</b>	<b>(437)</b>

Headquarters and stewardship operating costs increased by \$69 million and \$150 million in 2004 and 2003, respectively. The 2004 expense included a \$14 million write-down in 2004 of an e-business investment. The increase in 2003 as compared to 2002 was mainly due to events in 2002, such as the recovery of payments from two former chief executive officers, that did not recur in 2003.

Other operating costs (including Real Estate, Group Treasury Operations and consolidation) decreased by \$70 million and \$77 million in 2004 and 2003, respectively. The improvement in 2004 occurred in each of Real Estate, Group Treasury Operations and consolidation. Real estate improved in 2004 as compared to 2003 due to reduced restructuring expenses. Group Treasury Operations improved in 2004 due to a reduction in the level of general and administrative expenses.

Other operating costs improved in 2003 mainly due to lower costs following the cessation of proprietary trading in 2002 and the consequent reduction in employees in Group Treasury Operations, as well as a reduction in earnings from certain intra-company transactions as compared to 2002.

## Discontinued operations

Loss from discontinued operations, net of tax, in our Consolidated Income Statement reflects primarily the following.

- Our Upstream Oil, Gas and Petrochemicals business, whose sale was completed in July 2004. The remaining portions of our oil, gas and petrochemicals business owned by us as at December 31, 2004 do not meet the accounting criteria required to be classified in discontinued operations.
- Provisions and other expenses incurred in connection with asbestos-related claims, including those against our U.S. subsidiary, Combustion Engineering Inc. An overview of our potential asbestos-related obligations is contained in "Contingencies and retained liabilities" below, as well as in Note 18 "Commitments and contingencies" of the Consolidated Financial Statements.
- Our Reinsurance business, which was sold in April 2004.
- Most of our Power Lines business area, including operations in Brazil, which were abandoned in 2004, Nigeria, which were sold in January 2005, Italy, which were sold in February 2005, and Germany.
- Our foundry business, which was part of our Automation Technologies division.
- Our Wind Energy business in Germany and Greece, the majority of which was sold in December 2003.
- Most of our Structured Finance business, which we sold in November 2002.
- Our MDCV Cable business located in Germany, which we sold in January 2004.
- ABB Export Bank, which we sold in December 2003.
- Our Metering business, which we sold in December 2002.
- Legal, professional and other fees related to the above disposals.

Loss from discontinued operations, net of tax, was \$483 million, \$408 million and \$693 million in 2004, 2003 and 2002, respectively. The loss from discontinued operations, net of tax, and including operational results, accumulated foreign currency translation adjustments, allocation of interest in accordance with Emerging Issues Task Force No. 87-24 (EITF 87-24), *Allocation of Interest to Discontinued Operations*, capital gains and losses on sale, impairment charges, goodwill write-offs and other costs for businesses classified in discontinued operations for the years ended December 31, 2004, 2003 and 2002 are as set forth below.

## Discontinued operations

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Combustion Engineering (Asbestos)	(262)	(142)	(395)
Powerlines	(75)	(10)	(17)
Upstream Oil, Gas and Petrochemicals	(70)	(44)	14
Reinsurance	(41)	(97)	22
Wind Energy	(25)	(42)	(1)
Foundry	(17)	-	-
MDCV Cables	-	(24)	(1)
Export Bank	-	(9)	10
Metering	12	(3)	(54)
Structured Finance	14	(29)	(183)
Other abandoned or sold businesses	(19)	(8)	(88)
<b>Income (loss) from discontinued operations, net of tax</b>	<b>(483)</b>	<b>(408)</b>	<b>(693)</b>

In addition to the businesses already classified in discontinued operations, we may from time to time dispose of or close businesses that are not integral to our core divisions. If such a business meets the criteria of SFAS 144, we will reflect the results of operations from the business as discontinued operations in our Consolidated Income Statement and as assets and liabilities held for sale and in discontinued operations in our Consolidated Balance Sheet. We will reclassify the prior years' presentation to reflect any disposals or closures on a comparable basis.

## Asbestos

Loss from discontinued operations, net of tax, includes costs and provisions related to asbestos-related claims, including those against our U.S. subsidiary, Combustion Engineering Inc., of approximately \$262 million, \$142 million and \$395 million in 2004, 2003 and 2002, respectively.

An overview of our potential asbestos-related obligations is included separately in "Contingencies and retained liabilities."

## Powerlines

Our Powerlines business is a construction business that operates in a market with very low barriers to entry. This has resulted in increasing price-based competition with local competitors in the various countries in which we operate. The business has consequently experienced declining revenues, and net losses.

At the time we decided to exit the Powerlines business, this business operated in Austria, Germany, Italy, Saudi Arabia, Brazil, Venezuela, South Africa and Nigeria. The Nigerian and Italian businesses were sold in January 2005 and February 2005, respectively. The Brazilian business was abandoned in the fourth quarter of 2004. We expect the German business to be sold during 2005. In the fourth quarter of 2004, we reclassified the Nigerian, Italian, Brazilian and German businesses to discontinued operations. This reclassification has been reflected in the financial statements for 2004, 2003 and 2002 and the results of the reclassified businesses are discussed below. We intend to exit our remaining Powerlines businesses, although we have not classified them in discontinued operations.

Revenues were \$117 million, \$187 million and \$254 million in 2004, 2003 and 2002, respectively. We recorded net losses of \$75 million, \$10 million and \$17 million in 2004, 2003 and 2002, respectively. The increase in losses in 2004 relates to reducing the book value of net assets to fair value less costs to sell the operations in Italy, Germany and Nigeria, costs related to the abandonment in Brazil and operational losses.

### **Upstream Oil, Gas and Petrochemicals**

In July 2004 we closed the sale of the Upstream Oil, Gas and Petrochemicals business to a consortium of private equity investors, Candover Partners, JP Morgan Partners and 3i Group, for an initial sale price of \$925 million. We received net cash proceeds from the sale of approximately \$800 million after adjustments for approximately \$85 million of unfunded pension liabilities and changes in net working capital.

The Upstream Oil, Gas and Petrochemicals business generated revenues of \$855 million (up to the date of sale), \$1,499 million and \$1,535 million in 2004, 2003 and 2002, respectively.

Revenues declined in 2004 as compared to 2003 due to the sale of the business in July 2004. Revenues decreased in 2003 as compared to 2002 due to a large project in the Floating Production Systems unit nearing completion and the smaller value of new orders due to our pursuit of long-term reimbursable contracts, rather than long-term fixed price contracts.

We recorded net losses for the Upstream Oil, Gas and Petrochemicals business of \$70 million and \$44 million in 2004 and 2003, respectively, and a net income of \$14 million in 2002. The 2004 net loss of \$70 million includes a loss on disposal of approximately \$26 million and compliance costs relating to violations of the Foreign Corrupt Practices Act, including aggregate fines of \$10.5 million and a \$5.9 million payment to the United States Securities and Exchange Commission as a disgorgement of unlawful profits and in resolution of civil charges, as well as other related costs.

In 2003, this business generated a net loss of \$44 million, a \$58 million decline from net income in 2002 of \$14 million. This decline was primarily due to certain loss order provisions in Brazil and the settlement of a project-related dispute that resulted in an asset write-down in 2003.

### **Reinsurance business**

In April 2004 we sold our Reinsurance business to White Mountains Insurance Group Limited of Bermuda for gross cash proceeds of \$415 million.

Reinsurance revenues were \$139 million, \$782 million and \$644 million in 2004, 2003 and 2002, respectively. Reinsurance revenues decreased in 2004 due to the sale of the business in April 2004. The increase in revenues in 2003 as compared to 2002 was primarily due to higher premium income from increased volumes and higher insurance premium rates compared to the rates for comparable products and risks in 2002.

We recorded net losses for our Reinsurance business of \$41 million and \$97 million in 2004 and 2003, respectively, and a net income of \$22 million in 2002. The 2004 net loss was primarily a result of currency translation effects (as explained in Note 2 "Significant accounting policies – Translation of foreign currencies and foreign exchange transactions" to our Consolidated Financial Statements) of \$32 million, transaction costs, and price adjustments (as part of the sales agreement all operational risks and results in 2004 were transferred to the purchaser). The 2003 net loss includes a \$154 million impairment charge, income from operations of approximately \$72 million (resulting from higher technical insurance results and improved investment income) in the major operating units and an allocation of interest of \$15 million in accordance with EITF 87-24. The impairment charge of \$154 million recorded in 2003 related to the anticipated disposal of the Reinsurance business and principally consisted of impairment charges to assets of \$48 million, to goodwill and other intangible assets of \$89 million and to deferred tax assets of approximately \$16 million, and selling costs of \$25 million, offset in part by an accumulated foreign currency translation gain of \$24 million. The 2002 net income of \$22 million reflects the normal operating results of the Reinsurance business.

### **Wind Energy**

Our Wind Energy business primarily focused on the development and operation of wind parks located mainly in Europe. While this business purchased equity interests in a number of established wind park companies, its main focus remained general wind park construction contracting.

In December 2003, we sold most of our Wind Energy business to GI Ventures AG of Munich, including the majority of our investment in Windpark Dahme. As part of this sale, GI Ventures also took over most of the projects under development in our German Wind Energy business and all the employees. The wind energy business has, since that time, been non-operative. We also sold one of our equity participations in Greece as part of a management buy-out in February 2004 and we intend to sell the remaining Greek equity participation during 2005. Once this sale is complete there will be no other projects or participations in respect of our Wind Energy business remaining.

Revenues were \$0 million, \$16 million and \$48 million in 2004, 2003 and 2002, respectively.

We recorded net losses of \$25 million, \$42 million and \$1 million in 2004, 2003 and 2002, respectively. The 2004 net loss of \$25 million was principally caused by asset impairment charges relating to the remaining windpark in Rhodes. The 2003 net loss of \$42 million was comprised principally of a \$25 million loss from disposal (net of a tax benefit of \$10 million), impairment charges to assets of \$9 million and loss from operations of \$8 million.

#### **Foundry**

Our Foundry business provides furnace systems, pouring systems, forging systems and related services in Germany, Sweden, the United States, Brazil and Thailand. We expect to sell this business in 2005.

Revenues were \$41 million, \$45 million and \$49 million in 2004, 2003 and 2002, respectively. We recorded net losses of \$17 million, \$0 million and \$0 million in 2004, 2003 and 2002, respectively. The 2004 net loss includes an anticipated capital loss on divestment and the operational results, which included restructuring costs.

#### **MDCV Cable business**

In January 2004, we sold our MDCV (Mitsubishi-Dainichi Continuous Vulcanization) cable business. This business was located in Germany and manufactured medium and high-voltage cables, cable-systems and accessories for power suppliers and network operators.

Revenues were \$0 million, \$74 million and \$78 million in 2004, 2003 and 2002, respectively. MDCV Cable business revenues were \$0 million in 2004 due to the sale of the business. The decrease in 2003 was mainly due to the loss of important projects. We recorded net losses of \$0 million, \$24 million and \$1 million in 2004, 2003 and 2002, respectively. The net loss was \$0 million in 2004 due to the sale of the business. The 2003 net loss of \$24 million was comprised principally of impairment charges to assets of \$10 million and a loss from operations of \$14 million.

#### **ABB Export Bank**

In December 2003, we completed the sale of ABB Export Bank, which was part of our Structured Finance business area and arranged export, trade and project financing. Revenues were \$0 million, \$9 million and \$17 million in 2004, 2003 and 2002, respectively. Revenues declined in 2003 due to lower business volumes, the sale of assets following our decision to divest the business and lower interest rates.

We recorded a net loss of \$0 million and \$9 million in 2004 and 2003, respectively, and a net income of \$10 million in 2002. The 2003 net loss of \$9 million includes a \$12 million loss on disposal, income from operations of \$6 million and the allocation of interest expense of \$3 million in accordance with EITF 87-24. The loss on disposal of \$12 million for the sold business was principally comprised of an asset write-down of \$20 million, transaction costs of \$1 million, capital tax expense associated with the disposal of \$4 million and an accumulated foreign currency translation gain of approximately \$13 million. The 2002 net income of \$10 million consisted of normal operational income and the release of approximately \$8 million of excess bad debt provisions.

#### **Metering**

In December 2002, we sold our Metering business. This business produced electricity, water, energy and gas meters, metering systems and load control systems.

We recorded net income of \$12 million in 2004 and net losses of \$3 million and \$54 million in 2003 and 2002, respectively. The 2004 net income of \$12 million resulted from the release of provisions originally made at the date of sale for certain price and net equity adjustments. The 2003 net loss of \$3 million relates to transaction costs and price adjustments relating to the divestment in 2002. The 2002 net loss of \$54 million included a \$48 million loss on disposal, loss from operations of \$3 million and the allocation of interest expense of \$3 million in accordance with EITF 87-24. The loss on disposal of \$48 million principally consisted of impairment charges in respect of goodwill and other intangibles of \$65 million, transaction costs and other provisions of \$46 million, tax expense associated with the disposal of \$21 million and an accumulated currency translation loss of \$35 million, offset in part by a gain of \$119 million recognized in disposal of the business.

## Structured Finance

Our Structured Finance business provided debt capital for projects and equipment, and asset-based financing such as leasing. In November 2002, we completed the sale of most of our Structured Finance business to General Electric Capital Corporation (GE) and received cash proceeds of approximately \$2.0 billion. The divestment included a put right in favor of GE regarding certain designated assets which was exercised in January 2004 for \$28 million as well as some letters of credit for certain performance related obligations retained by us, of which approximately \$63 million were outstanding at December 31, 2004.

We recorded net income of \$14 million in 2004 and net losses of \$29 million and \$183 million in 2003 and 2002, respectively. The 2004 net income of \$14 million relates to the settlement of some outstanding matters with GE and resulted from the release of excess provisions. The 2003 net loss of \$29 million primarily relates to a provision taken with respect to these outstanding matters that were finalized in 2004. The 2002 net loss of \$183 million included a \$146 million loss on disposal, loss from operations of \$22 million and the allocation of interest expense of \$15 million in accordance with EITF 87-24. The loss on disposal of \$146 million for the sold business was principally comprised of an asset write-down of \$15 million, goodwill and other intangible write-offs of \$2 million, transaction costs of \$27 million, the fair value for GE's right to require us to repurchase certain designated assets for \$38 million, capital tax expense associated with the disposal of \$10 million and an accumulated foreign currency translation loss of \$54 million.

## Liquidity and capital resources

### Principal sources of funding

In 2004, 2003 and 2002, we met our liquidity needs using cash from operations, bank borrowings, the proceeds from the issuance of debt securities, divestment proceeds, as well as the sales of receivables under our securitization programs. The reductions in our credit rating during 2002 (see "Credit Ratings") restricted our access to the capital markets during 2002 and the first half of 2003. As a result, we relied increasingly on proceeds from divestments, bank borrowings, cash from operations, and cash raised from our capital strengthening program in 2003. Also, in the first quarter of 2003, we raised approximately \$156 million from the sale of 80 million treasury shares in two transactions.

During the second half of 2003, we completed a number of steps to strengthen our Consolidated Balance Sheet and to improve our liquidity. In September 2003, we issued convertible unsubordinated bonds of an aggregate principal amount of 1,000 million Swiss francs, due 2010. See "Bonds and Notes." In October 2003, we announced a three-component capital strengthening program, consisting of a rights issue providing net proceeds of approximately \$2.5 billion, a new \$1 billion unsecured revolving credit facility to replace our \$1.5 billion credit facility and a bond offering of 650 million euro (equivalent to approximately \$769 million at the date of issuance). This program has provided a stronger financial base for the growth of our core operations, has deleveraged our balance sheet by reducing our gearing from 87 percent at December 31, 2002 to 71 percent at December 31, 2003 (see "Financial Position") and has given us more financial flexibility.

During 2004, our financial position was further strengthened by the positive cash flow from operating activities of \$962 million and the proceeds from sales of businesses (net of cash disposed) of \$1,182 million. The cash generated allowed us to repay maturing debt, repurchase debt (see "Bond Repurchases") and further reduce gearing to 64 percent at December 31, 2004 (see "Financial Position").

We believe that our ability to obtain funding from the sources described above will continue to provide the cash flows necessary to satisfy our working capital and capital expenditure requirements, as well as meet our debt repayments and other financial commitments for the next twelve months. Due to the nature of our operations, our cash flow from operations generally tends to be weaker in the first half of the year than in the second half of the year.

### Rights issue

On November 20, 2003, our shareholders approved the issuance of 840,006,602 new shares pursuant to a fully underwritten rights issue. For each share that they owned, holders of existing shares were allocated one right to purchase the offered shares. For every 10 rights, holders of existing shares were entitled to purchase seven offered shares. The banks agreed to underwrite 840,006,602 shares at an issue price of 4.00 Swiss francs per share, representing an approximate 50 percent discount on the share price at the time and providing for net proceeds of \$2,487 million. The rights issue was completed on December 12, 2003 when the cash was received together with the net proceeds of the bonds of 650 million euro aggregate principal amount (see "Bonds and Notes"). Of these funds, approximately \$1.2 billion was used to repay debt maturing in December 2003 and repurchase bonds with a face value of \$94 million, while the remainder was placed on deposit with banks to be used to repay debt maturing in 2004.

### Interest rates

We have obtained financing in a range of currencies and maturities and on various interest rate terms. We use derivatives to reduce the interest rate and/or foreign exchange exposures arising on our debt. For example, to reduce our exposure to interest rates, we use interest rate swaps to effectively convert fixed rate borrowings into floating rate liabilities and we use cross currency swaps to effectively convert foreign currency denominated bonds into U.S. dollar liabilities. At December 31, 2004, after considering the effects of interest rate swaps, the effective average interest rate on our floating rate long-term borrowings (including current maturities) of \$1,950 million and our fixed rate long-term borrowings (including current maturities) of \$1,625 million was 5.8 percent and 5.5 percent, respectively. This compares with an effective rate of 3.2 percent for floating rate long-term borrowings and 5.8 percent for fixed-rate long-term borrowings as of December 31, 2003. A discussion of our use of derivatives to modify the characteristics of our long-term borrowings is contained in Note 15 to our Consolidated Financial Statements.

### Bond repurchases

During the first six months of 2004, through open market repurchases, we repurchased a portion of our public bonds with a total equivalent face value of \$458 million. These repurchases included 107 million euro (approximately \$131 million) of the 475 million euro 5.125 percent bonds due 2006, and 26,500 million Japanese yen (approximately \$243 million) of 50,000 million Japanese yen 0.5 percent bonds due 2005. The 26,500 million Japanese yen bonds and the 107 million euro bonds were subsequently cancelled at the end of July and mid-September 2004, respectively. During the second half of 2004, a further 6,075 million Japanese yen 0.5 percent bonds (approximately \$55 million) were repurchased on the open market and were not cancelled. The open market repurchases resulted in a gain on extinguishments of debt of approximately \$6 million. During 2003, we repurchased outstanding bonds with a face value of \$94 million and recorded an insignificant gain on extinguishments of debt in connection with the repurchases.

On July 29, 2004, we announced tender offers to repurchase all of the outstanding 300 million euro 5.375 percent bonds due 2005 and 475 million euro 5.125 percent bonds due 2006, being approximately 275 million euro and approximately 368 million euro, respectively. In conjunction with the tender offers, we convened bondholders' meetings to vote on amendments to these bonds to allow us to call and redeem those bonds that were not tendered under the respective tender offer. Bonds validly tendered and accepted under the tender offers were settled on September 14, 2004. On September 9, 2004, bondholders approved the resolutions, which gave us the option to redeem the outstanding instruments. We exercised our option to redeem

early the remaining outstanding 2005 and 2006 bonds that were not tendered and set the redemption date as September 29, 2004. The open market repurchases, combined with the tender offers and calls, resulted in a decrease in total borrowings during 2004 of \$1,330 million.

### Bonds and notes

In 2004, we did not issue any bonds.

In 2003, we completed two note issuances, including the issuance of bonds convertible into our shares, as sources of funding.

In September 2003, we issued convertible unsubordinated bonds of an aggregate principal amount of 1,000 million Swiss francs (approximately \$722 million at the date of issuance), due 2010. This transaction lengthened the maturity profile of our debt, thereby reducing our dependence on short-term funding. We used the proceeds, net of expenses and fees, to reduce our drawing under our \$1.5 billion credit facility (see "Credit Facilities"). The convertible bonds pay interest annually in arrears at a fixed annual rate of 3.5 percent. On issuance, each 5,000 Swiss francs principal amount of bonds was convertible into 418.41004 fully paid ABB ordinary shares at an initial conversion price of 11.95 Swiss francs. The conversion price is subject to adjustment provisions to protect against dilution or change in control. As a result of the rights issue discussed above, the conversion price and conversion ratio of the bonds were adjusted to 9.53 Swiss francs and 524.65897 shares, respectively, effective December 12, 2003, representing 104,931,794 fully paid ordinary ABB shares if the bonds are fully converted.

The bonds are convertible at the option of the bondholder at any time from October 21, 2003 up to and including the tenth business day prior to September 10, 2010. We may at any time on or after September 10, 2007 redeem the outstanding bonds at par plus accrued interest if, for a certain number of days during a specified period of time, the official closing price of our ordinary shares on the relevant exchange has been at least 150 percent of the conversion price. In addition, at any time prior to maturity, we can redeem the outstanding bonds at par plus accrued interest, if at least 85 percent in aggregate of the principal amount of bonds originally issued have been redeemed, converted or purchased and cancelled. We have the option to redeem the bonds when due in cash, ordinary shares or any combination thereof.

In November 2003, as part of our three-component capital strengthening program, we issued bonds of an aggregate principal amount of 650 million euro (approximately \$769 million at the time of issuance), due 2011. These bonds pay interest semi-annually in arrears at a fixed annual rate of 6.5 percent. In the event of a change of control of ABB Ltd, the terms of the bonds require us to offer to repurchase the bonds at 101 percent of the principal amount thereof, plus any accrued interest.

In May 2002, we issued \$968 million aggregate principal amount of convertible unsubordinated bonds due 2007. The bonds pay interest semi-annually in arrears at a fixed annual rate of 4.625 percent. On issuance each \$1,000 principal amount of bonds was convertible into 87.7489 fully paid ABB ordinary shares at an initial conversion price of 18.48 Swiss francs (converted into U.S. dollars at a fixed conversion rate of 1.6216 Swiss francs per U.S. dollar). The conversion price is subject to adjustment provisions to protect against dilution or change in control. As a result of the rights issue and resulting increase in our share capital discussed above, the conversion price of the bonds was adjusted, effective November 21, 2003, to 14.64 Swiss francs (converted into U.S. dollars at the fixed exchange rate of 1.6216 Swiss francs per U.S. dollar), representing a total of 107,220,546 shares if the bonds were fully converted. As a result of the amendment to the bonds in May 2004, described below, the conversion price of the bonds was amended to \$9.03, representing 107,198,228 shares if the bonds are fully converted.

The \$968 million bonds are convertible at the option of the bondholder at any time from June 26, 2002 up to and including May 2, 2007. We may, at any time on or after May 16, 2005, redeem the outstanding bonds at par plus accrued interest if (1) for a certain number of days during a specified period of time, the official closing price of our American Depositary Shares on the New York Stock Exchange exceeds 170 percent of the conversion price or (2) at least 85 percent in aggregate principal amount of bonds originally issued have been exchanged, redeemed or purchased and cancelled. We have the option to redeem the bonds when due, in cash, American Depositary Shares or any combination thereof.

Under Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities*, as amended, a component of the convertible bonds due 2007 had to be accounted for as an embedded derivative as the shares to be issued upon conversion were denominated in Swiss francs, while the bonds are denominated in U.S. dollars. A portion of the issuance proceeds was deemed to relate to the value of the derivative on issuance and subsequent changes in value of the derivative were recorded through earnings and as an adjustment to the carrying value of the bonds. The allocation of a portion of the proceeds to the derivative created a discount on issuance that was being amortized to earnings over the life of the bonds. On May 28, 2004, bondholders voted in favor of our proposed amendment to the terms of the bonds whereby, if the bonds are converted, we will deliver U.S. dollar-denominated American Depositary Shares rather than Swiss franc-denominated ordinary shares. The conversion price was set at \$9.03. As a result of the amendment, we are no longer required to account for a portion of the bonds as a derivative. Consequently, on May 28, 2004, the value of the derivative was fixed and the amount previously accounted for separately as an embedded derivative was considered to be a component of the carrying value of the bonds. This carrying value is being accreted to the \$968 million par value of the bonds as an expense in interest and other finance expense over the remaining life of the bonds. The amortization of the discount on the bonds will be between \$7 million and \$9 million per quarter until the bonds mature in May 2007.

Also in May 2002, we issued 200 million pounds sterling (approximately \$292 million at the time of issuance) aggregate principal amount of bonds due 2009 (sterling-denominated bonds), which pay interest semi-annually in arrears at 10 percent per annum. We also issued in May 2002, 500 million euro (approximately \$466 million at the time of issuance) aggregate principal amount of bonds, due 2008 (euro-denominated bonds), which pay interest annually in arrears at 9.5 percent per annum.

The sterling-denominated bonds and the euro-denominated bonds contain certain clauses linking the interest paid on the bonds to the credit rating assigned to the bonds. If the rating assigned to these bonds by both Moody's and Standard & Poor's remains at or above Baa3 and BBB-, respectively, then the interest rate on the bonds remains at the level at issuance, that is 10 percent and 9.5 percent, for the sterling-denominated and euro-denominated bonds, respectively. If the rating assigned by either Moody's or Standard & Poor's decreases below Baa3 or BBB-, respectively, then the annual interest rate on the bonds increases by 1.5 percent per annum to 11.5 percent and 11 percent, for the sterling-denominated and euro-denominated bonds, respectively. If after such a rating decrease, the rating assigned by both Moody's and Standard & Poor's returns to a level at or above

Baa3 and BBB-, respectively, then the interest rates on the bonds return to their original levels. As a result of the downgrade of our long-term credit rating by Moody's to Ba2 on October 31, 2002, this step-up clause in interest was triggered on both bonds. The increase in interest costs is effective for interest periods beginning after the payment of the coupon accruing at the date of the downgrade. This increase in interest rates had no significant impact on 2002 interest expense. The total impact on 2004 and 2003 was an increase in interest expense of approximately \$15 million and \$13 million, respectively. Future years will also be affected if our credit ratings do not return to at least both Baa3 and BBB- from Moody's and Standard & Poor's, respectively.

A cross-currency swap has been used to modify the characteristics of the sterling-denominated bonds and an interest rate swap has been used to modify the euro-denominated bonds. After considering the impact of the cross-currency and interest rate swaps, the sterling-denominated bonds effectively became a floating rate U.S. dollar obligation, while the euro-denominated bonds became a floating rate euro obligation. In both cases, the floating rate resets every three months. See Note 15 to our Consolidated Financial Statements.

Almost all of our publicly traded bonds contain cross-default clauses which would allow the bondholders to demand repayment if we were to default on certain borrowings at or above a specified threshold amount.

#### **Credit facilities**

On November 17, 2003, as part of our three-component capital strengthening program, we entered into a unsecured syndicated \$1 billion three-year revolving credit facility which became available in December 2003 after the fulfillment of certain conditions including the repayment and cancellation of the previous \$1.5 billion facility and the raising of specified minimum levels of gross proceeds from the rights issue (see "Rights Issue") and from the bonds denominated in euros which were issued in November 2003 (see "Bonds and Notes"). The \$1 billion facility is for general corporate purposes. At December 31, 2004 and 2003, nothing was outstanding under the facility and although we currently do not intend to draw on it, it provides us with additional financial flexibility.

In November 2004, the facility was amended. The amendments included a reduction in the level of commitment fees and the removal of restrictions on us to redeem early capital market instruments, such as bonds, having a maturity date beyond that of the facility.

The facility contains certain financial covenants in respect of minimum interest coverage, maximum net leverage and a minimum level of consolidated net worth. We are required to meet these covenants on a quarterly basis. Should our unsecured long-term debt ratings reach certain defined levels (basically investment grade), these covenants will only have to be calculated as of June and December of each year. The facility also contains provisions for the mandatory prepayment and cancellation of the facility upon a change of control of ABB Ltd.

The facility imposes restrictions on the amount of third party indebtedness in subsidiaries other than in the obligors under the facility, subject to certain exceptions. The facility also contains certain other undertakings including certain limitations on disposals of assets, certain restrictions on mergers and acquisitions and negative pledges.

The facility contains cross-default clauses whereby an event of default would occur if we were to default on indebtedness, as defined in the facility, at or above a specified threshold.

The facility replaced a \$1.5 billion 364-day revolving facility entered into in December 2002 and secured by a package of assets with a net carrying value of \$3.5 billion at December 31, 2002 and by certain intra-group loans.

The \$1.5 billion facility contained certain stringent financial covenants in respect of minimum interest coverage, total gross debt, a maximum level of debt in subsidiaries other than those specified as borrowers under that facility, a minimum level of consolidated net worth, as well as specific negative pledges. We were required to meet these financial covenants at each quarter-end commencing December 31, 2002. In addition, in order to ensure the continued availability of the \$1.5 billion facility until its cancellation in December 2003, we were required to obtain minimum levels of proceeds from the disposal of specified assets and businesses and/or equity issuances during 2003.

#### **Securitization programs**

In addition to the aforementioned primary sources of liquidity and capital resources, we also sell certain trade receivables to Qualifying Special Purpose Entities ("QSPEs"), unrelated to us, primarily through two revolving-period securitization programs. Solely for the purpose of credit enhancement from the perspective of the QSPEs, we retain an interest in the sold receivables. Retained interests at December 31, 2004 and 2003 amounted to \$373 million and \$390 million, respectively. The fair value of the retained interests at December 31, 2004 and 2003 was approximately \$349 million and \$367 million, respectively.

The net cash received from (paid to) QSPEs during 2004, 2003 and 2002 was \$130 million, \$(119) million and \$(384) million, respectively, as follows.

Year ended December 31.	2004	2003	2002
	(\$ in millions)		
Gross trade receivables sold to QSPEs (\$25, \$505 and \$832) <sup>(1)</sup>	5,846	5,661	5,972
Collections made on behalf of and paid to QSPEs (\$23, \$(696) and \$(753)) <sup>(1)</sup>	(5,713)	(5,883)	(6,074)
Purchaser, liquidity and program fees (\$0, \$(2) and \$(5)) <sup>(1)</sup>	(20)	(21)	(37)
Decrease (increase) in retained interests (\$0, \$117 and \$(87)) <sup>(1)</sup>	17	124	(245)
<b>Net cash received from (paid to) QSPEs during the year (\$2, \$(76) and \$(13))<sup>(1)</sup></b>	<b>130</b>	<b>(119)</b>	<b>(384)</b>

<sup>(1)</sup> Related to assets held for sale and in discontinued operations for 2004, 2003 and 2002, respectively.

At December 31, 2004 and 2003, of the gross trade receivables sold, the total trade receivables for which cash has not been collected at those dates amounted to \$1,083 million and \$898 million, respectively. Of these amounts, \$54 million and \$34 million at December 31, 2004 and 2003, respectively, was more than 90 days past due.

In addition, we transfer receivables outside of the above described securitization programs. These transfers were sales, made without recourse, directly to banks or pursuant to factoring or similar type arrangements. Total sold receivables included in these transactions during 2004 and 2003 were approximately \$902 million and \$1,400 million, respectively, of which, sales of \$159 million and \$594 million, respectively, related to assets held for sale and in discontinued operations. During 2004 and 2003, the related costs, including the associated gains and losses, were \$10 million and \$12 million, respectively, of which, costs of \$1 million and \$3 million, respectively, related to assets held for sale and in discontinued operations.

For further discussion of our securitization programs, see the section entitled "Off-balance sheet arrangements" below and Notes 2 and 7 to our Consolidated Financial Statements.

### Credit ratings

Debt ratings are an assessment by the rating agencies of the credit risk associated with our company and are based on information provided by us or other sources that the rating agencies consider reliable. Lower ratings generally result in higher borrowing costs and reduced access to capital markets.

At December 31, 2002, after a series of rating downgrades during 2002, our long-term company ratings were Ba3 and BBB- (our long-term unsecured debt was rated B1 and BB+) from Moody's and Standard & Poor's, respectively. On January 13, 2003, Standard & Poor's further lowered our long-term company rating to BB+ and our long-term unsecured debt to BB-. In late October 2003, both rating agencies changed the outlook on these ratings to positive from negative. On May 18, 2004, Moody's increased our long-term company rating from Ba3 to Ba2 and our long-term unsecured debt from B1 to Ba2, both with stable outlook. On December 6, 2004, Standard & Poor's changed the outlook on these ratings from positive to stable. Our ratings are currently below "investment grade" that would be represented by Baa3 (or above) and BBB- (or above) from Moody's and Standard & Poor's, respectively. A rating below investment grade is reflected in higher interest costs on borrowings. Until our credit rating has returned to investment grade, we do not anticipate having the ability to access the commercial paper markets.

### Restrictions on transfers of funds

We face restrictions on the transfer of funds in various countries due to local regulations and foreign exchange restrictions. Funds, other than regular dividends, fees or loan repayments, cannot be transferred offshore from these countries and are therefore deposited locally. As a consequence, these funds are not available within our Group Treasury Operations to meet short-term cash obligations. These funds are reported as cash on our Consolidated Balance Sheet, but we do not consider these funds as available for the repayment of debt outside the respective countries where the cash is situated, including those described below.

Currency and other local regulatory restrictions exist in a number of countries where we operate, including: Brazil, China, Egypt, India, Korea, Malaysia, Russia, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and Venezuela.

Furthermore, restricted cash amounting to \$452 million and \$433 million at December 31, 2004 and 2003, respectively, is not included in cash and equivalents but is reflected in long-term assets on our Consolidated Balance Sheet.

### Financial position

#### Balance sheet

During 2004 and 2003, the divestments and discontinuations of certain businesses were recorded as discontinued operations pursuant to SFAS 144, as discussed in detail under "Application of Critical Accounting Policies – Accounting for discontinued operations" above. Accordingly, the balance sheet data for all periods presented have been restated to present the financial position and

results of operations of the businesses meeting the criteria of SFAS 144 as assets and liabilities held for sale and in discontinued operations.

#### Operating assets

At December 31,	2004	2003
	(\$ in millions)	
Marketable securities and short-term investments	524	473
Receivables, net	6,330	6,049
Inventories, net	2,977	2,671
Prepaid expenses and other	1,688	1,794
<b>Total operating assets</b>	<b>11,519</b>	<b>10,987</b>

Our operating assets, at December 31, 2004, increased by 5 percent, compared to operating assets at December 31, 2003. Operating assets include marketable securities, receivables, inventories and prepaid expenses, and exclude cash and equivalents and assets held for sale and in discontinued operations.

Our Group Treasury Operations invest the surplus cash available from time to time in time deposits and marketable securities, with varied maturities based on defined investment guidelines and the liquidity requirements of the business. Investments which are less than three months in duration are classified as part of cash equivalents, and those of more than three months in duration are classified as part of marketable securities and short term investments. Receivables, net, as at the end of 2004 increased from the end of 2003, primarily as a result of a decline in the value of the U.S. dollar, which we use for reporting purposes, against local currencies. A reduction in receivables, particularly from Non-core activities is primarily due to collections from the contracts completed over the same period, was more than offset by increases in receivables in the core divisions resulting from higher volume of revenues. Inventories, net, increased by 5 percent in local currencies reflecting a higher order backlog at the end of 2004 compared to the end of 2003.

#### Operating liabilities

At December 31,	2004	2003
	(\$ in millions)	
Accounts payable, trade	4,272	4,034
Accounts payable, other	1,437	1,395
Short-term borrowings and current maturities of long-term borrowings	633	1,644
Accrued liabilities and other	6,436	5,957
<b>Total operating liabilities</b>	<b>12,778</b>	<b>13,030</b>

Total operating liabilities as at the end of December 2004 decreased by 2 percent compared to operating liabilities at the end of 2003. Operating liabilities, excluding liabilities held for sale and in discontinued operations, include accounts payable, short-term borrowings including current maturities of long-term borrowings and accrued liabilities and other.

Total accounts payable increased at December 31, 2004 compared to December 31, 2003, as increases in this account from the core divisions were partially offset by reductions, primarily from the Oil, Gas and Petrochemicals business.

Our short-term debt was lower at the end of 2004 than at the end of 2003, reflecting our debt repayments during the year (see "Liquidity and capital resources").

Accrued liabilities and other increased primarily as a result of higher volume of advances received from customers and additional provisions in respect of asbestos-related liabilities, recorded at December 31, 2004 (see "Asbestos liability").

#### Non-current assets

At December 31,	2004	2003
	(\$ in millions)	
Financing receivables, non-current	1,233	1,372
Property, plant and equipment, net	2,981	2,858
Goodwill	2,602	2,528
Other intangible assets, net	493	601
Prepaid pension and other related benefits	549	564
Investments and other	1,469	1,727
<b>Total Non-current assets</b>	<b>9,327</b>	<b>9,650</b>

Financing receivables at December 31, 2004, which include receivables from leases and loans receivable, decreased compared to December 31, 2003, as we continue to terminate our lease portfolios and loan receivables within our Structured Finance business area.

The increase in the value of property, plant and equipment, net, at December 31, 2004, mainly reflects the decline in the value of the U.S. dollar, which we use for reporting purposes, against local currencies. Expressed in local currency terms, property, plant and equipment decreased by 3 percent primarily as a result of the sale of real estate properties, mainly in Switzerland, and normal levels of depreciation. Capital expenditure during 2004 increased, with major investments in the core divisions in machinery and equipments in Germany, Italy, Finland and Sweden partially offset by reduced investments in Non-core activities, particularly in the Equity Ventures business area.

The reduction in other intangible assets, net mainly reflects amortization on capitalized software and other intangible assets.

During 2004, goodwill increased principally due to a decline in the value of the U.S. dollar, which we use for reporting purposes, partly offset by a write-off of \$21 million goodwill related to the sale of businesses.

Investments and other decreased, mainly due to write-down of certain deferred tax assets created in the previous years as we did not believe the tax assets were more likely than not to be realized and to a lesser extent due to the sale of our shares and participations during 2004.

#### Non-current liabilities

At December 31,	2004	2003
	(\$ in millions)	
Long-term borrowings	4,901	6,290
Pension and other related benefits	1,551	1,790
Deferred taxes	953	1,022
Other liabilities	1,083	1,077
<b>Total Non-current liabilities</b>	<b>8,488</b>	<b>10,179</b>

During 2004, long-term borrowings were significantly reduced through the repayment of maturing bonds, open market repurchases of public bonds, the tender offer for certain of our bonds and the call of those bonds not tendered. Our gearing ratio (defined as total borrowings divided by the sum of total borrowings and the stockholders equity including minority interest), excluding the borrowings in the discontinued operations, was 64 percent at December 31, 2004, compared to 71 percent at December 31, 2003, reflecting the reduction of our total debt. The reduction in the value of pension and other employee benefits at December 31, 2004, was mainly due to our contribution of \$549 million of available-for-sale debt securities to certain of our pension plans in Germany, offset in part by an increase in liabilities related to the decline in value of the U.S. dollar, our use of a lower discount rate compared to 2003 and lower performance of existing plan assets, along with the normal increase in the pension liabilities during the year.

Other liabilities include non-current provisions of \$439 million and \$441 million, deferred income of \$143 million and \$158 million, and non-current derivative liabilities of \$53 million and \$40 million at December 31, 2004 and 2003, respectively. Included in non-current provisions are amounts accrued for the estimated environmental remediation costs related to our former Nuclear Technology business (see Note 18 to our Consolidated Financial Statements) of \$266 million and \$276 million at December 31, 2004 and 2003, respectively.

We entered into certain leasing transactions with U.S. investors prior to 1999. Prepaid rents that have been received on these transactions are \$314 million and \$312 million at December 31, 2004 and 2003, respectively, and have been recorded as deposit liabilities. Net gains on these transactions are being recognized over the lease terms.

#### Cash flows

In the Consolidated Statements of Cash Flows, the effects of the discontinued operations are not segregated, as permitted by Statement of Financial Accounting Standards No. 95 (SFAS 95), *Statement of Cash Flows*. The Consolidated Statements of Cash Flows can be summarized into main activities as follows:

Year ended December,	2004	2003	2002
	(\$ in millions)		
<b>Cash flows provided by (used in) operating activities</b>	<b>962</b>	<b>(173)</b>	<b>0</b>
<b>Cash flows provided by investing activities</b>	<b>354</b>	<b>754</b>	<b>2,651</b>
<b>Cash flows provided by (used in) financing activities</b>	<b>(2,805)</b>	<b>1,603</b>	<b>(2,793)</b>
Effects of exchange rate changes	74	150	141
Adjustment for the net change in cash and equivalents in assets held for sale and in discontinued operations	308	(80)	60
<b>Net change in cash and equivalents - continuing operations</b>	<b>(1,107)</b>	<b>2,254</b>	<b>59</b>

#### Cash flows provided by (used in) operating activities

Operating assets and liabilities include marketable securities held for trading purposes, trade receivables, inventories, payables and other assets and liabilities. Debt and equity securities that are purchased and held principally for the purpose of sale in the near term are classified as trading securities. Cash flows from marketable securities classified as available-for-sale are reflected in investing activities. Cash flows from discontinued operations are included in the table below in the respective divisions in which these businesses were formerly classified.

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Net loss, net of adjustments for non-cash items	942	(431)	(419)
Changes in operating assets and liabilities	20	258	419
<b>Sub-total: Cash flows provided by (used in) operating activities</b>	<b>962</b>	<b>(173)</b>	<b>0</b>
Consisting of			
Power Technologies	499	639	337
Automation Technologies	1,090	814	503
Non-core activities <sup>(1)</sup>	(69)	(754)	(27)
Corporate and other	(558)	(872)	(813)

<sup>(1)</sup> Including the entire Oil, Gas and Petrochemicals, Wind Energy, Reinsurance and Export Bank businesses.

In 2004, as compared to 2003, cash from operations from the Power Technologies division decreased, primarily influenced by lower advances from customers and increased volume of project receivables. Over the same period, cash from operations provided by the Automation Technologies division increased, mainly through higher earnings, higher advances from customers and the increase of trade payables. Cash used in Non-core activities was lower compared to 2003 primarily from the improvements in our Oil, Gas and Petrochemicals business due to a stronger focus on cash management and improved collection of receivables from customers as a result of completion of several large projects. These factors more than offset the cash outflows from the Upstream Oil, Gas and Petrochemicals business due to the cancellation of securitization programs and other activities involved in the preparation for the sale of this business. Other cash inflows in Non-core activities mainly represented the dividend received from Jorf Lasfar by our Equity Ventures business area in 2004. Cash used in corporate was lower in 2004 compared to 2003, influenced primarily by lower cash payments to the Combustion Engineering settlement trust. Cash inflows from operating activities improved by \$1,135 million over 2003.

During 2003, higher earnings and working capital improvements contributed to increased cash in 2003 as compared to 2002 from the operating activities of the Power Technologies and Automation Technologies divisions. These cash flows were more than offset by cash used in corporate, which included cash payments of \$388 million towards the settlement of asbestos-related issues as well as cash used in corporate overheads and interest payments. In addition, losses from Building Systems and New Ventures business areas mainly contributed to cash outflows in Non-core activities during 2003. The net cash used in operating activities during 2003 was \$173 million, compared to a break even level of cash during the year 2002.

During 2002, net cash provided by operating activities of the Power Technologies and Automation Technologies divisions primarily resulted from improved earnings and a reduction of net working capital. Net cash provided by Non-core activities, excluding the Oil, Gas and Petrochemicals businesses, mainly consisted of net cash proceeds from the sale of marketable securities (trading) of \$498 million. The Oil, Gas and Petrochemicals businesses had an operating cash outflow due to project losses and higher working capital levels. Corporate cash outflows were influenced by increased costs in respect of the credit facility and other financing arrangements, and included cash payments related to asbestos-related claims of \$246 million. These resulted in a break-even level of cash from operations for 2002.

#### Cash flows provided by (used in) investing activities

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Acquisitions, investments, divestitures, net	1,158	488	2,365
Asset purchases, net of disposals	(420)	(392)	(126)
Other investing activities	(384)	658	412
<b>Sub-total: Cash flows provided by investing activities</b>	<b>354</b>	<b>754</b>	<b>2,651</b>

Investing activities include: accounts receivable from leases and third party loans (financing receivables); net investments in marketable securities that are not held for trading purposes; purchases of property, plant and equipment, net of disposals; and acquisitions of, investments in and divestitures of businesses. Net cash provided by investing activities was \$354 million during 2004, a decrease of \$400 million from \$754 million during 2003.

We continued our program of divesting non-core businesses and other assets during 2004. For 2004, cash inflows from acquisitions, investments and divestitures, net, were higher by \$670 million compared to 2003. Significant divestitures during 2004 were the sale of our Upstream Oil, Gas and Petrochemicals business (\$800 million), the sale of our Re-insurance business (approximately \$280 million) and the sale of our participations in IXYS Corporation (\$42 million).

During 2003, we received cash proceeds of approximately \$149 million from the sale of our 35 percent stake in Swedish Export Credit Corporation and approximately \$90 million from the sale of our investments in two projects in Equity Ventures business area in Australia. Cash proceeds of approximately \$213 million were received through the sale of our Building Systems businesses in Sweden, Norway, Denmark, Finland and Russia. In addition, the sale of the ABB Export Bank for approximately \$50 million, and the sale of part of our Wind Energy business, part of the New Ventures business in Non-core activities, were completed during the fourth quarter of 2003. As a result of these significant divestitures and net cash outflows of \$24 million for certain smaller investments and disposals, net cash inflows from purchases of, investments in and divestitures of businesses was \$488 million during 2003.

The net cash outflows from the purchase and sale of property, plant and equipment was higher in 2004 as compared to 2003, reflecting fewer properties sold in 2004. Cash outflow for capital investment in property, plant and equipment remained at the same level for 2004 compared to 2003. Major capital expenditures on investment in machinery and equipment during 2004 occurred in Germany, Italy, Finland and Sweden. For 2004, proceeds of \$123 million were received on the sale of property, plant and equipment compared to \$155 million in 2003. Significant asset sales during 2004 included the sale of real estate properties in Switzerland, Germany and Italy.

Cash used for purchases of property, plant and equipment, net of disposals, was \$392 million during 2003, an increase of \$266 million compared to \$126 million during 2002. While investment in property plant and equipment remained at nearly the same level in both 2003 and 2002, proceeds of approximately \$300 million from the sale of our real estate properties in Sweden in 2002, substantially offset the outflows of investment in property, plant and equipment.

During 2004, we contributed \$549 million of available-for-sale debt securities to certain of our pension plans in Germany. A significant portion of these securities was purchased during 2004, which significantly increased net cash used in other investing activities. Additionally, cash outflows in investing activities for 2004 represents the net investment of cash in marketable securities by Group Treasury Operations and our Group captive insurance companies, partly offset by cash inflows from the termination of lease portfolios and loan receivables from our remaining Structured Finance business.

Cash provided by other investing activities increased to \$658 million in 2003 from \$412 million in 2002. The cash provided by other investing activities largely resulted from cash proceeds of \$390 million from the sale of financing receivables related to our Structured Finance business and net cash proceeds of \$268 million from the sale of marketable securities that were not held for trading purposes, primarily relating to the Reinsurance business which we sold in April 2004 and the sale of our shares in the China National Petrochemical Corporation (Sinopec Corp.) for approximately \$80 million. The increase in cash provided by other activities in 2002 was primarily due to a reduction in investments in financing receivables.

#### Cash flows provided by (used in) financing activities

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Change in borrowings, net of repayment	(2,752)	(1,016)	(2,796)
Treasury and capital stock transactions	(36)	2,675	0
Other financing activities	(17)	(56)	3
<b>Sub-total: Cash flows provided by financing activities</b>	<b>(2,805)</b>	<b>1,603</b>	<b>(2,793)</b>

Our financing activities primarily include borrowings, both from the issuance of debt securities and directly from banks, treasury and capital stock transactions.

Significant cash outflow from financing activities during the year 2004 included the repayment of maturing bonds, open market repurchases of public bonds, the tender offer for certain of our bonds and the call of those bonds not tendered. See "Liquidity and Capital Resources" for a detailed discussion on the nature of borrowings. The cash outflow for the treasury and capital stock transactions represented payments made in 2004 in respect of certain tax and other liabilities incurred in connection with the rights issue carried out during the fourth quarter of 2003.

During 2003, as part of our strategy to lengthen our debt maturity profile, we replaced maturing short-term borrowings with long-term borrowings. Cash outflows in connection with borrowings reflected the repayment of short-term (including current portion of long-term) borrowings as they fell due, partially offset by cash inflows from the proceeds of the 1,000 million Swiss francs convertible bonds and 650 million euro aggregate principal of bonds issued in September and November 2003, respectively. The net proceeds of the rights issuance of \$2.5 billion, completed in December 2003, and the proceeds from the sale of treasury shares during the first quarter of 2003 for \$156 million contributed to the overall net cash inflow of \$2,675 million during 2003.

During 2002, net cash outflows from borrowings reflected our strategy to reduce our overall level of borrowings, particularly in respect of borrowings with maturities of 90 days or less. There were no treasury and capital stock transactions or dividends paid in 2002.

## Disclosures about contractual obligations and commitments

### Contractual obligations

The following table summarizes certain of our contractual obligations and principal payments under our debt instruments and leases at December 31, 2004:

	Total	Less than 1 year	1-3 years	3-5 years	After 5 years
Payments due by period (\$ in millions)					
Long-term debt obligations	5,350	449	1,040	1,854	2,007
Capital (finance) lease obligations	254	25	42	28	159
Operating lease obligations	1,924	347	536	389	652
Purchase obligations	3,013	2,003	651	186	173

### Off-balance sheet arrangements

#### Commercial commitments

Certain guarantees issued or modified after December 31, 2002 are accounted for in accordance with Financial Accounting Standards Board interpretation No. 45 (FIN 45), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. Upon issuance of certain guarantees, a liability, equal to the fair value of the guarantee, is recorded.

FIN 45 requires that we disclose the "maximum potential exposure" of certain guarantees, as well as possible recourse provisions that may allow us to recover from third parties amounts paid out under such guarantees. The "maximum potential exposure" as defined by FIN 45 does not allow any discounting of our assessment of actual exposure under the guarantees. The information below reflects our maximum potential exposure under the guarantees, which is higher than our assessment of the expected exposure.

#### Guarantees

The following table provides quantitative data regarding our third-party guarantees. The maximum potential payments represent a "worst-case scenario," and do not reflect our expected results.

The carrying amount of liabilities recorded in the Consolidated Balance Sheets reflects our best estimate of future payments we may incur as part of fulfilling our guarantee obligations.

