

ABB LTD  
Form 20-F  
April 09, 2004

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As filed with the Securities and Exchange Commission on April 9, 2004

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 20-F**

- o REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g)  
OF THE SECURITIES EXCHANGE ACT OF 1934  
OR
  
- ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2003  
OR
  
- o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
Commission file number: 001-16429

**ABB Ltd**

*(Exact name of registrant as specified in its charter)*

**Switzerland**

*(Jurisdiction of incorporation or organization)*

**Affolternstrasse 44**

**CH-8050 Zurich**

**Switzerland**

*(Address of principal executive offices)*

Securities registered or to be registered pursuant to Section 12(b) of the Act:

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Title of each class	Name of each exchange on which registered
American Depositary Shares, each representing one Registered Share	New York Stock Exchange
Registered Shares, par value CHF 2.50	New York Stock Exchange*

\*

Listed on the New York Stock Exchange not for trading or quotation purposes, but only in connection with the registration of American Depositary Shares pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None.

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 2,070,314,947 Registered Shares

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

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## INTRODUCTION

ABB Ltd is a corporation organized under the laws of Switzerland. In this annual report, "the ABB Group," "ABB," "we," "our" and "us" refer to ABB Ltd and its consolidated subsidiaries (unless the context otherwise requires). We also use these terms to refer to ABB Asea Brown Boveri Ltd and its subsidiaries prior to the establishment of ABB Ltd as the holding company for the entire ABB Group in 1999, as described in this annual report under "Item 4. Information on the Company Introduction History of the ABB Group." Our American Depositary Shares (each representing one of our registered shares) are referred to as "ADSs." The registered shares of ABB Ltd are referred to as "shares."

Our principal corporate offices are located at Affolternstrasse 44, CH-8050 Zurich, Switzerland, telephone number +1-41-43-317-7111.

## FINANCIAL AND OTHER INFORMATION

ABB Ltd has prepared its statutory unconsolidated financial statements in accordance with the Swiss Federal Code of Obligations. The consolidated financial statements of ABB Ltd, including the notes thereto, as of December 31, 2003, 2002 and 2001 and for the years then ended (our "Consolidated Financial Statements") have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP").

In this annual report: (i) "\$," "U.S. dollars" and "USD" refer to the lawful currency of the United States of America; (ii) "CHF" and "Swiss francs" refer to the lawful currency of Switzerland; (iii) "€" and "euro" refer to the lawful currency of the participating member states of the European Union (the "EU"); (iv) "SEK" and "Swedish krona" refer to the lawful currency of Sweden; (v) "£," "sterling," "pounds sterling" and "GBP" refer to the lawful currency of the United Kingdom; and (vi) "Norwegian krone" refers to the lawful currency of Norway.

Except as otherwise stated, all monetary amounts in this annual report are presented in U.S. dollars. Where specifically indicated, amounts in Swiss francs have been translated into U.S. dollars. These translations are provided for convenience only, and they are not representations that the Swiss franc could be converted into U.S. dollars at the rate indicated. These translations have been made using the noon buying rate in the City of New York for cable transfers as certified for customs purposes by the Federal Reserve Bank of New York as of December 31, 2003, unless otherwise indicated. The noon buying rate for Swiss francs on December 31, 2003 was \$1.00 = CHF 1.2380. The noon buying rate for Swiss francs on April 8, 2004 was \$1.00 = CHF 1.2829.

In May 2001, we effected a share split in a four-for-one ratio to reduce the nominal value of our shares from CHF 10 each to CHF 2.50 each. For more information about the share split, see "Item 10. Additional Information Description of Share Capital and Articles of Incorporation The Share Split." Unless otherwise noted, all share figures in this annual report reflect the share split.

## FORWARD-LOOKING STATEMENTS

This annual report includes forward-looking statements. These forward-looking statements can be identified by the use of forward-looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "intends," "may," "will," or "should" or, in each case, their negative, or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They appear in a number of places throughout this annual report and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our results of operations, financial condition, liquidity, prospects, growth, dispositions, strategies and the countries and industry in which we operate.

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These forward-looking statements include, but are not limited to the following:

statements in "Item 3. Key Information Dividends and Dividend Policy" regarding our policy on future dividend payments;

statements in "Item 5. Operating and Financial Review and Prospects" and "Item 8. Financial Information Legal Proceedings" regarding the expected outcome of our Combustion Engineering subsidiary's pre-packaged plan of reorganization under Chapter 11 of the U.S. Bankruptcy Code and the outcome of certain compliance matters under review;

statements in "Item 3. Key Information Risk