December 31,	2004		2003	
	Maximum potential payments	Carrying amount of liabilities	Maximum potential payments	Carrying amount of liabilities
(\$ in millions)				
Third-party performance guarantees	1,525	2	1,200	-
Financial guarantees	253	1	207	-
Indemnification guarantees	198	16	-	-
<b>Total</b>	<b>1,976</b>	<b>19</b>	<b>1,407</b>	<b>-</b>

#### Guarantees related to third-party performance

Performance guarantees represent obligations where we guarantee the performance of a third party's product or service according to the terms of a contract. Such guarantees may include guarantees that a project will be completed within a specified time. If the third party does not fulfill the obligation, we will compensate the guaranteed party in cash or in kind.

We retained obligations for guarantees related to the Power Generation business contributed in mid-1999 to the former ABB ALSTOM POWER NV joint venture. The guarantees primarily consist of performance guarantees, advance payment guarantees and other miscellaneous guarantees under certain contracts such as indemnification for personal injuries and property damages, taxes, and compliance with labor laws, environmental laws and patents. The guarantees are related to projects that are expected to be completed by 2015, but in some cases the guarantees have no definite expiration. In May 2000, we sold our interest in the ABB ALSTOM POWER NV joint venture to ALSTOM SA (ALSTOM). As a result, ALSTOM and its subsidiaries have primary responsibility for performing the obligations that are the subject of the guarantees. Further, ALSTOM, the parent company, and ALSTOM POWER NV, formerly ABB ALSTOM POWER NV, have undertaken jointly and severally to fully indemnify and hold us harmless against any claims arising under such guarantees. Our best estimate of the total maximum potential exposure of quantifiable guarantees issued by us on behalf of the Power Generation business is approximately \$875 million and \$1,200 million at December 31, 2004 and 2003, respectively. We have not experienced any losses related to guarantees issued on behalf of the Power Generation business.

We have retained obligations for guarantees related to the Upstream Oil, Gas and Petrochemicals business sold in July 2004. The guarantees primarily consist of third-party performance guarantees, advance payment guarantees and other miscellaneous guarantees. The guarantees have maturity dates ranging from one to five years. The maximum amount payable under the guarantees is approximately \$650 million at December 31, 2004. We have the ability to recover potential payments under these guarantees through

certain backstop guarantees. The maximum potential recovery under these backstop guarantees is approximately \$146 million at December 31, 2004.

#### **Guarantees relating to financial obligations**

Financial guarantees represent irrevocable assurances that we will make payment to a beneficiary in the event that a third party fails to fulfill its financial obligations and the beneficiary under the guarantee incurs a loss due to that failure.

At December 31, 2004 and 2003, we had \$253 million and \$207 million, respectively, of financial guarantees outstanding. Of those amounts, \$123 million and \$189 million, respectively, were issued on behalf of companies in which we currently have or formerly had an equity interest. The guarantees have original maturity dates ranging from one to thirteen years. Also included in the \$253 million are financial guarantees we retained related to the Upstream Oil, Gas and Petrochemicals business sold in July 2004. The maximum amount payable under these guarantees is approximately \$101 million and the guarantees have original maturity dates ranging from one to six years and in some cases have no time-related expiry as they are contingent on future events.

#### **Guarantees relating to indemnification**

We delivered to the purchasers of the Upstream Oil, Gas and Petrochemicals business and Reinsurance business guarantees related to assets and liabilities divested in 2004. The maximum liability at December 31, 2004, of approximately \$49 million and \$149 million, relating to the Upstream Oil, Gas and Petrochemicals business and Reinsurance business, respectively, will reduce over time, pursuant to the agreements. The fair value of these guarantees is not material.

We have indemnified certain purchasers of divested businesses for potential claims arising from the operations of the divested businesses, including for asbestos-related claims arising from the operations of Combustion Engineering and its predecessors and affiliates. Such indemnifications have not been fair valued to the extent they were issued prior to the effective date of FIN 45. Additionally, in cases where we could not calculate the maximum loss related to such indemnifications, no amounts have been included under maximum potential payments in the table above. Indemnifications for which maximum losses could not be calculated include indemnifications for legal claims.

#### **Other commitments**

We have granted lines of credit and have committed to provide additional capital for certain equity accounted companies. At December 31, 2004, the total unused lines of credit amounted to \$78 million and capital commitments amounted to \$24 million.

#### **Securitization programs**

In addition to the primary sources of liquidity and capital resources described in the section entitled "Liquidity and Capital Resources", we also sell certain trade receivables to Qualifying Special Purpose Entities ("QSPEs"), unrelated to us, primarily through two revolving-period securitization programs. Under the two securitization programs, neither QSPE commits to purchase our trade receivables, and the QSPEs may at any time refuse to continue purchasing our trade receivables. If both QSPEs simultaneously refuse to purchase additional receivables, then we would experience a temporary loss of cash flow from the sale of trade receivables over a period of several weeks until new trade receivables generated by us began to convert to cash in the normal course of our business.

Solely for the purpose of credit enhancement from the perspective of the QSPEs, we retain an interest in the sold receivables. Pursuant to the requirements of the revolving-period securitizations, we effectively bear the risk of potential delinquency or default associated with trade receivables sold or interests retained. Retained interests included in other receivables at December 31, 2004 and 2003 amounted to \$373 million and \$390 million, respectively. The decrease in the retained interest during 2004 of \$17 million was mainly due to a change in terms of one program, resulting in a reduction in the level of reserves required. In the normal course of servicing the assets sold, we evaluate potential collection losses and delinquencies and update the estimated fair value of our retained interest. Pursuant to the terms of the securitization programs, receivables more than 90 days overdue are considered delinquent. An increase in delinquency rates compared to historic levels will cause an increase in retained interests, while a decrease in delinquency rates compared to historic levels will cause a corresponding decrease in retained interests. Ultimately, if the customer defaults, we will be responsible for the uncollected amount up to the amount of our retained interest relating to the relevant securitization program. The fair value of the retained interests at December 31, 2004 and 2003 was approximately \$349 million and \$367 million, respectively.

We retain servicing responsibility relating to the sold receivables. Net cash settlements on both programs take place twice per month. However, in one of the programs there is, in addition, the daily transfer of collections of sold receivables. Under the terms of the latter program, if our rating falls below BB+ (Standard & Poor's) or Ba3 (Moody's) then we may be required to relinquish the right to collect the sold receivables on behalf of the QSPE, and instead the cash collection of such sold receivables would be made directly to the accounts of the QSPE rather than via us.

The net cash received from (paid to) QSPEs during 2004, 2003 and 2002 was \$130 million, \$(119) million and \$(384) million, respectively, as follows:

Year ended December 31,	2004	2003	2002
	(\$ in millions)		
Gross trade receivables sold to QSPEs (\$25, \$505 and \$832) <sup>(1)</sup>	5,846	5,661	5,972
Collections made on behalf of and paid to QSPEs (\$23, \$(696) and \$(753)) <sup>(1)</sup>	(5,713)	(5,883)	(6,074)
Purchaser, liquidity and program fees (\$0, \$(2) and \$(5)) <sup>(1)</sup>	(20)	(21)	(37)
Decrease (increase) in retained interests (\$0, \$117 and \$(87)) <sup>(1)</sup>	17	124	(245)
<b>Net cash received from (paid to) QSPEs during the year (\$2, \$(76) and \$(13))<sup>(1)</sup></b>	<b>130</b>	<b>(119)</b>	<b>(384)</b>

<sup>(1)</sup> Related to assets held for sale and in discontinued operations for 2004, 2003 and 2002, respectively.

The increase in gross receivables sold in 2004 compared to 2003, is due primarily to an increase in the programs' size, a change in the definition of receivables eligible to be sold in one program and the addition of new sellers to one of the programs. The decrease in gross receivables sold in 2003, as compared to 2002, is due primarily to the fact that businesses which were either classified as discontinued operations or which we sold were phased out of the securitization programs during 2003.

We pay purchaser, liquidity and program fees on our securitization programs. Purchaser and program fees are based on the amount of funding that we receive, while liquidity fees are based on the programs' size. These costs of \$20 million, \$21 million and \$37 million in 2004, 2003 and 2002, respectively, are included in interest and other finance expense.

At December 31, 2004 and 2003, of the gross trade receivables sold, the total trade receivables for which cash has not been collected at those dates amounted to \$1,083 million and \$898 million, respectively. Of these amounts, \$54 million and \$34 million at December 31, 2004 and 2003, respectively, was more than 90 days past due.

In addition, we transfer receivables outside of the above described securitization programs. These transfers were sales, made without recourse, directly to banks and/or sales pursuant to factoring or similar type arrangements. Total sold receivables included in these transactions during 2004 and 2003 were approximately \$902 million and \$1,400 million, respectively, of which, sales of \$159 million and \$594 million, respectively, related to assets held for sale and in discontinued operations. During 2004 and 2003, the related costs, including the associated gains and losses, were \$10 million and \$12 million, respectively, of which, costs of \$1 million and \$3 million, respectively, related to assets held for sale and in discontinued operations. The reduction in the amount of receivables transferred outside of the securitization programs in 2004 compared to 2003 was mainly the result of the sale of a business classified in discontinued operations that had in 2003 generated significant sales of receivables.

For a further discussion of our securitization programs, see Notes 2 and 7 to our Consolidated Financial Statements.

#### Pension and other post-retirement obligations

At December 31, 2004 and 2003, our pension liabilities exceeded plan assets by \$1,451 million and \$1,680 million, respectively. Our other post-retirement plan liabilities exceeded plan assets by \$369 million and \$397 million at December 31, 2004 and 2003, respectively. This underfunding is not a short-term obligation for us as the settlement of the pension liability will take place as the covered employees draw benefits from the plans in the future.

#### Variable interests

We are a party to certain off-balance sheet arrangements including variable interests in unconsolidated entities. See Note 8 to the Consolidated Financial Statements for additional information on variable interests.

#### Related and certain other parties

In the normal course of our activities, we sell products and derive certain other revenues from companies in which we hold an equity interest. The revenues derived from these transactions are not material for us. In addition, in the normal course of our activities, we purchase products from companies in which we hold an equity interest. The amounts involved in these transactions are not material for us. Also, in the normal course of our activities, we engage in transactions with businesses that we have divested on terms that we believe are negotiated on an arm's length basis.

We have participations in joint ventures and affiliated companies, which are accounted for using the equity method. Many of these entities have been established to perform specific functions, such as constructing, operating and maintaining a power plant. In addition to our investments, we may provide products to specific projects, may act as contractor of such projects or may operate the finished products. We may also grant lines of credit to these entities or for specific projects and guarantee their obligations, as discussed under the section entitled "Off-balance sheet arrangements" above. These joint ventures, affiliated companies or project-specific entities generally receive revenues either from the sale of the final product or from selling the output generated by the product. The revenue usually is defined by a long-term contract with the end user of the output.

Our risk with respect to these entities is substantially limited to the carrying value of the companies on our Consolidated Balance Sheets. The carrying value for the equity accounted companies at December 31, 2004 and 2003, was \$596 million and \$642 million, respectively.

Our 2004 and 2003 Consolidated Financial Statements include the following aggregate amounts related to transactions with equity accounted investees and other related parties, including related party transactions, that are recorded in loss from discontinued operations, net of tax, and assets and liabilities held for sale and in discontinued operations:

	2004	2003
	(\$ in millions)	
Revenues	57	99
Receivables	11	105
Other current liabilities	13	23
Financing receivables (non-current)	45	22
Payables	.1	6
Other current liabilities	1	4
Short-term borrowings	18	32
Non-current liabilities	4	2
Long-term borrowings	-	48

## Contingencies and retained liabilities

### Environmental

All of our operations, but particularly our manufacturing operations, are subject to comprehensive environmental laws and regulations. Violations of these laws could result in fines, injunctions (including orders to cease the violating operations) or other penalties (including orders to improve the condition of the environment in the affected area or to pay for such improvements). In addition, environmental permits are required for our manufacturing facilities (for example, with respect to air emissions and wastewater discharges). In most countries in which we operate, environmental permits must be renewed on a regular basis and we must submit reports to environmental authorities. These permits may be revoked, renewed or modified by the issuing authorities at their discretion and in compliance with applicable laws. We have implemented formal environmental management systems at nearly all of our manufacturing sites in accordance with the international environmental management standard ISO 14001, and we believe that we are in substantial compliance with environmental laws, regulations and permit requirements in the various jurisdictions in which we operate, except for such instances of non-compliance that, in the aggregate, are not reasonably likely to be material.

In a number of jurisdictions, including the United States, we may be liable for environmental contamination at our present or former facilities, or at other sites where wastes generated from our present or former facilities were disposed. In the United States, the Environmental Protection Agency and various state agencies are responsible for regulating environmental matters. These agencies have identified certain of our current and former U.S. based companies as potentially responsible parties in respect to a number of such sites under the Comprehensive Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act and other federal and state environmental laws. As a potentially responsible party, we may be liable for a share of the costs associated with cleaning up these sites. As of December 31, 2004, there were approximately 25 sites, at which our companies have, or may be potentially responsible for, environmental clean up costs. These 25 sites include several of our current or former facilities where we have undertaken voluntary corrective actions. The clean up of these sites involves primarily soil and groundwater contamination. We do not believe that our aggregate liability in connection with these sites will be material.

Generally, our liability with regard to any specific site will depend on the number of potentially responsible parties, their relative contributions of hazardous substances or wastes to the site and their financial resources, as well as on the nature and extent of the contamination. Nevertheless, such laws commonly impose strict liability jointly and severally on the parties involved, so that any one party may be liable for the entire cost of cleaning up a contaminated site.

In addition, we retained liability for certain specific environmental remediation costs at two sites in the United States that were operated by our Nuclear technology business, which has been sold to British Nuclear Fuels PLC (BNFL) in April 2000. Pursuant to the purchase agreement with BNFL, we have retained all of the environmental liabilities associated with our subsidiary Combustion Engineering Inc.'s (Combustion Engineering) Windsor, Connecticut facility and a portion of the environmental liabilities associated with our ABB C-E Nuclear Power Inc. subsidiary's Hematite, Missouri facility. The primary environmental liabilities associated with these sites relate to the costs of remediating radiological and chemical contamination at these facilities. Such costs are not payable until a facility is taken out of use and generally are incurred over a number of years. Although it is difficult to predict with accuracy the amount of time it may take to remediate radiological contamination upon decommissioning, based on information that BNFL has made publicly available, we believe that it may take until 2013 to remediate the Hematite site. With respect to the Windsor site, we believe the remediation may take until 2008. At the Windsor site, a significant portion of the contamination is related to activities that were formerly conducted by or for the United States government. We believe that a significant portion of the remediation costs for this facility will be covered by the United States government under the government's Formerly Utilized Sites Remedial Action Program. As a result of the sale of the Nuclear Technology business, in 2000 we established in other liabilities a reserve of \$300 million in connection with our estimated remediation costs related to both facilities. We have estimated the total contingent liability in a range of loss from \$266 million to \$447 million. As such, at December 31, 2004, we have recorded in other liabilities a reserve of \$266 million, net of payments since inception of \$34 million. Expenditures charged to the remediation reserve were \$10 million, \$6 million and \$12 million during 2004, 2003 and 2002, respectively. In connection with the Chapter 11 filing by Combustion Engineering discussed below, we will assume any and retain all remaining environmental liabilities of Combustion Engineering in respect to the Windsor and Hematite sites.

Estimates of the future costs of environmental compliance and liabilities are imprecise due to numerous uncertainties. Such costs are affected by the enactment of new laws and regulations, the development and application of new technologies, the identification of new sites for which we may have remediation responsibility and the apportionment of remediation costs among, and the financial viability of, responsible parties. In particular, the exact amount of the responsibility of the United States government for the Windsor site cannot be precisely estimated. It is possible that final resolution of environmental matters may require us to make expenditures in excess of our expectations, over an extended period of time and in a range of amounts that cannot be reasonably estimated. Although final resolution of such matters could have a material effect on our Consolidated Income Statement in a particular reporting period in which the expenditure is incurred, we believe that these expenditures will not have a material adverse effect on our Consolidated Financial Statements.

### **Asbestos liability**

#### **Summary**

Our Combustion Engineering subsidiary has been a co-defendant in a large number of lawsuits claiming damage for personal injury resulting from exposure to asbestos. A smaller number of claims have also been brought against two other subsidiaries, ABB Lummus Global Inc. ("Lummus") (which is part of our Oil, Gas and Petrochemicals business and was formerly a subsidiary of Combustion Engineering) and Basic Incorporated ("Basic") (which was a subsidiary of Combustion Engineering and of Asea Brown Boveri Inc. ("Asea Brown Boveri") and is now a subsidiary of ABB Holdings Inc. ("Holdings") following the merger in December 2004 of Asea Brown Boveri into Holdings), as well as against other ABB group entities. In late 2002, taking into consideration the growing number and cost of asbestos-related claims, Combustion Engineering and we determined that Combustion Engineering's asbestos-related liability should be resolved through a comprehensive settlement that included a plan of reorganization for Combustion Engineering under Chapter 11 of the U.S. Bankruptcy Code.

In November 2002, Combustion Engineering and the representatives of various asbestos claimants entered into a Master Settlement Agreement which settled the value of approximately 154,000 open asbestos-related claims against Combustion Engineering. Under that agreement, Combustion Engineering established and funded a trust (the "CE Settlement Trust") to provide for partial payment on such settled claims.

In January 2003, Combustion Engineering reached agreement with various creditors (including representatives of the asbestos claimants who participated in the Master Settlement Agreement and a representative of future claimants) on the terms of a proposed "Pre-Packaged Plan of Reorganization for Combustion Engineering" under Chapter 11 of the U.S. Bankruptcy Code (as amended through June 4, 2003, the "CE Plan"). The CE Plan provided for a "channeling injunction" to be issued, under which asbestos-related claims related to the operations of Combustion Engineering, Lummus and Basic could only be brought against a trust (separate from the CE Settlement Trust established under the Master Settlement Agreement) to be established and funded by Combustion Engineering, ABB Ltd and other ABB group companies. This channeling injunction was intended to free Combustion Engineering, ABB Ltd and affiliates, as well as certain former direct or indirect owners, joint venture partners and affiliates of Combustion Engineering, including ALSTOM and ABB ALSTOM POWER NV, from further liability for such claims.

The CE Plan was filed with the U.S. Bankruptcy Court on February 17, 2003, and confirmed by the District Court on August 8, 2003. However, on December 2, 2004, the Court of Appeals for the Third Circuit effectively reversed the District Court's confirmation order. The Court of Appeals remanded the CE Plan to the District Court for a determination of whether, in light of the pre-petition payments made by Combustion Engineering to the CE Settlement Trust under the Master Settlement Agreement and the fact that claimants who received partial payments of their claims under the Master Settlement Agreement participated in the approval of the plan, the treatment of asbestos-related personal injury claims against Combustion Engineering under the CE Plan was consistent with the requirements of the Bankruptcy Code. Combustion Engineering and we have been reviewing the Court of Appeals' decision and considering various options to resolve the asbestos-related liability of Combustion Engineering, Lummus and Basic.

In March 2005, following extensive discussions with certain representatives of various parties, including the Creditors Committee and the Future Claimants Representative appointed in the Combustion Engineering case, we reached an agreement on certain "settlement points" for modifying the CE Plan with a view to bringing it into conformity with the Court of Appeals' decision and for providing a mechanism for resolving finally Lummus' potential asbestos liability. The settlement points contemplate, that the modified plan will continue to reflect the CE Plan's fundamental approach of channeling asbestos-related claims against Combustion Engineering to a trust funded in part by other entities of the ABB group of companies. The settlement points provide for us to make an additional contribution of approximately \$232 million to pay present and future asbestos claimants of

Combustion Engineering and Lummus. In addition, the settlement points provide that we will pay directly or indirectly up to \$8 million in respect of certain approved legal fees in the Chapter 11 case of Combustion Engineering. The settlement points contemplate that the modified CE Plan will become effective under the Bankruptcy Code concurrently with a separate Chapter 11 plan of reorganization for Lummus. The parties are now working to reach agreement on other issues relating to, and details of, the proposed modified plan and related proceedings involving Lummus and to prepare the related documentation. Each of the proposed plans will require approval of creditors and be subject to court review.

One of the holdings of the Court of Appeals was that the asbestos-related claims against Basic that are not related to Combustion Engineering's operations could not be "channeled" to the proposed trust under the CE Plan. The proposed plans do not address Basic, and we expect that Basic's asbestos-related liabilities will have to be resolved through its own bankruptcy or similar U.S. state court liquidation proceeding, or through the tort system.

#### **Background**

When we sold our 50 percent interest in the former ABB ALSTOM POWER NV joint venture to ALSTOM in May 2000, we retained ownership of Combustion Engineering, a subsidiary that had conducted part of our former power generation business and that now owns commercial real estate that it leases to third parties. Combustion Engineering is a co-defendant, together with other third parties, in numerous lawsuits in the United States in which the plaintiffs claim damages for personal injury arising from exposure to asbestos in equipment or materials that Combustion Engineering allegedly supplied or was responsible for, primarily during the early 1970s and before.

From 1989 through February 17, 2003 (the date that Combustion Engineering filed for Chapter 11 as described below), approximately 438,000 asbestos-related claims were filed against Combustion Engineering. On February 17, 2003, there were approximately 164,000 asbestos related personal injury claims pending against Combustion Engineering. There were approximately 138,000 such claims pending against Combustion Engineering on December 31, 2002, and approximately 94,000 such claims were pending on December 31, 2001. Of the approximately 164,000 claims that were pending on February 17, 2003, approximately 154,000 are claims by asbestos claimants who participated in the Master Settlement Agreement. Approximately 29,000 new claims were made in the period from January 1, 2003, to February 17, 2003 (all but 111 of which agreed to participate in the Master Settlement Agreement). Approximately 34,500 claims were resolved in 2002 and approximately 27,000 claims were resolved in 2001.

Other entities of ours have sometimes been named as defendants in asbestos-related claims, including Lummus and Basic. At December 31, 2004 and 2003, there were approximately 11,000 claims pending against Lummus and 4,300 and 4,200 claims, respectively, pending against Basic.

Additionally, at December 31, 2004 and 2003, there were approximately 12,400 and 8,700 asbestos-related claims pending against our entities other than Combustion Engineering, Lummus and Basic. These claims are unrelated to Combustion Engineering and will not be resolved in the Combustion Engineering bankruptcy case. Of the 12,400 claims outstanding at December 31, 2004, approximately 3,660 are claims that were brought in the state of Mississippi in the United States, in 7 cases that include multiple plaintiffs and hundreds of co-defendants and make no specific allegations of any relationship between any entity of ours and the plaintiffs. Approximately 4,240 of such claims have been brought in the state of Ohio in the United States by claimants represented by a single law firm in cases that typically name 50 to 60 co-defendants and do not allege any specific linkage between the plaintiffs and any entity of ours. Approximately 2,700 such claims are pending in the state of West Virginia in the United States. The remaining such claims are pending in various jurisdictions. We generally seek dismissals from claims where there is no apparent linkage between the plaintiffs and any entity of ours. To date, resolving claims against our entities other than Combustion Engineering, Lummus and Basic has not had a material impact on our consolidated financial position, results of operations or cash flows.

#### **Negotiations with representatives of asbestos claimants and pre-packaged Chapter 11 filing**

During 2001 and 2002, Combustion Engineering experienced a significant increase in the level of new claims and higher total and per-claim settlement costs as compared to prior years. In October 2002, Combustion Engineering and we determined that it was likely that the expected asbestos-related costs of Combustion Engineering would exceed the value of its assets (\$812 million at September 30, 2002 and \$828 million at December 31, 2002) if its historical settlement patterns continued into the future. In October 2002, Combustion Engineering and we determined to resolve the asbestos-related liability of Combustion Engineering and its affiliates by reorganizing Combustion Engineering under Chapter 11, the principal business reorganization chapter of the U.S. Bankruptcy Code. Combustion Engineering and we determined to structure the Chapter 11 reorganization as a "pre-packaged plan," in which Combustion Engineering would solicit votes from asbestos claimants to approve the plan before the Chapter 11 case was filed with the Bankruptcy Court.

Beginning in October 2002, Combustion Engineering and we conducted extensive negotiations with representatives of certain asbestos claimants with respect to a pre-packaged plan. On November 22, 2002, Combustion Engineering and the asbestos claimants' representatives entered into a Master Settlement Agreement for settling open asbestos-related personal injury claims that had been filed against Combustion Engineering prior to November 15, 2002. Combustion Engineering also agreed, pursuant to the Master Settlement Agreement, to form and fund the CE Settlement Trust to administer and pay the asbestos-related personal injury claims settled under the Master Settlement Agreement. Under the terms of the Master Settlement Agreement, eligible claimants who met all criteria to qualify for payment were entitled to receive a percentage of the value of their claim from the CE Settlement Trust and retain a claim against Combustion Engineering for the unpaid balance (the "stub claim"). The Master Settlement Agreement divides claims into three categories based on the status of the claim at November 14, 2002, the status of the documentation relating to the claim and whether or not the documentation establishes a valid claim eligible for settlement and payment by Combustion Engineering. The Master Settlement Agreement was supplemented in January 2003 to clarify the rights of certain claimants whose right to participate in a particular payment category was disputed. The Master Settlement Agreement, as supplemented, settles the value of and provides for the partial payment on approximately 154,000 open asbestos-related personal injury claims that had been lodged against Combustion Engineering.

The Master Settlement Agreement, as supplemented, provided that the CE Settlement Trust was to be funded by:

- cash contributions from Combustion Engineering in the amount of \$5 million;
- cash contributions from ABB Inc., a subsidiary of ABB Ltd, in the amount of \$30 million;
- a promissory note from Combustion Engineering in the principal amount of approximately \$101 million (guaranteed by Asea Brown Boveri, now merged into Holdings); and
- an assignment by Combustion Engineering of the \$311 million unpaid balance of principal and interest due to Combustion Engineering from Asea Brown Boveri, now merged into Holdings, under a loan agreement dated May 12, 2000 (guaranteed by ABB Ltd).

Approximately 154,000 eligible claimants have entered into the Master Settlement Agreement or adoption agreements with Combustion Engineering and the CE Settlement Trust and have received partial payment on their claims.

### **Pre-packaged plan of reorganization**

On January 17, 2003, we announced that Combustion Engineering and we had reached an agreement on a proposed Pre-Packaged Plan of Reorganization for Combustion Engineering under Chapter 11 of the U.S. Bankruptcy Code. The agreement was reached with representatives of certain asbestos claimants with existing asbestos-related personal injury claims against Combustion Engineering (encompassing both claimants who had lodged claims prior to November 15, 2002, and claimants who had filed claims on or after that date and were not eligible to participate in the Master Settlement Agreement) and with the proposed representative of persons who may be entitled to bring asbestos-related personal injury claims in the future.

As proposed, the CE Plan provided for the creation of the Asbestos PI Trust, an independent trust separate and distinct from the CE Settlement Trust, and addressed Asbestos PI Trust Claims, which consist of present and future asbestos-related personal injury claims (including the stub claims of claimants who previously settled pursuant to the Master Settlement Agreement) that arise directly or indirectly from any act, omission, products, or operations of Combustion Engineering, Lummus or Basic. The CE Plan provided that, if it were to become effective, a channeling injunction would be issued under Section 105 of the U.S. Bankruptcy Code pursuant to which the Asbestos PI Trust Claims against ABB Ltd and certain of its affiliates (including Combustion Engineering, Lummus and Basic) would be channeled to the Asbestos PI Trust. The effect of the channeling injunction contemplated by the CE Plan would be that the sole recourse of a holder of an Asbestos PI Trust Claim would be to the Asbestos PI Trust and such holder would be barred from asserting such a claim against ABB Ltd and the affiliates covered by the injunction (including Combustion Engineering and, under the CE Plan as proposed, Lummus and Basic).

As proposed, the CE Plan provided that on its effective date, the Asbestos PI Trust would be funded with the following:

- a \$20 million 5 percent term note (the "CE Convertible Note") with a maximum term of ten years from the effective date of the CE Plan, to be issued by Combustion Engineering and secured by its Windsor, Connecticut real estate and real estate leases (under certain specified contingencies, the Asbestos PI Trust may have the right to convert the term note into ownership of 80 percent of the voting securities of the reorganized Combustion Engineering);
- excess cash held by Combustion Engineering on the effective date of the CE Plan (the "Excess CE Cash");
- a non-interest bearing promissory note (the "ABB Promissory Note") to be issued by ABB Inc. and ABB Ltd, and guaranteed by certain ABB Ltd subsidiaries, in an aggregate amount of up to \$350 million payable in installments (including two \$25 million payments contingent upon ABB Ltd generating an earnings before interest and taxes margin of 12 percent in 2007 and 2008);
- a non-interest bearing promissory note to be issued on behalf of Lummus (the "Lummus Note") in the amount of \$28 million payable in relatively equal annual installments over 12 years;
- a non-interest bearing promissory note (the "Basic Note") to be issued on behalf of Basic in the aggregate amount of \$10 million payable in relatively equal annual installments over 12 years;
- 30,298,913 shares of ABB Ltd (the "CE Settlement Shares"), which had a fair value of \$170 million, \$154 million and \$86 million at December 31, 2004, 2003 and 2002, respectively; and
- an assignment by Combustion Engineering, Lummus, and Basic to the Asbestos PI Trust of any proceeds under certain insurance policies. As of December 31, 2004, aggregate unexhausted product liability limits under such policies were approximately \$200 million for Combustion Engineering, approximately \$43 million for Lummus and approximately \$28 million for Basic, although amounts ultimately recovered by the Asbestos PI Trust under these policies may be substantially different from the policy limits. In addition, Combustion Engineering would assign to the Asbestos PI Trust scheduled payments under certain of its insurance settlement agreements (\$78 million at December 31, 2004). (The proceeds and payments to be assigned are together referred to as "Certain Insurance Amounts").

In addition, the CE Plan as proposed provided that if Lummus were sold within 18 months after the CE Plan's effective date, ABB Inc. would contribute \$5 million to the CE Settlement Trust and \$5 million to the Asbestos PI Trust (together, these payments are referred to as the "Lummus Sale Payments"). If the CE Settlement Trust has ceased to exist at that time, both \$5 million payments would be made to the Asbestos PI Trust, but in no event would this contribution exceed the net proceeds from the sale of Lummus.

Upon the effective date under the CE Plan, ABB Inc. would indemnify the Combustion Engineering estate against up to \$5 million of liability on account of certain contingent claims held by certain indemnified insurers. Further, on the effective date, Asea Brown Boveri (now merged into Holdings) would provide for the benefit of Combustion Engineering a nuclear and environmental indemnity with regard to obligations arising out of Combustion Engineering's Windsor, Connecticut, site. The two indemnities described in this paragraph are referred to as the "Related Indemnities."

#### **Judicial review process**

The solicitation of votes to approve the CE Plan began on January 19, 2003. Combustion Engineering filed for Chapter 11 in the U.S. Bankruptcy Court in Delaware on February 17, 2003, based on the terms previously negotiated in connection with the CE Plan. On June 23, 2003, the Bankruptcy Court issued its Order Approving the Disclosure Statement but Recommending Withholding of Confirmation of the Plan of Reorganization for Combustion Engineering for Ten Days (the "Initial Ruling") and related findings of fact. The Initial Ruling approved the disclosure statement that was the document used as the basis for soliciting approval of the CE Plan from asbestos claimants and verified the voting results that approved the CE Plan and indicated that the Bankruptcy Court would recommend that the CE Plan be confirmed if Combustion Engineering and we could establish to the court's satisfaction certain specified information. We then submitted the additional information for the court's consideration.

On July 10, 2003, the Bankruptcy Court issued a Supplemental and Amending Order Making Additional Findings and Recommending Confirmation of Plan of Reorganization (the "Supplemental Ruling"). The Supplemental Ruling recommended to the U.S. District Court, among other things, that the CE Plan be confirmed.

Following the issuance of the Supplemental Ruling, interested parties had a period during which they could appeal the Initial Ruling and the Supplemental Ruling. This appeal period expired on July 24, 2003. A number of interested parties, including a small number of asbestos claimants and certain insurance companies which historically have provided insurance coverage to Combustion Engineering, Lummus and Basic filed appeals based on various objections to the CE Plan. The District Court held a hearing on July 31, 2003, with respect to the appeals and entered its confirmation order on August 8, 2003.

Various parties appealed the District Court's confirmation order to The United States Court of Appeals for the Third Circuit, which granted a motion for expedition of appeals and ordered that all briefs were to be filed by October 7, 2003. On June 3, 2004, the Court of Appeals held a hearing with respect to the appeals of the confirmation order of the

District Court. On December 2, 2004, the Court of Appeals issued its decision (the "Third Circuit Decision").

The effect of the Third Circuit Decision was to reverse the District Court's confirmation order in respect of the CE Plan. The Third Circuit Decision focused on three issues raised by the appealing parties which relate to the ultimate terms of the CE Plan: (i) whether the Bankruptcy Court had "related to" jurisdiction over the claims against the non-debtors, Lummus and Basic, that do not arise from any products or operations of Combustion Engineering (the "non-derivative claims"); (ii) whether the non-debtors, Lummus and Basic, could avail themselves of the protection of the channeling injunction by invoking Section 105 of the Bankruptcy Code and contributing assets to the Asbestos PI Trust; and (iii) whether the two-trust structure and use of stub claims in the voting process comply with the Bankruptcy Code. The Court of Appeals held that there were insufficient factual findings to support "related-to" jurisdiction and that Section 105 of the Bankruptcy Code could not be employed to extend the channeling injunction to the non-derivative claims against nondebtors, such as Lummus and Basic. With regard to the two-trust structure, the Court of Appeals remanded the CE Plan to the District Court to determine whether creditors received fair treatment in light of the pre-petition payments made to the CE Settlement Trust participants and the use of stub claims in the voting process. Among other things, the Court of Appeals instructed the lower courts to consider whether payments under the CE Settlement Trust constituted voidable preferences that were inconsistent with the fair distribution scheme of the Bankruptcy Code.

On December 15, 2004, Combustion Engineering filed a petition seeking a rehearing en banc by the Court of Appeals. Specifically, Combustion Engineering and its immediate parent, Asea Brown Boveri, now merged into Holdings, challenged the holding in the Third Circuit Decision that the Bankruptcy and District Courts did not have "related to" jurisdiction over the non-derivative claims against Lummus and Basic and that Section 105 of the Bankruptcy Code could not be used to extend the channeling injunction to such claims. On January 19, 2005, the Court of Appeals denied the petition for rehearing en banc.

Notwithstanding the Third Circuit Decision, the Master Settlement Agreement, which settles the amount of and provides for partial payment on approximately 154,000 asbestos-related claims, remains effective. Early in the Combustion Engineering bankruptcy case, an asbestos claimant commenced an action against the trustee of the CE Settlement Trust and individuals who had received distributions from such trust, asserting that further distributions by the CE Settlement Trust should be enjoined because the transaction that created the CE Settlement Trust was a voidable preference. The Bankruptcy Court ruled that it would not dismiss that action for lack of standing.

On October 22, 2004, the trustee of the CE Settlement Trust moved to dismiss the complaint in that action. This matter is pending and no decision has been rendered by the Court.

Following the Third Circuit Decision, the lower courts assumed jurisdiction over further confirmation proceedings in respect of the CE Plan. On January 27, 2005, the Bankruptcy Court authorized the Future Claimants Representative and the Creditors Committee to file any available bankruptcy-related and similar claims against third parties, including preference claims against certain claimants that did not participate in the CE Settlement Trust, and any potential bankruptcy related claims against us. The Bankruptcy Court further stated that if Combustion Engineering and we cannot agree on modifications to the CE Plan with the Future Claimants Representatives and Creditors Committee, and the representative of Combustion Engineering claimants who opposed the confirmation order, the Bankruptcy Court would appoint an independent representative to prosecute all of the foregoing preference claims and bankruptcy related claims asserted against us. We also entered into a tolling agreement to extend the time period within which bankruptcy related claims against us could be brought.

Since February 17, 2003, a stay and preliminary injunction have barred the commencement and prosecution of certain asbestos-related claims against Combustion Engineering, Lummus, Basic, certain other ABB group entities and certain other parties, including parties indemnified by us. The barred claims include, among others, claims arising from asbestos exposure caused by Combustion Engineering, Lummus or Basic and claims alleging fraudulent conveyance, successor liability and veil piercing. We do not know the number or nature of claims that would now be pending against the protected entities if those legal measures had not been in place.

#### **Modified CE Plan**

In March 2005, following extensive discussions with certain representatives of various claimants, the Creditors Committee and the Future Claimants Representative, we reached an agreement on certain "settlement points" for modifying the CE Plan with a view to bringing it into conformity with the Third Circuit Decision and for providing a mechanism for resolving finally Lummus' potential asbestos liability.

The settlement points contemplate the following elements for finally resolving both Combustion Engineering's and Lummus' potential asbestos liability:

- The modified plan for Combustion Engineering (the "Modified CE Plan") would continue to reflect the CE Plan's fundamental approach of channeling claims against Combustion Engineering to a trust funded, in part, by other entities in the ABB group of companies.
- Confirmation and effectiveness of the Modified CE Plan would be obtained concurrently with a Chapter 11 Plan for Lummus (the "Lummus Plan"), acceptances to which would be obtained from voting Lummus asbestos claimants prior to Lummus commencing a Chapter 11 case.
- We would contribute to the Asbestos PI Trust the CE Convertible Note, the ABB Promissory Note, the Excess CE Cash and the CE Settlement Shares and would provide the Related Indemnities and assign the Certain Insurance Amounts, as contemplated by the CE Plan, subject to any modifications that may be agreed.
- We would make an additional contribution (the "Additional Contribution") of \$232 million. The Additional Contribution will be used as follows: (i) up to \$28 million will be used to fund payment of all current and future asbestos claims against Lummus by a trust created under §524(g) of the Bankruptcy Code pursuant to the Lummus Plan; and (ii) the remaining amounts will be used to provide additional funding under the Modified CE Plan to pay CE's asbestos creditors through the Asbestos PI Trust. Under the Modified CE Plan, the Lummus Sale Payments would not be required and the Lummus Note would be replaced by contributions to a separate Lummus §524(g) trust as discussed below.
- Lummus has retained a person to act as a representative for future Lummus asbestos personal injury claimants (the "Lummus FCR"). The parties to the settlement points have agreed that the Lummus FCR will have determined by April 15, 2005, the appropriate funding to pay in full all current and future Lummus asbestos claims. In the event the Lummus FCR concludes that such amount exceeds \$28 million, we will increase the amount of our contribution for the benefit of such Lummus claims by the amount in excess of \$28 million, up to an additional \$5 million. If the Lummus FCR concludes that such amount exceeds \$33 million, we will have the option to terminate the settlement with no further obligations under the settlement points.
- We will directly or indirectly pay up to \$8 million in respect of certain approved legal fees in the Chapter 11 case of Combustion Engineering.
- The Modified CE Plan would provide for a settlement of all pending preference claims and related claims, including any claims against us, our affiliates, and our and their officers, directors and employees, being asserted in the CE case.

- The scope of the channeling injunction to be issued under the Modified CE Plan would be the same as under the CE Plan, except that non-derivative claims against Basic would not be subject to the injunction.
- Basic would not be addressed in the Modified CE Plan and would therefore not contribute the Basic Note.
- The Modified CE Plan would also involve certain other adjustments, including certain changes in the relative amounts to be paid by the CE Asbestos PI Trust to different categories of claimants and changes in the administration of the trust.

In a status conference on April 5, 2005, the Bankruptcy Court instructed the Company to submit the documentation relating to the Modified CE Plan and the Lummus Plan to the Bankruptcy Court within 60 days. We and various other interested parties are now working to reach agreement on open issues, details relating to the Modified CE Plan and the Lummus Plan and the form and substance of the operative documents and related Bankruptcy Court motions and other pleadings. We cannot be certain when those negotiations will be concluded or whether or on what terms the parties will resolve outstanding issues. The Modified CE Plan and the Lummus Plan will become effective only if different classes of their respective creditors vote in favor of the respective plans. The Modified CE Plan and the Lummus Plan will be subject to the approval of the Bankruptcy and District Courts, as well as to further judicial review if appeals are made. While we believe that the Modified CE Plan and the Lummus Plan are consistent with the Third Circuit Decision and other applicable laws and precedents, we cannot be certain whether the courts will approve the plans, nor can we predict whether the plans will receive the needed creditor votes.

We do not know whether any plan of reorganization for Combustion Engineering or Lummus will ultimately be confirmed or whether asbestos-related liabilities of any other ABB group entities would be resolved by any such plan. If for any reason a Chapter 11 plan relating to Combustion Engineering is not eventually confirmed, Combustion Engineering could be required to enter a Chapter 7 proceeding. If for any reason a Chapter 11 plan relating to Lummus is not eventually confirmed, we expect that Lummus' asbestos-related liabilities will have to be resolved through the tort system.

Because the Third Circuit Decision held that non-derivative claims cannot be subject to the CE Plan's proposed channeling injunction, Basic will not be included in the Modified CE Plan. We expect that Basic's asbestos-related liabilities will have to be resolved through its own bankruptcy or similar U.S. state court liquidation proceeding or through the tort system.

If any ABB group entities are not included in the protection offered by the channeling injunction entered pursuant to any Combustion Engineering plan that is confirmed, such entities could be required to resolve in the tort system, or otherwise, current and future asbestos-related claims that are asserted against such entities. Such events would be subject to numerous uncertainties, risk and expense.

If U.S. federal legislation addressing asbestos personal injury claims is passed, which is speculative at this time, such legislation may affect the amount that will be required to resolve the asbestos-related claims against ABB group entities.

#### **Effect on our financial position**

**Expenses.** We recorded expenses related to asbestos of \$262 million, \$142 million and \$395 million in loss from discontinued operations, net of tax, and \$1 million, \$3 million and \$25 million in income from continuing operations, net of tax, for 2004, 2003 and 2002, respectively. Loss from discontinued operations, net of tax, for 2004 reflects a charge of \$232 million taken in connection with the agreement we reached in March 2005 on the basic terms of the Modified CE Plan, \$17 million resulting from the mark-to-market adjustment relating to the CE Settlement Shares, a credit of \$6 million resulting from adjustment of the provision for the estimated liability of Basic as described below, and other costs of \$19 million. Loss from discontinued operations, net of tax, for 2003 includes a charge of \$68 million, net of tax, resulting from the mark-to-market adjustment relating to the CE Settlement Shares, a provision of \$41 million, representing the present value of the first two \$25 million payments under the ABB Promissory Note, which were previously considered contingent, as well as \$33 million of other costs. The 2002 amount reflected our estimate of incremental total costs to be incurred based upon the terms of the CE Plan.

**Cash Payments.** Cash payments, before insurance recoveries, related to Combustion Engineering's asbestos-related claims were \$56 million (including \$49 million contributed to the CE Settlement Trust, described above), \$391 million (including \$365 million contributed to the CE Settlement Trust), and \$236 million (including \$30 million contributed into the CE Settlement Trust), in 2004, 2003 and 2002, respectively. Administration and defense costs were \$10 million, \$36 million and \$32 million in 2004, 2003 and 2002, respectively.

Cash payments related to asbestos-related claims against Lummus and Basic made through December 31, 2004 were approximately \$3 million and \$3 million, respectively. Cash payments to resolve asbestos-related claims against entities other than Combustion Engineering, Lummus and Basic have been immaterial to date, totaling less than \$1 million in the aggregate. We have not maintained a reserve for the claims pending against entities other than Combustion Engineering, Lummus and Basic.

Provisions. At December 31, 2004, 2003 and 2002, we recorded total provisions on a consolidated basis of \$1,023 million, \$815 million and \$1,095 million in respect of asbestos-related claims and defense costs related to Combustion Engineering, Lummus and Basic. Our provisions in continuing operations for asbestos-related liabilities at December 31, 2003 and 2002, now include \$2 million and \$4 million, respectively, previously classified in liabilities held for sale and in discontinued operations. Based upon the expected implementation of the Modified CE Plan and the Lummus Plan, we recorded provisions of \$985 million and \$33 million, respectively, at December 31, 2004, in accrued liabilities and other. If the Modified CE Plan and Lummus Plan become effective, certain amounts will be reclassified as of the effective date to other long-term liabilities based on the timing of the future cash payments to the Asbestos PI Trust or any similar trust created under the Lummus Plan. Future earnings will be affected by mark-to-market adjustments relating to the CE Settlement Shares through the effective date of the Plan, as well as contingent payments when they become probable of payment. The provisions as of December 31, 2003 and 2002, were based on our obligations under the CE Plan and assumed that the CE Plan would be confirmed and become effective as proposed.

In light of the decision of the Court of Appeals, we have made a separate provision as of December 31, 2004 with respect to Basic in accordance with Financial Accounting Standard Board Statement No. 5, *Accounting for Contingencies*, and Financial Accounting Standards Board Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss: an interpretation of FASB Statement No. 5*. With respect to Basic, we have established a provision of \$5 million relating to its asbestos-related liabilities based on analysis of historical claims statistics and related settlement costs and a projection of such claims activity over the next several years.

Management believes that it is probable that the full amount of the relevant provisions will be required to settle the respective asbestos-related liabilities of Combustion Engineering, Lummus and Basic. We may incur liability greater than the existing provisions, whether in connection with a modified plan of bankruptcy or otherwise, but management does not believe that the amount of any such incremental liability can be reasonably estimated or that there is a better estimate of these liabilities than the amounts that are provided for.

Our provisions in respect of asbestos-related claims include, as stated above, amounts for each of Combustion Engineering, Lummus and Basic. The assets of Combustion Engineering include amounts receivable of approximately \$221 million, \$232 million and \$241 million at December 31, 2004, 2003 and 2002, respectively, for probable insurance recoveries, which were established with respect to asbestos-related claims.

The ultimate outcome of our efforts to resolve the asbestos-related personal injury claims against Combustion Engineering and other entities of ours (including any such claims against third parties indemnified by entities of ours) remains uncertain. The related costs may be higher than our provisions reflect and could have a material adverse impact on our consolidated financial position, results of operations and cash flows. In the event the Modified CE Plan or Lummus Plan do not become effective, the ultimate cost for the resolution of asbestos-related personal injury claims against Combustion Engineering and Lummus may be significantly higher and could have a material adverse impact on our consolidated financial position, results of operations and cash flows.

# Consolidated Financial Statements

## Consolidated Income Statements

Year ended December 31 (in millions, except per share data)	2004	2003	2002
Revenues	\$ 20,721	\$ 20,427	\$ 19,472
Cost of sales	(15,757)	(15,928)	(15,098)
<b>Gross profit</b>	<b>4,964</b>	<b>4,499</b>	<b>4,374</b>
Selling, general and administrative expenses	(3,786)	(3,917)	(4,050)
Amortization expense	(45)	(31)	(45)
Other income (expense), net	(49)	(194)	(80)
<b>Earnings before interest and taxes</b>	<b>1,084</b>	<b>357</b>	<b>199</b>
Interest and dividend income	164	152	194
Interest and other finance expense	(387)	(569)	(327)
<b>Income (loss) from continuing operations before taxes and minority interest</b>	<b>861</b>	<b>(60)</b>	<b>66</b>
Provision for taxes	(311)	(245)	(81)
Minority interest	(102)	(66)	(111)
<b>Income (loss) from continuing operations</b>	<b>448</b>	<b>(371)</b>	<b>(126)</b>
Loss from discontinued operations, net of tax	(483)	(408)	(693)
<b>Net loss</b>	<b>\$ (35)</b>	<b>\$ (779)</b>	<b>\$ (819)</b>
Basic earnings (loss) per share:			
Income (loss) from continuing operations	\$ 0.22	\$ (0.30)	\$ (0.11)
Net loss	\$ (0.02)	\$ (0.64)	\$ (0.74)
Diluted earnings (loss) per share:			
Income (loss) from continuing operations	\$ 0.22	\$ (0.30)	\$ (0.27)
Net loss	\$ (0.02)	\$ (0.64)	\$ (0.86)

See accompanying Notes to the Consolidated Financial Statements.

## Consolidated Balance Sheets

at December 31 (in millions, except share data)

	2004	2003
Cash and equivalents	\$ 3,676	\$ 4,783
Marketable securities and short-term investments	524	473
Receivables, net	6,330	6,049
Inventories, net	2,977	2,671
Prepaid expenses and other	1,688	1,794
Assets held for sale and in discontinued operations	155	4,981
<b>Total current assets</b>	<b>15,350</b>	<b>20,751</b>
Financing receivables, non-current	1,233	1,372
Property, plant and equipment, net	2,981	2,858
Goodwill	2,602	2,528
Other intangible assets, net	493	601
Prepaid pension and other employee benefits	549	564
Investments and other	1,469	1,727
<b>Total assets</b>	<b>\$ 24,677</b>	<b>\$ 30,401</b>
Accounts payable, trade	\$ 4,272	\$ 4,034
Accounts payable, other	1,437	1,395
Short-term borrowings and current maturities of long-term borrowings	633	1,644
Accrued liabilities and other	6,436	5,957
Liabilities held for sale and in discontinued operations	290	3,990
<b>Total current liabilities</b>	<b>13,068</b>	<b>17,020</b>
Long-term borrowings	4,901	6,290
Pension and other employee benefits	1,551	1,790
Deferred taxes	953	1,022
Other liabilities	1,083	1,077
<b>Total liabilities</b>	<b>21,556</b>	<b>27,199</b>
Minority interest	297	285
Stockholders' equity:		
Capital stock and additional paid-in capital	3,083	3,067
Retained earnings	1,725	1,760
Accumulated other comprehensive loss	(1,846)	(1,772)
Less: Treasury stock, at cost (11,611,529 shares at December 31, 2004 and 2003)	(138)	(138)
<b>Total stockholders' equity</b>	<b>2,824</b>	<b>2,917</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 24,677</b>	<b>\$ 30,401</b>

See accompanying Notes to the Consolidated Financial Statements.

## Consolidated Statements of Cash Flows

Year ended December 31 (in millions)	2004	2003	2002
<b>Operating activities:</b>			
Net loss	\$ (35)	\$ (779)	\$ (819)
<i>Adjustments to reconcile net loss to net cash provided by (used in) operating activities:</i>			
Depreciation and amortization	633	585	611
Provisions	92	(728)	(132)
Pension and postretirement benefits	55	21	37
Deferred taxes	3	47	(123)
Net gain from sale of property, plant and equipment	(36)	(26)	(23)
Loss on sale of discontinued operations	63	38	194
Other	167	411	(164)
<i>Changes in operating assets and liabilities:</i>			
Marketable securities (trading)	43	13	498
Trade receivables	(160)	85	627
Inventories	(74)	238	369
Trade payables	(63)	(381)	79
Other assets and liabilities, net	274	303	(1,154)
<b>Net cash provided by (used in) operating activities</b>	<b>962</b>	<b>(173)</b>	<b>-</b>
<b>Investing activities:</b>			
Changes in financing receivables	176	390	264
Purchases of marketable securities and short-term investments (other than trading)	(2,877)	(2,781)	(4,377)
Purchases of property, plant and equipment	(543)	(547)	(602)
Acquisitions of businesses (net of cash acquired)	(24)	(55)	(144)
Proceeds from sales of marketable securities and short-term investments (other than trading)	2,317	3,049	4,525
Proceeds from sales of property, plant and equipment	123	155	476
Proceeds from sales of businesses (net of cash disposed)	1,182	543	2,509
<b>Net cash provided by investing activities</b>	<b>354</b>	<b>754</b>	<b>2,651</b>
<b>Financing activities:</b>			
Net changes in borrowings with maturities of 90 days or less	(104)	(99)	(1,677)
Increases in borrowings	265	1,976	9,069
Repayment of borrowings	(2,913)	(2,893)	(10,188)
Treasury and capital stock transactions	(36)	2,675	-
Other	(17)	(56)	3
<b>Net cash provided by (used in) financing activities</b>	<b>(2,805)</b>	<b>1,603</b>	<b>(2,793)</b>
Effects of exchange rate changes on cash and equivalents	74	150	141
Adjustment for the net change in cash and equivalents in assets held for sale and in discontinued operations	308	(80)	60
<b>Net change in cash and equivalents – continuing operations</b>	<b>(1,107)</b>	<b>2,254</b>	<b>59</b>
Cash and equivalents beginning of year	4,783	2,529	2,470
<b>Cash and equivalents end of year</b>	<b>\$ 3,676</b>	<b>\$ 4,783</b>	<b>\$ 2,529</b>
Interest paid	\$ 382	\$ 438	\$ 482
Taxes paid	\$ 379	\$ 238	\$ 298

See accompanying Notes to the Consolidated Financial Statements.

## Consolidated Statements of Changes in Stockholders' Equity

For the years ended December 31, 2004,  
2003 and 2002 (in millions)

	Capital stock and additional paid-in capital		Retained earnings	Accumulated other comprehensive loss				Total accumulated other comprehensive loss	Treasury stock	Total stockholders' equity
				Foreign currency translation adjustment	Unrealized gain (loss) on available-for-sale securities	Minimum pension liability adjustment	Unrealized gain (loss) of cash flow hedge derivatives			
<b>Balance at January 1, 2002</b>	<b>\$ 2,028</b>	<b>\$ 3,358</b>		<b>\$ (1,521)</b>	<b>\$ (41)</b>	<b>\$ (49)</b>	<b>\$ (87)</b>	<b>\$ (1,698)</b>	<b>\$ (1,750)</b>	<b>\$ 1,938</b>
Comprehensive loss:										
Net loss			(819)							(819)
Foreign currency translation adjustments				(304)				(304)		(304)
Accumulated foreign currency translation adjustments allocated to divestments of businesses				90				90		90
Effect of change in fair value of available-for-sale securities, net of tax of \$1					3			3		3
Minimum pension liability adjustments, net of tax of \$30						(107)		(107)		(107)
Change in derivatives qualifying as cash flow hedges, net of tax of \$52							131	131		131
Total comprehensive loss										(1,006)
Other		(1)								(1)
<b>Balance at December 31, 2002</b>	<b>2,027</b>	<b>2,539</b>		<b>(1,735)</b>	<b>(38)</b>	<b>(156)</b>	<b>44</b>	<b>(1,885)</b>	<b>(1,750)</b>	<b>931</b>
Comprehensive loss:										
Net loss			(779)							(779)
Foreign currency translation adjustments				25				25		25
Accumulated foreign currency translation adjustments allocated to divestments of businesses				(37)				(37)		(37)
Effect of change in fair value of available-for-sale securities, net of tax of \$18					65			65		65
Minimum pension liability adjustments, net of tax of \$5						19		19		19
Change in derivatives qualifying as cash flow hedges, net of tax of \$13							41	41		41
Total comprehensive loss										(666)
Sale of treasury stock	(1,456)								1,612	156
Capital stock issued in connection with rights offering, net	2,487									2,487
Call options	9									9
<b>Balance at December 31, 2003</b>	<b>3,067</b>	<b>1,760</b>		<b>(1,747)</b>	<b>27</b>	<b>(137)</b>	<b>85</b>	<b>(1,772)</b>	<b>(138)</b>	<b>2,917</b>
Comprehensive loss:										
Net loss			(35)							(35)
Foreign currency translation adjustments				19				19		19
Accumulated foreign currency translation adjustments allocated to divestments of businesses				20				20		20
Effect of change in fair value of available-for-sale securities, net of tax of \$6					(15)			(15)		(15)
Minimum pension liability adjustments, net of tax of \$37						(69)		(69)		(69)
Change in derivatives qualifying as cash flow hedges, net of tax of \$16							(29)	(29)		(29)
Total comprehensive loss										(109)
Call options	8									8
Other	8									8
<b>Balance at December 31, 2004</b>	<b>\$ 3,083</b>	<b>\$ 1,725</b>		<b>\$ (1,708)</b>	<b>\$ 12</b>	<b>\$ (206)</b>	<b>\$ 56</b>	<b>\$ (1,846)</b>	<b>\$ (138)</b>	<b>\$ 2,824</b>

See accompanying Notes to the Consolidated Financial Statements.

# Notes to the Consolidated Financial Statements

(U.S. dollar amounts in millions, except per share amounts)

## Note 1 The company

ABB Ltd and its subsidiaries (collectively, the "Company") is a leading global company in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The Company works with customers to engineer and install networks, facilities and plants with particular emphasis on enhancing efficiency and productivity for customers that source, transform, transmit and distribute energy.

## Note 2 Significant accounting policies

The following is a summary of significant accounting policies followed in the preparation of these Consolidated Financial Statements.

### Basis of presentation

The Consolidated Financial Statements are prepared in accordance with United States generally accepted accounting principles and are presented in United States dollars (\$) unless otherwise stated. Par value of capital stock is denominated in Swiss francs.

### Scope of consolidation

The Consolidated Financial Statements include 100 percent of the assets, liabilities, revenues, expenses, income, loss and cash flows of ABB Ltd and companies in which ABB Ltd has a controlling interest (subsidiaries), as if ABB Ltd and its subsidiaries were a single company. Intercompany accounts and transactions have been eliminated. Minority interest is calculated for entities fully consolidated but not wholly owned. The components of net income and equity attributable to the minority shareholders are presented in the minority interest line items included in the Consolidated Income Statements and Consolidated Balance Sheets, respectively.

Effective January 31, 2003, variable interest entities (VIEs) are consolidated when the Company is considered the primary beneficiary. Also, effective January 31, 2003, previously consolidated VIEs would be deconsolidated when a triggering event, as defined by Financial Accounting Standards Board Interpretation No. 46(R) (FIN 46R), *Consolidation of Variable Interest Entities – an Interpretation of ARB No. 51*, indicates the Company is no longer the primary beneficiary. For those VIEs where the Company is not the primary beneficiary, existing consolidation policies are applied. See Note 8 for information relating to the impact of adopting FIN 46R.

Investments in joint ventures and affiliated companies in which the Company has significant influence, but not a controlling interest, are accounted for using the equity method. This is generally presumed to exist when the Company owns between 20 percent and 50 percent of the investee. In certain circumstances, the Company's ownership is between 20 percent and 50 percent of the investee but it consolidates the investment because the Company participates in significant operating and financial decisions of the investee.

Under the equity method, the Company's investment in and amounts due to and from an equity investee are included in the Consolidated Balance Sheets; the Company's share of an investee's earnings is included in the Consolidated Income Statements; and the dividends, cash distributions, loans or other cash received from the investee, additional cash investments, loan repayments or other cash paid to the investee, are included in the Consolidated Balance Sheets and the Consolidated Statements of Cash Flows. Additionally, the carrying values of investments accounted for using the equity method of accounting are adjusted downward to reflect any other-than-temporary declines in value.

Investments in non-public companies in which the Company does not have a controlling interest or significant influence are accounted for at cost. This is generally presumed to exist when the Company owns less than 20 percent of the investee. Dividends and other distributions of earnings from these investments are included in income when received. The carrying value of investments accounted for using the cost method of accounting are adjusted downward to reflect any other-than-temporary declines in value.

### Reclassifications

Amounts reported for prior years in the Consolidated Financial Statements and Notes have been reclassified to conform to the current year's presentation, primarily as a result of the application of Statement of Financial Accounting Standards No. 144 (SFAS 144), *Accounting for the Impairment or Disposal of Long-Lived Assets*, in reflecting assets and liabilities held for sale and in discontinued operations.

### Operating cycle

A portion of the Company's operating cycle, including long-term construction activities, exceeds one year. For classification of current assets and liabilities related to these types of construction activities, the Company elected to use the duration of the contract as its operating cycle.

### Use of estimates

The preparation of the Consolidated Financial Statements requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from those estimates.

### Concentrations of credit risk

The Company sells a broad range of products, systems and services to a wide range of industrial and commercial customers throughout the world. Concentrations of credit risk with respect to trade receivables are limited, as the Company's customer base is comprised of a large number of individual customers. Ongoing credit evaluations of customers' financial positions are performed and, generally, no collateral is required.

Subsequent to the sale of a significant portion of the Company's Structured Finance business during 2002, the Financial Services activities of the Company were substantially reduced. As a consequence of this divestment, the credit risk of the Company's remaining Financial Services activities is primarily concentrated in the remaining lease and loan portfolio. Policies and procedures to control the remaining credit risks include measurements to develop and ensure the maintenance of a diversified portfolio through the active monitoring of counterparty, country and industry exposure.

(U.S. dollar amounts in millions, except per share amounts)

## **Note 2 Significant accounting policies, continued**

The Company maintains reserves for potential credit losses and such losses, in the aggregate, are in line with the Company's expectations.

It is Company policy to invest cash in deposits with banks throughout the world with certain minimum credit ratings and in high quality, low risk, liquid investments. The Company actively manages its credit risk by routinely reviewing the creditworthiness of the banks and the investments held, as well as maintaining such investments in deposits or liquid investments. The Company has not incurred significant credit losses related to such investments.

The Company's exposure to credit risk on derivative financial instruments is the risk that a counterparty will fail to meet its obligations. To reduce this risk, the Company has credit policies that require the establishment and periodic review of credit limits for individual counterparties. In addition, the Company has entered into close-out netting agreements with most counterparties. Close-out netting agreements provide for the termination, valuation and net settlement of some or all outstanding transactions between two counterparties on the occurrence of one or more pre-defined trigger events.

### **Cash and equivalents**

Cash and equivalents include highly liquid investments with original maturities of three months or less. Cash and equivalents does not include restricted cash of \$452 million and \$433 million at December 31, 2004 and 2003, respectively, which are reflected as long-term assets.

### **Marketable securities and short-term investments**

Debt and equity securities are classified as either trading or available-for-sale at the time of purchase and are carried at fair value. Debt and equity securities that are purchased and held principally for the purpose of sale in the near term are classified as trading securities and unrealized gains and losses thereon are included in the determination of earnings. Unrealized gains and losses on available-for-sale securities are excluded from the determination of earnings and are instead recognized in the accumulated other comprehensive loss component of stockholders' equity, net of tax (accumulated other comprehensive loss) until realized. Realized gains and losses on available-for-sale securities are computed based upon the historical cost of these securities applied using the specific identification method. Declines in fair values of available-for-sale securities that are other-than-temporary are included in the determination of earnings.

The Company analyzes its available-for-sale securities for impairment during each reporting period to evaluate whether an event or change in circumstances has occurred in that period that may have a significant adverse effect on the fair value of the investment. The Company records an impairment charge through current period earnings and adjusts the cost basis for such other-than-temporary declines in fair value when the fair value is not anticipated to recover above cost within a three-month period after the measurement date unless there are mitigating factors that indicate an impairment charge through earnings may not be required. If an impairment charge is recorded, subsequent recoveries in fair value are not reflected in earnings until sale of the security.

### **Revenue recognition**

The Company recognizes revenues from the sale of manufactured products when persuasive evidence of an arrangement exists, the price is fixed or determinable, collectibility is reasonably assured and upon transfer of title, including the risks and rewards of ownership to the customer, or upon the rendering of services. If contracts for sale of manufactured products require installation that can only be performed by the Company, revenues are deferred until installation of the products is complete. In accordance with Emerging Issues Task Force No. 00-21, *Revenue Arrangements with Multiple Deliverables*, when multiple elements such as products and services are contained in a single arrangement or in related arrangements with the same customer, the Company allocates revenues to each element based on its relative fair value, provided that such element meets the criteria for treatment as a separate unit of accounting. Revenues from contracts that contain customer acceptance provisions are deferred until customer acceptance occurs, the Company has tested to the level required to ensure that acceptance will occur or the contractual acceptance period has lapsed.

Revenues under long-term contracts are recognized using the percentage-of-completion method of accounting. The Company principally uses the cost-to-cost or delivery events methods to measure progress towards completion on contracts. Management determines the method to be used by type of contract based on its judgment as to which method best measures actual progress towards completion. Revenues under cost-reimbursement contracts are recognized as costs are incurred.

### **Product-related expenses and contract loss provisions**

Anticipated costs for warranties are recorded when revenues are recognized. Losses on product and maintenance-type contracts are recognized in the period when they are identified and are based upon the anticipated excess of contract costs over the related contract revenues. Shipping and handling costs are recorded as a component of cost of sales.

### **Receivables**

The Company accounts for the securitization of trade receivables in accordance with Statement of Financial Accounting Standards No. 140 (SFAS 140), *Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities*. SFAS 140 requires an entity to recognize the financial and servicing assets it controls and the liabilities it has incurred and to derecognize financial assets when control has been surrendered, as evaluated in accordance with the criteria provided in SFAS 140.

The Company accounts for the transfer of its receivables to Qualifying Special Purpose Entities (QSPEs) as a sale of those receivables to the extent that consideration other than beneficial interests in the transferred accounts receivable is received. The Company does not recognize the transfer as a sale unless the receivables have been put presumptively beyond the reach of the Company and its creditors, even in bankruptcy or other receivership. In addition, the QSPEs must obtain the right to pledge or exchange the transferred receivables, and the Company cannot retain the ability or obligation to repurchase or redeem the transferred receivables.

At the time the receivables are sold, the balances are removed from trade receivables and a retained interest or deferred purchase price component is recorded in other receivables. The retained interest is recorded at its estimated fair value. Costs associated with the sale of receivables are included in the determination of earnings.

(U.S. dollar amounts in millions, except per share amounts)

## **Note 2 Significant accounting policies, continued**

The Company, in its normal course of business, sells receivables outside its securitization programs without recourse (see Note 7). Sales or transfers that do not meet the requirements of SFAS 140 are accounted for as secured borrowings.

### **Inventories**

Inventories are stated at the lower of cost (determined using either the first-in, first-out or the weighted-average cost method) or market. Inventoried costs relating to percentage-of-completion contracts are stated at actual production costs, including overhead incurred to date, reduced by amounts recognized in cost of sales. For inventory relating to long-term contracts, inventoried costs include amounts relating to contracts with long production cycles, a portion of which is not expected to be realized within one year.

### **Impairment of long-lived assets and accounting for discontinued operations**

Long-lived assets that are "held and used" are assessed for impairment when events or circumstances indicate the carrying amount of the asset may not be recoverable. If the asset's net carrying value exceeds the asset's net undiscounted cash flows expected to be generated over its remaining useful life, the carrying amount of the asset is reduced to its estimated fair value, pursuant to the measurement criteria of Statement of Financial Accounting Standards No. 144 (SFAS 144), *Accounting for the Impairment or Disposal of Long-Lived Assets*. The Company adopted SFAS 144 as of January 1, 2002. In the Consolidated Statements of Cash Flows, the amounts related to businesses with assets and liabilities held for sale and in discontinued operations are not segregated, as permitted by Statement of Financial Accounting Standards No. 95, *Statement of Cash Flows*.

In accordance with SFAS 144, the Company includes in assets and liabilities held for sale and in discontinued operations the assets and liabilities that meet certain criteria with respect to the Company's plans for their sale or abandonment. Depreciation and amortization cease when the asset meets the criteria to be classified as held for sale. If (1) a planned or completed disposal involves a component (disposal group) of the Company whose operations and cash flows can be distinguished operationally and for financial reporting purposes; (2) such operations and cash flows will be (or have been) eliminated from the Company's ongoing operations; and (3) the Company will not have any significant continuing involvement in the disposal group, then the disposal group's results of operations are presented as discontinued operations for all periods. Operating losses from discontinued operations are recognized in the period in which they occur. Long-lived assets (or groups of assets and related liabilities) classified as held for sale, are measured at the lower of carrying amount or fair value less cost to sell.

In addition to the interest expense contained within businesses classified as discontinued operations, a portion of the Company's interest expense is reclassified from interest and other finance expense to loss from discontinued operations, net of tax, in accordance with Emerging Issues Task Force No. 87-24 (EITF 87-24), *Allocation of Interest to Discontinued Operations*. Such amounts were \$20 million, \$33 million and \$41 million in 2004, 2003 and 2002, respectively. These amounts were calculated based upon the ratio of net assets of the discontinued business less debt that is required to be paid as a result of the disposal, divided by the sum of total net assets and total debt (other than the portion of debt directly attributable to other operations of the Company, debt of the discontinued operation that will be assumed by the buyer and debt that is required to be paid as a result of the disposal transaction). This ratio was multiplied by the portion of total interest expense not directly attributable to other operations of the Company to arrive at allocable interest attributable to businesses reflected as discontinued operations.

### **Goodwill and other intangible assets**

The excess of cost over the fair value of net assets of acquired businesses is recorded as goodwill. The Company accounts for its goodwill in accordance with Statement of Financial Accounting Standards No. 142 (SFAS 142), *Goodwill and Other Intangible Assets*. Under SFAS 142, effective January 1, 2002, the Company ceased amortizing goodwill. In accordance with SFAS 142, goodwill is tested for impairment annually, and also upon the occurrence of a triggering event requiring the re-assessment of a business' carrying value of its goodwill. The Company performs its annual impairment assessment on October 1. A fair value approach is used to identify potential goodwill impairment and, when necessary, measure the amount of impairment. The Company uses a discounted cash flow model to determine the fair value of reporting units, unless there is a readily determinable fair market value.

The cost of acquired intangible assets is amortized on a straight-line basis over their estimated useful lives, typically ranging from 3 to 10 years. Intangible assets are tested for impairment upon the occurrence of certain triggering events.

### **Capitalized software costs**

Capitalized costs of software for internal use are accounted for in accordance with Statement of Position 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use*, and are amortized on a straight-line basis over the estimated useful life of the software, typically ranging from 3 to 5 years. Capitalized costs of a software product to be sold are accounted for in accordance with Statement of Financial Accounting Standards No. 86, *Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed*, and are carried at the lower of unamortized cost or net realizable value until the product is available for general release to customers, at which time capitalization ceases and costs are amortized on a straight-line basis over the estimated life of the product. The Company expenses costs incurred prior to technological feasibility, and thereafter capitalizes costs incurred in developing or obtaining software for internal use and for software products to be sold.

### **Property, plant and equipment**

Property, plant and equipment is stated at cost, less accumulated depreciation, and is depreciated using the straight-line method over the estimated useful lives of the assets as follows: 10 to 50 years for buildings and leasehold improvements and 3 to 15 years for machinery and equipment.

### **Derivative financial instruments**

The Company uses derivative financial instruments to manage interest rate and currency exposures, and to a lesser extent commodity exposures, arising from its global operating, financing and investing activities. The Company's policies require that its industrial entities hedge their exposure from

## **Note 2 Significant accounting policies, continued**

firm commitments denominated in foreign currencies, as well as at least fifty percent of the anticipated foreign currency denominated sales volume of standard products over the next twelve months. In addition, derivative financial instruments were also used for proprietary trading purposes within the Company's former Financial Services division and within limits determined by the Company's Board of Directors until June 2002, when the Company ceased entering into new positions.

The Company accounts for its derivative financial instruments in accordance with Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities*, as subsequently amended (SFAS 133). SFAS 133 requires the Company to recognize all derivatives, other than certain derivatives indexed to the Company's own stock, on the Consolidated Balance Sheets at fair value. Derivatives that are not designated as hedges must be adjusted to fair value through earnings. If the derivatives are designated as a hedge, depending on the nature of the hedge, changes in the fair value of the derivatives will either be offset against the change in fair value of the hedged item through earnings or recognized in accumulated other comprehensive loss until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value is immediately recognized in earnings.

Forward foreign exchange contracts are the primary instrument used to manage foreign exchange risk. Where forward foreign exchange contracts are designated as cash flow hedges under SFAS 133, changes in their fair value are recorded in accumulated other comprehensive loss until the hedged item is recognized in earnings. The Company also enters into forward foreign exchange contracts that serve as economic hedges of existing assets and liabilities. These are not designated as accounting hedges under SFAS 133 and, consequently, changes in their fair value are reported in earnings where they offset the translation gain or loss on the foreign currency denominated asset or liability.

To reduce its interest rate and currency exposure arising from its funding activities and to hedge specific assets, the Company uses interest rate and currency swaps. Where interest rate swaps are designated as fair value hedges, the changes in fair value of the swaps are recognized in earnings, as are the changes in the fair value of the underlying assets or liabilities. Where such interest rate swaps do not qualify for the short cut method as defined under SFAS 133, any ineffectiveness is included in earnings. Where interest rate swaps are designated as cash flow hedges, their change in value is recognized in accumulated other comprehensive loss until the hedged item is recognized in earnings.

All other swaps, futures, options and forwards that are designated as effective hedges of specific assets, liabilities or committed or forecasted transactions are recognized in earnings consistent with the effects of the hedged transactions.

If an underlying hedged transaction is terminated early, the hedging derivative financial instrument is treated as if terminated simultaneously, with any gain or loss on termination of the derivative immediately recognized in earnings. Where derivative financial instruments have been designated as hedges of forecasted transactions, and such forecasted transactions become probable of not occurring, hedge accounting ceases and any derivative gain or loss previously included in accumulated other comprehensive loss is reclassified into earnings.

Certain commercial contracts may grant rights to the Company or other counterparties, or contain other provisions considered to be derivatives under SFAS 133. Such embedded derivatives are assessed at inception of the contract and depending on their characteristics accounted for as separate derivative instruments pursuant to SFAS 133.

### **Sale-leasebacks**

The Company periodically enters into transactions accounted for as sale-leasebacks, in which fixed assets, generally real estate and/or equipment, are sold to a third party and then leased for use by the Company. Under certain circumstances, the necessary criteria to recognize a sale of the assets may not occur, and the transaction is reflected as a financing transaction, with the proceeds received from the transaction reflected as a borrowing or as a deposit liability. When the necessary criteria have been met to recognize a sale, gains or losses on the sale of the assets are generally deferred and amortized over the term of the transaction, except in certain limited instances when a portion of the gain or loss may be recognized. The lease of the assets is accounted for as either an operating lease or a capital lease depending upon its specific terms, as required by Statement of Financial Accounting Standards No. 13, *Accounting for Leases*. By their nature, sale-leaseback transactions are generally highly structured and complex transactions, which therefore require detailed analyses to be made by the Company in determining the appropriate accounting treatment.

### **Insurance**

The following accounting policies apply specifically to the Reinsurance business. In April 2004, the Company completed the sale of its Reinsurance business and reflected the results of operations in loss from discontinued operations, net of tax, and the assets and liabilities in assets and liabilities held for sale and in discontinued operations for all periods presented.

#### *Premiums and acquisition costs*

Premiums were generally earned pro rata over the period coverage was provided. Premiums earned included estimates of certain premiums due, including adjustments on retrospectively rated contracts. Premium receivables included premiums related to retrospectively rated contracts that represented the estimate of the difference between provisional premiums received and the ultimate premiums due. Unearned premiums represented the portion of premiums written that was applicable to the unexpired terms of reinsurance contracts or certificates in force. These unearned premiums were calculated by the monthly pro rata method or were based on reports from ceding companies. Acquisition costs were costs related to the acquisition of new business and renewals. These costs were deferred and charged against earnings ratably over the terms of the related policy.

#### *Profit commission*

Certain contracts carried terms and conditions that resulted in the payment of profit commissions. Estimates of profit commissions were reviewed based on underwriting experience to date and, as adjustments become necessary, such adjustments were reflected in earnings.

(U.S. dollar amounts in millions, except per share amounts)

## **Note 2 Significant accounting policies, continued**

### *Loss and loss adjustment expenses*

Loss and loss adjustment expenses were charged to operations as incurred. The liabilities for unpaid loss and loss adjustment expenses were determined on the basis of reports from ceding companies and underwriting associations, as well as estimates by management and in-house actuaries, including those for incurred, but not reported, losses, salvage and subrogation recoveries. Inherent in the estimates of losses were expected trends of frequency, severity and other factors that could vary significantly as claims were settled. The Company estimated expected trends using actuarial methods widely used in the insurance industry, such as the Bornhuetter-Ferguson method, utilizing the Company's historically paid and incurred losses.

### *Fees*

Contracts that neither result in the transfer of insurance risk nor the reasonable possibility of significant loss to the reinsurer were accounted for as financing arrangements rather than reinsurance. Consideration received for such contracts was reflected as accounts payable, other, and was amortized on a pro rata basis over the life of the contract.

### *Funds withheld*

Under the terms of certain reinsurance agreements, the ceding reinsurer retained a portion of the premium to provide security for expected loss payments. The funds withheld were generally invested by the ceding reinsurer and earn an investment return that became additional funds withheld.

### *Reinsurance*

The Company sought to reduce the loss that may have arisen from catastrophes and other events that may have caused unfavorable underwriting results by reinsuring certain levels of risks with other insurance enterprises or reinsurers. Reinsurance contracts were accounted for by reducing premiums earned by amounts paid to the reinsurers. Recoverable amounts were established for paid and unpaid losses and loss adjustment expense ceded to the reinsurer. Amounts recoverable from the reinsurer were estimated in a manner consistent with the claim liability associated with the reinsurance policy. Contracts where it was not reasonably possible that the reinsurer would realize a significant loss from the insurance risk generally did not meet the conditions for reinsurance accounting and were recorded as deposits. The Company assessed probability of risks transferred in significant loss realization based on the terms in the reinsurance contract that impact the timing and amount of reimbursement under the contract and the present value of all cash flows without regard to how cash flows are characterized, in accordance with Statement of Financial Accounting Standards No. 113, *Accounting and Reporting for Reinsurance of Short Duration and Long Duration Contracts*.

## **Translation of foreign currencies and foreign exchange transactions**

The functional currency for most of the Company's operations is the applicable local currency. The translation from the applicable functional currencies into the Company's reporting currency is performed for balance sheet accounts using exchange rates in effect at the balance sheet date, and for income statement accounts using average rates of exchange prevailing during the year. The resulting translation adjustments are excluded from the determination of earnings and are recognized in accumulated other comprehensive loss until the entity is sold, substantially liquidated or being evaluated for impairment in anticipation of disposal.

Foreign currency exchange gains and losses, such as those resulting from foreign currency denominated receivables or payables, are included in the determination of earnings, except as they relate to intra-Company loans that are equity-like in nature with no reasonable expectation of repayment, which are recognized in accumulated other comprehensive loss.

In highly inflationary countries, monetary balance sheet positions in local currencies are converted into U.S. dollars at the year-end rate. Fixed assets are kept at historical U.S. dollar values from acquisition dates. Sales and expenses are converted at the exchange rates prevailing upon the date of the transaction. All translation gains and losses resulting from the restatement of balance sheet positions are included in the determination of earnings.

## **Taxes**

The Company uses the asset and liability method to account for deferred taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. For financial statement purposes the Company records a deferred tax asset when it determines that it is probable that the deduction will be sustained based upon the deduction's technical merit. Deferred tax assets are reduced by a valuation allowance to reflect the amount that is more likely than not to be realized.

Generally, deferred taxes are not provided on the unremitted earnings of subsidiaries to the extent it is expected that these earnings are permanently reinvested. Such earnings may become taxable upon the sale or liquidation of these subsidiaries or upon the remittance of dividends. Deferred taxes are provided in situations where the Company's subsidiaries plan to make future dividend distributions.

The Company operates in numerous tax jurisdictions and, as a result, is regularly subject to audit by tax authorities. The Company provides for tax contingencies relating to audits by tax authorities based upon its best estimate of the facts and circumstances as of each reporting period. Changes in the facts and circumstances could result in a material change to the tax accruals. The Company provides for contingencies whenever it is deemed probable that a tax asset has been impaired or a tax liability has been incurred for events such as tax claims or changes in tax laws.

## **Research and development**

Research and development expense was \$690 million, \$635 million and \$572 million in 2004, 2003 and 2002, respectively. These costs are included in selling, general and administrative expenses.

(U.S. dollar amounts in millions, except per share amounts)

## Note 2 Significant accounting policies, continued

### Earnings per share

Basic earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year. Diluted earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise: outstanding written call options, if dilutive; the securities issued under the Company's employee incentive plans, if dilutive; and shares issuable in relation to outstanding convertible bonds, if dilutive (see Notes 15, 22 and 24).

### Stock-based compensation

The Company has certain employee incentive plans under which it offers stock-based securities to employees. The plans are described more fully in Note 22. The Company accounts for such stock-based securities using the intrinsic value method of APB Opinion No. 25 (APB 25), *Accounting for Stock Issued to Employees*, as permitted by Statement of Financial Accounting Standards No. 123 (SFAS 123), *Accounting for Stock Based Compensation*. All such securities were issued with exercise prices greater than or equal to the market prices of the stock on the dates of grant. Accordingly, the Company has recorded no compensation expense related to these securities, except in circumstances when a participant receives appreciation rights or ceases to be employed by a consolidated subsidiary, such as after a divestment by the Company. The following table illustrates the effect on net loss and on loss per share (see Note 24) if the Company had applied the fair value recognition provisions of SFAS 123 to stock-based employee compensation. Fair value of these securities offered to employees was determined on the date of grant by using a dynamic proprietary option-pricing model (see Note 22).

Year ended December 31,	2004	2003	2002
Net loss, as reported	\$ (35)	\$ (779)	\$ (819)
Less: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(8)	(11)	(22)
<b>Pro forma net loss</b>	<b>\$ (43)</b>	<b>\$ (790)</b>	<b>\$ (841)</b>
Loss per share:			
Basic – as reported	\$ (0.02)	\$ (0.64)	\$ (0.74)
Basic – pro forma	\$ (0.02)	\$ (0.65)	\$ (0.76)
Diluted – as reported	\$ (0.02)	\$ (0.64)	\$ (0.86)
Diluted – pro forma	\$ (0.02)	\$ (0.65)	\$ (0.88)

### New accounting pronouncements

In January 2003, the Financial Accounting Standards Board issued Interpretation No. 46 (FIN 46), *Consolidation of Variable Interest Entities – an Interpretation of ARB No. 51*. FIN 46 requires variable interest entities (VIEs) to be consolidated by their primary beneficiaries. During 2003, the Company adopted the requirements of FIN 46 and applied the guidance to VIEs in which the Company has an interest. See Note 8 for information relating to the impact of adopting FIN 46. FIN 46 was revised in December 2003. The Company adopted the December revision (FIN 46R) effective March 31, 2004. The adoption of FIN 46R did not have a material impact on the Company's financial position or results of operations.

In December 2004, the Financial Accounting Standards Board issued Statement No. 123R (SFAS 123R), *Share-Based Payment*, which replaces SFAS 123 and APB 25 and requires the Company to measure compensation cost for all share-based payments at fair value. The Company plans to adopt SFAS 123R as of July 1, 2005. The Company will recognize share-based employee compensation cost from July 1, 2005, as if the fair-value-based accounting method had been used to account for all employee awards granted, modified, or settled after the effective date and for any awards that were not fully vested as of the effective date. Based on currently existing share-based compensation plans, the Company does not expect the adoption of SFAS 123R to have a material impact on its financial position or results of operations.

### Note 3 Discontinued operations

In December 2002, the Company's Board of Directors approved management's plans to sell the Company's Oil, Gas and Petrochemicals business. As discussed below, the Company completed the sale of the upstream part of the Oil, Gas and Petrochemicals business (Upstream business) in July 2004. In December 2002 management did not believe the divestment of the remaining Oil, Gas and Petrochemicals business would be contingent on the resolution of the asbestos litigation facing Combustion Engineering, Inc, a subsidiary of the Company, as described in Note 18. Subsequently, after discussions with potential purchasers, management determined the divestment would likely only occur upon a pre-packaged plan of reorganization for Combustion Engineering, Inc becoming effective. Following the U.S. Third Circuit Court's decision in December 2004 that effectively reversed the District Court's confirmation order regarding the reorganization under the U.S. Bankruptcy Code of Combustion Engineering, Inc, the Company determined it no longer met the criteria required to continue to classify the remaining Oil, Gas and Petrochemicals business in discontinued operations. Therefore, as of the fourth quarter of 2004, the results of operations of the remaining Oil, Gas and Petrochemicals business were reclassified to continuing operations for all periods presented. Additionally, the assets and liabilities of the remaining Oil, Gas and Petrochemicals business are no longer included in assets and liabilities held for sale and in discontinued operations but have been reclassified to the appropriate asset and liability lines in the Consolidated Balance Sheet for all periods presented. The remaining Oil, Gas and Petrochemicals business had revenues of \$1,076 million, \$1,876 million and \$2,314 million and losses before interest and taxes of \$4 million, \$296 million and \$142 million in 2004, 2003 and 2002, respectively.

The following are divestments of businesses no longer pursued for strategic reasons and which are in line with the Company's strategy to focus on Power Technologies and Automation Technologies as described in Note 26.

### Note 3 Discontinued operations, continued

During the fourth quarter of 2004, the Company reclassified most of its Power Lines business, part of the Power Technologies division, to discontinued operations. The businesses that have been reclassified are in Brazil, which was abandoned in the fourth quarter of 2004, and Nigeria and Italy, whose sales were completed in January and February 2005, respectively. Also reclassified is the business in Germany, which the Company plans to sell during 2005. These reclassified businesses had revenues of \$117 million, \$187 million and \$254 million and net losses of \$75 million, \$10 million and \$17 million for the years ended December 31, 2004, 2003 and 2002, respectively. The net loss related to these businesses in 2004 relates to operational losses of \$46 million and costs to sell these businesses of \$29 million. Losses recorded in 2003 and 2002 relate to operational losses incurred in such years.

During the fourth quarter of 2004, the Company reclassified its Foundry business, part of the Automation Technologies division, to discontinued operations. The Company plans to sell this business in 2005. The Foundry business had revenues of \$41 million, \$45 million and \$49 million and net losses of \$17 million, \$0 million and \$0 million for the years ended December 31, 2004, 2003 and 2002, respectively. The net loss recorded in 2004 includes \$10 million related to costs to sell the Foundry business.

In January 2004, the Company agreed to sell the Upstream business to a consortium of private equity investors consisting of Candover Partners Limited, JP Morgan Partners LLC and 3i Group PLC (collectively, the "Purchasers"). In July 2004, the Company completed the sale of the Upstream business for an initial purchase price of \$925 million. Net cash proceeds from the sale were approximately \$800 million, reflecting the initial sales price adjusted for unfunded pension liabilities and changes in net working capital. The Upstream business had revenues of \$855 million, \$1,499 million and \$1,535 million in 2004, 2003 and 2002, respectively, and net losses of \$70 million and \$44 million in 2004 and 2003, respectively, and net income of \$14 million in 2002. Included in the \$70 million net loss recorded in 2004 is the loss on sale of approximately \$26 million which includes goodwill and other intangible assets of approximately \$350 million. On February 9, 2005, the Company and the Purchasers entered into a Settlement Agreement and Amendment (Settlement Agreement) finalizing the sales price. The Settlement Agreement also contains provisions to indemnify the Purchasers with respect to certain incomplete projects (see Note 18). The Company believes the provisions recorded for such indemnified projects are adequate.

In April 2004, the Company completed the sale of its Reinsurance business to White Mountains Insurance Group Limited, a Bermuda-based insurance holding company, receiving gross cash proceeds of \$415 million and net cash proceeds of approximately \$280 million. As a result of the anticipated sale, the Company recorded an impairment charge of \$154 million in the fourth quarter of 2003. The Company recorded losses totaling \$41 million and \$97 million in 2004 and 2003, and net income of \$22 million in 2002 and revenues of \$139 million, \$782 million and \$644 million in 2004, 2003 and 2002, respectively. The \$41 million net loss related primarily to foreign exchange effects of the business in 2004 through the date of sale. The 2003 net loss of \$97 million includes a \$154 million impairment charge, income from operations of approximately \$72 million and an allocation of interest of \$15 million in accordance with EITF 87-24. The impairment charge recorded in 2003 from the anticipated disposal of the Reinsurance business of \$154 million was principally comprised of an asset write-down of \$48 million, goodwill and other intangible write-offs of \$89 million, selling costs of \$25 million, deferred tax write-offs of approximately \$16 million, offset in part by an accumulated foreign currency translation gain of \$24 million.

In November 2002, the Company completed the sale of most of its Structured Finance business to General Electric Capital Corporation (GE) and received cash proceeds of approximately \$2.0 billion, including a contingent payment of \$20 million to be released to the Company should amounts ultimately collected by GE, from a portfolio transferred by the Company to GE, reach specified targets. The Company received the last portion of the contingent payment amount in August 2004. The Company's Structured Finance business had revenues of \$262 million in 2002, and a net loss of \$183 million in 2002. The 2002 net loss of \$183 million included a \$146 million loss on disposal, loss from operations of \$22 million and the allocation of interest expense of \$15 million in accordance with EITF 87-24. The loss on disposal of \$146 million was principally comprised of asset write-downs of \$15 million, goodwill and other intangible write-offs of \$2 million, transaction costs of \$27 million, the fair value for GE's right to require the Company to repurchase certain designated assets of \$38 million, capital tax expense associated with the disposal of \$10 million and an accumulated foreign currency translation loss of \$54 million. Upon final settlement in 2004 of a purchase price dispute with GE, the Company recorded a net gain of \$14 million.

Pursuant to the sale and purchase agreement, the Company provided GE with cash collateralized letters of credit totaling \$202 million as security for certain performance-related obligations retained by the Company, of which approximately \$63 million were outstanding at December 31, 2004. The remaining cash collateralized letters of credit will further be reduced as the performance-related obligations of the Company expire.

The sale and purchase agreement provided GE the option to require the Company to repurchase certain designated financial assets transferred to GE upon the occurrence of certain events, but in any event no later than February 1, 2004. In January 2004, the Company repurchased the financial assets for approximately \$28 million. No further obligation exists for the Company to repurchase any assets under the sale and purchase agreement with GE.

As a continuation of the Company's divestment of its Structured Finance business, the Company completed the sale of ABB Export Bank in December 2003 for approximately \$50 million. ABB Export Bank had revenues of \$9 million and \$17 million in 2003 and 2002, respectively, and a net loss of \$9 million in 2003 and net income of \$10 million in 2002. The 2003 net loss of \$9 million in loss from discontinued operations, net of tax, includes a \$12 million loss on disposal, income from operations of \$6 million and the allocation of interest expense of \$3 million in accordance with EITF 87-24. The loss on disposal of \$12 million was principally comprised of an asset write-down of \$20 million, transaction costs of \$1 million, capital tax expense associated with the disposal of \$4 million offset by an accumulated foreign currency translation gain of approximately \$13 million.

In December 2002, the Company completed the sale of its Metering business to Ruhrgas Industries GmbH of Essen, Germany, for \$223 million, including \$15 million held in escrow until certain disputed items were resolved. The cash held in escrow was released after the resolution of these items in 2003. The Metering business sold to Ruhrgas Industries GmbH had revenues of \$372 million and a net loss of \$54 million in 2002. The 2002 net loss of \$54 million included a \$48 million loss on disposal, loss from operations of \$3 million and the allocation of interest expense of \$3 million in accordance with EITF 87-24. The loss on disposal of \$48 million for the sold business was principally comprised of goodwill and other intangible write-offs of \$65 million, transaction costs and other provisions of \$46 million, tax expense associated with the disposal of \$21 million and an accumulated foreign currency translation loss of \$35 million, offset in part by a gain of \$119 million, being the difference between the proceeds received and net assets of the business. Upon final settlement in 2004 of a purchase price dispute with Ruhrgas Industries GmbH, the Company recorded a net gain of \$12 million.

(U.S. dollar amounts in millions, except per share amounts)

**Note 3 Discontinued operations, continued**

During the fourth quarter of 2002, the Company reclassified its Wind Energy business to discontinued operations. In December 2003, the Company sold a portion of its Wind Energy business in Germany to GI Ventures AG of Munich, Germany, for proceeds of approximately \$35 million including a vendor note of approximately \$10 million. The Wind Energy business had revenues of \$0 million, \$16 million and \$48 million and net losses of \$25 million, \$42 million and \$1 million in 2004, 2003 and 2002, respectively. The 2003 net loss of \$42 million was comprised principally of a \$25 million loss from disposal (net of a tax benefit of \$10 million), asset write-downs of \$9 million and a loss from operations of \$8 million. The 2004 net loss of \$25 million consisted of an additional impairment charge related to a portion of the unsold Wind Energy business.

In January 2004, the Company completed the sale of its MDCV cable business based in Germany to the Wilms Group of Menden, Germany. This business was part of the Power Technologies division. It had revenues of \$74 million and \$78 million and net losses of \$24 million and \$1 million in 2003 and 2002, respectively. The 2003 net loss of \$24 million was comprised principally of asset write-downs of \$10 million and a loss from operations of \$14 million.

Loss from discontinued operations, net of tax, also includes costs related to the Company's potential asbestos obligation of the Company's U.S. subsidiary, Combustion Engineering Inc., of approximately \$262 million, \$142 million and \$395 million in 2004, 2003 and 2002, respectively (see Note 18).

Operating results of the discontinued businesses are summarized as follows:

Year ended December 31,	2004	2003	2002
Revenues	\$ 1,165	\$ 2,641	\$ 3,379
Costs and expenses, finance loss	(1,569)	(2,963)	(3,818)
<b>Loss before taxes</b>	<b>(404)</b>	<b>(322)</b>	<b>(439)</b>
Tax expense	(16)	(48)	(60)
<b>Net loss from discontinued operations</b>	<b>(420)</b>	<b>(370)</b>	<b>(499)</b>
Loss from dispositions, net of a tax benefit (expense) of \$(25) million, \$6 million and \$(31) million in 2004, 2003 and 2002, respectively	(63)	(38)	(194)
<b>Loss from discontinued operations, net of tax</b>	<b>\$ (483)</b>	<b>\$ (408)</b>	<b>\$ (693)</b>

The components of assets and liabilities held for sale and in discontinued operations are summarized as follows:

December 31,	2004	2003
Cash and equivalents	\$ 9	\$ 317
Marketable securities and short-term investments	–	1,625
Receivables, net	59	1,904
Inventories, net	16	283
Prepaid expenses and other	11	148
Financing receivables, non-current	–	10
Goodwill and Other intangible assets	6	360
Property, plant and equipment, net	50	223
Other assets	4	111
<b>Assets held for sale and in discontinued operations</b>	<b>\$ 155</b>	<b>\$ 4,981</b>
Accounts payable	\$ 49	\$ 1,060
Short-term borrowings and current maturities of long-term borrowings	2	14
Accrued liabilities and other	112	2,425
Long-term borrowings	18	47
Other liabilities, non-current	109	444
<b>Liabilities held for sale and in discontinued operations</b>	<b>\$ 290</b>	<b>\$ 3,990</b>

Included in the table above are the assets and the liabilities held for sale of the Building Systems businesses of approximately \$81 million and \$42 million, respectively, at December 31, 2003. In accordance with SFAS 144, certain Building Systems businesses met the criteria for the classification of assets and liabilities as held for sale, but did not meet the additional criteria for its results of operations to be classified as discontinued operations (see Note 4).

At December 31, 2004 and 2003, the Consolidated Balance Sheets included \$18 million and \$79 million of pledged cash balances, respectively. Approximately \$0 million and \$44 million related to the Company's Reinsurance business and \$0 million and \$8 million related to the Upstream business and, as such, were included in assets held for sale and in discontinued operations in 2004 and 2003, respectively.

(U.S. dollar amounts in millions, except per share amounts)

#### Note 4 Business combinations and other divestments

##### Acquisitions and investments

During 2004, 2003, and 2002, the Company invested \$24 million, \$55 million and \$154 million, in 24, 24 and 32 new businesses, joint ventures or affiliated companies, respectively. The aggregate excess of the purchase price over the fair value of the net assets acquired totaled \$15 million, \$2 million and \$93 million, in 2004, 2003 and 2002, respectively, and has been recorded as goodwill. Assuming these acquisitions had occurred on the first day of the year prior to their purchase, the pro forma Consolidated Income Statements for those years would not have materially differed from reported amounts either on an individual or an aggregate basis.

##### Other divestitures

In addition to the sold businesses described under discontinued operations, the Company periodically divests businesses and investments not considered by management to be aligned with its focus on Power Technologies and Automation Technologies as described in Note 26. The results of operations of these divested businesses are included in the Company's Consolidated Income Statements in the respective line items of income from continuing operations, through the date of disposition.

##### Divestment of Building Systems businesses

In April 2002, the Company decided to dispose of its Building Systems businesses. The gradual disposal process was envisaged to extend over a non-defined period of time preceded by restructurings in several locations. The disposal of the Building Systems businesses contemplated that the Company would retain an involvement in the disposed operations through a combination of technology license agreements, supplier relationships, retention of certain orders and participation on the Board of Directors of some of the disposed companies. As a result of these factors, the Company concluded that classification of the Building Systems businesses as discontinued operations in accordance with SFAS 144 was not appropriate.

In August 2003, the Company completed the sale of its Building Systems businesses located in Sweden, Norway, Denmark, Finland, Russia and the Baltics to YIT Corporation of Helsinki, Finland, for consideration of approximately \$213 million. The Company recognized a net gain on disposal of \$124 million, which is included in other income (expense), net.

During 2003, the Company completed, in a series of transactions, the sale of its Building Systems businesses located in several other countries, principally Belgium, the Netherlands, Austria, and the UK for aggregate proceeds of approximately \$21 million. The Company recognized a net loss on disposal of \$41 million, which is included in other income (expense), net.

In February 2004, the Company completed the sale of its Building Systems business located in Switzerland to CapVis Equity Partners AG, a Swiss private equity company, for a purchase price of approximately \$39 million. The Company retained a 10 percent ownership interest in the sold business and recognized a net gain on disposal of \$12 million, which is included in other income (expense), net.

##### Divestment of Air Handling business

In January 2002, the Company sold its Air Handling business to Global Air Movement (Luxembourg) Sarl for proceeds of \$147 million, including a vendor note of 39 million euro principal value, issued by the purchaser. The Company recognized a net gain on disposal of \$74 million, which is included in other income (expense), net.

##### Other divestitures

In June 2003, the Company sold its interests in certain equity investees in Australia for approximately \$90 million, resulting in a gain on disposal of \$28 million recorded in other income (expense), net.

In June 2003, the Company sold its entire 35 percent interest in Swedish Export Credit Corporation to the Government of Sweden for 1,240 million Swedish krona (\$159 million), resulting in net proceeds of approximately \$149 million and a loss on disposal of \$80 million recorded in other income (expense), net.

In June 2004, the Company sold a business in Sweden, formerly part of the automation technologies division, for \$11 million, resulting in a gain on disposal of \$7 million recorded in other income (expense), net.

In December 2004, the Company sold its entire 15.7 percent interest in IXYS Corporation, Santa Clara, California, mainly to institutional investors, for approximately \$42 million and recorded a gain on disposal of \$20 million in other income (expense), net.

During 2004, 2003 and 2002, the Company sold several operating units and investments, excluding the divestments disclosed above, for total proceeds of \$39 million, \$31 million and \$209 million, respectively, and recognized net gains on disposal of \$13 million, \$12 million and \$24 million, respectively, which are included in other income (expense), net. Revenues and net income from these businesses and investments were not significant in 2004, 2003 and 2002.

#### Note 5 Marketable securities and short-term investments

Marketable securities and short-term investments consist of the following:

December 31,	2004	2003
Available-for-sale securities	\$ 263	\$ 314
Time deposits	247	142
Securities serving as hedges of the Company's management incentive plan (see Note 22)	14	17
<b>Total</b>	<b>\$ 524</b>	<b>\$ 473</b>

(U.S. dollar amounts in millions, except per share amounts)

**Note 5 Marketable securities and short-term investments, continued**

To hedge its exposure to fluctuations in fair value of the Company's warrant appreciation rights (WARs) issued under the Company's management incentive plan, the Company purchases cash-settled call options, which entitle the Company to receive amounts equivalent to its obligations under the outstanding WARs. In accordance with Emerging Issues Task Force No. 00-19 (EITF 00-19), *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*, the cash-settled call options have been recorded as assets measured at fair value, with subsequent changes in fair value recorded through earnings as an offset to the compensation expense recorded in connection with the WARs.

Available-for-sale securities classified as marketable securities consist of the following:

At December 31, 2004:	Cost	Unrealized gains	Unrealized losses	Fair value
<b>Equity securities</b>	<b>\$ 28</b>	<b>\$ 9</b>	<b>\$ -</b>	<b>\$ 37</b>
Debt securities:				
U.S. government obligations	99	-	-	99
European government obligations	30	-	(1)	29
Corporate	59	1	(1)	59
Other	33	6	-	39
<b>Total debt securities</b>	<b>221</b>	<b>7</b>	<b>(2)</b>	<b>226</b>
<b>Total</b>	<b>\$ 249</b>	<b>\$ 16</b>	<b>\$ (2)</b>	<b>\$ 263</b>

At December 31, 2003:	Cost	Unrealized gains	Unrealized losses	Fair value
<b>Equity securities</b>	<b>\$ 76</b>	<b>\$ 25</b>	<b>\$ (1)</b>	<b>\$ 100</b>
Debt securities:				
U.S. government obligations	71	2	(1)	72
European government obligations	29	1	(1)	29
Corporate	5	-	-	5
Other	87	21	-	108
<b>Total debt securities</b>	<b>192</b>	<b>24</b>	<b>(2)</b>	<b>214</b>
<b>Total</b>	<b>\$ 268</b>	<b>\$ 49</b>	<b>\$ (3)</b>	<b>\$ 314</b>

At December 31, 2004, contractual maturities of the above available-for-sale debt securities consist of the following:

	Cost	Fair value
Less than one year	\$ 37	\$ 36
One to five years	99	99
Six to ten years	56	57
Due after ten years	29	34
<b>Total</b>	<b>\$ 221</b>	<b>\$ 226</b>

Gross realized gains on available-for-sale securities were \$85 million, \$8 million and \$11 million in 2004, 2003 and 2002, respectively. The \$85 million gain included a realized gain of \$43 million relating to the non-cash contribution of \$549 million of marketable securities to the Company's German pension plans as described in Note 21. Gross realized losses on available-for-sale securities were \$5 million, \$2 million and \$9 million in 2004, 2003 and 2002, respectively. Additionally, in 2004, 2003 and 2002, the Company recorded charges of \$0 million, \$36 million and \$6 million, respectively, related to the impairment of available-for-sale securities. The charges recorded in 2003 and 2002 are included in interest and other finance expense and other income (expense), net, respectively. In 2003, the Company sold available-for-sale securities in a strategic investment included in investments and other resulting in realized loss of \$40 million, which was recorded in interest and other finance expense.

The following table reflects gross unrealized losses and the fair value of those available-for-sale securities, aggregated by investment category, that at December 31, 2004, have been in a continuous unrealized loss position.

Description of securities:	Securities with unrealized losses for a period less than 12 months		Securities with unrealized losses for a period greater than 12 months	
	Fair value	Unrealized losses	Fair value	Unrealized losses
Corporate obligations	\$ 29	\$ (1)	\$ -	\$ -
European government obligations	-	-	27	(1)
	<b>\$ 29</b>	<b>\$ (1)</b>	<b>\$ 27</b>	<b>\$ (1)</b>

Unrealized losses on equity and debt securities held and classified as available-for-sale are judged to be only temporary based on the creditworthiness of the obligors as it relates to debt securities and as it relates to all corporate securities held, the financial position of the underlying companies, the significance of the unrealized losses relative to the asset cost and the duration that the securities have been in an unrealized loss position.

The net change in unrealized gains and losses in fair values of trading securities was not significant in 2004, 2003 or 2002.

At December 31, 2004 and 2003, the Company pledged \$51 million and \$41 million, respectively, of marketable securities as collateral for issued letters of credit and other security arrangements.

(U.S. dollar amounts in millions, except per share amounts)

## Note 6 Financial instruments

### Cash flow hedges

The Company enters into forward foreign exchange contracts to manage the foreign exchange risk of its operations. To a lesser extent the Company also uses commodity contracts to manage its commodity risks. Where such instruments are designated and qualify as cash flow hedges, the changes in their fair value are recorded in accumulated other comprehensive loss, until the hedged item is recognized in earnings. At such time, the respective amount in accumulated other comprehensive loss is released to earnings and is shown in either revenues or cost of sales consistent with the classification of the earnings impact of the underlying transaction being hedged. Any hedge ineffectiveness is included in revenues and cost of sales but was not significant for 2004 or 2003.

The amount of derivative financial instrument net gains or losses reclassified from accumulated other comprehensive loss to earnings was a net gain of \$31 million (excluding the \$14 million loss described below) and \$58 million in 2004 and 2003, respectively. It is anticipated that during 2005, \$30 million of net gains included in accumulated other comprehensive loss at December 31, 2004, will be reclassified to earnings when the underlying hedged transactions impact earnings. Derivative financial instrument gains and losses reclassified to earnings offset the losses and gains on the items being hedged.

While the Company's cash flow hedges are primarily hedges of exposures over the next twelve months, the amount included in accumulated other comprehensive loss at December 31, 2004 includes hedges of certain exposures maturing up to 2009.

During 2004, the Company reclassified losses of \$14 million from accumulated other comprehensive loss to earnings as a result of the discontinuance of certain cash flow hedges as it became probable that the original forecasted transactions related to these hedges would not occur within the forecasted time period.

### Fair value hedges

To reduce its interest rate and foreign currency exposures arising primarily from its funding activities, the Company uses interest rate and cross-currency swaps. Where such instruments are designated as fair value hedges, the changes in fair value of these instruments, as well as the changes in fair value of the underlying liabilities, are recorded as offsetting gains and losses in the determination of earnings. The hedge ineffectiveness in both 2004 and 2003 resulted in a gain of \$11 million.

### Disclosure about fair values of financial instruments

The Company uses the following methods and assumptions in estimating fair values for financial instruments:

*Cash and equivalents, receivables, accounts payable, short-term borrowings and current maturities of long-term borrowings:* The carrying amounts approximate the fair values.

*Marketable securities and short-term investments:* Fair values of marketable securities are based on quoted market prices, where available. If quoted market prices are not available, fair values are based on quoted market prices of comparable instruments. The carrying amounts of short-term investments approximate the fair values.

*Financing receivables and loans (non-current portion):* Fair values are determined using a discounted cash flow methodology based upon loan rates of similar instruments. The carrying values and estimated fair values of long-term loans granted at December 31, 2004 were \$337 million and \$337 million, respectively, and at December 31, 2003 were \$437 million and \$424 million, respectively.

*Long-term borrowings (non-current portion):* Fair values are based on the present value of future cash flows discounted at estimated borrowing rates for similar debt instruments or in the case of bond or note issuances, using the relevant borrowing rates derived from interest rate swap curves. Such swap curves are composed of interest rates quoted by market participants for the relevant maturities, excluding any component associated with the credit risk of counterparties. As these bonds or note issuances reflect liabilities of the Company, if the Company's credit rating were reflected in these discount rates, the present value calculation would result in a lower fair value liability. The carrying values and estimated fair values of long-term borrowings at December 31, 2004, were \$4,901 million and \$5,533 million, respectively, and at December 31, 2003, were \$6,290 million and \$6,936 million, respectively.

*Derivative financial instruments:* Fair values are the amounts by which the contracts could be settled. These fair values are estimated by using a discounted cash flow methodology based on available market data, option pricing models or by obtaining quotes from brokers. At December 31, 2004 and 2003, the carrying values equal fair values. Current derivative assets are recorded in prepaid expenses and other, and non-current derivative assets are recorded in investments and other. Current derivative liabilities are recorded in accrued liabilities and other, and non-current derivative liabilities are recorded in other liabilities. Current derivative assets and current derivative liabilities in 2003 have been reclassified to conform with the current year's presentation. The fair values are:

December 31,	2004	2003
Derivative assets, current	\$ 374	\$ 398
Derivative assets, non-current	251	287
<b>Total</b>	<b>\$ 625</b>	<b>\$ 685</b>
Derivative liabilities, current	\$ 324	\$ 180
Derivative liabilities, non-current	53	40
<b>Total</b>	<b>\$ 377</b>	<b>\$ 220</b>

(U.S. dollar amounts in millions, except per share amounts)

**Note 7 Receivables**

Receivables consist of the following:

December 31,	2004	2003
Trade receivables	\$ 4,022	\$ 3,647
Other receivables	1,289	1,263
Allowance	(317)	(245)
	<b>4,994</b>	<b>4,665</b>
Unbilled receivables, net:		
Costs and estimated profits in excess of billings	2,257	2,233
Advance payments received	(921)	(849)
	<b>1,336</b>	<b>1,384</b>
<b>Total</b>	<b>\$ 6,330</b>	<b>\$ 6,049</b>

Trade receivables include contractual retention amounts billed to customers of \$124 million and \$101 million at December 31, 2004 and 2003, respectively. Management expects the majority of related contracts will be completed and substantially all of the billed amounts retained by the customer will be collected within one year of the respective balance sheet date. Other receivables consist of value added tax, claims, employee and customer related advances, the current portion of direct finance and sales-type leases and other non-trade receivables, including the retained interests on sold receivables under the Company's securitization programs.

Costs and estimated profits in excess of billings represent sales earned and recognized under the percentage-of-completion method. Amounts are expected to be collected within one year of the respective balance sheet date.

During 2004 and 2003, the Company sold trade receivables to two separate QSPes, unrelated to the Company, in revolving-period securitizations. The Company retains servicing responsibility relating to the sold receivables. Solely for the purpose of credit enhancement from the perspective of the QSPes, the Company retains an interest in the sold receivables (retained interests). These retained interests are initially measured at estimated fair values, which the Company believes approximate historical carrying values, and are subsequently measured based on a periodic evaluation of collections and delinquencies.

Given the short-term, lower-risk nature of the assets securitized, market movements in interest rates would not significantly impact the carrying value of the Company's retained interests. An adverse movement in foreign currency rates could have an impact on the carrying value of these retained interests as the retained interests are denominated in the original currencies underlying the sold receivables. While such remeasurements are recognized in earnings, the impact has historically not been significant due to the short-term nature of the receivables and economic hedges in place relating to foreign currency movement risk.

The Company routinely evaluates its portfolio of trade receivables for risk of non-collection and records an allowance for doubtful debts to reflect the carrying value of its trade receivables at estimated net realizable value. Pursuant to the requirements of the revolving-period securitizations through which the Company securitizes certain of its trade receivables, the Company effectively bears the risk of potential delinquency or default associated with trade receivables sold up to the amount of its retained interest relating to the relevant securitization program. Accordingly, in the normal course of servicing the assets sold, the Company evaluates potential collection losses and delinquencies and updates the estimated fair value of the Company's retained interests. An increase in delinquency rates compared to historic levels would cause an increase in the retained interest. Ultimately, if the customer defaults, the Company will be responsible for absorbing the amount. The fair value of the retained interests at December 31, 2004 and 2003, was approximately \$349 million and \$367 million, respectively.

In accordance with SFAS 140, the Company has not recorded a servicing asset or liability as management believes it is not practicable to estimate this value given that verifiable data as to the fair value of the compensation and/or cost related to servicing the types of the assets sold are not readily obtainable nor reliably estimable for the multiple geographic markets in which the entities selling receivables operate.

During 2004, 2003 and 2002, the following cash flows were received from and paid to QSPes:

December 31,	2004	2003	2002
Gross trade receivables sold to QSPes (\$25, \$505 and \$832) <sup>(1)</sup>	\$ 5,846	\$ 5,661	\$ 5,972
Collections made on behalf of and paid to QSPes (\$(23), \$(696) and \$(753)) <sup>(1)</sup>	(5,713)	(5,883)	(6,074)
Purchaser, liquidity and program fees (\$0, \$(2) and \$(5)) <sup>(1)</sup>	(20)	(21)	(37)
Decrease (increase) in retained interests (\$0, \$117 and \$(87)) <sup>(1)</sup>	17	124	(245)
<b>Net cash received from (paid to) QSPes during the year (\$2, \$(76) and \$(13))<sup>(1)</sup></b>	<b>\$ 130</b>	<b>\$ (119)</b>	<b>\$ (384)</b>

<sup>(1)</sup> Related to assets held for sale and in discontinued operations for 2004, 2003 and 2002, respectively

Net cash settlements on the Company's programs take place twice per month. However, in one of the programs there is, in addition, the daily transfer of collections of sold receivables. Under the terms of the latter program, if the Company's rating falls below BB+ (Standard & Poor's) or Ba3 (Moody's) then the Company may be required to relinquish its right to collect the sold receivables on behalf of the QSPe, and instead the cash collection of such sold receivables would be made directly to the account of the QSPe.

The Company records a loss on sale at the time of sale of the receivables to the QSPes and subsequently records purchaser's, liquidity and program fees. The total cost of \$20 million, \$21 million and \$37 million in 2004, 2003 and 2002, respectively, related to the securitization of trade receivables, is included in interest and other finance expense.

(U.S. dollar amounts in millions, except per share amounts)

#### Note 7 Receivables, continued

The increase in gross trade receivables sold in 2004 compared to 2003 is due primarily to an increase in the programs' size, a change in the definition of receivables eligible to be sold in one program and the addition of new sellers to one of the programs. The decrease in gross receivables sold in 2003 compared to 2002 is due primarily to the fact that businesses which were either classified as discontinued operations or which were sold by the Company were phased out of the securitization programs during the year.

The following table reconciles total gross receivables to the amounts in the Consolidated Balance Sheets after the effects of securitization at December 31, 2004 and 2003:

December 31,	2004	2003
Total trade receivables	\$ 5,132	\$ 4,784
Portion derecognized	(710)	(508)
Retained interests included in other receivables	(373)	(390)
<b>Trade receivables</b>	<b>4,049</b>	<b>3,886</b>
Less: Trade receivables included in assets held for sale and in discontinued operations	(27)	(239)
<b>Trade receivables – continuing operations</b>	<b>\$ 4,022</b>	<b>\$ 3,647</b>

The increase in the portion derecognized at December 31, 2004, compared to December 31, 2003, is due primarily to an increase in the programs' size, a change in the definition of receivables eligible to be sold in one program and the addition of new sellers to one of the programs.

At December 31, 2004 and 2003, of the gross trade receivables sold, the total trade receivables for which cash has not been collected at those dates amounted to \$1,083 million and \$898 million, respectively. At December 31, 2004 and 2003, an amount of \$54 million and \$34 million, respectively, was more than 90 days past due which is considered delinquent pursuant to the terms of the programs.

In addition, the Company transfers receivables outside of the above described securitization programs. These transfers were sales, made without recourse, directly to banks and/or sales pursuant to factoring or similar type arrangements. Total sold receivables included in these transactions during 2004 and 2003 were approximately \$902 million and \$1,400 million, respectively, of which sales of \$159 million and \$594 million, respectively, related to assets held for sale and in discontinued operations. During 2004 and 2003, the related costs, including the associated gains and losses, were \$10 million and \$12 million, respectively, of which costs of \$1 million and \$3 million, respectively, related to assets held for sale and in discontinued operations.

#### Note 8 Variable interest entities

##### The following VIEs are consolidated, as the Company is the primary beneficiary as defined by FIN 46R.

In March 2003, the Company sold its aircraft-leasing portfolio in Sweden to a third party. Subsequent to divestment, the Company continued its involvement in this business by providing significant financial support in the form of mezzanine and subordinated financing of approximately \$90 million to the VIE formed by the buyer upon acquisition, exclusively for the purpose of servicing the aircraft leasing portfolio. As the primary beneficiary of the VIE, the Company retained approximately \$148 million of assets and acquired approximately \$84 million of third party long-term borrowings provided to the VIE at December 31, 2004. All of the VIE's assets serve as collateral for the senior debt provided by third parties. The Company has no ownership interest and there is no recourse to the general credit of the Company.

The Company also has interests in other VIEs which are consolidated as the Company is considered the primary beneficiary. These VIEs are immaterial both individually and in the aggregate.

##### The following VIEs are not consolidated, as the Company is not the primary beneficiary as defined by FIN 46R.

The Company maintains a combined equity and financing interest of approximately \$354 million in six VIEs that were established as joint ventures to develop power plants in various countries. The Company's involvement with these VIEs began between 1995 and 2000 at the dates of inception of the VIEs. The purpose of the VIEs is to contract the engineering, procurement, commissioning and financing of the power plants. At and for the year ended December 31, 2004, these VIEs have combined total assets of approximately \$2,920 million and reported combined total revenues and earnings before interest and taxes of \$749 million and \$308 million, respectively. The exposure to loss as a result of involvement with the VIEs is limited to the Company's equity and financing interests.

The Company maintains a 50 percent equity interest in two VIEs that were established to build four transmission power lines and 22 substations in Mexico. The equity interests are not significant in value. The Company's involvement with these VIEs began in September and November 1997, respectively, when the VIEs were formed. The purpose of the VIEs is to contract the engineering, procurement, commissioning and financing of these projects. At and for the year ended December 31, 2004, these VIEs have total assets of approximately \$85 million, and reported insignificant combined total revenues and earnings before interest and taxes. The exposure to loss as a result of involvement with the VIEs is limited to the Company's equity interest.

The Company maintains a combined equity and financing interest of \$8 million in two VIEs that were established to execute a project in London, England. One VIE was established to serve as a consortium among two third parties and the Company. The purpose of this VIE is to operate, maintain and finance the power distribution project. The second VIE is the financing vehicle for the project. The Company's involvement began at the inception of these VIEs in August 1998. At and for the year ended December 31, 2004, these VIEs have total assets of approximately \$449 million and reported combined total revenues and earnings before interest and taxes of \$125 million and \$18 million, respectively. The Company's exposure to loss as a result of involvement with the VIEs is limited to the Company's equity and financing interest.

(U.S. dollar amounts in millions, except per share amounts)

**Note 8 Variable interest entities, continued**

The Company has an equity interest of approximately \$0.4 million in four VIEs that were established for developing, holding and leasing real estate in Germany. The Company's involvement with these VIEs began when they were established in 1993 and 1995, respectively. At and for the year ended December 31, 2004, these VIEs have total assets of approximately \$102 million and earnings before interest and taxes of the VIEs is approximately break-even. The Company's exposure to loss as a result of involvement with the VIEs is limited to the Company's equity interest.

The Company also has interests in other VIEs which are not consolidated as the Company is not considered the primary beneficiary. These VIEs are immaterial both individually and in the aggregate.

**Note 9 Inventories**

Inventories, including inventories related to long-term contracts, consist of the following:

December 31,	2004	2003
Commercial inventories, net:		
Raw materials	\$ 1,260	\$ 1,082
Work in process	1,215	1,129
Finished goods	395	371
	<b>2,870</b>	<b>2,582</b>
Contract inventories, net:		
Inventoried costs	395	426
Contract costs subject to future negotiation	20	29
Advance payments received related to contracts	(308)	(366)
	<b>107</b>	<b>89</b>
<b>Total</b>	<b>\$ 2,977</b>	<b>\$ 2,671</b>

Contract costs subject to future negotiation are deemed probable of recovery through changes in the contract price and are deferred until the parties have agreed on these changes.

**Note 10 Prepaid expenses and other**

Prepaid expenses and other current assets consist of the following:

December 31,	2004	2003
Prepaid expenses	\$ 194	\$ 209
Interest receivable	143	224
Deferred taxes	670	579
Advances to suppliers and contractors	227	226
Derivatives	374	398
Income tax receivable	80	158
<b>Total</b>	<b>\$ 1,688</b>	<b>\$ 1,794</b>

**Note 11 Financing receivables**

Financing receivables consist of the following:

December 31,	2004	2003
Loans receivable	\$ 337	\$ 437
Finance leases (see Note 17)	362	425
Other	534	510
<b>Total</b>	<b>\$ 1,233</b>	<b>\$ 1,372</b>

Loans receivable primarily represent financing arrangements provided to customers under long-term construction contracts and other activities, including financing relating to a divestment in 2002 as described in Note 4.

Included in finance leases at December 31, 2004 and 2003, are \$7 million and \$8 million, respectively, of assets pledged as security for other liabilities. Additionally, \$204 million and \$246 million of finance lease receivables were pledged as security for long-term borrowings at December 31, 2004 and 2003, respectively.

Other financing receivables at December 31, 2004 and 2003, include \$314 million and \$312 million, respectively, of assets pledged as security for other liabilities. Of these amounts, \$58 million and \$54 million, respectively, are marketable securities.

During 2004 and 2003, the Company sold or transferred to financial institutions various portfolios and individual financing receivables (see Note 17). These transfers included sales of finance lease receivables and loan receivables. Financing receivables sold or transferred and derecognized from the Consolidated Balance Sheets in accordance with SFAS 140 totaled \$57 million and \$338 million in 2004 and 2003, respectively.

(U.S. dollar amounts in millions, except per share amounts)

**Note 12 Property, plant and equipment**

Property, plant and equipment consist of the following:

December 31,	2004	2003
Land and buildings	\$ 2,684	\$ 2,518
Machinery and equipment	4,946	4,627
Construction in progress	121	105
	<b>7,751</b>	<b>7,250</b>
Accumulated depreciation	(4,770)	(4,392)
<b>Total</b>	<b>\$ 2,981</b>	<b>\$ 2,858</b>

At December 31, 2004 and 2003, the Company had \$85 million and \$150 million, respectively, of property, plant and equipment pledged as security or collateral for certain liabilities or other obligations of the Company.

**Note 13 Goodwill and other intangible assets**

The changes in the carrying amount of goodwill for the year ended December 31, 2004, are as follows:

	Automation Technologies	Power Technologies	Non-core activities	Corporate/ Other	Total
Balance at January 1, 2004	\$ 1,816	\$ 439	\$ 201	\$ 72	\$ 2,528
Goodwill acquired during the year	15	-	-	-	15
Goodwill written off related to sale of businesses	(3)	(2)	(4)	(12)	(21)
Other	-	(4)	10	-	6
Reallocations	(86)	116	9	(39)	-
Foreign currency translation	53	12	9	-	74
<b>Balance at December 31, 2004</b>	<b>\$ 1,795</b>	<b>\$ 561</b>	<b>\$ 225</b>	<b>\$ 21</b>	<b>\$ 2,602</b>

The changes in the carrying amount of goodwill for the year ended December 31, 2003, are as follows:

	Automation Technologies	Power Technologies	Non-core activities	Corporate/ Other	Total
Balance at January 1, 2003	\$ 1,732	\$ 427	\$ 180	\$ 58	\$ 2,397
Goodwill acquired during the year	1	1	-	-	2
Impairment losses	-	-	-	(2)	(2)
Goodwill written off related to sale of businesses	-	-	(2)	(1)	(3)
Other	(4)	-	-	-	(4)
Reallocations	1	-	(10)	9	-
Foreign currency translation	86	11	33	8	138
<b>Balance at December 31, 2003</b>	<b>\$ 1,816</b>	<b>\$ 439</b>	<b>\$ 201</b>	<b>\$ 72</b>	<b>\$ 2,528</b>

The Company's presentation of goodwill by division has been corrected and restated for all periods presented to adjust amounts of goodwill related to Automation Technologies previously reflected under Non-core activities. Such goodwill was tested for impairment in 2004, 2003 and 2002, as a component of the Company's Automation Technologies division. At December 31, 2004 and 2003, the \$225 million and the \$201 million of goodwill, respectively, in Non-core activities was principally related to the Company's remaining Oil, Gas and Petrochemicals business. The reallocations in the table above relate to Company internal reorganizations. During 2004, the reallocations are principally due to the Substation Automation business formerly in the Automation Technologies division that was integrated in to the Power Technologies division. The goodwill reallocated for the Substation Automation business was \$107 million based on fair value. During 2004, the Company also reallocated goodwill from the Corporate/Other division to the Automation Technologies and Power Technologies division as the expected benefit of goodwill resides in these divisions.

Other intangible assets consist of the following:

December 31,	2004			2003		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Capitalized software	\$ 818	\$ (537)	\$ 281	\$ 804	\$ (454)	\$ 350
Other	595	(383)	212	586	(335)	251
<b>Total</b>	<b>\$ 1,413</b>	<b>\$ (920)</b>	<b>\$ 493</b>	<b>\$ 1,390</b>	<b>\$ (789)</b>	<b>\$ 601</b>

Amortization expense of intangible assets for 2004 and 2003 amounted to \$212 million and \$177 million, respectively.

(U.S. dollar amounts in millions, except per share amounts)

**Note 13 Goodwill and other intangible assets, continued**

Amortization expense of intangible assets is estimated to be as follows: <sup>(1)</sup>

2005	\$ 138
2006	\$ 123
2007	\$ 114
2008	\$ 76
2009	\$ 18
Thereafter	\$ 13

<sup>(1)</sup> The estimated amortization expense is calculated as if no future expenditures would be made.

In 2004 and 2003, the Company did not identify any intangible assets not subject to amortization with the exception of \$11 million and \$2 million, respectively, related to an intangible pension asset (see Note 21).

Other intangible assets primarily include intangibles created through acquisitions, such as trademarks and patents.

For the years ended December 31, 2004 and 2003, the Company acquired intangible assets of \$75 million (\$65 million of software and \$10 million of other intangible assets) and \$92 million (\$85 million of software and \$7 million of other intangible assets), respectively. For items capitalized in 2004 and 2003, amortization expense is calculated using a weighted-average life of 4 years for capitalized software and of 5 years for other intangible assets.

The Company recorded impairment charges to intangible assets of \$3 million, \$11 million and \$25 million, in 2004, 2003 and 2002, respectively, related to software developed for internal use. These charges are included in other income (expense), net, in the Consolidated Income Statements.

**Note 14 Equity accounted companies**

The Company recorded earnings of \$87 million, \$96 million and \$220 million in 2004, 2003 and 2002, respectively, in investments and other, and other income (expense), net, representing the Company's share of the pre-tax earnings of investees accounted for under the equity method of accounting. The Company has recorded, at December 31, 2004, and 2003, \$596 million and \$642 million, respectively, in investments and other, representing the Company's investment in these equity investees. Significant companies accounted for using the equity method of accounting included: Jorf Lasfar Energy Company S.C.A. (JLEC), Morocco (the Company owns 50 percent) and Swedish Export Credit Corporation (SECC), Sweden (the Company owned 35.4 percent). In June 2003, the Company sold its entire interest in SECC to the Government of Sweden.

	Investment balance 2004	Investment balance 2003	The Company's share of the pre-tax earnings of equity-accounted investees		
			2004	2003	2002
JLEC	\$ 356	\$ 372	\$ 68	\$ 62	\$ 73
SECC	-	-	-	13	125
Other <sup>(1)</sup>	240	270	19	21	22
<b>Total</b>	<b>\$ 596</b>	<b>\$ 642</b>	<b>\$ 87</b>	<b>\$ 96</b>	<b>\$ 220</b>
Less: Current income tax expense			(8)	(7)	(49)
<b>The Company's share of earnings of equity-accounted investees</b>			<b>\$ 79</b>	<b>\$ 89</b>	<b>\$ 171</b>

<sup>(1)</sup> Encompasses additional investments, none of which are individually significant.

As reflected in its audited financial statements, SECC's total net income for the year ended December 31, 2002, was \$254 million.

The following table represents selected financial information for JLEC and not the Company's share in this equity accounted company.

	2004	2003	2002
Total current assets	\$ 316	\$ 281	\$ 239
Total non-current assets	\$ 1,147	\$ 1,162	\$ 1,124
Total current liabilities	\$ 274	\$ 317	\$ 262
Total non-current liabilities	\$ 572	\$ 613	\$ 622
Total shareholders' equity	\$ 617	\$ 513	\$ 479
Revenues	\$ 462	\$ 369	\$ 364
Income before taxes	\$ 133	\$ 122	\$ 143
Net income	\$ 125	\$ 120	\$ 132

As security for repayment by JLEC of certain of its loans, the Company, JLEC and the other 50 percent shareholder in JLEC have entered into various pledge agreements with several banks and other secured parties. The Company has pledged all of its shares, claims, rights and interest in JLEC in accordance with the pledge agreements. Such security shall continue in effect until the repayment in full of all outstanding principal and interest and other fees, which is scheduled to occur in February 2013.

(U.S. dollar amounts in millions, except per share amounts)

**Note 14 Equity accounted companies, continued**

The Company has entered into other similar pledge agreements for certain other equity accounted for companies. The Company has also granted lines of credit and has committed to provide additional capital for certain equity accounted companies. At December 31, 2004, the total unused lines of credit amounted to \$78 million and the capital commitments amounted to \$24 million.

The Company's 2004 Consolidated Financial Statements include the following aggregate amounts related to transactions with equity accounted investees and other related parties, including related party transactions that are recorded in loss from discontinued operations, net of tax, and assets and liabilities held for sale and in discontinued operations:

	2004	2003
Revenues	\$ 57	\$ 99
Receivables	\$ 11	\$ 105
Other current assets	\$ 13	\$ 23
Financing receivables, non-current	\$ 45	\$ 22
Payables	\$ 1	\$ 6
Other current liabilities	\$ 1	\$ 4
Short-term borrowings	\$ 18	\$ 32
Non-current liabilities	\$ 4	\$ 2
Long-term borrowings	\$ -	\$ 48

**Note 15 Borrowings**

The Company's total borrowings at December 31, 2004 and 2003, were \$5,534 million and \$7,934 million, respectively.

**Short-term borrowings**

The Company's short-term borrowings consist of the following:

December 31,	2004	2003
Other short-term borrowings (weighted-average interest rate of 6.6% and 3.7%)	\$ 184	\$ 293
Current portion of long-term borrowings (weighted-average interest rate of 3.9% and 4.9%)	449	1,351
<b>Total</b>	<b>\$ 633</b>	<b>\$ 1,644</b>

Other short-term borrowings primarily represent short-term loans from various banks.

On November 17, 2003, the Company entered into an unsecured syndicated \$1.0 billion three-year revolving credit facility, which became available in December 2003 after the fulfillment of certain conditions, including the repayment and cancellation of the previous facility and the raising of a specified minimum level of gross proceeds from the rights issue (see Note 23) and from the euro denominated bonds issued in November 2003.

In November 2004, the facility was amended. The amendments included a reduction in the level of commitment fees and the removal of restrictions on the Company to redeem early capital market instruments, such as bonds, having a maturity date beyond that of the facility.

No amount was drawn under the facility at December 31, 2004 and 2003. The interest costs of borrowings under the facility are LIBOR (or EURIBOR in the case of drawings in euro) plus 0.8 percent to 2.25 percent, depending on the Company's senior unsecured long-term debt rating. Commitment fees are paid on the unused portion of the facility and a utilization fee is payable when borrowings are equal to or greater than 33 percent of the facility; the level of these fees is linked to the ratings of the Company's senior unsecured long-term debt.

The facility contains certain financial covenants in respect of minimum interest coverage, maximum net leverage and a minimum level of consolidated net worth. The Company is required to meet these covenants on a quarterly basis. Should the Company's senior unsecured long-term debt ratings reach certain defined levels, these covenants will only have to be calculated at June and December of each year. The facility also contains provisions for the mandatory prepayment and cancellation of the facility upon a change of control of the Company.

The facility imposes restrictions on the amount of third party indebtedness in subsidiaries other than in the obligors under the facility, subject to certain exceptions. The facility also contains certain other undertakings including limitations on disposals of assets, restrictions on mergers and acquisitions and negative pledges.

The facility contains cross-default clauses whereby an event of default would occur if the Company were to default on indebtedness, as defined in the facility, at or above a specified threshold.

**Long-term borrowings**

The Company utilizes a variety of derivative products to modify the characteristics of its long-term borrowings. The Company uses interest rate swaps to effectively convert certain fixed-rate long-term borrowings into floating rate obligations. For certain non-U.S. dollar denominated borrowings, the Company utilizes cross-currency swaps to effectively convert the borrowings into U.S. dollar obligations. As required by SFAS133, borrowings designated as being hedged by fair value hedges are stated at their fair values.

(U.S. dollar amounts in millions, except per share amounts)

#### Note 15 Borrowings, continued

The following table summarizes the Company's long-term borrowings considering the effect of interest rate and currency swaps. Consequently, a fixed rate borrowing subject to a fixed-to-floating interest rate swap is included as a floating rate borrowing in the table below:

	December 31, 2004			December 31, 2003		
	Balance	Nominal rate	Effective rate	Balance	Nominal rate	Effective rate
Floating rate	\$ 1,950	8.2%	5.8%	\$ 4,241	5.9%	3.2%
Fixed rate	1,625	5.1%	5.5%	1,754	5.8%	5.8%
Convertible bonds	1,775	4.1%	4.1%	1,646	4.1%	4.1%
	<b>5,350</b>			<b>7,641</b>		
Current portion of long-term borrowings	(449)	3.9%	1.6%	(1,351)	4.9%	1.8%
<b>Total</b>	<b>\$ 4,901</b>			<b>\$ 6,290</b>		

At December 31, 2004, maturities of long-term borrowings were as follows:

Due in 2005	\$ 449
Due in 2006	92
Due in 2007	948
Due in 2008	986
Due in 2009	868
Thereafter	2,007
<b>Total</b>	<b>\$ 5,350</b>

#### Bond repurchases

During the first six months of 2004, through open market repurchases, the Company repurchased a portion of its public bonds with a total equivalent face value of \$458 million. These repurchases included 107 million euro (approximately \$131 million) of the 475 million euro 5.125 percent bonds due 2006, and 26,500 million Japanese yen (approximately \$243 million) of the 50,000 million Japanese yen 0.5 percent bonds due 2005. The 26,500 million Japanese yen bonds and the 107 million euro bonds were subsequently cancelled at the end of July 2004 and mid-September 2004, respectively. During the second half of 2004, a further 6,075 million Japanese yen 0.5 percent bonds (approximately \$55 million) were repurchased on the open market and were not cancelled. As a result of the repurchases of these Japanese yen bonds, the total principal amount outstanding at December 31, 2004, was 17,425 million Japanese yen (approximately \$171 million), which is included in floating rate borrowings in the table of long-term borrowings above. The open market repurchases resulted in a gain on extinguishments of debt of approximately \$6 million. During 2003, the Company repurchased outstanding bonds with a face value of \$94 million and recorded an insignificant gain on extinguishments of debt in connection with the repurchases.

On July 29, 2004, the Company announced tender offers to repurchase all of the outstanding 300 million euro 5.375 percent bonds due 2005 and 475 million euro 5.125 percent bonds due 2006, being approximately 275 million euro and approximately 368 million euro, respectively. In conjunction with the tender offers, the Company convened bondholders' meetings to vote on amendments to these bonds to allow the Company to call and redeem those bonds that were not tendered under the respective tender offer. Bonds validly tendered and accepted under the tender offers were settled on September 14, 2004. On September 9, 2004, bondholders approved the resolutions, which gave the Company the option to redeem the outstanding instruments. The Company exercised its option to redeem early the remaining outstanding 2005 and 2006 bonds that were not tendered and set the redemption date as September 29, 2004. The open market repurchases, combined with the tender offers and calls, resulted in a decrease in total borrowings during 2004 of \$1,330 million. At December 31, 2003, the bonds tendered and called in 2004 were included as floating rate borrowings in the table of long-term borrowings above.

#### Bond issuances

The Company did not issue any bonds during 2004.

In November 2003, the Company issued bonds of an aggregate principal amount of 650 million euro, or approximately \$769 million at issuance, due 2011. These bonds pay interest semi-annually in arrears at a fixed annual rate of 6.5 percent and are included as fixed rate borrowings in the table of long-term borrowings above. In the event of a change of control of the Company, the terms of the bonds require the Company to offer to repurchase the bonds at 101 percent of the principal amount thereof, plus any accrued interest.

In September 2003, the Company issued convertible unsubordinated bonds of an aggregate principal amount of 1,000 million Swiss francs, or approximately \$722 million at issuance, due 2010. The bonds pay interest annually in arrears at a fixed annual rate of 3.5 percent. On issuance, each 5,000 Swiss francs of principal amount of bonds was convertible into 418.41004 fully paid ordinary shares of the Company at an initial conversion price of 11.95 Swiss francs. The conversion price is subject to adjustment provisions to protect against dilution or change in control. As a result of the decision at the extraordinary general meeting of shareholders on November 20, 2003, to increase the share capital of the Company by issuing a further 840,006,602 shares, the conversion price and conversion ratio of the bonds were adjusted to 9.53 Swiss francs and 524.65897 shares respectively, effective December 12, 2003, representing a total of 104,931,794 shares if the bonds were fully converted.

#### Note 15 Borrowings, continued

The bonds are convertible at the option of the bondholder at any time from October 21, 2003 up to and including the tenth business day prior to September 10, 2010. The Company may at any time on or after September 10, 2007 redeem the outstanding bonds at par plus accrued interest if, for a certain number of days during a specified period of time, the official closing price of the Company's ordinary shares on the relevant exchange has been at least 150 percent of the conversion price. In addition, at any time prior to maturity, the Company can redeem the outstanding bonds at par plus accrued interest, if at least 85 percent in aggregate of the principal amount of bonds originally issued have been redeemed, converted or purchased and cancelled. The Company has the option to redeem the bonds when due in cash, ordinary shares or any combination thereof.

In May 2002, the Company issued \$968 million aggregate principal amount of convertible unsubordinated bonds due 2007. The bonds pay interest semi-annually in arrears at a fixed annual rate of 4.625 percent. The bonds were initially convertible into 84,940,935 fully paid ordinary shares of the Company at an initial conversion price of 18.48 Swiss francs (converted into U.S. dollars at a fixed conversion rate of 1.6216 Swiss francs per U.S. dollar). The conversion price is subject to adjustment provisions to protect against dilution or change in control. As a result of the rights issue and resulting increase in the share capital of the Company, the conversion price of the bonds was adjusted, effective November 21, 2003, to 14.64 Swiss francs (converted into U.S. dollars at the fixed exchange rate of 1.6216 Swiss francs per U.S. dollar), representing a total of 107,220,546 shares if the bonds were fully converted. As a result of an amendment to the bonds in May 2004, described below, the conversion price of the bonds was amended to \$9.03, representing a total of 107,198,228 shares if the bonds were fully converted.

The \$968 million bonds are convertible at the option of the bondholder at any time from June 26, 2002 up to and including May 2, 2007. The Company may, at any time on or after May 16, 2005, redeem the outstanding bonds at par plus accrued interest if (1) for a certain number of days during a specified period of time, the official closing price of the Company's American Depositary Shares on the New York Stock Exchange exceeds 170 percent of the conversion price, or (2) at least 85 percent in aggregate principal amount of bonds originally issued have been exchanged, redeemed or purchased and cancelled. The Company has the option to redeem the bonds when due in cash, American Depositary Shares or any combination thereof.

Under SFAS 133, a component of these convertible bonds had to be accounted for as an embedded derivative as the shares to be issued upon conversion were denominated in Swiss francs, while the bonds are denominated in U.S. dollars. A portion of the issuance proceeds was deemed to relate to the value of the derivative on issuance and subsequent changes in value of the derivative were recorded through earnings and as an adjustment to the carrying value of the bonds. The allocation of a portion of the proceeds to the derivative created a discount on issuance, which was being amortized to earnings over the life of the bonds. On May 28, 2004, bondholders voted in favor of the Company's proposed amendment to the terms of the bonds whereby, if the bonds are converted, the Company will deliver U.S. dollar-denominated American Depositary Shares rather than Swiss franc-denominated ordinary shares. The conversion price was set at \$9.03. As a result of the amendment, the Company was no longer required to account for a portion of the bonds as a derivative. Consequently, on May 28, 2004, the value of the derivative was fixed and the amount previously accounted for separately as an embedded derivative was considered to be a component of the carrying value of the bonds at that date. This carrying value is being accreted to the \$968 million par value of the bonds as an expense in interest and other finance expense over the remaining life of the bonds.

As to the embedded derivative, the Company recorded an expense of \$16 million from the increase in fair value of the derivative from January 1, 2004, up to the date of the bond amendment, related among other factors, to the increase in the Company's share price since December 31, 2003. When added to the accretion of the discount on the bonds for 2004 of \$36 million, this resulted in aggregate expense of \$52 million in 2004, reflected in interest and other finance expense and a corresponding increase in borrowings when compared to December 31, 2003. As a result of an increase in fair value of the derivative (related among other factors, to the increase in the Company's share price since December 31, 2002), combined with the accretion of the discount on issuance, there was a charge to interest and other finance expense of \$84 million in 2003, and a corresponding increase in long-term borrowings at December 31, 2003, when compared to December 31, 2002. Through December 31, 2002, primarily as a result of the decline in the Company's share price since issuance of the bonds, the Company recorded a gain from the change in fair value of the derivative, partially offset by amortization of effective discount, resulting in a net decrease to interest and other finance expense of \$215 million.

In May 2002, the Company issued bonds due in 2009 with an aggregate principal amount of 200 million pounds sterling, or approximately \$292 million at the time of issuance, which pay interest semi-annually in arrears at 10 percent per annum. The Company also issued in May 2002 bonds due in 2008 with an aggregate principal amount of 500 million euro, or approximately \$466 million at the time of issuance, which pay interest annually in arrears at 9.5 percent per annum.

The 200 million pounds sterling bonds and the 500 million euro bonds contain certain clauses linking the interest paid on the bonds to the credit rating assigned to the bonds. If the rating assigned to these bonds by both Moody's and Standard & Poor's remains at or above Baa3 and BBB-, respectively, then the interest rate on the bonds remains at the level at issuance, that is 10 percent and 9.5 percent for the sterling and euro bonds, respectively. If the rating assigned by either Moody's or Standard & Poor's decreases below Baa3 or BBB-, respectively, then the annual interest rate on the bonds increases by 1.5 percent per annum to 11.5 percent and 11 percent for the sterling and euro bonds, respectively. If after such a rating decrease, the rating assigned by both Moody's and Standard & Poor's returns to a level at or above Baa3 and BBB-, respectively, then the interest rates on the bonds return to the interest level at issuance. As a result of the downgrade of the Company's long-term credit rating by Moody's to Ba2 on October 31, 2002, this step-up clause in interest was triggered on both bonds. The increase in interest costs is effective for interest periods beginning after the payment of the coupon accruing at the date of the downgrade.

In line with the Company's policy of reducing its interest and currency exposure, a cross-currency swap has been used to modify the characteristics of the 200 million pounds sterling bonds and an interest rate swap has been used to modify the 500 million euro bonds. After considering the impact of the cross-currency and interest rate swaps, the 200 million pounds sterling bonds effectively became a floating rate U.S. dollar obligation, while the 500 million euro bonds became a floating rate euro obligation. In both cases, the floating rate resets every three months. Accordingly, both the 200 million pounds sterling bonds and the 500 million euro bonds are included as "floating rate" in the table of long-term borrowings above.

In September 1999, the Company issued bonds of an aggregate principal amount of 500 million Swiss francs, or approximately \$334 million at issuance, due 2009. These bonds pay interest annually in arrears at a fixed annual rate of 3.75 percent and are included in fixed rate borrowings in the table of long-term borrowings above.

(U.S. dollar amounts in millions, except per share amounts)

**Note 15 Borrowings, continued**

Almost all of the Company's publicly traded bonds contain cross-default clauses which would allow the bondholders to demand repayment if the Company were to default on any borrowing at or above a specified threshold.

In addition to the publicly issued bonds described above, included in long-term borrowings at December 31, 2004 and 2003, are private placements, lease obligations, bank borrowings of subsidiaries, obligations in the Company's remaining Structured Finance business and other long-term borrowings.

**Note 16 Accrued liabilities and other**

Accrued liabilities and other consists of the following:

December 31,	2004	2003
Asbestos and related costs (see Note 18)	\$ 1,023	\$ 815
Contract related reserves	460	531
Provisions for restructuring	169	276
Provisions for warranties and contract penalties	741	580
Derivatives	324	180
Employee benefit costs	77	112
Taxes payable	369	434
Deferred taxes	200	188
Accrued personnel costs	750	723
Interest	177	306
Advances from customers	931	729
Other liabilities	1,215	1,083
<b>Total</b>	<b>\$ 6,436</b>	<b>\$ 5,957</b>

Advance from customers in 2003 have been reclassified from other liabilities to conform with the current year's presentation.

**Note 17 Leases**

**Lease obligations**

The Company's lease obligations primarily relate to real estate and office equipment. In the normal course of business, management expects most leases to be renewed or replaced by other leases. Minimum rent expense under operating leases included in the income from continuing operations was \$371 million, \$392 million and \$340 million in 2004, 2003 and 2002, respectively. The sub-lease income received by the Company was \$33 million, \$18 million and \$14 million in 2004, 2003 and 2002, respectively.

At December 31, 2004, future net minimum lease payments for operating leases having initial or remaining non-cancelable lease terms in excess of one year consist of the following:

2005	\$ 347
2006	299
2007	237
2008	206
2009	183
Thereafter	652
	<b>1,924</b>
Sublease income	(128)
<b>Total</b>	<b>\$ 1,796</b>

**Investments in leases**

The Company retained some leasing assets including investments in sales-type leases, leveraged leases and direct financing leases that are included in financing receivables (see Note 11), subsequent to the divestment of most of its Structured Finance business to GE in November 2002 (see Note 3).

(U.S. dollar amounts in millions, except per share amounts)

**Note 17 Leases, continued**

The Company's non-current investments in direct financing, sales-type and leveraged leases, including \$37 million and \$54 million in 2004 and 2003, respectively, of net investments in an aircraft leasing portfolio, reported by a VIE in Sweden (see Note 8), consist of the following:

December 31,	2004	2003
Minimum lease payments receivable	\$ 388	\$ 464
Unearned income	(54)	(64)
	<b>334</b>	<b>400</b>
Leveraged leases	64	61
	<b>398</b>	<b>461</b>
Current portion	(36)	(36)
<b>Total</b>	<b>\$ 362</b>	<b>\$ 425</b>

At December 31, 2004, minimum lease payments under direct financing and sales-type leases are scheduled to be received as follows:

2005	\$ 45
2006	23
2007	22
2008	50
2009	18
Thereafter	230
<b>Total</b>	<b>\$ 388</b>

**Note 18 Commitments and contingencies**

**Earnings overstatement in an Italian subsidiary**

During the second quarter of 2004, the Company received information regarding earnings overstatements by the medium-voltage business unit of the Company's Power Technologies division (the "PT-MV BAU") in Italy. An investigation performed by the Company, with the assistance of outside counsel and forensic accountants, has shown that from the first quarter of 1998 through the first quarter of 2004, the PT-MV BAU overstated its earnings before interest and taxes and net income through the early recognition of certain revenue from incomplete projects, improper capitalization of costs on certain projects, unrecorded liabilities and borrowings, and other improper journal entries.

The cumulative effect of these overstatements on the Company's earnings before interest and taxes and net income was approximately \$70 million and \$87 million, respectively, from the first quarter of 1998 through the end of 2003. The negative impact on income tax expense results from the inability to claim tax benefits under Italian tax law for adjustments made to improperly filed tax returns for the years 1998 through 2002, as well as a reassessment of the realizability of the Company's deferred tax assets due to a cumulative loss position after the adjustment for the overstatements. The Company restated its financial statements for all prior periods as a result of these overstatements. The restated presentation forms the basis for the 2004 financial statements before reclassifications as described in Note 3. The impact of the restatement in 2003 and 2002 was to increase net loss by \$12 million and \$36 million, respectively. The cumulative impact on stockholders' equity as a result of the restatement was \$106 million at December 31, 2004.

The Company has undertaken measures, including termination of employment, with respect to the personnel involved in the earnings overstatement to address the matters identified by the Company's investigation. Additional remedial measures may be considered by the Company in light of this investigation. In addition, the Company's investigation revealed that certain employees of ABB Power Technologies S.p.A. participated in arranging improper payments to an employee of an Italian power generation company in order to obtain a contract. The Company has reported this matter to the Italian Public Prosecutor's Office, which is conducting its own investigation, as well as to the United States Securities and Exchange Commission. The Company cannot be certain as to the outcome of the Italian Public Prosecutor's Office investigation. The Company has terminated employees determined to be involved in arranging such improper payments.

**Gas Insulated Switchgear business**

In May 2004, the Company announced that it had undertaken an internal investigation which uncovered that certain of its employees – together with employees of other companies active in the gas insulated switchgear business – were involved in anti-competitive practices. The Company has reported promptly such practices to the appropriate authorities including the European Commission. The Company has received an amnesty decision from the European Commission and is cooperating with it in the investigation that the European Commission has launched.

**Vetco Gray**

During 2003 and 2002 the Company undertook an investigation of potentially improper business conduct within the Company's Oil, Gas and Petrochemical business which the Company had voluntarily disclosed to the U.S. Department of Justice and the U.S. Securities and Exchange Commission. The investigation uncovered a limited number of improper payments in certain countries in the Company's Upstream business.

(U.S. dollar amounts in millions, except per share amounts)

#### **Note 18 Commitments and contingencies, continued**

ABB Vetco Gray Inc. and ABB Vetco Gray UK Ltd., two of the Company's subsidiaries that were sold in 2004 as part of the Upstream business pleaded guilty in July 2004 to violation of the Foreign Corrupt Practices Act (FCPA) and paid an aggregate fine to the U.S. Department of Justice totaling \$10.5 million. In addition, in July 2004, the Company agreed with the United States Securities and Exchange Commission to resolve civil charges relating to the FCPA, including the payment of \$5.9 million to disgorge allegedly unlawful profits and to retain an independent consultant to review the Company's FCPA compliance policies and procedures.

#### **IBM Outsourcing Agreement**

In 2003, the Company entered into a 10-year global framework agreement with International Business Machines Corporation (IBM) to outsource the Company's information systems infrastructure services to IBM. This global framework agreement forms the basis for country agreements entered into between the Company and IBM in 15 countries in which the Company operates as well as Company headquarters. Pursuant to these agreements, the Company's information technology (IT) personnel were transferred and certain IT equipment was sold to IBM. Costs associated with the transfer of employees have been recognized in 2003 and were not significant. The IT equipment was sold to IBM at its net book value resulting in no gain or loss on disposal.

Pursuant to the global framework agreement, the Company is permitted to terminate an individual country agreement, upon providing to IBM three months notice. Upon termination, charges which are within standard commercial terms are payable to IBM. Such termination charges decline over the term of the global framework agreement and are based on the preceding 12-month period's costs and the number of years remaining on the agreement.

The global framework agreement also includes an obligation for IBM to lease new personal computers and other IT equipment to the Company as older equipment is retired. The Company accounts for these items as capital leases or operating leases based on the terms of the leases.

Further, pursuant to the global framework agreement, IBM will receive monthly payments from the Company's subsidiaries in the respective countries related to information systems infrastructure services. Expected annual costs during the 10-year term of the global framework agreement approximate \$223 million based on the current level of usage of the services.

While the above agreement was negotiated and transacted at arms-length between IBM and the Company, it should be noted that Jürgen Dormann, the Company's Chairman, was a member of the Board of Directors of IBM until April 29, 2003, and has been elected again to the Board of Directors of IBM effective February 22, 2005, and Hans-Ulrich Märki, a director on the Company's Board of Directors, is chairman and general manager of IBM Europe/Middle East/Africa.

#### **Contingencies – general**

The Company is subject to various legal proceedings and claims that have arisen in the ordinary course of business that have not been finally adjudicated. It is not possible at this time for the Company to predict with any certainty the outcome of such litigation. However, except as stated below, management is of the opinion, based upon information presently available and on advice of external counsel, that it is unlikely that any such liability, to the extent not provided for through insurance or otherwise, would have a material adverse effect on the Company's financial position, results of operations or cash flows.

#### **Contingencies – environmental**

The Company is a participant in several legal and regulatory actions, which result from various U.S. and other federal, state and local environmental protection legislation as well as agreements with third parties. While the Company cannot estimate the impact of future regulations affecting these actions, management believes that the ultimate resolution of these matters will not have a material impact on the Company's financial position, results of operations or cash flows.

Provisions are recorded when it is probable that losses will result from these actions and the amounts of losses can be reasonably estimated. Estimated losses for environmental remediation obligations are not discounted to their present value. In respect to these matters, the Company may be able to recover a portion of the costs from insurers or other third parties. Receivables are recorded when it is probable that recoveries will be collected.

#### **Guarantees – general**

Certain guarantees issued or modified after December 31, 2002 are accounted for in accordance with Financial Accounting Standards Board Interpretation No. 45 (FIN 45), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. Upon issuance or modification of certain guarantees, a liability, equal to the fair value of the guarantee, is recorded.

The following table provides quantitative data regarding the Company's third-party guarantees. The maximum potential payments represent a "worst-case scenario," and do not reflect the Company's expected results.

(U.S. dollar amounts in millions, except per share amounts)

**Note 18 Commitments and contingencies, continued**

The carrying amount of liabilities recorded in the Consolidated Balance Sheets reflects the Company's best estimate of future payments it may incur as part of fulfilling its guarantee obligations.

December 31,	2004		2003	
	Maximum potential payments	Carrying amount of liabilities	Maximum potential payments	Carrying amount of liabilities
Third-party performance guarantees	\$ 1,525	\$ 2	\$ 1,200	\$ -
Financial guarantees	253	1	207	-
Indemnification guarantees	198	16	-	-
<b>Total</b>	<b>\$ 1,976</b>	<b>\$ 19</b>	<b>\$ 1,407</b>	<b>\$ -</b>

**Guarantees-third-party performance**

Performance guarantees represent obligations where the Company guarantees the performance of a third party's product or service according to the terms of a contract. Such guarantees may include guarantees that a project will be completed within a specified time. If the third party does not fulfill the obligation, the Company will compensate the guaranteed party in cash or in kind. Performance guarantees include surety bonds, advance payment guarantees, and performance standby letters of credit.

The Company retained obligations for guarantees related to the Power Generation business contributed in mid-1999 to the former ABB ALSTOM POWER NV joint venture. The guarantees primarily consist of performance guarantees, advance payment guarantees and other miscellaneous guarantees under certain contracts such as indemnification for personal injuries and property damages, taxes, and compliance with labor laws, environmental laws and patents. The guarantees are related to projects which are expected to be completed by 2015 but in some cases have no definite expiration. In May 2000, the Company sold its interest in the ABB ALSTOM POWER NV joint venture to ALSTOM SA (ALSTOM). As a result, ALSTOM and its subsidiaries have primary responsibility for performing the obligations that are the subject of the guarantees. Further, ALSTOM, the parent company, and ALSTOM POWER NV, formerly ABB ALSTOM POWER NV, have undertaken jointly and severally to fully indemnify and hold harmless the Company against any claims arising under such guarantees. Management's best estimate of the total maximum potential exposure of quantifiable guarantees issued by the Company on behalf of its former Power Generation business is approximately \$875 million and \$1,200 million at December 31, 2004 and 2003, respectively. The Company has not experienced any losses related to guarantees issued on behalf of the former Power Generation business.

The Company retained obligations for guarantees related to the Upstream business sold in July 2004. The guarantees primarily consist of third-party performance guarantees, advance payment guarantees and other miscellaneous guarantees. The guarantees have maturity dates ranging from one to five years. The maximum amount payable under the guarantees is approximately \$650 million at December 31, 2004. The Company has the ability to recover potential payments under these guarantees through certain backstop guarantees. The maximum potential recovery under these backstop guarantees is approximately \$146 million at December 31, 2004.

**Guarantees – financial**

Financial guarantees represent irrevocable assurances that the Company will make payment to a beneficiary in the event that a third party fails to fulfill its financial obligations and the beneficiary under the guarantee incurs a loss due to that failure.

At December 31, 2004 and 2003, the Company had \$253 million and \$207 million, respectively, of financial guarantees outstanding. Of those amounts, \$123 million and \$189 million, respectively, were issued on behalf of companies in which the Company currently has or formerly had an equity interest. The guarantees have original maturity dates ranging from one to thirteen years. Also included in the \$253 million of financial guarantees is approximately \$101 million related to the Upstream business sold in July 2004. These guarantees have original maturity dates ranging from one to six years and in some cases have no time-related expiry as they are contingent on future events.

**Guarantees – indemnification**

The Company delivered to the purchasers of the Upstream business and Reinsurance business guarantees related to assets and liabilities divested in 2004. The maximum liability at December 31, 2004, of approximately \$49 million and \$149 million, relating to the Upstream business and Reinsurance business, respectively, will reduce over time, pursuant to the agreements. The fair values of these guarantees are not material.

The Company has indemnified certain purchasers of divested businesses for potential claims arising from the operations of the divested businesses. Such indemnifications have not been fair valued to the extent they were issued prior to the effective date of FIN 45. Additionally, to the extent the maximum loss related to such indemnifications could not be calculated, no amounts have been included under maximum potential payments in the table above. Indemnifications for which maximum losses could not be calculated include indemnifications for legal claims.

**Product and order related contingencies**

The Company calculates its provision for product warranties based on historical claims experience and specific review of certain contracts. The provision for warranties and contract penalties in Note 16 includes penalties resulting from delays in contract fulfillment, which is not included in the amounts below.

(U.S. dollar amounts in millions, except per share amounts)

#### Note 18 Commitments and contingencies, continued

Reconciliation of the provision for warranties, including guarantees of product performance is as follows:

December 31,	2004	2003
Balance at the beginning of year	\$ 513	\$ 349
Claims paid in cash or in kind	(72)	(37)
Net increase to provision for changes in estimates, warranties issued and warranties expired	178	162
Exchange rate differences	58	39
<b>Balance at the end of year</b>	<b>\$ 677</b>	<b>\$ 513</b>

#### Asbestos liability

##### Summary

The Company's Combustion Engineering subsidiary has been a co-defendant in a large number of lawsuits claiming damage for personal injury resulting from exposure to asbestos. A smaller number of claims have also been brought against two other subsidiaries, ABB Lummus Global Inc. ("Lummus") (which is part of the Company's Oil, Gas and Petrochemicals business and was formerly a subsidiary of Combustion Engineering) and Basic Incorporated ("Basic") (which was a subsidiary of Combustion Engineering and of Asea Brown Boveri Inc. ("Asea Brown Boveri") and is now a subsidiary of ABB Holdings Inc. ("Holdings") following the merger in December 2004 of Asea Brown Boveri into Holdings), as well as against other entities of the Company. In late 2002, taking into consideration the growing number and cost of asbestos-related claims, Combustion Engineering and the Company determined that Combustion Engineering's asbestos-related liability should be resolved through a comprehensive settlement that included a plan of reorganization for Combustion Engineering under Chapter 11 of the U.S. Bankruptcy Code.

In November 2002, Combustion Engineering and the representatives of various asbestos claimants entered into a Master Settlement Agreement which settled the value of approximately 154,000 open asbestos-related claims against Combustion Engineering. Under that agreement, Combustion Engineering established and funded a trust (the "CE Settlement Trust") to provide for partial payment on such settled claims.

In January 2003, Combustion Engineering reached agreement with various creditors (including representatives of the asbestos claimants who participated in the Master Settlement Agreement and a representative of future claimants) on the terms of a proposed "Pre-Packaged Plan of Reorganization for Combustion Engineering" under Chapter 11 of the U.S. Bankruptcy Code (as amended through June 4, 2003, the "CE Plan"). The CE Plan provided for a "channeling injunction" to be issued, under which asbestos-related claims related to the operations of Combustion Engineering, Lummus and Basic could only be brought against a trust (separate from the CE Settlement Trust established under the Master Settlement Agreement) to be established and funded by Combustion Engineering, ABB Ltd and other entities of the Company. This channeling injunction was intended to free Combustion Engineering, ABB Ltd and its affiliates, as well as certain former direct or indirect owners, joint venture partners and affiliates of Combustion Engineering, including ALSTOM and ABB ALSTOM POWER NV, from further liability for such claims.

The CE Plan was filed with the U.S. Bankruptcy Court on February 17, 2003, and confirmed by the District Court on August 8, 2003. However on December 2, 2004, the Court of Appeals for the Third Circuit effectively reversed the District Court's confirmation order. The Court of Appeals remanded the CE Plan to the District Court for a determination of whether, in light of the pre-petition payments made by Combustion Engineering to the CE Settlement Trust under the Master Settlement Agreement and the fact that claimants who received partial payments of their claims under the Master Settlement Agreement participated in the approval of the plan, the treatment of asbestos-related personal injury claims against Combustion Engineering under the CE Plan was consistent with the requirements of the Bankruptcy Code. Combustion Engineering and the Company have been reviewing the Court of Appeals' decision and considering various options to resolve the asbestos-related liability of Combustion Engineering, Lummus and Basic.

In March 2005, following extensive discussions with certain representatives of various parties, including the Creditors Committee and the Future Claimants Representatives appointed in the Combustion Engineering case, the Company reached an agreement on certain "settlement points" for modifying the CE Plan with a view to bringing it into conformity with the Court of Appeals' decision and for providing a mechanism for resolving finally Lummus' potential asbestos liability. The settlement points contemplate that the modified plan will continue to reflect the CE Plan's fundamental approach of channeling asbestos-related claims against Combustion Engineering to a trust funded in part by other entities of the Company. The settlement points provide for the Company to make an additional contribution of approximately \$232 million to pay present and future asbestos claimants of Combustion Engineering and Lummus. In addition, the settlement points provide that the Company will pay directly or indirectly up to \$8 million in respect of certain approved legal fees in the Chapter 11 case of Combustion Engineering. The settlement points contemplate that the modified CE Plan will become effective under the Bankruptcy Code concurrently with a separate Chapter 11 plan of reorganization for Lummus. The parties are now working to reach agreement on other issues relating to, and details of, the proposed modified plan and related proceedings involving Lummus and to prepare the related documentation. Each of the proposed plans will require approval of creditors and be subject to court review.

One of the holdings of the Court of Appeals was that the asbestos-related claims against Basic that are not related to Combustion Engineering's operations could not be "channeled" to the proposed trust under the CE Plan. The proposed plans do not address Basic, and the Company expects that Basic's asbestos-related liabilities will have to be resolved through its own bankruptcy or similar U.S. state court liquidation proceeding, or through the tort system.

##### Background

When the Company sold its 50 percent interest in the former ABB ALSTOM POWER NV joint venture to ALSTOM in May 2000, it retained ownership of Combustion Engineering, a subsidiary that had conducted part of its former power generation business and that now owns commercial real estate that it leases to third parties. Combustion Engineering is a co-defendant, together with other third parties, in numerous lawsuits in the United States in which the plaintiffs claim damages for personal injury arising from exposure to asbestos in equipment or materials that Combustion Engineering allegedly supplied or was responsible for, primarily during the early 1970s and before.

**Note 18 Commitments and contingencies, continued**

From 1989 through February 17, 2003 (the date that Combustion Engineering filed for Chapter 11 as described below), approximately 438,000 asbestos-related claims were filed against Combustion Engineering. On February 17, 2003, there were approximately 164,000 asbestos related personal injury claims pending against Combustion Engineering. There were approximately 138,000 such claims pending against Combustion Engineering on December 31, 2002, and approximately 94,000 such claims were pending on December 31, 2001. Of the approximately 164,000 claims that were pending on February 17, 2003, approximately 154,000 are claims by asbestos claimants who participated in the Master Settlement Agreement. Approximately 29,000 new claims were made in the period from January 1, 2003, to February 17, 2003 (all but 111 of which agreed to participate in the Master Settlement Agreement). Approximately 34,500 claims were resolved in 2002 and approximately 27,000 claims were resolved in 2001.

Other entities of the Company have sometimes been named as defendants in asbestos-related claims, including Lummus and Basic. At December 31, 2004 and 2003, there were approximately 11,000 claims pending against Lummus and 4,300 and 4,200 claims, respectively, pending against Basic.

Additionally, at December 31, 2004 and 2003, there were approximately 12,400 and 8,700 asbestos-related claims pending against entities of the Company other than Combustion Engineering, Lummus and Basic. These claims are unrelated to Combustion Engineering and will not be resolved in the Combustion Engineering bankruptcy case. Of the 12,400 claims outstanding at December 31, 2004, approximately 3,660 are claims that were brought in the state of Mississippi in the United States, in 7 cases that include multiple plaintiffs and hundreds of co-defendants and make no specific allegations of any relationship between any entity of the Company and the plaintiffs. Approximately 4,240 of such claims have been brought in the state of Ohio in the United States by claimants represented by a single law firm in cases that typically name 50 to 60 co-defendants and do not allege any specific linkage between the plaintiffs and any entity of the Company. Approximately 2,700 such claims are pending in the state of West Virginia in the United States. The remaining such claims are pending in various jurisdictions. The Company generally seeks dismissals from claims where there is no apparent linkage between the plaintiffs and any entity of the Company. To date, resolving claims against the Company's entities other than Combustion Engineering, Lummus and Basic has not had a material impact on the Company's consolidated financial position, results of operations or cash flows.

*Negotiations with representatives of asbestos claimants and pre-packaged Chapter 11 filing*

During 2001 and 2002, Combustion Engineering experienced a significant increase in the level of new claims and higher total and per-claim settlement costs as compared to prior years. In October 2002, Combustion Engineering and the Company determined that it was likely that the expected asbestos-related costs of Combustion Engineering would exceed the value of its assets (\$812 million at September 30, 2002 and \$828 million at December 31, 2002) if its historical settlement patterns continued into the future. In October 2002, Combustion Engineering and the Company determined to resolve the asbestos-related liability of Combustion Engineering and its affiliates by reorganizing Combustion Engineering under Chapter 11, the principal business reorganization chapter of the U.S. Bankruptcy Code. Combustion Engineering and the Company determined to structure the Chapter 11 reorganization as a "pre-packaged plan," in which Combustion Engineering would solicit votes from asbestos claimants to approve the plan before the Chapter 11 case was filed with the Bankruptcy Court.

Beginning in October 2002, Combustion Engineering and the Company conducted extensive negotiations with representatives of certain asbestos claimants with respect to a pre-packaged plan. On November 22, 2002, Combustion Engineering and the asbestos claimants' representatives entered into a Master Settlement Agreement for settling open asbestos-related personal injury claims that had been filed against Combustion Engineering prior to November 15, 2002. Combustion Engineering also agreed, pursuant to the Master Settlement Agreement, to form and fund the CE Settlement Trust to administer and pay the asbestos-related personal injury claims settled under the Master Settlement Agreement. Under the terms of the Master Settlement Agreement, eligible claimants who met all criteria to qualify for payment were entitled to receive a percentage of the value of their claim from the CE Settlement Trust and retain a claim against Combustion Engineering for the unpaid balance (the "stub claim"). The Master Settlement Agreement divides claims into three categories based on the status of the claim at November 14, 2002, the status of the documentation relating to the claim and whether or not the documentation establishes a valid claim eligible for settlement and payment by Combustion Engineering. The Master Settlement Agreement was supplemented in January 2003 to clarify the rights of certain claimants whose right to participate in a particular payment category was disputed. The Master Settlement Agreement, as supplemented, settles the value of and provides for the partial payment on approximately 154,000 open asbestos-related personal injury claims that had been lodged against Combustion Engineering.

The Master Settlement Agreement, as supplemented, provided that the CE Settlement Trust was to be funded by:

- cash contributions from Combustion Engineering in the amount of \$5 million;
- cash contributions from ABB Inc., a subsidiary of ABB Ltd, in the amount of \$30 million;
- a promissory note from Combustion Engineering in the principal amount of approximately \$101 million (guaranteed by Asea Brown Boveri, now merged into Holdings); and
- an assignment by Combustion Engineering of the \$311 million unpaid balance of principal and interest due to Combustion Engineering from Asea Brown Boveri, now merged into Holdings, under a loan agreement dated May 12, 2000 (guaranteed by ABB Ltd).

Approximately 154,000 eligible claimants have entered into the Master Settlement Agreement or adoption agreements with Combustion Engineering and the CE Settlement Trust and have received partial payment on their claims.

*Pre-packaged plan of reorganization*

On January 17, 2003, the Company announced that Combustion Engineering and the Company had reached an agreement on a proposed Pre-Packaged Plan of Reorganization for Combustion Engineering under Chapter 11 of the U.S. Bankruptcy Code. The agreement was reached with representatives of certain asbestos claimants with existing asbestos-related personal injury claims against Combustion Engineering (encompassing both claimants who had lodged claims prior to November 15, 2002, and claimants who had filed claims on or after that date and were not eligible to participate in the Master Settlement Agreement) and with the proposed representative of persons who may be entitled to bring asbestos-related personal injury claims in the future.

(U.S. dollar amounts in millions, except per share amounts)

#### **Note 18 Commitments and contingencies, continued**

As proposed, the CE Plan provided for the creation of the Asbestos PI Trust, an independent trust separate and distinct from the CE Settlement Trust, and addressed Asbestos PI Trust Claims, which consist of present and future asbestos-related personal injury claims (including the stub claims of claimants who previously settled pursuant to the Master Settlement Agreement) that arise directly or indirectly from any act, omission, products, or operations of Combustion Engineering, Lummus or Basic. The CE Plan provided that, if it were to become effective, a channeling injunction would be issued under Section 105 of the U.S. Bankruptcy Code pursuant to which the Asbestos PI Trust Claims against ABB Ltd and certain of its affiliates (including Combustion Engineering, Lummus and Basic) would be channeled to the Asbestos PI Trust. The effect of the channeling injunction contemplated by the CE Plan would be that the sole recourse of a holder of an Asbestos PI Trust Claim would be to the Asbestos PI Trust and such holder would be barred from asserting such a claim against ABB Ltd and the affiliates covered by the injunction (including Combustion Engineering and, under the CE Plan as proposed, Lummus and Basic).

As proposed, the CE Plan provided that on its effective date, the Asbestos PI Trust would be funded with the following:

- a \$20 million 5 percent term note (the "CE Convertible Note") with a maximum term of ten years from the effective date of the CE Plan, to be issued by Combustion Engineering and secured by its Windsor, Connecticut, real estate and real estate leases (under certain specified contingencies, the Asbestos PI Trust may have the right to convert the term note into ownership of 80 percent of the voting securities of the reorganized Combustion Engineering);
- excess cash held by Combustion Engineering on the effective date of the CE Plan (the "Excess CE Cash");
- a non-interest bearing promissory note (the "ABB Promissory Note") to be issued by ABB Inc. and ABB Ltd, and guaranteed by certain ABB Ltd subsidiaries, in an aggregate amount of up to \$350 million payable in installments (including two \$25 million payments contingent upon ABB Ltd generating an earning before interest and taxes margin of 12 percent in 2007 and 2008);
- a non-interest bearing promissory note to be issued on behalf of Lummus (the "Lummus Note") in the amount of \$28 million payable in relatively equal annual installments over 12 years;
- a non-interest bearing promissory note (the "Basic Note") to be issued on behalf of Basic in the aggregate amount of \$10 million payable in relatively equal annual installments over 12 years;
- 30,298,913 shares of ABB Ltd (the "CE Settlement Shares"), which had a fair value of \$170 million, \$154 million and \$86 million at December 31, 2004, 2003 and 2002, respectively; and
- an assignment by Combustion Engineering, Lummus, and Basic to the Asbestos PI Trust of any proceeds under certain insurance policies. As of December 31, 2004, aggregate unexhausted product liability limits under such policies were approximately \$200 million for Combustion Engineering, approximately \$43 million for Lummus and approximately \$28 million for Basic, although amounts ultimately recovered by the Asbestos PI Trust under these policies may be substantially different from the policy limits. In addition, Combustion Engineering would assign to the Asbestos PI Trust scheduled payments under certain of its insurance settlement agreements (\$78 million at December 31, 2004). (The proceeds and payments to be assigned are together referred to as "Certain Insurance Amounts".)

In addition, the CE Plan as proposed provided that if Lummus is sold within 18 months after the CE Plan's effective date, ABB Inc. would contribute \$5 million to the CE Settlement Trust and \$5 million to the Asbestos PI Trust (together, these payments are referred to as the "Lummus Sale Payments"). If the CE Settlement Trust has ceased to exist at that time, both \$5 million payments would be made to the Asbestos PI Trust, but in no event would this contribution exceed the net proceeds from the sale of Lummus.

Upon the effective date under the CE Plan, ABB Inc. would indemnify the Combustion Engineering estate against up to \$5 million of liability on account of certain contingent claims held by certain indemnified insurers. Further, on the effective date, Asea Brown Boveri (now merged into Holdings) would provide for the benefit of Combustion Engineering a nuclear and environmental indemnity with regard to obligations arising out of Combustion Engineering's Windsor, Connecticut, site. The two indemnities described in this paragraph are referred to as the "Related Indemnities".

#### *Judicial review process*

The solicitation of votes to approve the CE Plan began on January 19, 2003. Combustion Engineering filed for Chapter 11 in the U.S. Bankruptcy Court in Delaware on February 17, 2003, based on the terms previously negotiated in connection with the CE Plan. On June 23, 2003, the Bankruptcy Court issued its Order Approving the Disclosure Statement but Recommending Withholding of Confirmation of the Plan of Reorganization for Combustion Engineering for Ten Days (the "Initial Ruling") and related findings of fact. The Initial Ruling approved the disclosure statement that was the document used as the basis for soliciting approval of the CE Plan from asbestos claimants and verified the voting results that approved the CE Plan and indicated that the Bankruptcy Court would recommend that the CE Plan be confirmed if Combustion Engineering and the Company could establish to the court's satisfaction certain specified information. The Company then submitted the additional information for the court's consideration.

On July 10, 2003, the Bankruptcy Court issued a Supplemental and Amendatory Order Making Additional Findings and Recommending Confirmation of Plan of Reorganization (the "Supplemental Ruling"). The Supplemental Ruling recommended to the U.S. District Court, among other things, that the CE Plan be confirmed.

Following the issuance of the Supplemental Ruling, interested parties had a period during which they could appeal the Initial Ruling and the Supplemental Ruling. This appeal period expired on July 24, 2003. A number of interested parties, including a small number of asbestos claimants and certain insurance companies which historically have provided insurance coverage to Combustion Engineering, Lummus and Basic filed appeals based on various objections to the CE Plan. The District Court held a hearing on July 31, 2003, with respect to the appeals and entered its confirmation order on August 8, 2003.

Various parties appealed the District Court's confirmation order to The United States Court of Appeals for the Third Circuit, which granted a motion for expedition of appeals and ordered that all briefs were to be filed by October 7, 2003. On June 3, 2004, the Court of Appeals held a hearing with respect to the appeals of the confirmation order of the District Court. On December 2, 2004, the Court of Appeals issued its decision (the "Third Circuit Decision").

**Note 18 Commitments and contingencies, continued**

The effect of the Third Circuit Decision was to reverse the District Court's confirmation order in respect of the CE Plan. The Third Circuit Decision focused on three issues raised by the appealing parties which relate to the ultimate terms of the CE Plan: (i) whether the Bankruptcy Court had "related to" jurisdiction over the claims against the non-debtors, Lummus and Basic, that do not arise from any products or operations of Combustion Engineering (the "non-derivative claims"); (ii) whether the non-debtors, Lummus and Basic, could avail themselves of the protection of the channeling injunction by invoking Section 105 of the Bankruptcy Code and contributing assets to the Asbestos PI Trust; and (iii) whether the two-trust structure and use of stub claims in the voting process comply with the Bankruptcy Code. The Court of Appeals held that there were insufficient factual findings to support "related-to" jurisdiction and that Section 105 of the Bankruptcy Code could not be employed to extend the channeling injunction to the non-derivative claims against nondebtors, such as Lummus and Basic. With regard to the two-trust structure, the Court of Appeals remanded the CE Plan to the District Court to determine whether creditors received fair treatment in light of the pre-petition payments made to the CE Settlement Trust participants and the use of stub claims in the voting process. Among other things, the Court of Appeals instructed the lower courts to consider whether payments under the CE Settlement Trust constituted voidable preferences that were inconsistent with the fair distribution scheme of the Bankruptcy Code.

On December 15, 2004, Combustion Engineering filed a petition seeking a rehearing en banc by the Court of Appeals. Specifically, Combustion Engineering and its immediate parent, Asea Brown Boveri, now merged into Holdings, challenged the holding in the Third Circuit Decision that the Bankruptcy and District Courts did not have "related to" jurisdiction over the non-derivative claims against Lummus and Basic and that Section 105 of the Bankruptcy Code could not be used to extend the channeling injunction to such claims. On January 19, 2005, the Court of Appeals denied the petition for rehearing en banc.

Notwithstanding the Third Circuit Decision, the Master Settlement Agreement, which settles the amount of and provides for partial payment on approximately 154,000 asbestos-related claims, remains effective. Early in the Combustion Engineering bankruptcy case, an asbestos claimant commenced an action against the trustee of the CE Settlement Trust and individuals who had received distributions from such trust, asserting that further distributions by the CE Settlement Trust should be enjoined because the transaction that created the CE Settlement Trust was a voidable preference. The Bankruptcy Court ruled that it would not dismiss that action for lack of standing. On October 22, 2004, the trustee of the CE Settlement Trust moved to dismiss the complaint in that action. This matter is pending and no decision has been rendered by the Court.

Following the Third Circuit Decision, the lower courts assumed jurisdiction over further confirmation proceedings in respect of the CE Plan. On January 27, 2005, the Bankruptcy Court authorized the Future Claimants Representative and the Creditors Committee to file any available bankruptcy-related and similar claims against third parties, including preference claims against certain claimants that did not participate in the CE Settlement Trust, and any potential bankruptcy related claims against the Company. The Bankruptcy Court further stated that if Combustion Engineering and the Company cannot agree on modifications to the CE Plan with the Future Claimants Representatives and Creditors Committee, and the representative of Combustion Engineering claimants who opposed the confirmation order, the Bankruptcy Court would appoint an independent representative to prosecute all of the foregoing preference claims and bankruptcy related claims asserted against the Company. The Company also entered into a tolling agreement to extend the time period within which bankruptcy related claims against it could be brought.

Since February 17, 2003, a stay and preliminary injunction have barred the commencement and prosecution of certain asbestos-related claims against Combustion Engineering, Lummus, Basic, certain other entities of the Company and certain other parties, including parties indemnified by the Company. The barred claims include, among others, claims arising from asbestos exposure caused by Combustion Engineering, Lummus or Basic and claims alleging fraudulent conveyance, successor liability and veil piercing. The Company does not know the number or nature of claims that would now be pending against the protected entities if those legal measures had not been in place.

*Modified CE Plan*

In March 2005, following extensive discussions with certain representatives of various claimants, the Creditors Committee and the Future Claimants Representative, the Company reached an agreement on certain "settlement points" for modifying the CE Plan with a view to bringing it into conformity with the Third Circuit Decision and for providing a mechanism for resolving finally Lummus' potential asbestos liability.

The settlement points contemplate the following elements for finally resolving both Combustion Engineering's and Lummus' potential asbestos liability:

- The modified plan for Combustion Engineering (the "Modified CE Plan") would continue to reflect the CE Plan's fundamental approach of channeling claims against Combustion Engineering to a trust funded, in part, by other entities of the Company.
- Confirmation and effectiveness of the Modified CE Plan would be obtained concurrently with a Chapter 11 Plan for Lummus (the "Lummus Plan"), acceptances to which would be obtained from voting Lummus asbestos claimants prior to Lummus commencing a Chapter 11 case.
- The Company would contribute to the Asbestos PI Trust the CE Convertible Note, the ABB Promissory Note, the Excess CE Cash and the CE Settlement Shares and would provide the Related Indemnities and assign the Certain Insurance Amounts, as contemplated by the CE Plan, subject to any modifications that may be agreed.
- The Company would make an additional contribution (the "Additional Contribution") of \$232 million. The Additional Contribution will be used as follows: (i) up to \$28 million will be used to fund payment of all current and future asbestos claims against Lummus by a trust created under §524(g) of the Bankruptcy Code pursuant to the Lummus Plan; and (ii) the remaining amount will be used to provide additional funding under the Modified CE Plan to pay CE's asbestos creditors through the Asbestos PI Trust. Under the Modified CE Plan, the Lummus Sale Payments would not be required and the Lummus Note would be replaced by contributions to a separate Lummus §524(g) trust as discussed below.
- Lummus has retained a person to act as a representative for future Lummus asbestos personal injury claimants (the "Lummus FCR"). The parties to the settlement points have agreed that the Lummus FCR will have determined by April 15, 2005, the appropriate funding to pay in full all current and future Lummus asbestos claims. In the event the Lummus FCR concludes that such amount exceeds \$28 million, the Company will increase the amount of its contributions for the benefit of such Lummus claims by the amount in excess of \$28 million, up to an additional \$5 million. If the Lummus FCR concludes that such amount exceeds \$33 million, the Company will have the option to terminate the settlement with no further obligations under the settlement points.

(U.S. dollar amounts in millions, except per share amounts)

**Note 18 Commitments and contingencies, continued**

- The Company will directly or indirectly pay up to \$8 million in respect of certain approved legal fees in the Chapter 11 case of Combustion Engineering.
- The Modified CE Plan would provide for a settlement of all pending preference claims and related claims, including any claims against the Company, its affiliates, and the officers of the Company and the affiliates, directors and employees, being asserted in the CE case.
- The scope of the channeling injunction to be issued under the Modified CE Plan would be the same as under the CE Plan, except that non-derivative claims against Basic would not be subject to the injunction.
- Basic would not be addressed in the Modified CE Plan and would therefore not contribute the Basic Note.
- The Modified CE Plan would also involve certain other adjustments, including certain changes in the relative amounts to be paid by the CE Asbestos PI Trust to different categories of claimants and changes in the administration of the trust.

In a status conference on April 5, 2005, the Bankruptcy Court instructed the Company to submit the documentation relating to the Modified CE Plan and the Lummus Plan to the Bankruptcy Court within 60 days. The Company and various other interested parties are now working to reach agreement on open issues, details relating to the Modified CE Plan and the Lummus Plan and the form and substance of the operative documents and related Bankruptcy Court motions and other pleadings. The Company cannot be certain when those negotiations will be concluded or on what terms the parties will resolve outstanding issues. The Modified CE Plan and the Lummus Plan will become effective only if different classes of their respective creditors vote in favor of the respective plans. The Modified CE Plan and the Lummus Plan will be subject to the approval of the Bankruptcy and District Courts, as well as to further judicial review if appeals are made. While the Company believes that the Modified CE Plan and the Lummus Plan are consistent with the Third Circuit Decision and other applicable laws and precedents, it cannot be certain whether the courts will approve the plans, nor can it predict whether the plans will receive the needed creditor votes.

The Company does not know whether any plan of reorganization for Combustion Engineering or Lummus will ultimately be confirmed or whether asbestos-related liabilities of any other entities of the Company would be resolved by any such plan. If for any reason a Chapter 11 plan relating to Combustion Engineering is not eventually confirmed, Combustion Engineering could be required to enter a Chapter 7 proceeding. If for any reason a Chapter 11 plan relating to Lummus is not eventually confirmed, the Company expects that Lummus' asbestos-related liabilities will have to be resolved through the tort system.

Because the Third Circuit Decision held that non-derivative claims cannot be subject to the CE Plan's proposed channeling injunction, Basic will not be included in the Modified CE Plan. The Company expects that Basic's asbestos-related liabilities will have to be resolved through its own bankruptcy or similar U.S. state court liquidation proceeding or through the tort system.

If any entities of the Company are not included in the protection offered by the channeling injunction entered pursuant to any Combustion Engineering plan that is confirmed, such entities could be required to resolve in the tort system, or otherwise, current and future asbestos-related claims that are asserted against such entities. Such events would be subject to numerous uncertainties, risk and expense.

If U.S. federal legislation addressing asbestos personal injury claims is passed, which is speculative at this time, such legislation may affect the amount that will be required to resolve the asbestos-related claims against entities of the Company.

*Effect on the Company's financial position*

Expenses. The Company recorded expenses related to asbestos of \$262 million, \$142 million and \$395 million in loss from discontinued operations, net of tax, and \$1 million, \$3 million and \$25 million in income from continuing operations, net of tax, for 2004, 2003 and 2002, respectively. Loss from discontinued operations, net of tax, for 2004 reflects a charge of \$232 million taken in connection with the agreement the Company reached in March 2005 on the basic terms of the Modified CE Plan, \$17 million resulting from the mark-to-market adjustment relating to the CE Settlement Shares, a credit of \$6 million resulting from adjustment of the provision for the estimated liability of Basic as described below, and other costs of \$19 million. Loss from discontinued operations, net of tax, for 2003 includes a charge of \$68 million, net of tax, resulting from the mark-to-market adjustment relating to the CE Settlement Shares, a provision of \$41 million, representing the present value of the first two \$25 million payments under the ABB Promissory Note, which were previously considered contingent, as well as \$33 million of other costs. The 2002 amount reflected the Company's estimate of incremental total costs to be incurred based upon the terms of the CE Plan.

Cash Payments. Cash payments, before insurance recoveries, related to Combustion Engineering's asbestos-related claims were \$56 million (including \$49 million contributed to the CE Settlement Trust, described above), \$391 million (including \$365 million contributed to the CE Settlement Trust), and \$236 million (including \$30 million contributed into the CE Settlement Trust), in 2004, 2003 and 2002, respectively. Administration and defense costs were \$10 million, \$36 million and \$32 million in 2004, 2003 and 2002, respectively.

Cash payments related to asbestos-related claims against Lummus and Basic made through December 31, 2004 were approximately \$3 million and \$3 million, respectively. Cash payments to resolve asbestos-related claims against entities other than Combustion Engineering, Lummus and Basic have been immaterial to date, totaling less than \$1 million in the aggregate. The Company has not maintained a reserve for the claims pending against entities other than Combustion Engineering, Lummus and Basic.

Provisions. At December 31, 2004, 2003 and 2002, the Company recorded total provisions on a consolidated basis of \$1,023 million, \$815 million and \$1,095 million in respect of asbestos-related claims and defense costs related to Combustion Engineering, Lummus and Basic. The Company's provisions in continuing operations for asbestos-related liabilities at December 31, 2003 and 2002, now include \$2 million and \$4 million, respectively, previously classified in liabilities held for sale and in discontinued operations. Based upon the expected implementation of the Modified CE Plan and the Lummus Plan, the Company recorded provisions of \$985 million and \$33 million, respectively, at December 31, 2004, in accrued liabilities and other. If the Modified CE Plan and Lummus Plan become effective, certain amounts will be reclassified as of the effective date to other long-term liabilities based on the timing of the future cash payments to the Asbestos PI Trust or any similar trust created under the Lummus Plan. Future earnings will be affected by mark-to-market adjustments relating to the CE Settlement Shares through the effective date of the Plan, as well as contingent payments when they become probable of payment. The provisions at December 31, 2003 and 2002, were based on the Company's obligations under the CE Plan and assumed that the CE Plan would be confirmed and become effective as proposed.

(U.S. dollar amounts in millions, except per share amounts)

**Note 18 Commitments and contingencies, continued**

In light of the decision of the Court of Appeals, the Company has made a separate provision at December 31, 2004, with respect to Basic in accordance with Financial Accounting Standards Board Statement No. 5, *Accounting for Contingencies*, and Financial Accounting Standards Board Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss: an interpretation of FASB Statement No. 5*. With respect to Basic, the Company has established a provision of \$5 million relating to its asbestos-related liabilities based on analysis of historical claims statistics and related settlement costs and a projection of such claims activity over the next several years.

Management believes that it is probable that the full amount of the relevant provisions will be required to settle the respective asbestos-related liabilities of Combustion Engineering, Lummus and Basic. The Company may incur liability greater than the existing provisions, whether in connection with a modified plan of bankruptcy or otherwise, but management does not believe that the amount of any such incremental liability can be reasonably estimated or that there is a better estimate of these liabilities than the amounts that are provided for.

The Company's provisions in respect of asbestos-related claims include, as stated above, amounts for each of Combustion Engineering, Lummus and Basic. The assets of Combustion Engineering include amounts receivable of approximately \$221 million, \$232 million and \$241 million at December 31, 2004, 2003 and 2002, respectively, for probable insurance recoveries, which were established with respect to asbestos-related claims.

The ultimate outcome of the Company's efforts to resolve the asbestos-related personal injury claims against Combustion Engineering and other entities of the Company (including any such claims against third parties indemnified by entities of the Company) remains uncertain. The related costs may be higher than the Company's provisions reflect and could have a material adverse impact on its consolidated financial position, results of operations and cash flows. In the event the Modified CE Plan or Lummus Plan do not become effective, the ultimate cost for the resolution of asbestos-related personal injury claims against Combustion Engineering and Lummus may be significantly higher and could have a material adverse impact on the Company's consolidated financial position, results of operations and cash flows.

**Contingencies related to former Nuclear Technology business**

The Company retained liabilities for certain specific environmental remediation costs at two sites in the U.S. that were operated by its Nuclear Technology business, which was sold to British Nuclear Fuels PLC (BNFL) in April 2000. Pursuant to the sale agreement with BNFL, the Company has retained all of the environmental liabilities associated with its Combustion Engineering subsidiary's Windsor, Connecticut facility and a portion of the environmental liabilities associated with its ABB C-E Nuclear Power Inc. subsidiary's Hematite, Missouri facility. The primary environmental liabilities associated with these sites relate to the costs of remediating radiological and chemical contamination at these facilities. Such costs are not payable until a facility is taken out of use and generally are incurred over a number of years. Although it is difficult to predict with accuracy the amount of time it may take to remediate radiological contamination upon decommissioning, based on information that BNFL has made publicly available, the Company believes that it may take until 2013 to remediate the Hematite site. With respect to the Windsor site, the Company believes the remediation may take until 2010. At the Windsor site, a significant portion of the contamination is related to activities that were formerly conducted by or for the U.S. government. The Company believes that a significant portion of the remediation costs will be covered by the U.S. government under the U.S. government's Formerly Utilized Sites Remedial Action Program. The Company has estimated the total contingent liability in a range of loss from \$266 million to \$447 million on an undiscounted basis. The Company has recorded in other liabilities a reserve of \$266 million, net of payments from inception of \$34 million, at December 31, 2004. Payments for remediation were \$10 million, \$6 million and \$12 million during 2004, 2003 and 2002, respectively. The Company does not expect the majority of the remaining costs to be paid during 2005.

**Note 19 Taxes**

Provision for taxes consists of the following:

Year ended December 31,	2004	2003	2002
Current taxes on income	\$ 333	\$ 217	\$ 255
Deferred taxes	(22)	28	(174)
<b>Tax expense from continuing operations</b>	<b>311</b>	<b>245</b>	<b>81</b>
Tax expense from discontinued operations	41	42	91

The weighted-average tax rate is the tax rate that results from applying each subsidiary's statutory income tax rate to the income from continuing operations before taxes and minority interest. The Company operates in countries that have differing tax laws and rates. Consequently, the consolidated weighted-average effective rate will vary from year to year according to the source of earnings or losses by country.

Year ended December 31,	2004	2003	2002
Reconciliation of taxes:			
Income (loss) from continuing operations before taxes and minority interest	\$ 861	\$ (60)	\$ 66
Weighted-average tax rate	38.8%	(13.3)%	40.9%
<b>Taxes at weighted-average tax rate</b>	<b>334</b>	<b>8</b>	<b>27</b>
Items taxed at rates other than the weighted-average tax rate	(36)	15	(126)
Changes in valuation allowance	107	266	167
Changes in enacted tax rates	(18)	4	1
Other, net	(76)	(48)	12
<b>Tax expense from continuing operations</b>	<b>\$ 311</b>	<b>\$ 245</b>	<b>\$ 81</b>
<b>Effective tax rate for the year</b>	<b>36.1%</b>	<b>(408.3)%</b>	<b>122.7%</b>

(U.S. dollar amounts in millions, except per share amounts)

#### Note 19 Taxes, continued

In 2003, items taxed at rates other than the weighted-average tax rate included the tax effect of an \$84 million expense comprising the change in fair value of the embedded derivative contained in the Company's \$968 million convertible bonds combined with the continued amortization of the discount on issuance of these bonds (see Note 15), partially offset by earnings recognized in relation to certain of the Company's equity accounted investments. In 2002, items taxed at rates other than the weighted-average tax rate included a \$215 million gain, reflecting the change in fair value of the embedded derivative contained in the Company's \$968 million convertible bonds, partially offset by amortization of the discount on issuance of these bonds, as well as earnings recognized in relation to certain of the Company's equity accounted investments.

The reconciliation of taxes for 2004, 2003 and 2002 included changes in the valuation allowance recorded in certain jurisdictions in respect of deferred tax assets that were recognized for net operating losses incurred in those jurisdictions. The change in valuation allowance was required as the Company determined it was more likely than not that such deferred tax assets would no longer be realized. In 2004, the change in valuation allowance is predominately related to the Company's operations in certain countries including Canada and France. In 2003, the change in valuation allowance included an allowance of approximately \$258 million on deferred tax assets as a result of the Company's determination that it was more likely than not that such deferred tax assets would no longer be realized within the Company's remaining Oil, Gas and Petrochemicals business. In 2002, the change in valuation allowance included an allowance of \$17 million on deferred tax assets as a result of the overstatement within the Company's Power Technologies division in Italy (see Note 18). The change in valuation allowance in 2002 also included an allowance of approximately \$33 million on deferred tax assets as a result of the Company's determination that it was more likely than not that such deferred tax assets would no longer be realized within the Company's remaining Oil, Gas and Petrochemicals business.

In 2004 and 2003, the reconciling item "Other, net" included a benefit of approximately \$39 million and approximately \$56 million, respectively, relating to the favorable resolution of certain prior year tax matters, including the release of a \$38 million tax provision related to a tax case ruled in favor of the Company in 2003. Furthermore, 2004 included the one-time benefit of approximately \$45 million from the losses of a post divestment reorganization and 2003 included the expense of approximately \$16 million related to a tax claim filed in Central Europe. Additionally, in 2003 and 2002, "Other, net" included \$5 million and \$7 million, respectively, related to expenses that are no longer deductible under the Italian tax law as a result of the overstatement within the Company's Power Technologies division in Italy.

In 2003, the loss from continuing operations before taxes and minority interest of \$60 million included an \$84 million expense comprising the change in fair value of the embedded derivative contained in the Company's \$968 million convertible bonds combined with the continued amortization of the discount on issuance of these bonds. Furthermore, the tax expense from continuing operations included the release of a \$38 million tax provision related to a tax case ruled in favor of the Company, offset by expense of approximately \$16 million related to a tax claim filed in Central Europe. In addition, the tax expense from continuing operations included a valuation allowance of approximately \$258 million on deferred tax assets as a result of the determination that it was more likely than not that such deferred tax assets would no longer be realized within the Company's remaining Oil, Gas and Petrochemicals business. The effective tax rate applicable to income from continuing operations excluding the tax effect of these items would be 37.5 percent.

In 2002, the tax expense from continuing operations included an allowance of approximately \$33 million on deferred tax assets as a result of the determination that it was more likely than not that such deferred tax assets would no longer be realized within the Company's remaining Oil, Gas and Petrochemicals business as well as an allowance of \$17 million on deferred tax assets and \$7 million related to non-deductible expenses under Italian tax law both as a result of the overstatement within the Company's Power Technologies division in Italy. The effective tax rate applicable to income from continuing operations excluding the tax effect of these items would have been 36.4 percent.

Deferred income tax assets and liabilities consist of the following:

December 31,	2004	2003
<b>Deferred tax liabilities:</b>		
Financing receivables	\$ (236)	\$ (244)
Property, plant and equipment	(290)	(464)
Pension and other accrued liabilities	(479)	(371)
Other	(148)	(131)
<b>Total deferred tax liability</b>	<b>(1,153)</b>	<b>(1,210)</b>
<b>Deferred tax assets:</b>		
Investments and other	36	20
Property, plant and equipment	77	172
Pension and other accrued liabilities	833	692
Unused tax losses and credits	1,694	1,713
Other	553	444
<b>Total deferred tax asset</b>	<b>3,193</b>	<b>3,041</b>
Valuation allowance	(2,017)	(1,872)
<b>Deferred tax asset, net of valuation allowance</b>	<b>1,176</b>	<b>1,169</b>
<b>Net deferred tax asset (liability)</b>	<b>\$ 23</b>	<b>\$ (41)</b>

(U.S. dollar amounts in millions, except per share amounts)

**Note 19 Taxes, continued**

Deferred tax assets and deferred tax liabilities are allocated between current and non-current as follows:

December 31,	2004		2003	
	Current	Non-current	Current	Non-current
Deferred tax liability	\$ (200)	\$ (953)	\$ (188)	\$ (1,022)
Deferred tax asset, net of valuation allowance	670	506	579	590
<b>Net deferred tax asset (liability)</b>	<b>\$ 470</b>	<b>\$ (447)</b>	<b>\$ 391</b>	<b>\$ (432)</b>

The non-current deferred tax asset, net of valuation allowance, is included in investments and other.

Certain entities have deferred tax assets related to net operating loss carry-forwards and other items. Because recognition of these assets is uncertain, valuation allowances of \$2,017 million and \$1,872 million have been established at December 31, 2004 and 2003, respectively.

At December 31, 2004, net operating loss carry-forwards of \$4,291 million and tax credits of \$141 million are available to reduce future taxes of certain subsidiaries, of which \$2,241 million loss carry-forwards and \$92 million tax credits expire in varying amounts through 2024 and the remainder does not expire. These carry-forwards are predominantly related to the Company's U.S. and German operations.

The provision for tax contingencies was approximately \$295 million and \$300 million at December 31, 2004 and 2003, respectively. A significant part of these provisions has been accrued for pending court cases in Northern Europe relating to certain sale and leaseback transactions.

The Company had no income tax expense impact from the repatriation provision of the American Jobs Creation Act of 2004 regarding the one time dividend tax rate reduction.

**Note 20 Other liabilities**

The Company's other liabilities amount to \$1,083 million and \$1,077 million at December 31, 2004 and 2003, respectively.

Other liabilities include non-current provisions of \$439 million and \$441 million, deferred income of \$143 million and \$158 million and non-current derivative liabilities of \$53 million and \$40 million at December 31, 2004 and 2003, respectively. Included in non-current provisions are amounts accrued for the Company's estimated environmental remediation costs related to its former Nuclear Technology business (see Note 18) of \$266 million and \$276 million at December 31, 2004 and 2003, respectively.

The Company entered into tax-advantaged leasing transactions with U.S. investors prior to 1999. Prepaid rents that have been received on these transactions are \$314 million and \$312 million at December 31, 2004 and 2003, respectively, and have been recorded as deposit liabilities. Net gains on these transactions are being recognized over the lease terms.

**Note 21 Employee benefits**

The Company operates several pension plans, including defined benefit, defined contribution and termination indemnity plans, in accordance with local regulations and practices. These plans cover the majority of the Company's employees and provide benefits to employees in the event of death, disability, retirement or termination of employment. Certain of these plans are multi-employer plans. The Company also operates postretirement benefit plans in certain countries.

Some of these plans require employees to make contributions and enable employees to earn matching or other contributions from the Company. The funding policies of the Company's plans are consistent with the local government and tax requirements. The Company has several pension plans that are not required to be funded pursuant to local government and tax requirements.

The Company uses a December 31 measurement date for its plans.

(U.S. dollar amounts in millions, except per share amounts)

**Note 21 Employee benefits, continued**

**Obligations and funded status**

The following tables set forth the change in benefit obligations, the change in plan assets and the funded status recognized in the Consolidated Financial Statements at December 31, 2004 and 2003, for the Company's benefit plans:

	Pension benefits		Other benefits	
	2004	2003	2004	2003
Benefit obligation at the beginning of year	\$ 7,721	\$ 7,250	\$ 397	\$ 444
Service cost	190	204	3	3
Interest cost	375	369	23	26
Contributions from plan participants	46	50	10	7
Benefit payments	(523)	(528)	(39)	(38)
Benefit obligations of businesses acquired	38	-	-	-
Benefit obligations of businesses disposed	(118)	(131)	-	-
Actuarial (gain) loss	366	(371)	(23)	42
Plan amendments and other	(14)	(16)	(3)	(88)
Exchange rate differences	632	894	1	1
<b>Benefit obligation at the end of year</b>	<b>8,713</b>	<b>7,721</b>	<b>369</b>	<b>397</b>
Fair value of plan assets at the beginning of year	6,041	5,319	-	-
Actual return on plan assets	476	407	-	-
Contributions from employer	753	309	29	31
Contributions from plan participants	46	50	10	7
Benefit payments	(523)	(528)	(39)	(38)
Plan assets of businesses acquired	34	-	-	-
Plan assets of businesses disposed	(92)	(127)	-	-
Plan amendments and other	(8)	-	-	-
Exchange rate differences	535	611	-	-
<b>Fair value of plan assets at the end of year</b>	<b>7,262</b>	<b>6,041</b>	<b>-</b>	<b>-</b>
<b>Unfunded amount</b>	<b>1,451</b>	<b>1,680</b>	<b>369</b>	<b>397</b>
Unrecognized transition liability	-	-	(11)	(14)
Unrecognized actuarial loss	(1,019)	(782)	(141)	(174)
Unrecognized prior service cost	(22)	(38)	16	15
<b>Net amount recognized</b>	<b>\$ 410</b>	<b>\$ 860</b>	<b>\$ 233</b>	<b>\$ 224</b>

In May 2003, the Emerging Issues Task Force of the Financial Accounting Standards Board reached a consensus on Emerging Issues Task Force No. 03-4 (EITF 03-4), *Determining the Classification and Benefit Attribution Method for a "Cash Balance" Pension Plan*. EITF 03-4 clarifies that a cash balance plan, as defined by the guidance, should be accounted for as a defined benefit plan using the traditional unit credit attribution method. The Company adopted EITF 03-4 in May 2003. As a result, the Company accounts for certain of its plans in Switzerland as cash balance plans in accordance with EITF 03-4. The adoption of EITF 03-4 resulted in an actuarial gain of \$406 million during 2003.

The following amounts have been recognized in the Company's Consolidated Balance Sheet at December 31, 2004 and 2003:

	Pension benefits		Other benefits	
	2004	2003	2004	2003
Prepaid pension cost	\$ (536)	\$ (569)	\$ -	\$ -
Accrued pension cost	1,272	1,613	233	224
Intangible assets	(11)	(2)	-	-
Accumulated other comprehensive loss	(315)	(182)	-	-
<b>Net amount recognized</b>	<b>\$ 410</b>	<b>\$ 860</b>	<b>\$ 233</b>	<b>\$ 224</b>

Included in the \$1,551 million of pension and other employee benefits at December 31, 2004, are \$46 million of long-term employee-related obligations not accounted for under Statement of Financial Accounting Standards No. 87 (SFAS 87), *Employers' Accounting for Pensions* or Statement of Financial Accounting Standards No. 106 (SFAS 106), *Employers' Accounting for Postretirement Benefits Other Than Pensions*. Additionally, accrued liabilities and other (see Note 16), contains an accrual of \$77 million and \$112 million at December 31, 2004 and 2003, respectively, for short-term employee benefits that do not meet the criteria of SFAS 87 or SFAS 106.

The pension and other employee benefits liability reported in the Consolidated Balance Sheets includes \$326 million and \$216 million at December 31, 2004 and 2003, respectively, to record a minimum pension liability. The \$216 million of minimum pension liability at December 31, 2003, included liabilities related to discontinued operations of \$32 million.

(U.S. dollar amounts in millions, except per share amounts)

**Note 21 Employee benefits, continued**

The accumulated benefit obligation (ABO) for all defined benefit pension plans was \$8,228 million and \$7,414 million at December 31, 2004 and 2003, respectively.

The projected benefit obligation (PBO) and fair value of plan assets for pension plans with benefit obligations in excess of plan assets were:

December 31,	2004			2003		
	PBO	Assets	Difference	PBO	Assets	Difference
PBO exceeds assets	\$ 8,294	\$ 6,810	\$ 1,484	\$ 4,432	\$ 2,624	\$ 1,808
Assets exceed PBO	419	452	(33)	3,289	3,417	(128)
<b>Total</b>	<b>\$ 8,713</b>	<b>\$ 7,262</b>	<b>\$ 1,451</b>	<b>\$ 7,721</b>	<b>\$ 6,041</b>	<b>\$ 1,680</b>

The accumulated benefit obligation and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets were:

December 31,	2004			2003		
	ABO	Assets	Difference	ABO	Assets	Difference
ABO exceeds assets	\$ 5,008	\$ 3,910	\$ 1,098	\$ 2,233	\$ 667	\$ 1,566
Assets exceed ABO	3,220	3,352	(132)	5,181	5,374	(193)
<b>Total</b>	<b>\$ 8,228</b>	<b>\$ 7,262</b>	<b>\$ 966</b>	<b>\$ 7,414</b>	<b>\$ 6,041</b>	<b>\$ 1,373</b>

**Components of net periodic benefit cost**

For the years ended December 31, 2004, 2003 and 2002, net periodic benefit cost consists of the following:

	Pension benefits			Other benefits		
	2004	2003	2002	2004	2003	2002
Service cost	\$ 190	\$ 204	\$ 193	\$ 3	\$ 3	\$ 6
Interest cost	375	369	328	23	26	30
Expected return on plan assets	(330)	(325)	(292)	-	-	-
Amortization transition liability	5	1	13	2	6	7
Amortization prior service cost	4	9	15	(2)	-	-
Amortization of net actuarial loss	37	45	23	9	9	6
Other	4	8	9	2	-	-
<b>Net periodic benefit cost</b>	<b>\$ 285</b>	<b>\$ 311</b>	<b>\$ 289</b>	<b>\$ 37</b>	<b>\$ 44</b>	<b>\$ 49</b>

**Assumptions**

The following weighted-average assumptions were used to determine benefit obligations at December 31, 2004 and 2003:

	Pension benefits		Other benefits	
	2004	2003	2004	2003
Discount rate	4.60%	5.00%	5.75%	6.25%
Rate of compensation increase	2.23%	2.31%	-	-

The following weighted-average assumptions were used to determine net periodic benefit cost for years ended December 31, 2004, 2003 and 2002:

	Pension benefits			Other benefits		
	2004	2003	2002	2004	2003	2002
Discount rate	4.97%	5.10%	5.10%	6.25%	6.74%	7.24%
Expected long-term return on plan assets	5.57%	6.06%	6.21%	-	-	-
Rate of compensation increase	2.28%	3.07%	3.07%	-	-	-

The expected long-term rate of return on assets assumption is derived from the current and projected asset allocation, the current and projected types of investments in each asset category and the long-term historical returns for each investment type.

The Company has multiple non-pension postretirement benefit plans. The Company's health care plans are generally contributory with participants' contributions adjusted annually.

	2004	2003
Health care cost trend rate assumed for next year	11.76%	11.81%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	6.24%	5.96%
Year that the rate reaches the ultimate trend rate	2013	2013

(U.S. dollar amounts in millions, except per share amounts)

**Note 21 Employee benefits, continued**

Assumed health care cost trends have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects at December 31, 2004:

	1-percentage-point increase	1-percentage-point decrease
Effect on total of service and interest cost	\$ 2	\$ (1)
Effect on postretirement benefit obligation	\$ 25	\$ (22)

As of July 1, 2004, the Company adopted Financial Accounting Standards Board Staff Position (FSP) No. FAS 106-2, *Accounting and Disclosure Requirements Related to the Medicare Prescription Drug, Improvement and Modernization Act of 2003* (which superceded FAS FSP No. 106-1). This FSP provides authoritative guidance on the accounting for the U.S. subsidy and other provisions of the Medicare Prescription Drug, Improvement and Modernization Act of 2003. The effects of these provisions resulted in a reduction of \$24 million in ABO with an offset to unrecognized net actuarial loss in other benefits. The U.S. government will begin making the subsidy payments for employers in 2006. The effect of the Act on the foreign net periodic benefit costs at December 31, 2004, is \$2 million.

**Plan assets**

The Company's pension plan weighted-average asset allocations at December 31, 2004 and 2003, and approximate target allocation at December 31, 2004 is as follows:

Asset category:	Plan assets		Target allocation
	2004	2003	2004
Equity securities	33%	37%	30%
Debt securities	54%	49%	51%
Real estate	9%	10%	12%
Other	4%	4%	7%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The pension plan assets are invested in accordance with statutory regulations, pension plan rules, and recommendations of the pension fund trustees. The investment allocation strategy is expected to remain consistent with historical averages.

At December 31, 2004 and 2003, plan assets included approximately \$5 million (approximately 1 million shares) of the Company's capital stock.

**Contributions**

During 2004, the Company made a non-cash contribution of \$549 million of available-for-sale debt securities to certain of the Company's pension plans in Germany.

The Company expects to contribute approximately \$150 million to its pension plans and \$29 million to its other postretirement benefit plans in 2005.

The Company also maintains several defined contribution plans. The expense for these plans was \$71 million, \$86 million and \$90 million in 2004, 2003 and 2002, respectively. The Company also contributed \$74 million, \$80 million and \$74 million to multi-employer plans in 2004, 2003 and 2002, respectively.

**Estimated future benefit payments**

The following table reflects the total pension benefits expected to be paid from the plans or from the Company's assets, including both the Company's share of the benefit cost and the participants' share of the cost, which is funded by participant contributions. Additionally, the Medicare subsidies column represents payments estimated to be received from the U.S. government as part of the Medicare Prescription Drug, Improvement and Modernization Act of 2003.

	Pension benefits	Other postretirement benefits	
		Benefit payments	Medicare subsidies
2005	\$ 495	\$ 29	\$ -
2006	509	30	(2)
2007	529	31	(2)
2008	545	30	(2)
2009	565	30	(2)
Years 2010-2014	2,980	152	(11)

(U.S. dollar amounts in millions, except per share amounts)

## Note 22 Employee incentive plans

### Management incentive plan

The Company maintains a management incentive plan under which it offers stock warrants and warrant appreciation rights (WARs) to key employees for no consideration.

Warrants granted under this plan allow participants to purchase shares of the Company at predetermined prices. Participants may sell the warrants rather than exercise the right to purchase shares. Equivalent warrants are listed on the SWX Swiss Exchange (virt-x), which facilitates valuation and transferability of warrants granted under this plan.

Each WAR gives the participant the right to receive, in cash, the market price of a warrant on the date of exercise of the WAR. The WARs are non-transferable.

Participants may exercise or sell warrants and exercise WARs after the vesting period, which is three years from the date of grant. Vesting restrictions can be waived in certain circumstances such as death or disability. All warrants and WARs expire six years from the date of grant. The primary trading market for shares of ABB Ltd is the SWX Swiss Exchange (virt-x), the exercise prices of warrants and the trading prices of equivalent warrants listed on the SWX Swiss Exchange (virt-x) are denominated in Swiss francs. Accordingly, exercise prices are presented below in Swiss francs. Fair values have been presented in U.S. dollars based upon exchange rates in effect as of the applicable period.

### Warrants

The Company accounts for the warrants using the intrinsic value method of APB 25 as permitted by SFAS123. All warrants were issued with exercise prices greater than the market prices of the stock on the dates of grant. Accordingly, the Company records no compensation expense related to the warrants, except in circumstances when a participant ceased to be employed by a consolidated subsidiary, such as after a divestment by the Company. In accordance with Financial Accounting Standards Board Interpretation No. 44, *Accounting for Certain Transactions Involving Stock Compensation*, the Company records compensation expense based on the fair value of warrants retained by participants on the date their employment ceased, with an offset to additional paid in capital. The impact of such expense is not material.

Presented below is a summary of warrant activity for the years shown:

	Number of warrants	Number of shares <sup>(1)</sup>	Weighted-average exercise price (Swiss francs) <sup>(2)</sup>
Outstanding at January 1, 2002	76,496,150	25,240,463	26.55
Forfeited	(8,105,090)	(2,043,264)	24.03
<b>Outstanding at December 31, 2002</b>	<b>68,391,060</b>	<b>23,197,199</b>	<b>26.77</b>
Granted <sup>(3)</sup>	27,254,250	5,450,850	7.00
Forfeited	(1,435,000)	(361,758)	19.66
<b>Outstanding at December 31, 2003</b>	<b>94,210,310</b>	<b>28,286,291</b>	<b>23.05</b>
Granted <sup>(4)</sup>	14,475,000	2,895,000	7.50
Forfeited	(3,000,000)	(661,864)	9.94
Expired	(10,538,000)	(8,612,664)	22.17
<b>Outstanding at December 31, 2004</b>	<b>95,147,310</b>	<b>21,906,763</b>	<b>21.74</b>
Exercisable at December 31, 2002	29,751,060	13,456,203	25.71
Exercisable at December 31, 2003	49,381,060	18,404,851	30.11
<b>Exercisable at December 31, 2004</b>	<b>55,230,560</b>	<b>13,923,413</b>	<b>30.08</b>

<sup>(1)</sup> All warrants granted prior to 1999 require the exercise of 100 warrants for 81.73 registered shares of ABB Ltd. Warrants granted in 1999, 2000 and 2001 require the exercise of 100 warrants for 25.21 registered shares of ABB Ltd. No warrants were granted in 2002. Warrants granted in 2003 and 2004 required the exercise of five warrants for one registered share of ABB Ltd. Information presented reflects the number of registered shares of ABB Ltd that warrant holders can receive upon exercise.

<sup>(2)</sup> Information presented reflects the exercise price per registered share of ABB Ltd.

<sup>(3)</sup> The aggregate fair value at date of grant of warrants issued in 2003 was \$12 million, assuming a zero percent dividend yield, expected volatility of 44 percent, risk-free interest rate of 2.41 percent, and an expected life of six years.

<sup>(4)</sup> The aggregate fair value at date of grant of warrants issued in 2004 was \$4 million, assuming dividend yield of 1.53 percent, expected volatility of 28.5 percent, risk-free interest rate of 1.98 percent, and an expected life of six years.

(U.S. dollar amounts in millions, except per share amounts)

## Note 22 Employee incentive plans, continued

Presented below is a summary of warrants outstanding at December 31, 2004:

Exercise price (in Swiss francs) <sup>(1)</sup>	Number of warrants	Number of shares <sup>(2)</sup>	Weighted- average remaining life
29.75	4,648,060	1,171,758	0.4 years
32.73	14,565,000	3,671,781	0.9 years
42.05	19,630,000	4,948,648	1.4 years
13.49	16,387,500	4,131,226	2.9 years
7.00	25,441,750	5,088,350	4.9 years
7.50	14,475,000	2,895,000	5.9 years

<sup>(1)</sup> Information presented reflects the exercise price per registered share of ABB Ltd.

<sup>(2)</sup> Information presented reflects the number of registered shares of ABB Ltd that warrant holders can receive upon exercise of warrants.

### WARs

As each WAR gives the holder the right to receive cash equal to the market price of a warrant on date of exercise, the Company is required by APB 25 to record a liability based upon the fair value of outstanding WARs at each period end, amortized on a straight-line basis over the three-year vesting period. In selling, general and administrative expenses, the Company recorded income of \$4 million for 2004, expense of \$1 million for 2003 and income of \$14 million for 2002, respectively, as a result of changes in the fair value of the outstanding WARs and the vested portion. To hedge its exposure to fluctuations in fair value of outstanding WARs, the Company purchases cash-settled call options, which entitle the Company to receive amounts equivalent to its obligations under the outstanding WARs. In accordance with EITF 00-19 the cash-settled call options have been recorded as assets measured at fair value (see Note 5), with subsequent changes in fair value recorded through earnings as an offset to the compensation expense recorded in connection with the WARs. During 2004, 2003 and 2002, the Company recognized expense of \$15 million, \$9 million and \$26 million, respectively, in interest and other finance expense, related to the cash-settled call options.

The aggregate fair value of outstanding WARs was \$14 million and \$17 million at December 31, 2004 and 2003, respectively. Fair value of WARs was determined based upon the trading price of equivalent warrants listed on the SWX Swiss Exchange (virt-x).

Presented below is a summary of WAR activity for the years shown.

	Number of WARs outstanding
<b>Outstanding at January 1, 2002</b>	<b>103,553,070</b>
Exercised	(1,455,080)
Forfeited	(3,803,750)
<b>Outstanding at December 31, 2002</b>	<b>98,294,240</b>
Granted	21,287,000
Exercised	(2,052,500)
Forfeited	(1,850,000)
<b>Outstanding at December 31, 2003</b>	<b>115,678,740</b>
Granted	30,490,000
Exercised	(3,481,220)
Forfeited	(2,600,000)
Expired	(7,895,000)
<b>Outstanding at December 31, 2004</b>	<b>132,192,520</b>

At December 31, 2004 and 2003, 81,590,520 and 57,619,240 of the WARs were exercisable, respectively. The aggregate fair value at date of grant of WARs issued in 2004 and 2003 was \$8 million and \$9 million, respectively. No WARs were granted in 2002.

### Employee Share Acquisition Plan

To incentivize employees, the Company granted stock options under an Employee Share Acquisition Plan (ESAP Plan) in November 2004. In the initial launch of the ESAP Plan, employees in eleven countries, including the United States, were invited to participate. The ESAP Plan is an employee stock option plan with a savings feature. Employees save over a twelve-month savings period, by way of monthly salary deductions. The maximum monthly savings amount is the lower of 10 percent of gross monthly salary or the local currency equivalent of 750 Swiss francs. At the end of the savings period, employees choose whether to exercise their stock options using their savings plus interest to buy ABB Ltd shares (American Depositary Shares (ADS) in the case of employees in the United States – each ADS representing one registered share of the Company) at the exercise price set at the grant date, or have their savings returned with interest. The savings are accumulated in a bank account held by a third party trustee on behalf of the participants and earn interest.

(U.S. dollar amounts in millions, except per share amounts)

#### **Note 22 Employee incentive plans, continued**

The maximum number of shares that each employee can purchase has been determined based on the exercise price and the aggregate savings for the twelve-month period, increased by 10 percent to allow for currency fluctuations. If, at the exercise date, the balance of savings plus interest exceeds the maximum amount of cash the employee must pay to fully exercise his stock options, the excess funds will be returned to the employee. If the balance of savings and interest is insufficient to permit the employee to fully exercise his stock options, the employee has the choice but not the obligation, to make an additional payment so that the employee may fully exercise his stock options.

If an employee ceases to be employed by the Company, the accumulated savings as of the date of cessation of employment will be returned to the employee and the employee's right to exercise his stock options will be forfeited. Employees can withdraw from the ESAP Plan at any time during the savings period and will be entitled to a refund of their accumulated savings.

The exercise price per share and ADS of 6.95 Swiss francs and \$5.90, respectively, was determined using the respective closing price of the ABB Ltd share on SWX Swiss Exchange (virt-x) and ADS on the New York Stock Exchange on November 9, 2004, the grant date. The Company granted stock options, such that, if fully exercised, the Company would issue 7,548,360 registered shares (including shares represented by ADS). The aggregate fair value of the awards at date of grant was \$5 million, assuming a zero percent dividend yield, expected volatility of 28.25 percent, a risk-free interest rate of 0.97 percent and a life of one year from grant date. Forfeitures since grant date have been insignificant.

The Company accounts for awards under the ESAP Plan using the intrinsic value method of APB 25. The awards were issued with an exercise price equal to the market price of the stock on grant date. Accordingly, the intrinsic value as of grant date was zero and the Company has recorded no compensation expense related to the ESAP Plan.

#### **Performance Incentive Share Plan**

In December 2004, the Company introduced a Performance Incentive Share Plan (Performance Plan) for members of its Executive Committee (EC Members). EC Members did not participate in the management incentive plan in 2004.

The Performance Plan involves annual conditional grants of ABB Ltd shares (or ADSs where deemed appropriate by the Nomination and Compensation Committee). The number of shares conditionally granted is dependent upon the base salary of the EC Member. The actual number of shares that the participants will receive free of charge at a future date is dependent on 1) the performance of ABB Ltd shares during a defined period (Evaluation Period) compared to those of a selected peer group of publicly-listed multinational companies and 2) the term of service of the respective EC Member in that capacity during the Evaluation Period. The actual number of shares received after the Evaluation Period cannot exceed 100 percent of the conditional grant.

The Evaluation Period of the initial launch was defined as the period from March 15, 2004, to March 15, 2006. The reference price of 7.68 Swiss francs for the purpose of comparison with the peers was calculated as the average of the closing prices of the ABB Ltd share on SWX Swiss Exchange (virt-x) over the 20 trading days preceding March 15, 2004.

The performance of the Company compared to its peers over the Evaluation Period will be measured as the sum, in percentage terms, of the average percentage price development of the ABB share price over the Evaluation Period and an average annual dividend yield percentage (the Company's Performance).

In order for shares to vest, the Company's Performance over the Evaluation Period must be positive and equal to or better than half of the defined peers. The actual number of shares to be delivered will be dependent on the Company's ranking in comparison with the defined peers. The full amount of the conditional grant will vest when the Company's Performance is better than three-quarters of the defined peers.

If an EC Member gives notice of resignation or, under certain circumstances is given notice of termination, and the vesting period has not expired, then the right to shares is forfeited. In the event of death or disability during the vesting period, the conditional grant size for that participant is reduced pro rata based on the remaining vesting period. An evaluation of the Company's Performance for the Evaluation Period up to the date of death or disability is made to establish the number of shares that vest. If a Performance Plan participant ceases to be an EC Member for reasons other than described above, the conditional grant size is reduced pro rata based on the portion of the vesting period remaining when the participant ceases to be an EC Member. In respect of a Performance Plan grant for which the vesting period has not expired, the Nomination and Compensation Committee can invite a new EC Member to receive a conditional grant, adjusted to reflect the shorter service period.

In 2004, 443,430 shares were conditionally granted to EC Members. In January 2005, a further 59,001 shares were conditionally granted under the 2004 launch to a new EC Member.

The Company accounts for awards under the Performance Plan using the intrinsic value method of APB 25. As the shares that vest are awarded free of charge, the intrinsic value of the award is equivalent to the market price of the stock. Since the actual number of shares that participants will ultimately receive is not determinable until March 15, 2006, the Performance Plan is deemed to be a variable plan in accordance with APB 25. Changes in the fair value of the Company's stock and actual number of shares that vest up to July 1, 2005, date of adoption of SFAS 123R, will result in a change in the intrinsic value and amount of the awards and a corresponding change to compensation expense over the vesting period. The amount of compensation expense for 2004 was insignificant. The aggregate fair value of the 2004 awards at grant date, assuming vesting of the maximum award in March 2006, was approximately \$2 million.

#### **Note 23 Stockholders' equity**

In March 2003, the Company sold 80 million treasury shares in two transactions for approximately \$156 million.

At the Company's annual general meeting held on May 16, 2003, the Company's shareholders approved amendments to its articles of incorporation providing for an increase in authorized share capital and an increase in contingent share capital. The amendments include the creation of 250 million Swiss francs in authorized share capital, replacing the 100 million Swiss francs in authorized share capital that expired in June 2001. This entitled the Company's Board of Directors to issue up to 100 million new ABB Ltd shares, including approximately 30 million CE Settlement Shares (see Note 18).

(U.S. dollar amounts in millions, except per share amounts)

### Note 23 Stockholders' equity, continued

The amendments also included an increase of contingent capital from 200 million Swiss francs to 750 million Swiss francs, allowing the issuance of up to a further 300 million new ABB Ltd shares which may be used primarily for the exercise of conversion rights granted in connection with issuance of bonds and other financial market instruments and for the issuance of new shares to employees.

In October 2003, the Company announced a three-component capital-strengthening program, comprised of a share capital increase, a credit facility agreement and a bond issuance. As part of this program, in November 2003, an extraordinary shareholders' meeting resolved to increase the Company's share capital by approximately 840 million shares through a rights issue. In December 2003, the Company completed the 7-for-10 rights offering for the 840 million new registered shares at an offer price of 4 Swiss francs per share resulting in a net increase of capital stock and additional paid in capital of approximately \$2.5 billion.

In December 2003, the Company issued 30,298,913 CE Settlement Shares out of its authorized capital for purposes of fulfilling the Company's obligations under a pre-packaged plan of reorganization under Chapter 11 of the U.S. Bankruptcy Code of Combustion Engineering. In accordance with its then current articles of incorporation, the pre-emptive rights of the shareholders were excluded and allocated to a Company subsidiary, which subscribed for these shares and holds them until they will be contributed to the Asbestos PI Trust or any similar trust, once a plan of reorganization of Combustion Engineering is declared effective.

At December 31, 2004, the Company had 2,440,016,034 authorized shares. Of these, 2,070,314,947 shares are registered and issued, including 30,298,913 CE Settlement Shares that are reserved for use in connection with a pre-packaged plan of reorganization of Combustion Engineering. As these shares are presently held by one of the Company's subsidiaries and carry no participation rights, these shares are not treated as outstanding for the purposes of the Company's Consolidated Financial Statements. The CE Settlement Shares will only become outstanding and carry participation rights once a plan of reorganization for Combustion Engineering becomes effective and the shares have been contributed to the Asbestos PI Trust or any similar trust created under such a plan. Should a plan ultimately not become effective, the CE Settlement Shares reserved for such use would be cancelled by the Company.

At December 31, 2004, including the securities issued under the employee incentive plans and call options sold to a bank at fair value during 2001, 2003 and 2004, the Company had outstanding obligations to deliver 62 million shares at exercise prices ranging from 6.95 to 42.05 Swiss francs. These financial instruments expire in periods ranging from June 2005 to December 2010 and were recorded as equity instruments in accordance with EITF 00-19. Also, at December 31, 2004, the Company had obligations to deliver approximately 107 million shares at a conversion price of \$9.03 as a result of the issuance of convertible debt in May 2002 and to deliver approximately 105 million shares at a conversion price of 9.53 Swiss francs as a result of the issuance of convertible debt in September 2003. In addition, at December 31, 2004, the Company had outstanding contingent obligations to deliver up to a maximum of 0.5 million shares free of charge to EC Members under the Performance Plan (see Note 22).

Dividends are payable to the Company's stockholders based on the requirements of Swiss law, ABB Ltd's Articles of Incorporation, and stockholders' equity as reflected in the unconsolidated financial statements of ABB Ltd prepared in compliance with Swiss law. At December 31, 2004, of the 8,911 million Swiss francs stockholders' equity reflected in such unconsolidated financial statements, 5,176 million Swiss francs is share capital, 2,191 million Swiss francs is restricted, 1,533 million Swiss francs is unrestricted and 11 million Swiss francs is available for distribution.

### Note 24 Earnings per share

Basic earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year. Diluted earnings (loss) per share is calculated by dividing income (loss) by the weighted-average number of shares outstanding during the year, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise: outstanding written call options, if dilutive; the securities issued under the Company's employee incentive plans, if dilutive; and shares issuable in relation to outstanding convertible bonds, if dilutive. The shares issuable in relation to the warrants and options outstanding in connection with the Company's employee incentive plans were excluded from the computation of diluted earnings per share in 2003 and 2002 as their inclusion would have been antidilutive. In 2004, only the shares issuable in relation to the warrants and options outstanding in connection with the Company's December 2003 launch under the management incentive plan were included in the computation of diluted earnings (loss) per share as the inclusion of potential shares from the warrants and options of other launches under the employee incentive plans would have been antidilutive. In 2002, the shares issuable in relation to the \$968 million convertible bonds were included in the computation of diluted earnings per share for the period they were outstanding. In 2004 and 2003, the shares issuable in relation to the convertible bonds were excluded from the calculation of diluted earnings per share as their inclusion would have been antidilutive.

Basic earnings (loss) per share:

Year ended December 31,	2004	2003	2002
Income (loss) from continuing operations	\$ 448	\$ (371)	\$ (126)
Loss from discontinued operations, net of tax	(483)	(408)	(693)
<b>Net loss</b>	<b>\$ (35)</b>	<b>\$ (779)</b>	<b>\$ (819)</b>
Weighted-average number of shares outstanding (in millions)	2,028	1,220	1,113
Earnings (loss) per share:			
Income (loss) from continuing operations	\$ 0.22	\$ (0.30)	\$ (0.11)
Loss from discontinued operations, net of tax	(0.24)	(0.34)	(0.63)
<b>Net loss</b>	<b>\$ (0.02)</b>	<b>\$ (0.64)</b>	<b>\$ (0.74)</b>

(U.S. dollar amounts in millions, except per share amounts)

**Note 24 Earnings per share, continued**

Diluted earnings (loss) per share:

Year ended December 31,	2004	2003	2002
Income (loss) from continuing operations	\$ 448	\$ (371)	\$ (126)
Effect of dilution:			
Convertible bonds, net of tax	-	-	(187)
<b>Income (loss) from continuing operations, adjusted</b>	<b>448</b>	<b>(371)</b>	<b>(313)</b>
Loss from discontinued operations, net of tax	(483)	(408)	(693)
<b>Net loss, adjusted</b>	<b>\$ (35)</b>	<b>\$ (779)</b>	<b>\$ (1,006)</b>
Weighted-average number of shares outstanding (in millions)	2,028	1,220	1,113
Dilutive potential shares:			
Warrants and options	1	-	-
Convertible bonds	-	-	53
<b>Diluted weighted-average number of shares outstanding (in millions)</b>	<b>2,029</b>	<b>1,220</b>	<b>1,166</b>
Earnings (loss) per share:			
Income (loss) from continuing operations, adjusted	\$ 0.22	\$ (0.30)	\$ (0.27)
Loss from discontinued operations, net of tax	(0.24)	(0.34)	(0.59)
<b>Net loss, adjusted</b>	<b>\$ (0.02)</b>	<b>\$ (0.64)</b>	<b>\$ (0.86)</b>

**Note 25 Restructuring charges**

**2001 program**

In July 2001, the Company announced and initiated a restructuring program (2001 program) in an effort to improve productivity, reduce cost base, simplify product lines, reduce multiple location activities and perform other downsizing in response to weakening markets and consolidation of major customers in certain industries. The 2001 program was substantially completed at September 30, 2002.

Restructuring charges relating to workforce reductions, lease terminations and other exit costs associated with the 2001 program are included in other income (expense), net. Termination benefits were paid to approximately 100, 2,270 and 4,000 employees in 2004, 2003 and 2002, respectively. Workforce reductions include production, managerial and administrative employees. Changes in management's original estimate of the amounts accrued for workforce reductions, lease terminations and other exit costs have been included in other income (expense), net.

As a result of the 2001 program, certain assets, inventories and property, plant and equipment were identified as impaired or that would no longer be used in continuing operations. The Company recorded a charge of \$18 million in 2002 to write down these assets to fair value and such costs were included in cost of sales and other income (expense), net.

**Step change program**

In October 2002, the Company announced the Step change program. The goals of the Step change program were to increase competitiveness of the Company's core businesses (see Note 26), reduce overhead costs and streamline operations by approximately \$1 billion on an annual basis by 2005. At June 30, 2004, the Step change program was substantially complete.

Restructuring charges relating to workforce reductions, lease terminations and other exit costs associated with the Step change program are included in other income (expense), net. Termination benefits were paid to approximately 950, 1,500 and 200 employees in 2004, 2003 and 2002, respectively. Workforce reductions include production, managerial and administrative employees. Changes in management's original estimate of the amounts accrued for workforce reductions, lease terminations and other exit costs were included in other income (expense), net.

As a result of the Step change program, certain assets, inventories and property, plant and equipment were identified as impaired or will no longer be used in continuing operations. The Company recorded \$0 million, \$3 million and \$2 million in 2004, 2003 and 2002, respectively, to write down these assets to their fair value and such costs were included in cost of sales and other income (expense), net.

**Other**

Certain restructuring programs were initiated primarily during 2003 at specified locations not included in the Step change program. The goals of these programs are to increase efficiencies by reducing headcount and streamlining operations. These programs are expected to increase productivity of the non-core businesses (see Note 26). Anticipated savings will be recognized through the strategic divestment of these operations.

Restructuring charges related to workforce reductions, lease terminations and other exit costs associated with these other programs are included in other income (expense), net. Termination benefits were paid to approximately 1,290 and 1,300 employees in 2004 and 2003, respectively. Workforce reductions include production, managerial and administrative employees. Changes in management's original estimate of the amounts accrued for workforce reductions, lease terminations and other exit costs have been included in other income (expense), net.

(U.S. dollar amounts in millions, except per share amounts)

### Note 25 Restructuring charges, continued

As a result of these restructuring programs, certain assets, inventories and property, plant and equipment have been identified as impaired or will no longer be used in continuing operations. The Company recorded \$5 million and \$11 million in 2004 and 2003, respectively, to write down these assets to fair value and such costs are included in cost of sales and other income (expense), net.

Restructuring liabilities consist of the following:

	2001 program		Step change		Other		Total
	Workforce reductions	Lease terminations and other exit costs	Workforce reductions	Lease terminations and other exit costs	Workforce reductions	Lease terminations and other exit costs	
<b>Balance at January 1, 2002</b>	<b>\$ 78</b>	<b>\$ 39</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 20</b>	<b>\$ 12</b>	<b>\$ 149</b>
Restructuring expense	168	40	51	26	-	-	285
Cash paid	(156)	(29)	(13)	(1)	-	-	(199)
Exchange rate differences	20	5	-	-	-	-	25
Changes in estimate	(16)	(5)	-	-	(9)	-	(30)
<b>Balance at December 31, 2002</b>	<b>94</b>	<b>50</b>	<b>38</b>	<b>25</b>	<b>11</b>	<b>12</b>	<b>230</b>
Restructuring expense	-	-	181	56	110	25	372
Cash paid	(99)	(10)	(143)	(48)	(43)	(12)	(355)
Exchange rate differences	14	9	24	4	7	3	61
Changes in estimate	-	(22)	(4)	-	(6)	-	(32)
<b>Balance at December 31, 2003</b>	<b>9</b>	<b>27</b>	<b>96</b>	<b>37</b>	<b>79</b>	<b>28</b>	<b>276</b>
Restructuring expense	-	-	42	17	98	31	188
Cash paid	(9)	(9)	(137)	(18)	(103)	(16)	(292)
Exchange rate differences	-	2	6	3	5	4	20
Changes in estimate	-	(6)	(7)	-	(5)	(5)	(23)
<b>Balance at December 31, 2004</b>	<b>\$ -</b>	<b>\$ 14</b>	<b>\$ -</b>	<b>\$ 39</b>	<b>\$ 74</b>	<b>\$ 42</b>	<b>\$ 169</b>

### Cumulative

The cumulative amounts at December 31, 2004, for each plan are given below:

	2001 program	Step change	Other	Total
Restructuring charge for workforce reduction	\$ 282	\$ 274	\$ 228	\$ 784
Restructuring charge for lease terminations and other	111	99	68	278
Changes in estimate	(49)	(11)	(25)	(85)
<b>Total restructuring charges</b>	<b>\$ 344</b>	<b>\$ 362</b>	<b>\$ 271</b>	<b>\$ 977</b>

### Segment information

Restructuring charges by segment consist of the following:

Year ended December 31.	2004	2003	2002
Power Technologies	\$ 51	\$ 61	\$ 57
Automation Technologies	72	139	126
Non-core activities:			
Oil, Gas and Petrochemicals	20	20	-
Equity Ventures	-	-	-
Structured Finance	-	-	-
Building Systems	11	43	22
New Ventures	1	1	2
Other Non-core activities	-	47	15
<b>Total Non-core activities</b>	<b>32</b>	<b>111</b>	<b>39</b>
Corporate/Other	10	29	33
<b>Total restructuring charges</b>	<b>\$ 165</b>	<b>\$ 340</b>	<b>\$ 255</b>

**Note 26 Segment and geographic data**

Effective January 1, 2003, in order to streamline the Company's structure and improve operational performance, the Company put into place two divisions: Power Technologies, which combined the former Power Technology Products and Utilities divisions and employed approximately 40,400 people at December 31, 2004; and Automation Technologies, which combined the former Automation Technology Products and Industries divisions and employed approximately 54,600 people at December 31, 2004. The remaining operations of the Company are grouped in Non-core activities. Effective January 1, 2004, the Group Processes activities, previously in the Non-core activities division, were integrated into the core divisions and the Substations Automation business was integrated into the Power Technologies division from the Automation Technologies division. All periods presented have been restated to reflect the new organizational structure of the Company.

- The Power Technologies division produces transformers, switchgear, breakers, capacitors, cables and other products and technologies for high- and medium-voltage applications. It serves electric, gas, and water utilities as well as industrial and commercial customers, with a broad range of products, systems and services for power transmission, distribution and power plant automation. The division's principal customers are electric, gas and water utilities, owners and operators of power transmission systems, utilities that own or operate networks and owners and operators of power generating plants. Other customers include gas transmission companies, local distribution companies and multi-utilities, which are involved in the transmission or distribution of more than one commodity. The division also serves industrial and commercial customers, such as operators of large commercial buildings and heavy industrial plants.
- The Automation Technologies division provides products, systems, software and services for the automation and optimization of industrial and commercial processes. Key technologies include measurement and control, instrumentation, process analysis, drives and motors, power electronics, robots, and low voltage products. These technologies are sold to customers of the automotive, cement, chemical, distribution, electronics, food and beverage, life sciences, marine, metals, mining, paper, petroleum, printing and telecommunications industries with application-specific power and automation technology.
- Non-core activities include the following:
  - The Company's remaining Oil, Gas and Petrochemicals business;
  - The Company's remaining Equity Ventures business;
  - The Company's remaining Structured Finance business;
  - The Company's remaining Building Systems business;
  - The Company's New Ventures business area;
  - The Company's Customer Service, Logistic Systems, and Semiconductors business areas.The remaining Oil, Gas and Petrochemicals business primarily consists of a full service engineering company which, in addition to having expertise in engineering, procurement and construction projects, also licenses process technologies in the refining, chemical, petrochemical and polymer fields. The Building Systems business area designs, builds and maintains complete installations for industrial, infrastructure and commercial facilities, integrating products manufactured by the Power Technologies and Automation Technologies divisions, as well as those from third-party suppliers.
- Corporate/Other includes Headquarters, Central Research and Development, Real Estate, Group Treasury Operations and the Financial Advisory business.

The Company evaluates performance of its segments based on earnings before interest and taxes, which excludes interest and dividend income, interest and other finance expense, provision for taxes, minority interest, and loss from discontinued operations, net of tax. In accordance with Statement of Financial Accounting Standards No.131, *Disclosures about Segments of an Enterprise and Related Information*, the Company presents division revenues, depreciation and amortization, earnings before interest and taxes, net operating assets and capital expenditures, all of which have been restated to reflect the changes to the Company's internal structure, including the effect of inter-division transactions. The Company accounts for inter-division sales and transfers as if the sales and transfers were to third parties, at current market prices.

(U.S. dollar amounts in millions, except per share amounts)

**Note 26 Segment and geographic data, continued**

The following tables summarize information for each segment:

2004	Revenues	Depreciation and amortization	Earnings (loss) before interest and taxes	Net operating assets <sup>(1)</sup>	Capital expenditures <sup>(2)</sup>
Power Technologies	\$ 8,755	\$ 214	\$ 610	\$ 2,728	\$ 137
Automation Technologies	11,030	292	1,027	3,754	186
Non-core activities:					
Oil, Gas and Petrochemicals	1,079	26	(4)	363	1
Equity Ventures <sup>(3)</sup>	7	6	69	1,161	10
Structured Finance	6	1	(14)	524	-
Building Systems	508	3	(70)	-	1
New Ventures	49	4	(5)	99	10
Other Non-core activities	44	1	(22)	9	1
<b>Total Non-core activities</b>	<b>1,693</b>	<b>41</b>	<b>(46)</b>	<b>2,156</b>	<b>23</b>
Corporate/Other	887	84	(507)	1,901	54
Inter-division elimination	(1,644)	-	-	(917)	-
<b>Consolidated</b>	<b>\$ 20,721</b>	<b>\$ 631</b>	<b>\$ 1,084</b>	<b>\$ 9,622</b>	<b>\$ 400</b>

2003	Revenues	Depreciation and amortization	Earnings (loss) before interest and taxes	Net operating assets <sup>(4)</sup>	Capital expenditures <sup>(2)</sup>
Power Technologies	\$ 7,598	\$ 183	\$ 595	\$ 2,568	\$ 120
Automation Technologies	9,628	253	738	3,868	154
Non-core activities:					
Oil, Gas and Petrochemicals	1,895	-	(296)	276	5
Equity Ventures <sup>(3)</sup>	26	5	76	1,151	46
Structured Finance	48	1	(65)	643	-
Building Systems	1,829	9	(104)	9	3
New Ventures	53	5	(21)	195	11
Other Non-core activities	471	53	(57)	(226)	6
<b>Total Non-core activities</b>	<b>4,322</b>	<b>73</b>	<b>(467)</b>	<b>2,048</b>	<b>71</b>
Corporate/Other	905	68	(486)	2,513	57
Inter-division elimination	(2,026)	-	(23)	(1,140)	-
<b>Consolidated</b>	<b>\$ 20,427</b>	<b>\$ 577</b>	<b>\$ 357</b>	<b>\$ 9,857</b>	<b>\$ 402</b>

2002	Revenues	Depreciation and amortization	Earnings (loss) before interest and taxes	Net operating assets	Capital expenditures <sup>(2)</sup>
Power Technologies	\$ 6,814	\$ 168	\$ 451	\$ 2,266	\$ 116
Automation Technologies	8,201	199	495	3,554	130
Non-core activities:					
Oil, Gas and Petrochemicals	2,321	16	(142)	152	5
Equity Ventures <sup>(3)</sup>	19	-	43	1,062	-
Structured Finance	66	1	96	1,165	2
Building Systems	2,375	11	(113)	68	9
New Ventures	50	11	(37)	144	14
Other Non-core activities	783	75	(157)	(178)	20
<b>Total Non-core activities</b>	<b>5,614</b>	<b>114</b>	<b>(310)</b>	<b>2,413</b>	<b>50</b>
Corporate/Other	1,014	78	(363)	2,361	144
Inter-division elimination	(2,171)	-	(74)	(724)	-
<b>Consolidated</b>	<b>\$ 19,472</b>	<b>\$ 559</b>	<b>\$ 199</b>	<b>\$ 9,870</b>	<b>\$ 440</b>

<sup>(1)</sup> Net operating assets at December 31, 2004, are calculated based upon total assets of \$24,677 million excluding cash and equivalents of \$3,676 million, marketable securities and short-term investments of \$524 million, current loans receivable of \$17 million, tax assets of \$1,256 million, assets held for sale and in discontinued operations of \$155 million, prepaid pension and other employee benefits of \$549 million and other assets of \$89 million, less total liabilities of \$21,556 million excluding borrowings of \$5,534 million, tax liabilities of \$1,522 million, provisions of \$3,326 million, pension and employee related liabilities of \$1,628 million, liabilities held for sale and in discontinued operations of \$290 million and certain other liabilities of \$467 million.

<sup>(2)</sup> Capital expenditures reflect purchases of tangible fixed assets.

<sup>(3)</sup> Includes the Company's investment in Jorf Lasfar Energy Company S.C.A. (see Note 14).

<sup>(4)</sup> Net operating assets at December 31, 2003, are calculated based upon total assets of \$30,401 million excluding cash and equivalents of \$4,783 million, marketable securities and short-term investments of \$473 million, current loans receivable of \$23 million, tax assets of \$1,327 million, assets held for sale and in discontinued operations of \$4,981 million, prepaid pension and other employee benefits of \$564 million and other assets of \$143 million, less total liabilities of \$27,199 million excluding borrowings of \$7,934 million, tax liabilities of \$1,644 million, provisions of \$3,021 million, pension and employee related liabilities of \$1,902 million, liabilities held for sale and in discontinued operations of \$3,990 million and certain other liabilities of \$458 million.

(U.S. dollar amounts in millions, except per share amounts)

**Note 26 Segment and geographic data, continued**  
**Geographic information**

	Revenues Year ended December 31,			Long-lived assets at December 31,	
	2004	2003	2002	2004	2003
Europe	\$ 10,764	\$ 10,963	\$ 10,461	\$ 2,288	\$ 2,159
The Americas	3,624	3,900	4,177	272	297
Asia	4,296	3,519	2,860	299	281
Middle East and Africa	2,037	2,045	1,974	122	121
	<b>\$ 20,721</b>	<b>\$ 20,427</b>	<b>\$ 19,472</b>	<b>\$ 2,981</b>	<b>\$ 2,858</b>

Revenues have been reflected in the regions based on the location of the customer. The United States generated approximately 11 percent, 12 percent and 14 percent of the Company's total revenues in 2004, 2003 and 2002 respectively. Germany generated approximately 11 percent of the Company's total revenues in 2004, 2003 and 2002, respectively. More than 95 percent of the Company's total revenues were generated outside Switzerland in 2004, 2003 and 2002. Long-lived assets represent property, plant and equipment, net, and are shown by location of the assets. Switzerland and Germany represented approximately 22 percent and 15 percent, respectively, of the Company's long-lived assets at both December 31, 2004 and 2003.

The Company does not segregate revenues derived from transactions with external customers for each type or group of products and services. Accordingly, it is not practicable for the Company to present revenues from external customers by product and service type.

Management estimates that approximately 63 percent of the Company's employees are subject to collective bargaining agreements in various countries. These agreements are subject to various regulatory requirements and are renegotiated on a regular basis in the normal course of business.

# ABB Ltd Group Auditors' Report

The Stockholders of ABB Ltd:

As auditors of the Group, we have audited the accompanying consolidated balance sheets of ABB Ltd as of December 31, 2004 and 2003, and the related consolidated income statements, statements of cash flows and statements of changes in stockholders' equity for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audits. We confirm that we meet the legal requirements concerning professional qualification and independence.

We did not audit the financial statements of Jorf Lasfar Energy Company, a corporation in which the Company has a 50% interest, (the Company's equity in Jorf Lasfar Energy Company's net income is stated at \$63 million in 2004, \$60 million in 2003 and \$66 million in 2002); and we did not audit the 2002 consolidated financial statements of Swedish Export Credit Corporation, a corporation in which the Company had a 35% interest, (the Company's equity in Swedish Export Credit Corporation's consolidated net income is stated at \$89 million in 2002). Those statements were audited by other auditors whose reports have been furnished to us. Our opinion, insofar as it relates to amounts included for those companies and their subsidiaries, is based solely on the reports of the other auditors.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards promulgated by the profession in Switzerland. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits and the reports of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of ABB Ltd at December 31, 2004 and 2003, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles and comply with Swiss law.

We recommend that the consolidated financial statements submitted to you be approved.

In accordance with Swiss reporting standards, without qualifying our opinion, we are required to draw your attention to Notes 3 and 18 to the consolidated financial statements which describe certain risks and uncertainties relating to the Company's asbestos liabilities.

As discussed in Note 2 to the consolidated financial statements, in 2003 the Company changed its method of consolidation relating to variable interest entities.

Ernst & Young AG  
C. Barone                      S. Reid  
Auditors in charge

Zurich, April 6, 2005

# Financial Statements of ABB Ltd, Zurich

## Income Statement

Year ended December 31 (CHF in thousands)	2004	2003
Revenues	-	22
Personnel expenses	(32,718)	(32,555)
Other expenses	(28,450)	(22,828)
Interest income	54,344	90,632
Interest expense	(24,014)	(26,061)
Loss on sale of own shares	-	(19,976)
Write-down of participations	-	(1,050,000)
<b>Net loss</b>	<b>(30,838)</b>	<b>(1,060,766)</b>

## Balance Sheet

December 31 (CHF in thousands)	2004	2003
Cash and equivalents	600	57,020
Receivables	6,050	13,738
<b>Total current assets</b>	<b>6,650</b>	<b>70,758</b>
Long-term loans to subsidiary	4,470,000	4,470,000
Participations	5,300,910	5,300,910
Own shares	45,968	45,968
<b>Total fixed assets</b>	<b>9,816,878</b>	<b>9,816,878</b>
<b>Total assets</b>	<b>9,823,528</b>	<b>9,887,636</b>
Current liabilities	18,272	82,239
Short-term loans from subsidiary	5,697	-
Long-term loans from subsidiary	50,000	25,000
Provisions	238,628	238,628
Bonds	600,000	600,000
<b>Total liabilities</b>	<b>912,597</b>	<b>945,867</b>
Share capital	5,175,787	5,175,787
Legal reserve	1,779,669	1,779,669
Reserve for treasury shares	411,814	411,814
Other reserves	1,533,090	2,533,090
Retained earnings	41,409	102,175
Net loss	(30,838)	(1,060,766)
<b>Total stockholders' equity</b>	<b>8,910,931</b>	<b>8,941,769</b>
<b>Total liabilities and stockholders' equity</b>	<b>9,823,528</b>	<b>9,887,636</b>

# Notes to Financial Statements

## Note 1 General

ABB Ltd, Zurich (the Company) is the parent company of the ABB Group whose Consolidated Financial Statements include 100 percent of the assets, liabilities, revenues, expenses, income, loss and cash flows of ABB Ltd and companies in which the Company has a controlling interest, as if the Company and its subsidiaries were a single company. The Consolidated Financial Statements are of overriding importance for the purpose of the economic and financial assessment of the Company. The unconsolidated financial statements of the Company are prepared in accordance with Swiss law and serve as complementary information to the Consolidated Financial Statements.

## Note 2 Cash and equivalents

(CHF in thousands)	2004	2003
Cash and bank	600	521
Cash with subsidiary	-	56,499
<b>Total</b>	<b>600</b>	<b>57,020</b>

## Note 3 Receivables

(CHF in thousands)	2004	2003
Non-trade receivables	74	8,592
Accrued income from subsidiary	5,976	5,146
<b>Total</b>	<b>6,050</b>	<b>13,738</b>

## Note 4 Long-term loans to subsidiary

(CHF in thousands)	2004	2003
Long-term loans to subsidiary	4,470,000	4,470,000

The Company maintains interest bearing credit agreements with ABB Asea Brown Boveri Ltd. These loans are stated at cost.

## Note 5 Participations

Company name	Purpose	Domicile	Share capital	Ownership interest	
				2004	2003
ABB Asea Brown Boveri Ltd	Holding	CH-Zurich	CHF 2,768,000,000	100%	100%
BBC Brown Boveri Ltd	Holding	CH-Zurich	CHF 570,580	100%	100%

The investments in subsidiaries are valued at the lower of cost or fair value. Fair values are determined using the discounted cash flow method, based upon management's expectations as to the future cash flows and earnings of the subsidiaries for the years 2005 through 2009.

## Note 6 Current liabilities

(CHF in thousands)	2004	2003
Non-trade payables	415	45,783
Non-trade payables to subsidiaries	1,183	4,479
Accrued expenses	16,055	28,688
Accrued expenses from subsidiaries	619	3,289
<b>Total</b>	<b>18,272</b>	<b>82,239</b>

## Note 7 Provisions

In conjunction with the issuance in September 2003 and May 2002 by a subsidiary of the Company of bonds convertible into ABB Ltd shares, the Company granted options to the subsidiary issuing the bonds to enable the subsidiary to meet its obligations to deliver shares when the bonds are converted. If the bonds fully convert, an additional 212,130,022 ABB Ltd shares, including shares represented by American Depository Shares, would be issued upon exercise of the options by the issuing subsidiary. Provisions of CHF 238,628 thousand were recorded to reflect the cash received by the Company related to the options. When the bonds are converted and the options are exercised or when the options expire without exercise because the bonds did not convert, the provisions will be released to other reserves in stockholders' equity.

### Note 8 Bonds

(CHF in thousands)	2004	2003
Bond 1999–2009 3.75%	500,000	500,000
Note 2001–2008 3.75%	100,000	100,000
<b>Total</b>	<b>600,000</b>	<b>600,000</b>

The Company's bonds are stated at their nominal value.

### Note 9 Stockholders' equity

(CHF in thousands)	Share capital	Legal reserve	Reserve for treasury shares	Other reserves	Retained earnings	Net loss	Total 2004
Opening balance as of January 1	5,175,787	1,779,669	411,814	2,533,090	102,175	(1,060,766)	8,941,769
Release of other reserves				(1,000,000)	1,000,000		–
Allocation to retained earnings					(1,060,766)	1,060,766	–
Net loss for the year						(30,838)	(30,838)
<b>Closing balance as of December 31</b>	<b>5,175,787</b>	<b>1,779,669</b>	<b>411,814</b>	<b>1,533,090</b>	<b>41,409</b>	<b>(30,838)</b>	<b>8,910,931</b>

Share capital as of December 31, 2004 and 2003	Number of registered shares	Par value (CHF in thousands)	Total
Issued shares	2,070,314,947	CHF 2.50	5,175,787
Contingent shares	300,000,000	CHF 2.50	750,000
Authorized shares	69,701,087	CHF 2.50	174,253

At the Company's Annual General Meeting held on May 16, 2003, the Company's shareholders approved amendments to its articles of incorporation providing for authorized share capital and an increase in contingent share capital.

The amendments included the creation of CHF 250 million in authorized share capital. This entitled the Company's Board of Directors to issue up to 100 million new shares of which approximately 30 million were allocated for use with any proposed plan of reorganization of the Company's, indirect wholly owned U.S. subsidiary, Combustion Engineering Inc ("CE") (see Note 10). The amendments also included an increase of contingent capital from CHF 200 million to CHF 750 million, allowing the issuance of up to 300 million new shares.

On November 20, 2003, at an Extraordinary General Meeting of the shareholders, it was resolved to increase the Company's share capital by approximately 840 million shares through a rights issue, which the Company completed in December 2003, issuing 840,006,602 new shares at an offer price of CHF 4 per share.

### Treasury shares

	2004		2003	
	Number of shares	Avg. price per share CHF	Number of shares	Avg. price per share CHF
Opening balance	41,910,442	9.83	86,830,312	33.92
Sales			(80,000,000)	
Subtotal			6,830,312	29.46
Purchase <sup>(1)</sup>			4,781,217	4.00
Purchase			30,298,913	6.32
<b>Closing balance</b>	<b>41,910,442</b>	<b>9.83</b>	<b>41,910,442</b>	<b>9.83</b>

<sup>(1)</sup> Rights exercised

In March 2003, the Company and its subsidiary, ABB Equity Limited, sold 80,000,000 treasury shares for total gross proceeds of approximately CHF 217 million.

In connection with the 7-for-10 rights offering, the Company exercised, in December 2003, its rights in respect of the remaining 6,830,312 treasury shares and received 4,781,217 shares at the offer price of CHF 4 per share.

In December 2003, the Company issued to ABB Asea Brown Boveri Ltd 30,298,913 shares for use with the proposed plan of reorganization of CE (see Note 10). These shares will be held as treasury shares until used in connection with any such proposed plan of reorganization.

The net equity value of the Company as reflected in these unconsolidated financial statements is approximately CHF 8.9 billion compared to a net equity value of approximately CHF 3.2 billion (approximately US\$ 2.8 billion) disclosed in the Consolidated Financial Statements of ABB Ltd. The difference derives from the separate accounting bases applied to the unconsolidated and Consolidated Financial Statements. In the unconsolidated financial statements, the net equity value reflects the use of the lower of cost or fair value to value ABB Ltd's shares and participations in subsidiaries. Such fair values are determined using the discounted cash flow method, based upon management's expectations as to the future cash flows and earnings of the subsidiaries for the years 2005 through 2009. The net equity value disclosed in the Consolidated Financial Statements reflects the aggregation of the equity of ABB Ltd's subsidiaries.

## Note 10 Contingent liabilities

(CHF in thousands)	2004	2003
Liability to pension fund	–	532
Financial guarantee to a subsidiary <sup>(1)</sup>	337,122	333,762
<b>Total</b>	<b>337,122</b>	<b>334,294</b>

<sup>(1)</sup> Relates to an intra-group financing.

In addition to the above stated financial guarantee to a subsidiary, the Company has provided a guarantee to a third party, to guarantee the performance of contractual obligations pursuant to a project undertaken by a subsidiary in the normal course of its business. The aggregate value of the guarantee is approximately CHF 50,859 thousand.

The Company has entered into Keep-well agreements with certain indirect subsidiaries. A Keep-well agreement is a shareholder agreement between the Company and a subsidiary. These agreements provide for maintenance of a minimum net worth in the subsidiary and the maintenance of 100 percent direct or indirect ownership by the Company.

For those subsidiaries acting on the capital markets, the Keep-well agreements additionally provide that if at any time the subsidiary has insufficient liquid assets to meet any payment obligation on its debt (as defined in the agreements) and has insufficient unused commitments under its credit facilities with its lenders, the Company will make available to the subsidiary sufficient funds to enable it to fulfill such payment obligation as it falls due.

A Keep-well agreement is not a guarantee by the Company for payment of the indebtedness, or any other obligation, of a subsidiary. No party external to the ABB Group is a party to any of these Keep-well agreements.

CE, an indirect wholly owned subsidiary of the Company, is a defendant in numerous asbestos-related claims in the United States. Some claimants have named the Company in connection with claims against CE, but there has been no adjudication that the Company has liability for such claims. An order confirming a proposed plan of reorganization for CE was effectively reversed on December 2, 2004, by the U.S. Third Circuit Court of Appeals. In March 2005, following extensive discussions with certain representatives of various parties, including the Creditors Committee and the Future Claimants Representative appointed in the Combustion Engineering case, the Company reached an agreement on certain "settlement points" for modifying the CE plan with a view to bringing it into conformity with the Third Circuit decision and for providing a mechanism for resolving finally Lummus' potential asbestos liability. The Company and its subsidiaries' potential commitments and current provisions relating to this matter are further described in Note 18 of the Consolidated Financial Statements of ABB Ltd.

There are also a lesser number of asbestos-related claims against certain other subsidiaries of the Company, which are not related to CE. Please refer to Note 18 of the Consolidated Financial Statements of ABB Ltd for more detailed information.

The ultimate outcome of efforts to resolve the asbestos-related personal injury claims against CE and other entities of the ABB Group remains uncertain. The related costs may be higher than the ABB Group's provisions reflect and could have a material adverse impact on the ABB Group's consolidated financial position, results of operations and cash flows.

The Company is part of a value added tax group and therefore jointly liable to the federal tax department for the value added tax liabilities of the other members.

## Note 11 Credit facility agreement

On November 17, 2003, the Company and certain of its subsidiaries entered into a new unsecured syndicated US\$1 billion 3 year revolving credit facility which became available in December 2003. The Company is a guarantor of the new US\$1 billion facility, but nothing was drawn under this facility at December 31, 2004 and 2003.

## Note 12 Significant shareholders

As of December 31, 2004 and 2003, Investor AB, Stockholm, Sweden, owned 204,115,142 ABB Ltd shares, representing 9.9 percent of the Company's share capital. On March 8, 2005, investor AB announced that it reduced its holdings to 187,374,142 ABB Ltd shares, representing 9.1 percent of the Company's share capital at that date.

The Capital Group International, Inc., Los Angeles, CA, USA, announced that as of April 23, 2004, it reduced its holdings for its clients in ABB Ltd shares to a total that is less than 5 percent of the Company's share capital. As of December 31, 2003 such holdings totaled 133,888,830 shares, corresponding to 6.5 percent of the Company's share capital.

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

## Proposed appropriation of available earnings

(CHF in thousands)	2004	2003
Net loss for the year	(30,838)	(1,060,766)
Carried forward from previous year	41,409	102,175
Release of other reserves	-	1,000,000
<b>Profit available to the Annual General Meeting</b>	<b>10,571</b>	<b>41,409</b>
Dividend	-	-
<b>Balance to be carried forward</b>	<b>10,571</b>	<b>41,409</b>

The Board of Directors proposes not to declare the distribution of a dividend and to carry forward the profit available to the Annual General Meeting in the amount of CHF 10,570,584.

# Report of the Statutory Auditors

As statutory auditors, we have audited the accounting records and the financial statements (balance sheet, income statement and notes; pages 103 to 106) of ABB Ltd, Zurich, for the year ended December 31, 2004.

These financial statements are the responsibility of the Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audit. We confirm that we meet the legal requirements concerning professional qualification and independence.

Our audit was conducted in accordance with auditing standards promulgated by the Swiss profession, which require that an audit be planned and performed to obtain reasonable assurance about whether the financial statements are free from material misstatement. We have examined, on a test basis, evidence supporting the amounts and disclosures in the financial statements. We have also assessed the accounting principles used, significant estimates made and the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the accounting records and financial statements and the proposed appropriation of available earnings comply with Swiss law and the company's articles of incorporation.

We recommend that the financial statements submitted to you be approved.

Without qualifying our opinion, we draw your attention to Note 10 of these financial statements which describes certain risks and uncertainties relating to ABB Group's asbestos liabilities.

**Ernst & Young AG**

**C. Barone**  
Certified Public Accountant

**Y. Vontobel**  
Certified Accountant

Auditors in charge

Zurich, April 6, 2005

# Investor information

## ABB Ltd share price trend during 2004

During 2004, the price of ABB Ltd shares traded on the SWX Swiss Exchange (virt-x) increased 1 percent, while the Swiss Performance Index increased 7 percent. The price of ABB Ltd shares on Stockholmsbörsen increased 3 percent, compared to the SAX Index, which increased by 18 percent.

Source: Bloomberg, SWX Swiss Exchange (virt-x), Stockholmsbörsen

## Share price (data based on closing prices)

	SWX Swiss Exchange (virt-x) CHF	Stockholmsbörsen (SEK)
High	8.18	48.00
Low	6.20	36.10
Year-end	6.35	37.30
Average daily traded number of shares	14,139,000	3,615,000

## Market capitalization

On December 31, 2004, ABB Ltd's market capitalization based on outstanding shares (total number of outstanding shares: 2,028,404,505) was approximately \$ 11.4 billion (CHF 12.9 billion, SEK 75.3 billion, EUR 8.3 billion)

## Shareholder structure

As of December 31, 2004, the total number of shareholders directly registered with ABB Ltd was approximately 177,000. In addition, another 100,000 shareholders hold shares indirectly through nominees. In total, ABB has approximately 277,000 shareholders.

## Major shareholders

As of December 31, 2004, Investor AB, Stockholm, Sweden, owned 204,115,142 shares of ABB Ltd, corresponding to 9.9 percent of total capital and votes. On March 8, 2005, Investor AB announced that it reduced its holdings to 187,374,142 ABB shares, representing 9.1 percent of total capital and votes, as of that date.

The Capital Group International, Inc., Los Angeles, CA, USA, announced that as of April 23, 2004, it reduced its holdings for its clients in shares of ABB Ltd to a total which is less than 5 percent of total capital and votes.

To the best of the company's knowledge, no other shareholder holds 5 percent or more of the total voting rights.

## Dividend proposal

In order to further improve the company's balance sheet, the Board of Directors proposes that no dividend be paid for 2004.

## Per-share data

	2004	2003
Dividend (CHF)	n.a. <sup>(1)</sup>	n.a.
Par value (CHF)	2.50	2.50
Vote per share	1	1
Weighted average number of shares outstanding (in millions)	2,028	1,220 <sup>(2)</sup>
Diluted weighted average number of shares outstanding (in millions)	2,029	1,220

<sup>(1)</sup> It will be proposed to the Annual General Meeting that no dividend be paid for 2004.

<sup>(2)</sup> Following the rights issue completed in December 2003, there were 2,028,404,505 shares outstanding at December 31, 2003.

## Key ratios

(US\$)	2004	2003
Basic (loss) per share	(0.02)	(0.64)
Diluted (loss) per share <sup>(1)</sup>	(0.02)	(0.64)
Stockholders' equity per share <sup>(2)</sup>	1.39	1.44
Operating cash flow per share <sup>(1)</sup>	0.47	n.a.
Dividend pay-out-ratio (%)	n.a.	n.a.
Direct yield (%)	n.a.	n.a.
Market-to-book (%)	403.7	350.7
Basic P / E ratio	n.a.	n.a.
Diluted P / E ratio	n.a.	n.a.

<sup>(1)</sup> Calculation based on diluted weighted average number of shares outstanding

<sup>(2)</sup> Calculation based on the number of shares outstanding as of December 31

## ABB Ltd annual general meeting

The 2005 Annual General Meeting of ABB Ltd will be held at 10:00 a.m. on Thursday, May 12, 2005 at the Messe Zurich hall in Zurich-Oerlikon, Switzerland. The Annual General Meeting will be held principally in German and will be simultaneously translated into Swedish, English and French. Shareholders entered in the share register, with the right to vote, by May 2, 2005, are entitled to participate in the Annual General Meeting.

## Admission cards

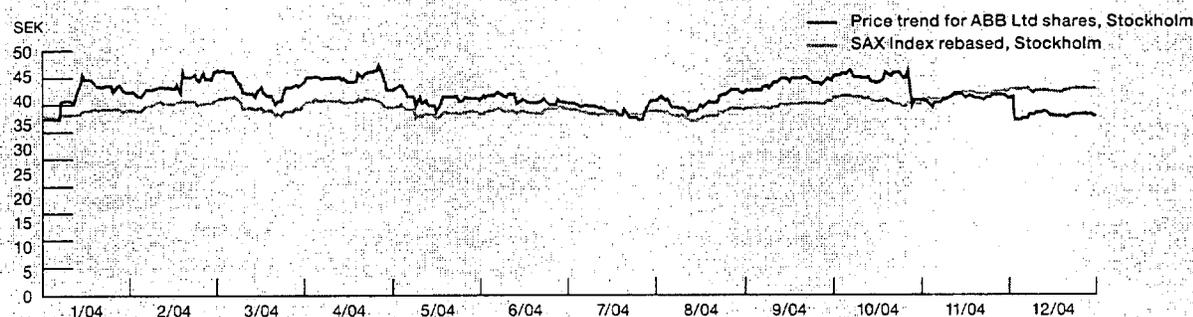
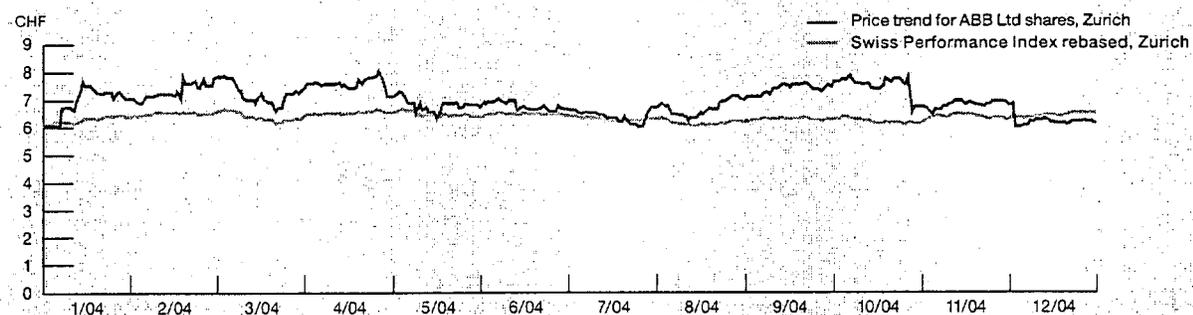
Holders of registered shares of ABB Ltd will receive their admission cards on request using the reply form enclosed with the invitation. The reply form or a corresponding notification must reach the company not later than May 4, 2005. For technical reasons, notifications arriving after that date can no longer be taken into consideration. The full text of the invitation in accordance with Article 700 of the Swiss Code of Obligations will be published in the Schweizerisches Handelsamtsblatt of April 19, 2005.

For shareholders in Sweden an Information Meeting will be held in Västerås, Sweden, on May 13, 2005 at 10:00 a.m.

## ABB shareholders' calendar 2005

Three-month results 2005	April 28
ABB Ltd Annual General Meeting, Zurich	May 12
ABB Ltd Information Meeting, Västerås	May 13
Six-month results 2005	July 28
Nine-month results 2005	October 27

### Price trend for ABB Ltd shares



Source: Bloomberg

### Stock Exchange listings

ABB Ltd is listed on the SWX Swiss Exchange (virt-x), Stockholmsbörsen, Frankfurt Stock Exchange, London Stock Exchange and New York Stock Exchange.

The global ISIN code for the ABB share is: CH 001 222 171 6.

### Ticker symbols for ABB Ltd

SWX Swiss Exchange (virt-x)	ABBN
Stockholmsbörsen	ABB
Frankfurt Stock Exchange	ABJ
London Stock Exchange	ANN
New York Stock Exchange (NYSE)	ABB

### Ticker symbols for ABB Ltd at Bloomberg

SWX Swiss Exchange (virt-x)	ABBN.VX
Stockholmsbörsen	ABB.SS
Frankfurt Stock Exchange	ABJ.GR
London Stock Exchange	ANN.LN
New York Stock Exchange (NYSE)	ABB.US

### Ticker symbols for ABB Ltd at Reuters

SWX Swiss Exchange (virt-x)	ABBN.VX
Stockholmsbörsen	ABB.ST
Frankfurt Stock Exchange	ABBN.F
London Stock Exchange	ABBNq.L
New York Stock Exchange (NYSE)	ABB.N

**Credit rating for ABB Ltd as of December 31, 2004**

**Standard & Poor's**

Long-term Corporate Credit Rating: BB+  
 Long-term Senior Unsecured debt: BB-  
 Short-term Corporate Credit Rating: B  
 Stable Outlook

**Moody's**

Long-term Senior Implied Rating: Ba2  
 Long-term Senior Unsecured Rating: Ba2  
 Short-term Debt rating: Not Prime  
 Stable Outlook

The credit rating is subject to revision at any time.

**Bondholder information**

Outstanding public bonds as of February 28, 2005.

Issuer	Original issued principal amount	Coupon	Due	Bloomberg ticker	Reuters ticker
ABB International Finance Ltd	JPY 50 billion	0.5%	2005	ABB 0.5 09/20/05	CH013519668=
ABB International Finance Ltd	USD 968 million Convertible	4.625%	2007	ABB 4.625 05/16/07	CH014749721=
ABB International Finance Ltd	EUR 500 million	9.5%*	2008	ABB 9.5 01/15/08	CH014855653=
ABB International Finance Ltd	GBP 200 million	10%*	2009	ABB 10 05/29/09	CH014855661=
ABB Ltd	CHF 500 million	3.75%	2009	ABB 3.75 09/30/09	CH896367=S
ABB International Finance Ltd	CHF 1,000 million Convertible	3.5%	2010	ABB 3.5 09/10/10	CH1653740=S
ABB International Finance Ltd	EUR 650 million	6.5%	2011	ABB 6.5 11/30/11	CH018119617=

\* Excl. step-up

# ABB Group statistical data

(US\$ millions, other than ratios, employees and percentages)

	2004	2003	2002 <sup>(1)</sup>
<b>Consolidated Income Statements</b>			
Revenues	20,721	20,427	19,472
Earnings before interest and taxes	1,084	357	199
Income (loss) from continuing operations before taxes and minority interest	861	(60)	66
Income from continuing operations	448	(371)	(126)
Net loss	(35)	(779)	(819)
<b>Consolidated Balance Sheets</b>			
Cash and equivalents	3,676	4,783	2,529
Marketable securities and short-term investments	524	473	589
Other current assets	11,150	15,495	16,566
Non-current assets	9,327	9,650	9,838
Total assets	24,677	30,401	29,522
Short-term borrowings and current maturities of long-term borrowings	633	1,644	2,577
Other current liabilities	12,435	15,376	16,692
Long-term borrowings	4,901	6,290	5,358
Other long-term liabilities	3,587	3,889	3,706
Stockholders' equity including minority interest	3,121	3,202	1,189
Total liabilities and stockholders' equity	24,677	30,401	29,522
<b>Consolidated Statements of Cash Flows</b>			
Net cash provided by (used in) operating activities	962	(173)	-
Net cash provided by investing activities	354	754	2,651
Net cash provided by (used in) financing activities	(2,805)	1,603	(2,793)
Effects of exchange rate changes on cash and equivalents	74	150	141
Net change in cash and equivalents	(1,415)	2,334	(1)
<b>Other data</b>			
Orders received	21,689	19,701	19,152
EBITDA <sup>(2)</sup>	1,715	934	758
Capital expenditures <sup>(3)</sup>	400	402	440
Research and development expense	690	635	572
Order-related development expenditures	727	886	719
Dividends declared pertaining to fiscal year (Swiss francs in millions)	-	-	-
Total debt	5,534	7,934	7,935
Gearing	63.9%	71.2%	87.0%
Net debt position	(1,334)	(2,678)	(4,817)
Net operating assets	9,622	9,857	9,870
Number of employees	102,537	116,464	139,051
<b>Ratios</b>			
Earnings before interest and taxes/Revenues	5.2%	1.7%	1.0%
Return on equity	(1.2%)	(40.5%)	(57.1%)
Current assets/Current liabilities	1.17	1.22	1.02
Liquidity ratio	22.8%	20.5%	17.5%
Net operating assets/Revenues	46.4%	48.3%	50.7%
Net working capital/Revenues	7.2%	7.6%	7.1%

<sup>(1)</sup> Consolidated balance sheet information is not audited.

<sup>(2)</sup> Earnings before interest, taxes, depreciation and amortization

<sup>(3)</sup> Capital expenditure reflect purchases of tangible fixed assets

# Exchange rates

## Main exchange rates used in the translation of the Financial Statements

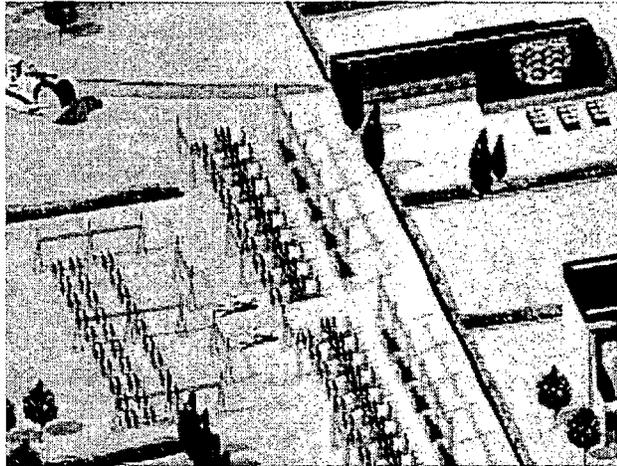
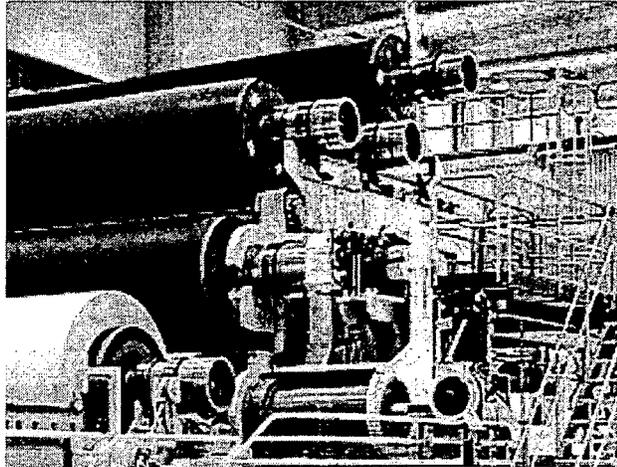
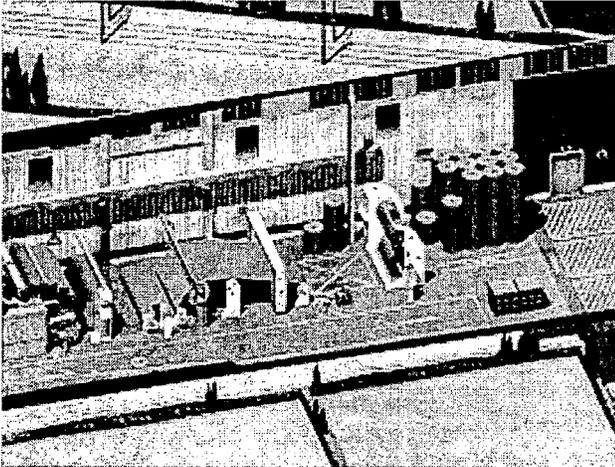
Currency	ISO Codes	2004		2003	
		Average	Closing	Average	Closing
Currency unit equivalent to one USD					
Australian dollar	AUD	1.35	1.28	1.57	1.33
Brazilian real	BRL	2.91	2.66	3.11	2.90
Canadian dollar	CAD	1.30	1.21	1.42	1.29
Chinese yuan renminbi	CNY	8.28	8.28	8.28	8.28
Danish krone	DKK	5.96	5.45	6.65	5.91
EURO	EUR	0.80	0.73	0.90	0.79
Indian rupee	INR	56.58	43.47	46.75	45.60
Japanese yen	JPY	107.48	102.49	117.17	106.94
Norwegian krone	NOK	6.70	6.03	7.09	6.67
Polish zloty	PLN	3.61	2.99	3.91	3.74
Pound sterling	GBP	0.55	0.52	0.62	0.56
Swedish krona	SEK	7.30	6.61	8.19	7.20
Swiss franc	CHF	1.24	1.13	1.35	1.24

\* Movement of local currency against the USD.

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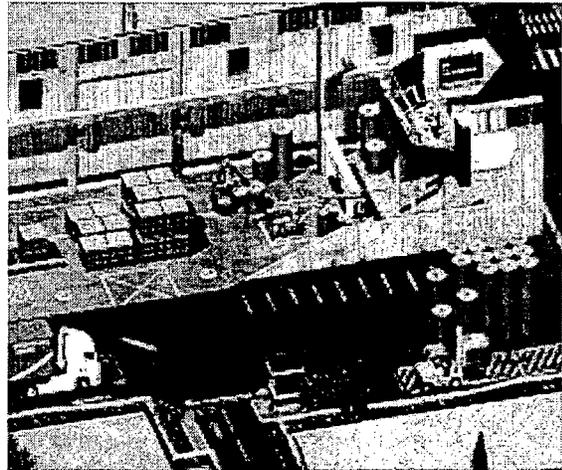
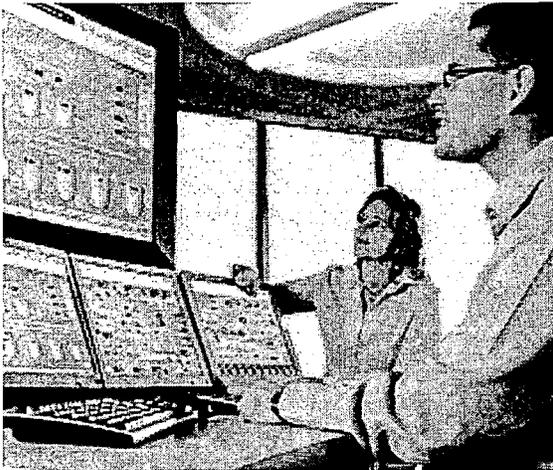
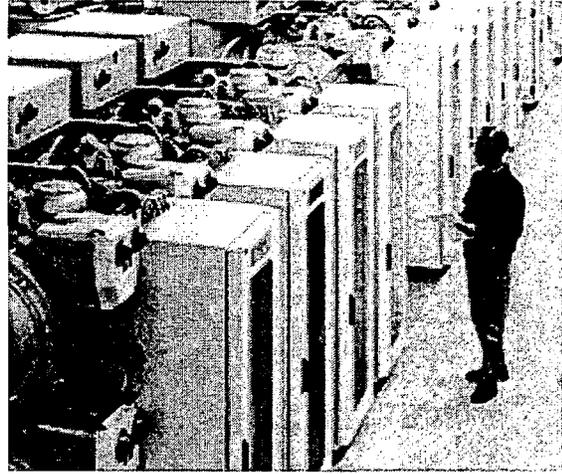
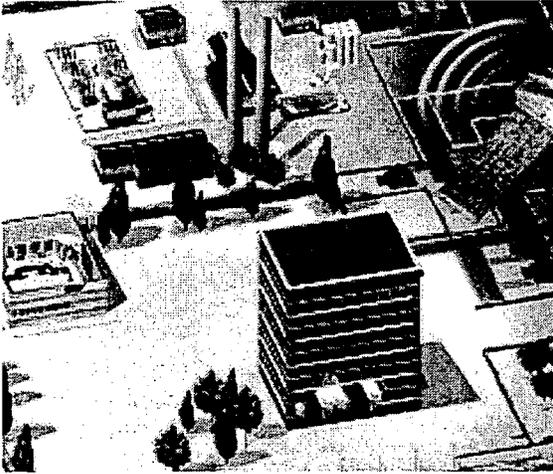
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**EXHIBIT 99.3**

# ABB Annual Report 2004

## Financial summary



Improving power supply  
Increasing industrial productivity

# ABB

# ABB at a glance

## Streamlining operations to strengthen business

---

### ABB Group

The ABB Group further streamlined its business operations in 2004 to drive operational excellence and cost competitiveness; to make it simpler to do business with ABB and to better serve our customers.

The Power Technologies division announced organizational changes, which took effect on January 1, 2005. Similar streamlining measures announced by the Automation Technologies division during 2003 took effect at the start of 2004. The Power Technologies division has reduced its five business areas to two, grouping them around power technology products and power technology systems. In this section, we report under the 2004 structure.

From the start of 2004, the Automation Technologies division concentrated its operations in three rather than six business areas: automation products, process automation, and manufacturing automation.

The two core divisions serve many of the same industries and businesses with their products and systems. They include electric, gas and water utilities, automotive, chemical and pharmaceutical, metals, minerals and mining, power generation, cement, commercial and industrial buildings, pulp and paper, oil and gas, refining, railways, petrochemicals, marine and turbocharging, telecommunications and data communication.

---

### Power Technologies

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

#### Business areas

- Transformers
- Medium-Voltage Products
- High-Voltage Products
- Power Systems
- Utility Automation

---

### Automation Technologies

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

#### Business areas

- Automation Products
- Process Automation
- Manufacturing Automation

---

### Other activities

#### Non-core activities

- Oil, Gas and Petrochemicals (Downstream)
- Equity Ventures
- Building Systems
- New Ventures

#### Corporate

- Headquarters/stewardship
- Research and Development

# Consolidated Financial Statements

## Consolidated Income Statements

Year ended December 31 (in millions, except per share data)	2004	2003	2002
Revenues	\$ 20,721	\$ 20,427	\$ 19,472
Cost of sales	(15,757)	(15,928)	(15,098)
<b>Gross profit</b>	<b>4,964</b>	<b>4,499</b>	<b>4,374</b>
Selling, general and administrative expenses	(3,786)	(3,917)	(4,050)
Amortization expense	(45)	(31)	(45)
Other income (expense), net	(49)	(194)	(80)
<b>Earnings before interest and taxes</b>	<b>1,084</b>	<b>357</b>	<b>199</b>
Interest and dividend income	164	152	194
Interest and other finance expense	(387)	(569)	(327)
<b>Income (loss) from continuing operations before taxes and minority interest</b>	<b>861</b>	<b>(60)</b>	<b>66</b>
Provision for taxes	(311)	(245)	(81)
Minority interest	(102)	(66)	(111)
<b>Income (loss) from continuing operations</b>	<b>448</b>	<b>(371)</b>	<b>(126)</b>
Loss from discontinued operations, net of tax	(483)	(408)	(693)
<b>Net loss</b>	<b>\$ (35)</b>	<b>\$ (779)</b>	<b>\$ (819)</b>
Basic earnings (loss) per share:			
Income (loss) from continuing operations	\$ 0.22	\$ (0.30)	\$ (0.11)
Net loss	\$ (0.02)	\$ (0.64)	\$ (0.74)
Diluted earnings (loss) per share:			
Income (loss) from continuing operations	\$ 0.22	\$ (0.30)	\$ (0.27)
Net loss	\$ (0.02)	\$ (0.64)	\$ (0.86)

See accompanying Notes to the Consolidated Financial Statements, available in the ABB Financial review 2004.

# Consolidated Financial Statements

## Consolidated Balance Sheets

at December 31 (in millions, except share data)	2004	2003
Cash and equivalents	\$ 3,676	\$ 4,783
Marketable securities and short-term investments	524	473
Receivables, net	6,330	6,049
Inventories, net	2,977	2,671
Prepaid expenses and other	1,688	1,794
Assets held for sale and in discontinued operations	155	4,981
<b>Total current assets</b>	<b>15,350</b>	<b>20,751</b>
Financing receivables, non-current	1,233	1,372
Property, plant and equipment, net	2,981	2,858
Goodwill	2,602	2,528
Other intangible assets, net	493	601
Prepaid pension and other employee benefits	549	564
Investments and other	1,469	1,727
<b>Total assets</b>	<b>\$ 24,677</b>	<b>\$ 30,401</b>
Accounts payable, trade	\$ 4,272	\$ 4,034
Accounts payable, other	1,437	1,395
Short-term borrowings and current maturities of long-term borrowings	633	1,644
Accrued liabilities and other	6,436	5,957
Liabilities held for sale and in discontinued operations	290	3,990
<b>Total current liabilities</b>	<b>13,068</b>	<b>17,020</b>
Long-term borrowings	4,901	6,290
Pension and other employee benefits	1,551	1,790
Deferred taxes	953	1,022
Other liabilities	1,083	1,077
<b>Total liabilities</b>	<b>21,556</b>	<b>27,199</b>
Minority interest	297	285
Stockholders' equity:		
Capital stock and additional paid-in capital	3,083	3,067
Retained earnings	1,725	1,760
Accumulated other comprehensive loss	(1,846)	(1,772)
Less: Treasury stock, at cost (11,611,529 shares at December 31, 2004 and 2003)	(138)	(138)
<b>Total stockholders' equity</b>	<b>2,824</b>	<b>2,917</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 24,677</b>	<b>\$ 30,401</b>

See accompanying Notes to the Consolidated Financial Statements, available in the ABB Financial review 2004.

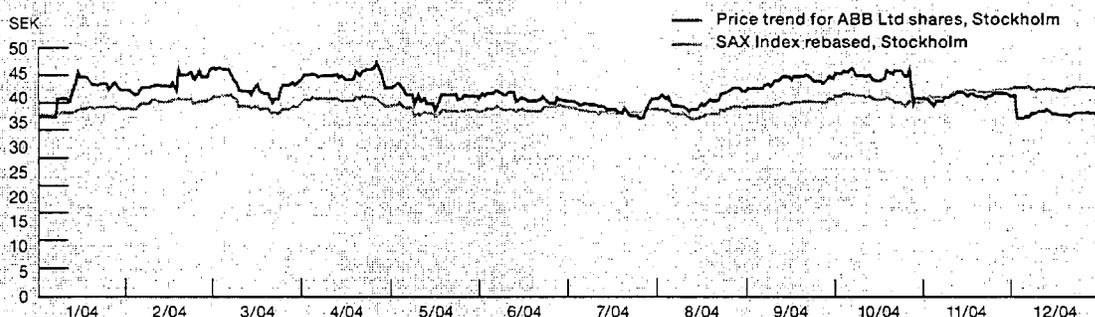
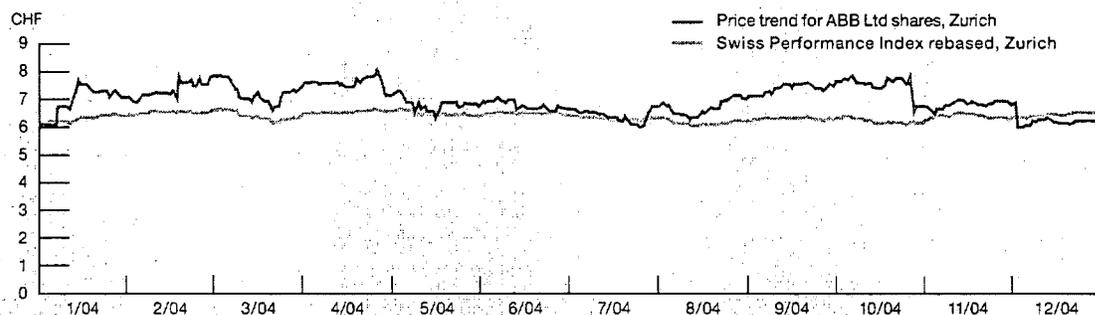
# Consolidated Financial Statements

## Consolidated Statements of Cash Flows

Year ended December 31 (in millions)	2004	2003	2002
<b>Operating activities:</b>			
Net loss	\$ (35)	\$ (779)	\$ (819)
<i>Adjustments to reconcile net loss to net cash provided by (used in) operating activities:</i>			
Depreciation and amortization	633	585	611
Provisions	92	(728)	(132)
Pension and postretirement benefits	55	21	37
Deferred taxes	3	47	(123)
Net gain from sale of property, plant and equipment	(36)	(26)	(23)
Loss on sale of discontinued operations	63	38	194
Other	167	411	(164)
Changes in operating assets and liabilities:			
Marketable securities (trading)	43	13	498
Trade receivables	(160)	85	627
Inventories	(74)	238	369
Trade payables	(63)	(381)	79
Other assets and liabilities, net	274	303	(1,154)
<b>Net cash provided by (used in) operating activities</b>	<b>962</b>	<b>(173)</b>	<b>-</b>
<b>Investing activities:</b>			
Changes in financing receivables	176	390	264
Purchases of marketable securities and short-term investments (other than trading)	(2,877)	(2,781)	(4,377)
Purchases of property, plant and equipment	(543)	(547)	(602)
Acquisitions of businesses (net of cash acquired)	(24)	(55)	(144)
Proceeds from sales of marketable securities and short-term investments (other than trading)	2,317	3,049	4,525
Proceeds from sales of property, plant and equipment	123	155	476
Proceeds from sales of businesses (net of cash disposed)	1,182	543	2,509
<b>Net cash provided by investing activities</b>	<b>354</b>	<b>754</b>	<b>2,651</b>
<b>Financing activities:</b>			
Net changes in borrowings with maturities of 90 days or less	(104)	(99)	(1,677)
Increases in borrowings	265	1,976	9,069
Repayment of borrowings	(2,913)	(2,893)	(10,188)
Treasury and capital stock transactions	(36)	2,675	-
Other	(17)	(56)	3
<b>Net cash provided by (used in) financing activities</b>	<b>(2,805)</b>	<b>1,603</b>	<b>(2,793)</b>
Effects of exchange rate changes on cash and equivalents	74	150	141
Adjustment for the net change in cash and equivalents in assets held for sale and in discontinued operations	308	(80)	60
<b>Net change in cash and equivalents – continuing operations</b>	<b>(1,107)</b>	<b>2,254</b>	<b>59</b>
Cash and equivalents beginning of year	4,783	2,529	2,470
<b>Cash and equivalents end of year</b>	<b>\$ 3,676</b>	<b>\$ 4,783</b>	<b>\$ 2,529</b>
Interest paid	\$ 382	\$ 438	\$ 482
Taxes paid	\$ 379	\$ 238	\$ 298

See accompanying Notes to the Consolidated Financial Statements, available in the ABB Financial review 2004.

# ABB Ltd Shareholder information



Source: Bloomberg

## Stock Exchange listings

### Ticker symbols for ABB Ltd

SWX Swiss Exchange (virt-x)  
Stockholmsbörsen  
Frankfurt Stock Exchange  
London Stock Exchange  
New York Stock Exchange (NYSE)

ABBN  
ABB  
ABJ  
ANN  
ABB

## Credit rating for ABB Ltd as of December 31, 2004

### Standard & Poor's

Long-term Corporate Credit Rating: BB+  
Long-term Senior Unsecured debt: BB-  
Short-term Corporate Credit Rating: B  
Stable Outlook

### Moody's

Long-term Senior Implied Rating: Ba2  
Long-term Senior Unsecured Rating: Ba2  
Short-term Debt rating: Not Prime  
Stable Outlook

The credit rating is subject to revision at any time.  
For the latest credit ratings please see Moody's and Standard & Poor's web pages.

### Ticker symbols for ABB Ltd at Bloomberg

SWX Swiss Exchange (virt-x)  
Stockholmsbörsen  
Frankfurt Stock Exchange  
London Stock Exchange  
New York Stock Exchange (NYSE)

ABBN VX  
ABB SS  
ABJ GR  
ANN LN  
ABB US

### Ticker symbols for ABB Ltd at Reuters

SWX Swiss Exchange (virt-x)  
Stockholmsbörsen  
Frankfurt Stock Exchange  
London Stock Exchange  
New York Stock Exchange (NYSE)

ABBN.VX  
ABB.ST  
ABBN.F  
ABBNq.L  
ABB.N

## Bondholder information

Outstanding public bonds as of February 28, 2005.

Issuer	Original issued principal amount	Coupon	Due	Bloomberg ticker	Reuters ticker
ABB International Finance Ltd	JPY 50 billion	0.5%	2005	ABB 0.5 09/20/05	CH013519668=
ABB International Finance Ltd	USD 968 million Convertible	4.625%	2007	ABB 4.625 05/16/07	CH014749721=
ABB International Finance Ltd	EUR 500 million	9.5%*	2008	ABB 9.5 01/15/08	CH014855653=
ABB International Finance Ltd	GBP 200 million	10%*	2009	ABB 10 05/29/09	CH014855661=
ABB Ltd	CHF 500 million	3.75%	2009	ABB 3.75 09/30/09	CH896367=S
ABB International Finance Ltd	CHF 1,000 million Convertible	3.5%	2010	ABB 3.5 09/10/10	CH1653740=S
ABB International Finance Ltd	EUR 650 million	6.5%	2011	ABB 6.5 11/30/11	CH018119617=

\* Excl. step-up

# Share data

## Per-share data

	2004	2003
Dividend (CHF)	n.a. <sup>(1)</sup>	n.a.
Par value (CHF)	2.50	2.50
Vote per share	1	1
Weighted average number of shares outstanding (in millions)	2,028	1,220 <sup>(2)</sup>
Diluted weighted average number of shares outstanding (in millions)	2,029	1,220

<sup>(1)</sup> It will be proposed to the Annual General Meeting that no dividend be paid for 2004.

<sup>(2)</sup> Following the rights issue completed in December 2003, there were 2,028,404,505 shares outstanding at December 31, 2003.

## Key ratios

(US\$)	2004	2003
Basic (loss) per share	(0.02)	(0.64)
Diluted (loss) per share <sup>(1)</sup>	(0.02)	(0.64)
Stockholders' equity per share <sup>(2)</sup>	1.39	1.44
Operating cash flow per share <sup>(1)</sup>	0.47	n.a.
Dividend pay-out-ratio (%)	n.a.	n.a.
Direct yield (%)	n.a.	n.a.
Market-to-book (%)	403.7	350.7
Basic P / E ratio	n.a.	n.a.
Diluted P / E ratio	n.a.	n.a.

<sup>(1)</sup> Calculation based on diluted weighted average number of shares outstanding

<sup>(2)</sup> Calculation based on the number of shares outstanding at December 31

## ABB Ltd Annual General Meeting

The 2005 Annual General Meeting of ABB Ltd will be held at 10:00 a.m. on Thursday, May 12, 2005 at the Messe Zurich hall in Zurich-Oerlikon, Switzerland. Shareholders entered in the share register, with the right to vote, by May 2, 2005, are entitled to participate in the General Meeting.

For shareholders in Sweden an Information Meeting will be held in Västerås, Sweden, on May 13, 2005 at 10:00 a.m.

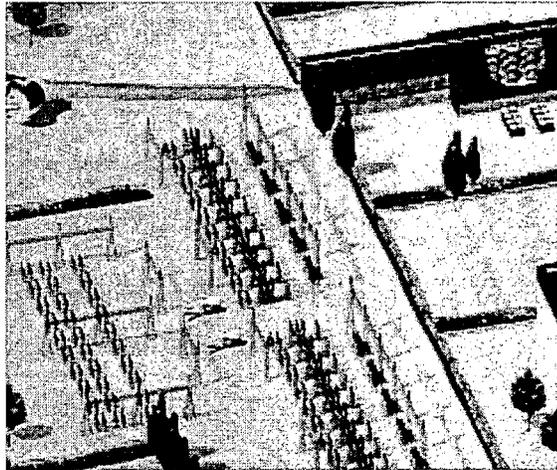
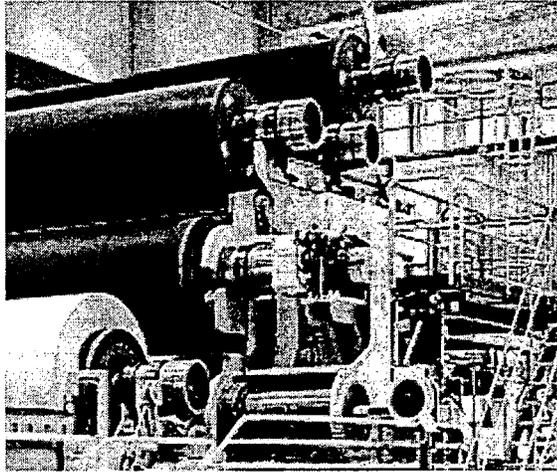
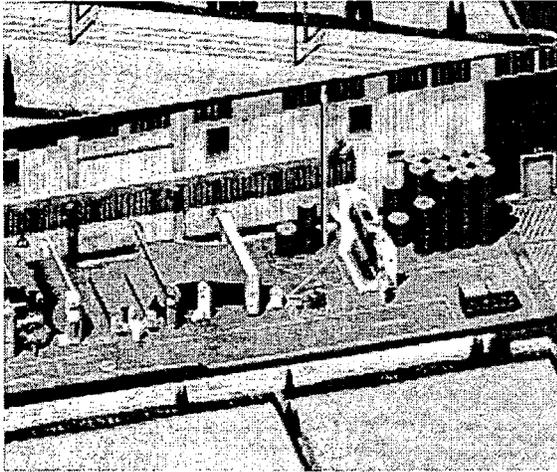
## ABB shareholders' calendar 2005

Three month results 2005	April 28
ABB Ltd Annual General Meeting, Zurich	May 12
ABB Ltd Information Meeting, Västerås	May 13
Six month results 2005	July 28
Nine month results 2005	October 27

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**EXHIBIT 99.4**

**ABB Annual Report 2004**  
Sustainability review



Making a difference



# Overview

## Contents and GRI reference matrix

Section	GRI guideline indicators	Page number
CEO's letter	1	1
Challenges and contributions		2-3
The journey so far		2-3
Case studies		4-7
Common efforts		8-9
Health and safety		10
Stakeholder dialogues		11
Outlook		12
The Global Reporting Initiative (GRI)		13
Company profile	2.1-2.9	14
Report scope	2.10-2.22	15
Governance structure	3.1-3.8	16-17
Stakeholder engagement	3.9-3.12	17
Policies and management systems	3.13-3.20	18-22
Sustainability policies		23-24
Performance indicators		
Economic performance		25-26
Environmental performance	EN1-EN34	27-30
Social performance	LA1-LA14	31-36
	HR1-HR12	
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	PR1-PR9	
Sustainability ratings		36-37
Principal memberships	3.15	37-38
Position statements		39
Statement by Det Norske Veritas		40
Sustainability on the Web		41

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ABB's Sustainability review is available on the internet: [www.abb.com/sustainability](http://www.abb.com/sustainability)

## Group\*

Revenues (2003 \$20,427m)

**\$20,721m**

EBIT (2003 \$357m)

**\$1,084m**

Net loss (2003 net loss \$779m)

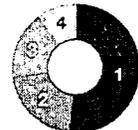
**\$35m\*\***

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

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

## Revenues by region

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



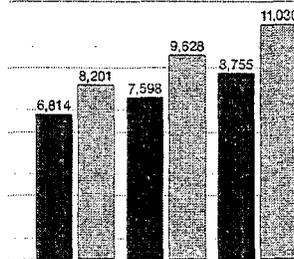
## Employees by region

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



## Core division revenues

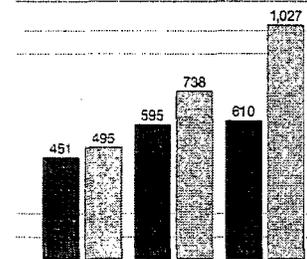
(in \$ millions)



■ Power Technologies  
■ Automation Technologies

## Core division EBIT

(in \$ millions)



■ Power Technologies  
■ Automation Technologies

# Letter to shareholders

## Making a difference



"To us in ABB, sustainability is not an add-on – it is an essential part of our business."

Jürgen Dormann  
Chairman and CEO, ABB Ltd

### Sustainability highlights

- Health and safety training courses for top managers held worldwide in campaign to improve group performance
- Assessment starts to determine if ABB will become CO<sub>2</sub>-neutral company
- ABB develops and road tests human rights checklist as part of international business initiative to protect and promote human rights
- Power turned on in remote Tanzanian village, marking first concrete results of Access to Electricity program
- Progress in phasing out hazardous substances, including chlorinated volatile organic compounds
- Stakeholder dialogues held in 15 countries
- ABB in Italy wins prestigious Sodalitas award for sustainability policies – mainly for wide range of social programs
- More than 200 volunteers from ABB in Germany work at Special Olympics for disabled held in Hamburg
- ABB receives environmental leadership award from Ford Motor Company for product performance

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

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

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

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

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

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

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

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

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

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

Sincerely,

Jürgen Dormann  
Chairman and CEO, ABB Ltd\*

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

# Challenges and contributions

## Climate change: how our technologies make a difference

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

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

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

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

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

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

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

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

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

### The journey so far

1992



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

1993



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

1994



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

1995



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

1996



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

1997



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

1998



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

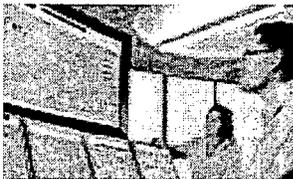
### ABB's next steps towards CO<sub>2</sub> neutrality

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

- Establish a comprehensive system to measure emissions
- Produce a detailed plan to reduce our emissions
- Create emission-reduction projects with customers to offset our remaining emissions
- Verify our performance through third-party assessment
- Invite stakeholder feedback and promote CO<sub>2</sub> neutrality along the value chain



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



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

Worldwide, ABB drives help to save some 80TWh (terawatt-hours) of energy every year, the equivalent of ten 900 MW (megawatt) power plants. These savings translate to a reduction in CO<sub>2</sub> emissions of 68 million tons per year, more than the annual emissions of a country the size of Finland.

many environmental benefits: no electromagnetic field, low transmission losses for linked AC grids, oil-free cables, and lines which can run underground or underwater.

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

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

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

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

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

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

An effective means of connecting volatile power generators like wind parks with power grids is ABB's unique HVDC (high voltage direct current) Light technology which has

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

1999



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

2000



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

2001



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

2002



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

2003



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

2004



Health and safety training for top managers begins worldwide. Group-wide conference addresses diversity issues. ABB starts investigation to become a CO<sub>2</sub>-neutral company in the medium-term. Implementation of new environmental policy continues worldwide.

# Case studies

## Triple bottom line in action

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

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

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

### ABB drives Finland's biggest wind park

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

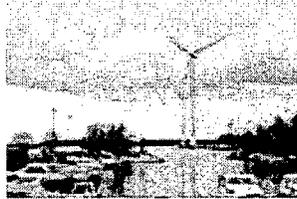
Consisting of five 2.3-megawatt wind turbine generators, the Raahe wind park in the Gulf of Bothnia will generate up to 26 million kilowatt hours of wind-generated electricity annually. Built by a company owned by the country's nine largest utilities, the park features 80-meter high towers, fitted with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

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

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

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

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



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

### Creating hopeful futures in Brazil

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

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

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

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

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



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

### Major energy savings with ABB drives

ABB has the world's largest installed base of variable speed drives, which reduce energy consumption by adjusting the speed of motors. In total, the drives reduce CO<sub>2</sub> emissions by 68 million tons per year worldwide.

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

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

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

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

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



ABB drives cut energy consumption and costs, and reduce global CO<sub>2</sub> emissions by about 68 million tons per year.

### How to make a difference locally

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

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

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

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

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

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



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

### "At home" everywhere

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

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

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

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

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



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

### Helping to engineer social change in South Africa

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

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

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

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

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

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



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

# Case studies

## Triple bottom line in action

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

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

### Helping women in Gulf develop careers

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

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

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

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

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



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

### Power transmission with added benefits

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

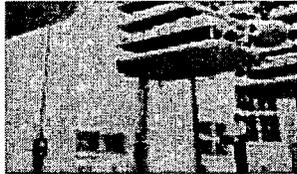
The system allows long distance transmission on land or underwater with minimal losses; its small footprint helps to preserve farmland and forests; power supply to remote locations is also cost-effective because of low losses and efficient transmission.

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

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

In addition, the interconnection will also contribute to reduced CO<sub>2</sub> emissions because it will cut the use of peak load fossil-fuelled generators and instead ease the use of highly efficient base load generators.

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



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

### From road to rail: savings all round

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

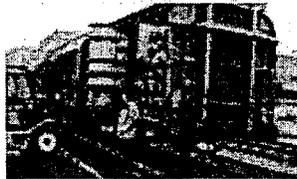
In the heart of Europe, a Swiss environmentalist, Christian Vetterli, has changed policy at his ABB production unit in a way that saves money and the environment.

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

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

The environmental impact is also lower. Under one recent contract, 140 transformers are to be delivered by rail to Prague; by road, the same order would have taken 60 truckloads, clocking up some 46,000 kilometers and commensurate CO<sub>2</sub> emissions.

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



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

### Ships plug into an environmental success

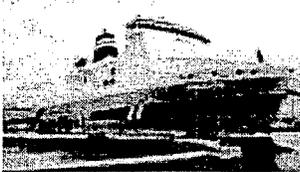
The biggest port in Scandinavia is offering visiting vessels the world's first high-voltage shore connection. This environmentally friendly idea, supported by ABB technology, won the port of Gothenburg in Sweden a Clean Marine Award from the European Union.

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

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

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

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



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

### ABB tries to increase the number of female engineers

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

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

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

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

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



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

### Helping poor students to finance their education

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

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

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

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

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

To view the winning entries visit [www.abb.com/photocompetition](http://www.abb.com/photocompetition)



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

### Transferring know-how to West Africa

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

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

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

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

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

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



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

# Common efforts

## Promoting sustainable development in Africa

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

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

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

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

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

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

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

The project is serving as a model for further, larger Access to Electricity projects aimed at easing poverty in other areas. ABB launched the program in response to the United Nations Global Compact which urged

companies and organizations to provide greater assistance to least developed countries. ABB was one of the first international companies to sign on to the Global Compact after it was launched in 2000.

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

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

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

### ABB helps relief efforts

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

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

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

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

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



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

## A road test for human rights criteria

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

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

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

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

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

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

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

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

A human rights-aware approach benefits all stakeholders – the villagers, local authorities, suppliers and the

companies and organizations. For ABB, the approach means lowering business risk by taking a wider view on the potential impact of such projects.

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

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

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

### Managing dilemmas

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

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

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

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

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

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

## Health and safety

### Working to improve standards



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# Stakeholder dialogues

## Learning how to become a better corporate citizen



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

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

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

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

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

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

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

The second corporate-level meeting focused on one key issue – whether ABB should aim to become a CO<sub>2</sub>-neutral organization. Although ABB emits only a relatively small amount of CO<sub>2</sub> from its own facilities, the meeting urged ABB to rise to the challenge.

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

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

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

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

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

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

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

# Outlook

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

## **Corporate**

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

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

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

Carbon emissions will have a growing impact on the bottom line of all companies and organizations, creating new types of customer relationships and increasing opportunities for suppliers of energy-efficient products and systems like ABB. Carbon dioxide (CO<sub>2</sub>) will have a financial value, providing a stimulus for emission-reduction solutions.

Ongoing dialogues with stakeholders will help us to further sharpen our definition of CSR and improve our performance. They will also help us to make sound decisions to address specific issues, such as the viability of becoming a CO<sub>2</sub>-neutral organization.

## **Economic dimension**

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

## **Environmental dimension**

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

We plan to achieve this by conducting an environmental management review throughout the ABB Group and by building teams to identify new performance challenges and define strategies. Among the issues are CO<sub>2</sub> neutrality and the target of no waste.

We are addressing the climate change challenge by continuing to provide low-carbon technologies and innovative solutions to reduce our own and our customers' CO<sub>2</sub> emissions.

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

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

## **Social dimension**

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

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

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

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

## **Common efforts**

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

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

# The Global Reporting Initiative (GRI)

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

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

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

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

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

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

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

## Integrating sustainability in our business

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

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

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

## Monitoring and reporting performance

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

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

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

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

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

# Profile of ABB and scope of report

## Organizational profile

### 2.1 Name of reporting organization

ABB Ltd – the worldwide ABB Group – headquartered in Zurich, Switzerland.

### 2.2 Major products and services

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

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

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

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

### 2.3 – 2.5 Operational structure, description of major divisions, and locations of the organization

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

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

### 2.6 Nature of ownership; legal form

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

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

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

### 2.7 Nature of markets served

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

### 2.8 Scale of reporting organization

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

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

### Sales (revenues) for 2004:

\$20,721 million (\$20,427\* million for 2003)

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

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

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

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

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

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

### 2.9 Main stakeholders

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

## Report scope

### 2.10 Contact for the report

e-mail: [sustainability.abbzh@ch.abb.com](mailto:sustainability.abbzh@ch.abb.com)

Web address: [www.abb.com/sustainability](http://www.abb.com/sustainability)

### 2.11 Reporting period

Fiscal year 2004.

### 2.12 Date of previous report

March 2004, covering fiscal year 2003.

### 2.13 Boundaries of report

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

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

### 2.14 Significant changes in size, structure and ownership

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

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

### 2.16 Effect of restatement of information

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

## Sustainability review profile

### 2.19 Significant changes in sustainability information measurement methods

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

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

### 2.20 Policies and practices to enhance accuracy, completeness and reliability of the report

The three sets of computerized data collected from each country and ABB site, as described in indicator 2.19, are consolidated and checked at country level and again at group level. Country sustainability controllers audit the data from each site.

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

### 2.21 Independent assurance for the full report

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

### 2.22 Additional information on sustainability matters

Information on ABB's sustainability performance is also described in the Operational review of the ABB Group Annual Report 2004, and is published on the ABB Group Web site under: [www.abb.com/sustainability](http://www.abb.com/sustainability)

# Governance structure and stakeholder engagement

## Structure and governance

### 3.1 Governance structure of the organization, including committees

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

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

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

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

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

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

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

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

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

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

Further information on corporate governance is published on ABB's Web site: [www.abb.com/about](http://www.abb.com/about)

### 3.2 Independent, non-executive directors

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

### 3.3 Expertise of board members

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

### 3.4 Board-level processes for overseeing sustainability

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

### **3.5 Linkage between executive compensation and performance**

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

### **3.6 Organizational structure for sustainability policies**

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

### **3.7 Business principles statements relevant to sustainability performance**

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

### **3.8 Mechanisms for shareholders to give recommendations to the board**

Shareholders representing shares of a par value of at least CHF 1,000,000 may request items to be included in the agenda of an annual general meeting.

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

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

### **Stakeholder engagement**

#### **3.9 Identification and selection of major stakeholders**

Stakeholder dialogue is conducted on two levels:

1. at corporate level, led by two executive committee members.
2. at country and site levels, in 48 countries and regions where we have country sustainability controllers. The respective country managers are recommended to lead these dialogues.

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

### **3.10 Stakeholder consultation**

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

### **3.11 Type of information generated by stakeholder consultations**

The issues discussed at the corporate-level stakeholder dialogues help to identify opportunities, challenges and weaknesses for the ABB Group in the field of sustainability. Topics discussed at corporate level during 2004 included human rights, equality of opportunity, the integration of sustainability into company performance, customers' sustainability performance and its impact on ABB, and the implications for ABB if it opts to become a CO<sub>2</sub>-neutral organization. Further details of these discussions are given on page 11.

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

### **3.12 Use of information resulting from stakeholder engagements**

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

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

# Policies and management systems

## ABB's sustainability policies

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

### We create value for society by:

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

### Environmental policy

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

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

The ABB environmental policy is printed in full on page 23, and is also on [www.abb.com/sustainability](http://www.abb.com/sustainability)

### Social policy

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

The ABB social policy is printed in full on pages 23–24, and is also on [www.abb.com/sustainability](http://www.abb.com/sustainability)

### Occupational health and safety policy

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

The ABB occupational health and safety policy is printed in full on page 24, and is also on [www.abb.com/sustainability](http://www.abb.com/sustainability)

### Group function sustainability affairs

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

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

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

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

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

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

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

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

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

### 3.13 Precautionary approach

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

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

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

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

**3.14 Use of externally developed charters and principles**

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

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

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

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

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

**EMS to cover all employees**

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

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

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

**Social management**

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

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

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

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

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

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

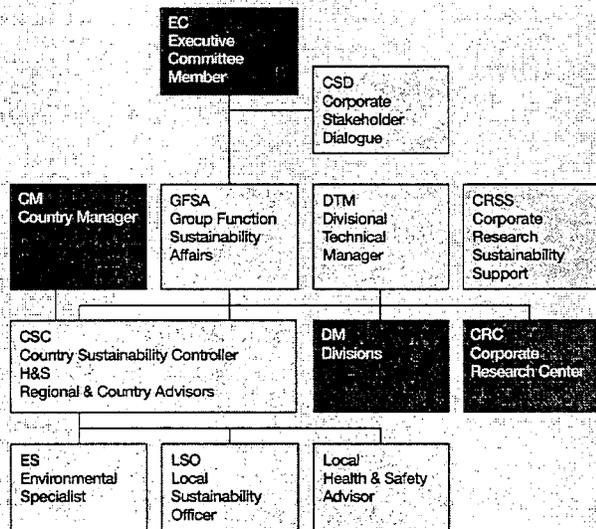
The ABB Group's executive committee approved an investigation on ABB becoming a CO<sub>2</sub>-neutral company in the medium term. This demonstrates ABB's commitment to reducing harmful emissions and its support for efforts to raise awareness about climate change.

See pages 2-3 for more information on ABB's efforts to reduce CO<sub>2</sub> emissions.

**Occupational health and safety**

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

**ABB's sustainability affairs organization**



# Policies and management systems

## 3.15 Principal memberships in industry and business associations

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

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

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

## 3.16 Policies for managing upstream and downstream impacts Sustainability in the supply chain

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

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

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

### Product stewardship

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

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

## 3.17 Management of indirect impacts

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

## 3.18 Major changes in operations

See indicator 2.14, page 15, for details.

## 3.19 Programs and procedures related to sustainability performance

### Priority and target setting

- A goal for all businesses to have implemented the ABB occupational health and safety management system during 2004 was 81 percent achieved
- A goal has been set to apply the ISO 14001 principles to all employees
- The objective to reduce energy use continues
- The restricted materials list supports our objective to phase out the use of all hazardous substances
- An overall environmental management review to be carried out
- A new objective is to assess the possibility of ABB becoming a CO<sub>2</sub>-neutral company in the medium term

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

### Programs for performance improvement

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

### Sustainability costs

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

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

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

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

## 3.20 Status of certification

### Internal communication and training

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

## Performance monitoring

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

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

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

Country	Name	Function	ISO 14001 sites
Argentina	Justo Gonzalez Litardo	CSC & OHS	3
Australia/ New Zealand	Peter Kinsley Marian McLean Craig McEwan	CSC OHS OHS	21
Austria	Arnd Schneider	CSC & OHS	0
Benelux	Bart Maes	CSC & OHS	2
Brazil	Carlos-Roberto Hohl Gerson Arra	CSC OHS	4
Canada	Grazyna A Momot Sandy Taylor	CSC Country Manager	7
China	ShiWen Zheng Han Yu	OHS CSC	18
Colombia	Albert Tibavizco	CSC & OHS	2
Czech Republic	Frantisek Dobes	CSC & OHS	4
Denmark	Jan F Relster	CSC & OHS	6
Egypt	Said Ismail	CSC & OHS	4
Estonia	Liis Raidma	CSC & OHS	4
Finland	Sakari Hakkarainen	CSC & OHS	26
France	Valérie Rimonteil	CSC & OHS	8
Germany	Udo Weis	CSC & OHS	36
Greece	Andreas Mamalis Caterina Paleorouta	CSC OHS	2
Gulf Region	Gary Foote	CSC & OHS	5
Hungary	Zsolt Horváth	CSC & OHS	1
India	K SS Rajan Sanjeev Nagpal	CSC OHS	8
Indonesia	Sofyan Akib	CSC & OHS	3
Ireland	David Maguire Anthony McFeely	CSC OHS	4
Italy	Antonio Giacomucci	CSC & OHS	20
Japan	Katsumi Endo Takashi Mizuno	CSC OHS	2
Latvia	Laila Keisele	CSC & OHS	2
Lithuania	Ineta Mensikovaite	CSC & OHS	1
Malaysia	Urs von Wartburg Jennifer Wong	CSC OHS	1
Mexico	Alberto Aviles	CSC & OHS	1

Norway	Kjell Brandal	CSC & OHS	16
Peru	Olenka Espinoza	CSC & OHS	1
Philippines	T.J. Ponce	CSC & OHS	1
Poland	Andrzej Brzozowski	CSC & OHS	9
Portugal	Joao Oliveira	CSC	1
Romania	Rares Lutia	CSC & OHS	1
Russia	Alexander Burov	CSC & OHS	5
Saudi Arabia	Khizar Usmani Zeid al-Rumaihi	CSC OHS	1
Singapore	Emely Tan James Foo	CSC OHS	3
South Africa	Clive Govender	CSC & OHS	6
South Korea	Kyeong-Hee Lee	CSC & OHS	1
Spain	José Vera	CSC & OHS	15
Sweden	Gunnel Wisén-Persson	CSC & OHS	69
Switzerland	Remo Kuery	CSC & OHS	15
Thailand	Pornchai Satheinsap	CSC & OHS	1
Turkey	Gulden Turktan	CSC & OHS	2
United Kingdom	John Watson	CSC & OHS	12
United States	David Onuscheck Darryl Hill	CSC OHS	29
Venezuela	Andrea Greselin	CSC & OHS	2
<b>Total ISO sites</b>			<b>385</b>

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

## Environmental specialists

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

## Internal and external auditing

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

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

# Policies and management systems

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

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

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

## Senior management review and governance

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

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

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

## Business ethics Policy

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

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

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

In implementing this policy, ABB management and employees:

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

## Global compliance support network

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

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

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

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

## Access for employees

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

## Help lines

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

## External liaisons

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

## Anti-bribery business principles

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

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

# ABB's sustainability policies

## ABB's environmental policy

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

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

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

1. To conduct our operations in an environmentally sound manner by applying environmental management systems, such as ISO 14001, in all our operations and by applying environmental principles, such as commitment to continual improvement, legal compliance and awareness training of employees, in all our operations worldwide.
2. To promote environmental responsibility along the value chain by encouraging suppliers, subcontractors and customers to adopt international environmental standards.
3. To develop our manufacturing processes with a focus on energy and resource efficiency.
4. To conduct regular audits of our facilities' environmental performance, including facilities involved in acquisitions, divestments and mergers.
5. To transfer eco-efficient technologies to developing countries.
6. To develop and market products and systems which are resource efficient and facilitate use of renewable energy sources.
7. To declare the environmental performance of our core products by publishing environmental product declarations based on life cycle assessment.
8. To include environmental aspects in the risk assessment of major customer projects.
9. To ensure transparency by producing an annual Sustainability review, based on Global Reporting Initiative (GRI) requirements, which is independently verified.

## ABB's social policy

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

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

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

### 1. ABB in society:

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

### 2. Human rights:

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

### 3. Children and young workers:

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

### 4. Freedom of engagement:

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

### 5. Health and safety:

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

### 6. Employee consultation and communication:

To facilitate regular consultation with all employees to address areas of concern.

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

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

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

# ABB's sustainability policies

## 7. Equality of opportunity:

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

## 8. Harassment and disciplinary practices:

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

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

## 9. Working hours:

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

## 10. Compensation:

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

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

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

## 11. Suppliers:

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

## 12. Community involvement:

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

## 13. Business ethics:

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

## ABB's health and safety policy

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

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

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

## ABB's business ethics policy

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

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

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

# Economic performance

## ABB substantially improves business results

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### Targets for 2005\*

- From 2002–2005 compound average annual revenue growth of four percent in local currencies
- Group EBIT margin of 7.7 percent (adjusted from eight percent to reflect the reclassification of the downstream oil, gas and petrochemicals business from Discontinued operations to continuing operations)

- Divisional EBIT targets: Power Technologies is ten percent, Automation Technologies is 10.7 percent
- Gearing target of 50 percent (62 percent as of Dec. 31, 2004)
- Revenue and margin targets exclude major acquisitions, divestitures and business closures.

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

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

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

### Statement on asbestos issued by ABB on March 21, 2005

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

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

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

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

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

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

# Economic performance

## Monetary flow between ABB and key stakeholders (unaudited):

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

\* Stakeholders in businesses of continuing operations.

All figures in \$ millions unless otherwise stated.

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

All figures in \$ millions unless otherwise stated.

## Revenues by region

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

## Assets

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

## Investments

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

## Labor productivity

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

## Taxes

	2004	2003	2002
Tax expense from continuing operations	311	245	81

## Number of employees

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

# Environmental performance

## Overview

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

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

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

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

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

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

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

## Materials

### EN1 Total materials consumption

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

### Use of hazardous material

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

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

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

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

### Use of hazardous substances (tons)

	2004	2003	2002
Phthalates (DIDP) – softener for PVC	1.7*	9	14
PBB and PBDE – flame retardants in plastics	108	103	104
Fungicides – control of water fungi	3.4	2.5	4.8
Lead			
Submarine cables	2,810	2,967	977
Other products, e.g. counterweights in robots	211	222	640
Cadmium			
Rechargeable batteries	1.9	1.7	2.1
Industrial batteries delivered to customers	69**	0	40
In lead alloy	2.0	2.6	1
Mercury			
In products delivered to customers	0.020	0.020	0.017
SF <sub>6</sub> insulation gas (inflow to ABB facilities from gas suppliers)	388	395	374
SF <sub>6</sub> insulation gas (outflow to customers)	353	319	358

\* Reduction due to change in production mix.

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

### Equipment containing hazardous substances in use in ABB facilities

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

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

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

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

# Environmental performance

## EN2 Percentage of waste materials used from external sources

In the previous table, the lead used as counterweights for robots and the cadmium used in industrial batteries are recycled materials.

## Energy

### EN3 Direct energy use (Gigawatthours – GWh)

	2004	2003*	2002*
Primary fuel			
Oil (9.96 MWh/m <sup>3</sup> )	126	138	151
Coal (7.56 MWh/ton)	17	15	22
Gas	417	494	543
District heat	256**	247	405
Electricity	1,212**	1,348*	1,784
Total energy used	2,028	2,242	2,905
Megawatthours (MWh) per employee	20	19	20

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

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

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

### EN4 Indirect energy use (Gigawatthours – GWh)

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

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

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

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

### EN17 Initiatives to use renewable energy

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

### EN18 Energy consumption footprint of major products

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

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

See under indicator E14 for more information on EPDs.

### EN19 Other indirect energy use

#### a) Organizational travel

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

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

#### b) Use of energy-intensive materials

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

#### c) Product life cycle management

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

## Water

### EN5 Water consumption (kilotons)

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

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

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

\*\*\* Estimated (rounded) figures.

### EN20 Water sources significantly affected by use of water

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

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

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

**Biodiversity**

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

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

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

**Emissions**

**EN8 Greenhouse gases (kilotons)**

	2004	2003	2002
CO <sub>2</sub> from use of energy	824**	911*	1,195*
SF <sub>6</sub> (in CO <sub>2</sub> equivalents)	253	229	257
CO <sub>2</sub> from transport by own fleet	350***	n.acc	n.acc

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

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

\*\*\* Estimated.

Carbon dioxide (CO<sub>2</sub>) emissions calculations are based on in-house energy use for production, lighting, heating and air-conditioning, and include indirect emissions at utilities where ABB buys power. Sulfur hexafluoride (SF<sub>6</sub>) emissions are estimated to be equivalent to 3 percent of all SF<sub>6</sub> gas used by ABB. The CO<sub>2</sub> equivalent for SF<sub>6</sub> is 23,900.

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

**EN9 Ozone-depleting substances (tons)**

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

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

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

**Volatile organic compounds, VOC (tons)**

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

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

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

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

**EN10 Emission of NO<sub>x</sub> and SO<sub>x</sub> (kilotons SO<sub>2</sub> and NO<sub>2</sub>)**

	2004	2003	2002
SO <sub>x</sub> from burning coal	12	11	16
SO <sub>x</sub> from burning oil	92	84	109
NO <sub>x</sub> from burning coal	9	8	12
NO <sub>x</sub> from burning oil	69	63	82
NO <sub>x</sub> from burning gas	90	107	137

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

**EN30 Other indirect greenhouse gas emissions**

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

See under indicator EN14 for more information on EPDs.

**EN11 Waste**

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

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

\* Decrease due to accelerated scrap reduction program.

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

**b) Hazardous wastes sent for disposal (tons)**

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

**c) Disposal methods for regular waste**

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

# Environmental performance

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

	2004	2003
Public sewer	75	75
Water sources	25	25

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

## EN31 Transport of hazardous waste

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

## EN32 Water sources and related ecosystems significantly affected by discharges of water

ABB sites do not significantly affect water sources and related ecosystems or ground water.

## EN13 Spills and other incidents

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

## Transportation

### EN34 Environmental impacts of transportation

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

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

## Suppliers

### EN33 Performance of suppliers

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

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

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

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

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

## Products and services

### EN14 Significant environmental impacts of principal products and services

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

EPDs for ABB products are published on the ABB Web site: [www.abb.com/sustainability](http://www.abb.com/sustainability)

### EN15 Percentage of ABB products reclaimable after use

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

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

## Compliance

### EN16 Fines for non-compliance with applicable legislations

No penalties for environmental infringements by ABB companies were reported during 2004.

# Social performance

## Overview

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

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

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

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

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

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

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

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

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

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

## Employment

### LA1 Breakdown of workforce (total numbers of ABB employees)

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

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

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

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

## Labor/management relations

### LA3 Percentage of employees represented by independent trade unions

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

### LA4 Information, consultation and negotiation with employees

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

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

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

# Social performance

## Health and safety

### LA5 Recording and notification of occupational accidents and diseases

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

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

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

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

### LA6 Description of formal joint health and safety committees

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

### LA7 Standard injuries, lost days, absentee rates and fatalities

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

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

Two employees died in commuting road traffic incidents.

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

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

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

## Employee industrial incidents

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

## Employee security and crime incidents

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

## Employee commuting and business travel incidents

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

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

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

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

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

## LA8 Policies or programs on HIV/AIDS

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

## LA14 Compliance with the ILO Guidelines for Occupational Health Management Systems

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

## Training and education

### LA9 Training and education

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

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

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

### Diversity and opportunity

#### LA10 Equal opportunity policies, programs and monitoring

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

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

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

#### LA11 Composition of senior management

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

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

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

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

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

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

### Strategy and management

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

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

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

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

#### HR2 Consideration of human rights impacts as part of investment decisions

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

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

#### HR3 Consideration of human rights impacts within the supply chain

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

# Social performance

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

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

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

## **HR8 Employee training on policies and practices concerning human rights**

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

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

## **Non-discrimination**

### **HR4 Policies to promote non-discrimination in operations**

Principle 7 of ABB's social policy prohibits the group from engaging in or supporting discrimination in any form throughout its operations.

## **Freedom of association and collective bargaining**

### **HR5 Policies to facilitate freedom of association**

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

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

## **Child labor**

### **HR6 Policies to exclude child labor**

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

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

## **Forced and compulsory labor**

### **HR7 Policies to prevent forced and compulsory labor**

Principle 4 of the social policy requires that all employees enter into employment with ABB of their own free will.

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

## **Disciplinary practices**

### **HR9 Policies to facilitate disciplinary appeal practices**

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

## **Job satisfaction levels**

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

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

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

## **ABB's ranking as an employer**

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

## **HR10 Non-retaliation policy and employee grievance system**

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

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

## **Security practices**

### **HR11 Human rights training for security personnel**

In 2004, 23 countries confirmed that training was given (up from 21 in 2003).

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

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

## **Indigenous rights**

### **HR12 Policies to address the needs of indigenous people**

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

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

## Community

### SO1 Policies to manage impacts on communities

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

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

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

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

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

### SO4 Awards received

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

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

## Bribery and corruption

### SO2 Policies and compliance mechanisms addressing bribery and corruption

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

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

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

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

## Political contributions

### SO3 & 5 Policies and compliance mechanisms for managing political contributions

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

## Competition and pricing

### SO7 Policies and compliance mechanisms to prevent anti-competitive behavior

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

## Customer health and safety

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

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

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

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

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

## Products and services

### PR2 Policy related to product information and labeling

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

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

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

### **PR8 Policy and compliance mechanisms related to customer satisfaction**

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

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

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

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

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

### **Advertising**

#### **PR9 Policies and compliance mechanisms for adherence to advertising standards and codes**

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

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

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

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

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

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

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

### **FTSE4Good**

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

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

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

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

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

### **Sarasin Bank**

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

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

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

## **SiRi Company**

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

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

## **Swedish Environment Fund**

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

## **Innovest**

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

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

## **3.13 Principal memberships**

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

### **Business for Social Responsibility (BSR), U.S.**

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

### **Business Leaders Initiative on Human Rights (BLIHR), U.K.**

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

### **Centre for Environmental Assessment of Product and Material (CPM), Chalmers University of Technology, Gothenburg, Sweden**

CPM is a national competence center dedicated to sustainable product development. It is jointly funded by industry, VINNOVA (the Swedish Agency for Innovation Systems), and Chalmers. ABB is a board member. Web site: [www.cpm.chalmers.se](http://www.cpm.chalmers.se)

### **CSR Europe, Belgium**

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

### **Global Village Energy Partnership (GVEP), U.S.**

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

# Principal memberships

## **Global Reporting Initiative, Netherlands**

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

## **International Institute for Management Development (IMD), Switzerland**

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

## **International Organization for Standardization (ISO), Switzerland**

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

## **oikos International, Switzerland**

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

## **Pew Center on Global Climate Change, U.S.**

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

## **Transparency International, Germany**

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

## **United Nations Global Compact, U.S.**

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

## **World Business Council for Sustainable Development, Switzerland**

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

## **World Energy Council, U.K.**

A non-governmental energy-policy forum founded in 1923. Its objective is to promote the sustainable supply and use of energy for the greatest benefit of all people. ABB is active in several WEC national member committees. Web site: [www.worldenergy.org](http://www.worldenergy.org)

## **World Wide Fund for Nature (WWF), Switzerland**

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

# Position statements

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

The United Nations Intergovernmental Panel on Climate Change believes man-made emissions of greenhouse gases – mainly carbon dioxide (CO<sub>2</sub>) – are influencing global climate. Through the Kyoto Protocol, most industrialized countries have agreed to cut their greenhouse gas emissions.

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

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

In 1999, we set a target to reduce ABB's own greenhouse gas emissions by 1 percent per year over the next five years. We accomplished this through a large number of improvement projects throughout ABB. The executive committee also approved the first step towards ABB becoming a CO<sub>2</sub>-neutral organization. It sanctioned the investigation of current and upcoming international instruments that would help ABB to compensate for its CO<sub>2</sub> emissions.

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

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

## **ABB's position on sulfur hexafluoride (SF<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. It is one of the most potent greenhouse gases listed in the Kyoto Protocol.

Compared with emissions of carbon dioxide (the main greenhouse gas), the amount of SF<sub>6</sub> that escapes to the atmosphere is minute. Even though SF<sub>6</sub> has a global warming potential some 23,900 times greater than carbon dioxide, SF<sub>6</sub> probably accounts for about 0.1 percent of man's contribution to the greenhouse effect.

Like many other manufacturers, ABB uses SF<sub>6</sub> 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<sub>6</sub> to the atmosphere.

In normal use, ABB products emit hardly any SF<sub>6</sub>. The gas is contained either in closed systems that require gas handling only once in a lifetime of 40 years, or in sealed systems that require no gas handling

for at least 30 years. Our current closed systems guarantee maximum leakage rates between 0.5 and 1 percent per year, which are in accordance with the latest standards. Our sealed system products guarantee leakage rates below 0.1 percent per year. Field experience shows that actual emissions are considerably less.

SF<sub>6</sub> requires controlled handling. Accidental releases of SF<sub>6</sub> due to mishaps during manufacturing, installation, maintenance and decommissioning are a greater concern than leaks. To minimize them, ABB uses strict tracing and inventory systems and efficient handling procedures in line with the recommendations of environmental agencies.

To this end, ABB plays a leading role in the international organizations responsible for developing guidelines for reuse, recycling and handling of SF<sub>6</sub>, including IEC, CIGRE, CAPIEL and NEMA.

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

Although the international scientific community began searches decades ago, no equivalent substitute gas for SF<sub>6</sub> has been found which is more favorable to the environment.

ABB has ongoing research programs into alternatives to SF<sub>6</sub>, and we make SF<sub>6</sub>-free products available whenever feasible.

## **ABB's position on WEEE and ROHS**

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

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

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

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

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

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

Det Norske Veritas



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### Independent verification statement 2004

#### Scope and method of work

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

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

As part of the verification process we have:

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

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

#### Conclusions

The Report covers all the Global Reporting Initiative (GRI) core indicators, except one environmental (EN<sup>1</sup>) and two social indicators (SR1 and LA2). Furthermore, many of the additional voluntary indicators have been included. It covers data for the last three years in a consistent and transparent manner, and explanatory notes are used where necessary.

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

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

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

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

Oslo, 23 February 2005

Lars M. Løfth  
Chief Operating Officer  
Det Norske Veritas AS

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# Sustainability on the Web

[www.abb.com/sustainability](http://www.abb.com/sustainability)

## A living, interactive document

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

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

## Contact us

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

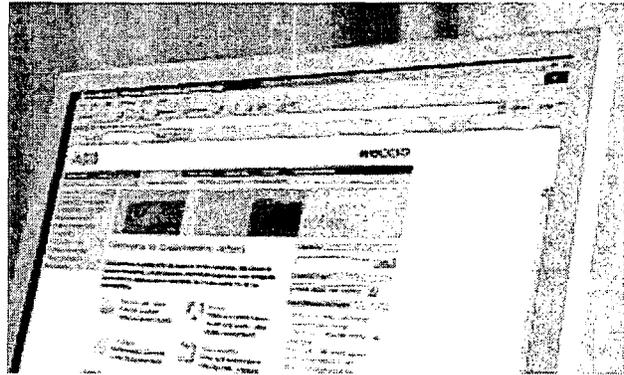
We value new ideas, and welcome the opportunity to hear and address your concerns.

You can contact us at [www.abb.com/sustainability](http://www.abb.com/sustainability) or at [sustainability.abbzh@ch.abb.com](mailto:sustainability.abbzh@ch.abb.com)

We look forward to hearing from you.

## Glossary

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



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

For an additional copy of this or any of the other reviews, please use the contact information on the back of this document or download copies from [www.abb.com](http://www.abb.com).

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

ABB Annual Report 2004



ABB Annual Report 2004

ABB Annual Report 2004

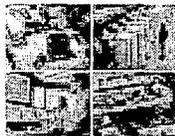


ABB Annual Report 2004

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**On 5/9/2005**

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**SUMMARY PLAN DESCRIPTION**

**FOR THE**

**TOWER AUTOMOTIVE**

**SUPPLEMENTAL RETIREMENT PLAN**

**for**

**COLLEAGUES IN THE “600 GROUP”**

**This document constitutes part of a prospectus covering securities that have been registered under the Securities Act of 1933.**

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**SUMMARY PLAN DESCRIPTION  
FOR THE  
TOWER AUTOMOTIVE  
SUPPLEMENTAL RETIREMENT PLAN**

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**YOUR RETIREMENT PLAN**

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We maintain the Tower Automotive Supplemental Retirement Plan to provide a means of deferring compensation for certain colleagues who are restricted in their contributions to the Tower Automotive Retirement Plan (“TARP”). We will refer to the Tower Automotive Supplemental Retirement Plan as the “Plan” throughout this summary. The terms “we” and the “Company” refer to R. J. Tower Corporation and its subsidiaries.

*How the Plan Works*

The Plan allows you to contribute part of your compensation to the trust fund through a “retirement savings agreement” with us. The amount you contribute will not be counted in your taxable income and will not be reported on your W-2 form (except for social security purposes).

We will contribute to the Plan on a “matching” basis and a “deferred profit sharing” basis. The Plan allows Company contributions on a “discretionary” basis. Our matching contributions on deferrals from your base salary will be determined by the matching formula for TARP. We may also match contributions on amounts deferred from incentive compensation. We will determine deferred profit sharing contributions on a year-by-year basis and these will be credited to the accounts of colleagues on the basis of compensation. Finally, we may make discretionary contributions from time to time for specific participants.

The terms and conditions of the Plan are contained in a written document. The plan document specifies the eligibility requirements for participating in the Plan and receiving benefits. This is a summary of the Plan. We are responsible for administering the Plan in accordance with the plan document.

### *Trust Fund*

A separate trust document governs the operations of the “**trust fund.**” We have appointed a “**trustee**” to administer the trust fund. The trustee invests the trust assets for your benefit. Your benefits under the Plan will depend upon our contributions, the amounts you elect to contribute, investment performance, and the financial status of the Company.

To avoid treatment as current taxable income to you, federal law requires that the money in the trust fund remain subject to the claims of general creditors of the Company. This means that if we are unable to pay our debts to creditors when due, those creditors may seek to satisfy the debts from the trust fund. There is some risk therefore that the amounts credited to your accounts will not be available to pay benefits if the Company incurs significant financial problems.

### *Plan Year*

Plan records are maintained on a calendar year basis. The “**plan year**” is the same as the calendar year.

### *Summary Plan Description as Part of a Prospectus*

This document constitutes part of a prospectus covering securities that have been registered under the Securities Act of 1933.

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## **HOW YOU BECOME A PARTICIPANT**

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### *Eligible Colleagues*

Colleagues who are in the “600 Group” or whose base compensation exceeds \$100,000<sup>1</sup> are eligible to participate in this Plan after they complete the service requirements. If, however, a colleague in either of these categories is working for us through a contract with an employee leasing organization or a contract that does not

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<sup>1</sup> The \$100,000 threshold will be indexed for cost of living.

include participation, or is represented by a collective bargaining agent, the colleague is not eligible to participate in the Plan.

### *Service Requirements*

If you are eligible, you will become a participant in various portions of the Plan on the next entry date after you complete the following service requirements:

- **Retirement Savings, Matching, and Discretionary Contribution Portions**

60 days of employment

- **Deferred Profit Sharing Portion**

One (1) year of employment

### *Entry Dates*

The entry date is the first day of the next month after you satisfy the applicable service requirement.

### *Participation Upon Reemployment*

If you were a participant in the Plan when your employment terminated and you are rehired in an eligible classification, you will become a participant on your reemployment date. If you were not a participant in the Plan when your employment terminated, you will become a participant if you are rehired in an eligible classification and after you satisfy the service requirements based on your total service with us.

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## **HOW YOUR RETIREMENT BENEFITS ARE DETERMINED**

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### *Your Retirement Savings Contributions*

You may contribute to the Plan by completing a “**retirement savings agreement.**” You must make the maximum retirement savings contributions under

TARP before amounts will be credited under this Plan. You may elect different contribution levels from your salary and incentive compensation. You may contribute the following percentages for each source of your compensation:

- 1% to 100% of your base salary minus the amount of your contribution to TARP and required deductions for taxes and FICA. Your contributions to TARP are based on your compensation up to a certain limit. Incentive compensation is not included in compensation for TARP. The limit is \$200,000 for 2002 and then indexed for inflation after 2002.
- If you are in the 600 Group, 1% to 100% of any EVA incentive compensation. Contributions from EVA incentive compensation will be credited in the year following the year in which the compensation is earned. For example, if you elect to contribute 10% of your 2002 EVA incentive compensation, the contribution will be credited in 2003, the year in which it is paid.
- If you are in the 600 Group, 1% to 100% of any Performance Cash incentive compensation.

You must complete an initial retirement savings agreement within 30 days after you first become eligible if you wish to participate in the Plan for the remainder of the plan year. If you file an agreement after the 30-day period, your initial agreement will apply to the next plan year

Your retirement savings agreement will expire at the end of every plan year and you must complete a new agreement before the beginning of the next plan year to continue your participation. You may reduce your contribution level to zero at any time during a plan year and resume participation the next plan year. If you change your contribution level to TARP, your contribution level under this Plan will drop to zero for the remainder of the plan year.

Your contributions will be credited to your “**retirement savings**” account. The trustee will invest your account in a manner similar to your investment elections under TARP.

*EXAMPLE:* Let’s assume that you are in the 600 Group, your base salary is \$150,000 and you earned incentive compensation of \$18,000 during the plan year. You agree to contribute 5% of your base salary and 50% of your incentive compensation to the Plan. If you have maximized your

contributions to TARP, your retirement savings contributions credited to this Plan will be \$16,500.

$\$150,000 \times 5\% = \$7,500$  credited during the plan year  
 $\$18,000 \times 50\% = \$9,000$  credited in the next plan year

Total contribution: \$16,500

Your contributions to this Plan will not begin until you have contributed the maximum dollar amount under TARP. The maximum dollar amount under TARP is \$10,500 for 2001 and \$11,000 for 2002, and the maximum amount will increase \$1,000 per year thereafter to \$15,000 in 2006. If you are 50 or older, you may make additional contributions to TARP beginning in 2002.

### *Matching Contributions*

We will “**match**” a certain percentage of your contributions from your base salary to this Plan and to TARP. We will use the matching formula from TARP which currently is 100% on the first 3% of base salary deferred and 50% on the fourth and fifth percents of base salary deferred. This formula may change in the future. The matching contributions on amounts deferred from your base salary will be credited to your “**retirement savings account**” after the end of each month.

We will match amounts that are deferred from EVA incentive compensation on the basis of the EVA matching formula for the year. These matching contributions are credited to your “**incentive matching account.**” Amounts that are deferred from your Long Term Incentive Performance Cash incentive compensation are not eligible for matching contributions.

*EXAMPLE:* Let’s continue with our previous example and assume that the Company adopts the TARP matching contribution formula for any amount you defer from your EVA income compensation. You contributed 5% of your \$150,000 base salary and 50% of your \$18,000 EVA incentive compensation to the Plan. Our matching contributions on the deferrals from your base salary to TARP and this Plan will be determined as follows:

Your share of matching on base salary deferrals credited to TARP:

$\$150,000 \times 3\% \times 100\% =$	\$4,500
$\$150,000 \times 2\% \times 50\% =$	<u>\$1,500</u>
	\$6,000

Your share of matching contributions on deferrals from your EVA incentive compensation credited to this Plan:

$$\begin{array}{r} \$18,000 \times 3\% \times 100\% = \$540 \\ \$18,000 \times 2\% \times 50\% = \underline{\$180} \\ \$720 \end{array}$$

In this example, our matching contributions on deferrals from your base salary will be credited to your account in TARP because your base salary is below the TARP compensation limit, which is \$200,000 for 2002. Our matching contributions on deferrals from your incentive compensation will be credited to your account in this Plan because incentive compensation is not covered by TARP.

### *Company Contributions*

We will decide the amount of our Company contributions on a year-by-year basis. We may make “**deferred profit sharing**” contributions and “**discretionary**” contributions. Discretionary contributions will be credited to the retirement savings accounts of specific participants as determined by our Board of Directors. Deferred profit sharing contributions will be made and credited as follows:

- **Eligibility Requirements**

Once you become a participant, you will be eligible for a deferred profit sharing contribution for each plan year in which:

- Your compensation exceeds the dollar limit on compensation for TARP purposes for the plan year; and
- You were employed by us for at least six (6) months during the plan year; or your employment terminated during the plan year after you reached retirement age, or because of your death or disability.

- **Your Share of Deferred Profit Sharing Contributions**

Our deferred profit sharing contribution for the year will be credited to your “**deferred profit sharing account**” on the basis of your compensation in excess of the dollar limit on compensation for TARP. The limit is \$200,000 for 2002 and will be adjusted periodically for inflation.

*EXAMPLE:* Let’s assume we make a deferred profit sharing contribution that is equal to 5% of your compensation in excess of the TARP limit. You earned \$150,000 for the 2002 plan year. Your excess compensation is the amount of any incentive compensation you earn for the year since incentive compensation is not used for TARP contribution purposes. Your share of deferred profit sharing contributions to TARP and this Plan will be \$8,400, determined as follows:

$$5\% \times \$150,000 = \$7,500 \text{ (Your share credited to TARP)}$$

$$5\% \times \$18,000 = \underline{\$ 900} \text{ (Your share credited to this Plan based on your EVA incentive compensation)}$$

$$\text{Total} = \$8,4000$$

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## YOUR ACCOUNTS AND VESTING

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### *Your Accounts*

You will have the following accounts under the Plan:

- **Retirement Savings Account**

This account is credited with your retirement savings contributions, our matching contributions on deferrals from your base salary, and our discretionary contributions, plus investment earnings or losses.

- **Deferred Profit Sharing Account**

This account is credited with our deferred profit sharing contributions, plus investment earnings or losses.

- **Incentive Matching Account**

This account is credited with our matching contributions on your deferrals from your EVA incentive compensation, plus investment earnings or losses.

*Vesting in Your Accounts*

- **Retirement Savings Accounts**

You are 100% vested in your retirement savings at all times.

- **Deferred Profit Sharing and Incentive Matching Accounts**

The money credited to your deferred profit sharing and incentive matching accounts belongs to you only to the extent that you are “vested” in the account. The portion of your accounts in which you are not vested may be forfeited if your employment terminates.

*How You Become Vested*

- **Deferred Profit Sharing Account**

You become vested in your deferred profit sharing account as you accumulate years of “service” with us. You will become 100% vested in this account after you complete three (3) years of service in accordance with the following schedule:

YEARS OF SERVICE	VESTED PERCENTAGE
Less than 3 years	0%
3 or more years	100%

- **Incentive Matching Account**

You become vested in your incentive matching sharing account on a “**class year**” basis. You will become 100% vested in the amount credited to this account for a plan year if you complete three (3) years of service after the plan year.

EXAMPLE: Let’s assume that your incentive matching account is credited with \$500 in Company matching contributions for the 2001 plan year, \$1,000 for the 2002 plan year, and \$600 for the 2003 plan year. You will become vested in those amounts as follows:

YEAR CREDITED	COMPANY MATCHING CONTRIBUTION AMOUNT	BECOMES VESTED
2001	\$ 500	12/31/2004
2002	\$1,000	12/31/2005
2003	\$ 600	12/31/2006

### *How You Accumulate Years of Service*

You will be credited with a year of service for each full year of employment during your “**period of employment.**” A period of employment begins on your date of hire and ends on the **earlier** of the following:

- the date on which you quit, are discharged, die or retire; or
- the first anniversary of the date on which you have been absent from employment (with or without pay) for any reason other than
  - a leave of absence authorized in writing by the Company; or
  - service in the Armed Forces of the United States.

If you have more than one period of employment, the years of employment from each period of employment will be combined.

EXAMPLE I: Let’s assume that your period of employment is September 2, 1997 through December 5, 2000, the day you quit. You will be credited with years of service as follows:



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## HOW YOUR ACCOUNTS ARE INVESTED

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The trust fund will be invested as directed by the Company. The trustee will credit your share of contributions and fund income to your account. The “**income**” of the trust is equal to the earnings or losses from investments minus the expenses of administering the trust. The income will be allocated in proportion to account balances at the beginning of each accounting period minus any withdrawals during the period.

*EXAMPLE:* Let’s assume that your account balances at the beginning of the year are \$10,000 and the income on the trust fund during the year is equal to 9% of the fund. At the end of the year, your account will be credited with income of \$900.

We will provide you with a statement of your accounts at least once a year showing your opening and closing balances, the income and contributions credited to your accounts during the year, and withdrawals during the year.

### *Company Stock*

One of the investments that we may choose is Company stock. We may direct the trustee to buy and sell Company stock on the open market or to maintain a phantom stock account. Company stock will be valued at the current market value. If Company stock is purchased, the trustee will exercise the voting rights.

Our latest annual report and all other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the “Exchange Act”) since the end of the fiscal year covered by the latest annual report, all of the documents subsequently filed by the Company pursuant to Sections 13(c) and (d), 14, and 15(d) of the Exchange Act, the latest annual report for the Plan, and the description of the common stock of the Company filed under the Exchange Act, including any amendment or report filed for the purpose of updating the description, are incorporated in this summary by reference. We will, upon request and without charge, furnish you with copies of any or all of these documents, other than exhibits to the documents. You should address requests for documents to the plan administrator at the address listed in the General Information section at the end of the summary. Our annual reports, proxy statements, and other communications that are distributed to our common stock shareholders will be furnished

to all participants in the Plan at the time the information is delivered to other shareholders.

There are some restrictions on investments in the Company stock by our directors and certain corporate officers. These restrictions are imposed by the Securities Act of 1933 which provides that our officers and directors may not sell their interest in the Company Stock Fund unless they comply with the registration requirements of the Securities Act of 1933 or an exemption from those registration requirements.

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## HOW YOUR BENEFITS ARE PAID

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### *Retirement or Disability Benefits*

If your employment terminates after you reach retirement age or because of disability, your benefit will be the total amount in your accounts after crediting your accounts with your share of contributions and income. This amount will be different for each person because of differences in compensation, length of service, amounts contributed under retirement savings agreements, and investment earnings or losses.

If you file an application for benefits at least 15 months before your employment terminates, you may elect to have your benefit paid to you in one of the following optional forms:

- One lump sum payment, or
- Annual installments over a period not longer than 10 years.

If you do not file an application for benefits on a timely basis, the Company will determine the form of payment for you. Benefit payments will begin in January of the year following the year in which you become eligible for payment.

### *Death Benefit*

Your death benefit will be the total amount in your accounts after crediting your share of contributions and income. The death benefit is paid to your “**beneficiary**” in the same manner as a retirement benefit, except that payments cannot be paid over a period longer than five (5) years.

You may designate the beneficiary of your choice by completing the beneficiary designation form we make available. If you do not designate a beneficiary or your beneficiary dies before you, the death benefit will be paid to your spouse, if surviving, and if not to your estate.

A beneficiary designation becomes effective when it is filed with us and each beneficiary designation form you file with us supersedes all previous forms. You should review your beneficiary designation periodically and file a new form with us whenever your marital status or other circumstances change.

### *Termination Benefit*

- **Your “Vested” Portion**

If your employment terminates before you reach retirement age for any reason other than disability or death, you will be entitled to the “vested” portion of your deferred profit sharing and incentive matching accounts and the full amount of your retirement savings account.

- **Forfeiture - Your “Non-vested” Portion**

The balance or “non-vested” portion of your deferred profit sharing and incentive match accounts will be forfeited as of the date your employment terminates. If you are rehired by the Company, you will not have any rights with respect to the amounts forfeited

- **Payment of Your Vested Portion**

The vested portion of your accounts will be paid to you in a single lump sum payment in January of the year following the plan year in which your employment terminated.

*EXAMPLE:* Let’s assume your employment terminates in 2010 after you had earned eight (8) years of service. You will be 100% vested in your deferred profit sharing account and 100% vested in the amounts credited to your incentive matching account in plan years 2002 through 2006. These vested amounts will be paid to you in January 2011 in a single lump sum payment. Amounts credited to your incentive matching account after 2006 will be forfeited.

## *Hardship Withdrawals*

You may withdraw part of your retirement savings contributions if the withdrawal is reasonably necessary to enable you to meet an immediate and heavy financial hardship. The amount of the withdrawal cannot exceed the amount required to solve the problem causing the hardship.

## *Payments Pursuant to Orders by Divorce Courts*

Payments are also permitted when ordered by a divorce court in a “**qualified domestic relations order**.” A divorce court may order the Plan to pay amounts from your account to your spouse, former spouse, child, or other dependent. These orders may require the Plan to pay from your accounts at any time after we have determined that the order is qualified.

If we receive a domestic relations order involving your account in the Plan, we will notify you of the receipt of the order and give you an opportunity to comment on the contents and validity of the order. We will then determine whether the order satisfies the requirements for a qualified domestic relations order and notify you accordingly. If the order qualifies, we will comply with the terms of the order.

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## **HOW YOU APPLY FOR BENEFITS**

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You should apply for your Plan benefits when your employment terminates. You may obtain application forms from the human resources department. We will review your application and advise you of the amount of your benefits and the optional methods of payment. If you are not eligible for a benefit, we will give you a written explanation of why you are ineligible, whether you can become eligible by supplying some additional materials, and your right to appeal the decision.

The procedure for filing an appeal is:

- You may review any documents that are pertinent to your appeal;
- You must file a *written* notice of appeal with us within 90 days after you receive a notice of denial;

- You must file *in writing* all the materials and arguments that you wish to have considered in the appeal not later than 30 days after you file your notice of appeal;
- Unless there are special circumstances requiring more time, we will review your appeal and advise you *in writing* of our decision within 60 days after receipt of your notice of appeal. If an extension is necessary, we will notify you before the end of the initial 60 day appeal period. The extension will be for 60 days or less.
- Our decision on your appeal will be delivered to you *in writing*. The decision will be written in a manner that you can understand and will refer you to the provisions in the Plan upon which we based our decision.

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## HOW PAYMENTS FROM THE PLAN ARE TAXED

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The amounts contributed to the Plan on your behalf are not included in your income for tax purposes until you receive payments from the Plan. The taxation of your Plan benefits is deferred until you actually receive the money from the Plan.

The rules on the taxation of payments from this Plan are complex. You should contact your tax adviser to discuss the tax consequences.

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## YOUR RIGHTS AS A PARTICIPANT

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### *Your Rights*

As a participant in the Plan, you are entitled to certain rights, including the right to:

- Examine, without charge, at our office, all Plan documents and copies of all documents and reports concerning the Plan that have been filed with the U.S. Government.
- Obtain copies of all Plan documents and reports for a reasonable charge, upon written request to us.
- Obtain an annual statement of the total amount credited to your account in the Plan and your vested benefit, if any, or the earliest date on which your benefits will become vested.

### *Limitations*

The Plan is only a retirement plan. It does not constitute a contract of employment between you and us, and does not give you any right to continued employment with us. If your employment with us terminates for any reason, you will be entitled to the benefits you have earned under the Plan in accordance with these terms and conditions. The provisions of the Plan as described in this summary will apply only to persons who are employed by us on or after August 1, 2001.

The Plan may be amended at any time and from time to time. An amendment cannot reduce the benefits that you have earned to the date of the amendment. An amendment will ordinarily be effective on the first day of the plan year in which it is adopted. If the amendment significantly changes the provisions of the Plan outlined in this summary plan description, a new summary plan description or supplement will be furnished to participants and beneficiaries.

### *Plan Administration - Responsibility*

The Company as “**plan administrator**,” the trustees, and other persons responsible for the administration of the Plan and trust must act solely in the interests of the Plan participants. Everyone’s duties under the Plan must be carried out in a sound and prudent manner. You may not be penalized for exercising your rights under the Plan or the law.

### *Federal Law Protection*

Your rights under the Plan are protected by federal law. If your rights are violated or benefits improperly denied, you have the right to file suit in state or federal courts and you may obtain assistance from the U.S. Department of Labor.

If you have any question about the Plan or your rights with respect to the Plan, you should contact us or the nearest office of the U.S. Labor Management Service Administration, Department of Labor.

### *Protection From Creditors*

Your interest in this Plan is subject to the “**spendthrift**” provisions of the Plan. The spendthrift provisions protect your interest from garnishment or seizure by your creditors. These provisions also prevent you from assigning or pledging your interest in the Plan as security for a loan or other obligation. These spendthrift provisions do not apply to assignments made in a qualified domestic relations order that is entered by a divorce court. The provisions also **do not** protect your interest from attachment or seizure by the Company’s general creditors if the Company is unable to pay those creditors from other Company assets. As a result, there is no guarantee that the funds will be available to pay your benefits at the time payment is due.

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## **WHAT HAPPENS IF THE PLAN IS TERMINATED**

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We intend to continue this Plan on a permanent basis, but we reserve the right to terminate the Plan. If the Plan is terminated, you will be 100% vested in your account balance. The trust fund will be continued for your benefit and will not be returned to us. The Plan is not eligible for termination insurance coverage through the Pension Benefit Guaranty Corporation (PBGC). This insurance is only available for qualified defined benefit pension plans.

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## GENERAL INFORMATION

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**Plan Sponsor and Administrator:** R. J. Tower Corporation  
c/o Tower Automotive, Inc.  
5211 Cascade Road SE Suite 300  
Grand Rapids, Michigan 49546

**Phone:** (616) 802-1600

**Name of Plan:** Tower Automotive Retirement Plan

**Type of Plan:** This is an unfunded and non-qualified retirement benefit plan. This means that it does not satisfy the qualified plan requirements of the Internal Revenue Code.

**Plan Effective Date:** January 1, 2001

**Plan Year:** January 1 through December 31

**Employer ID Number:** 38-1521832

**Agent for Service of Process:** Chief Financial Officer  
R. J. Tower Corporation  
5211 Cascade Road SE Suite 300  
Grand Rapids, Michigan 49546

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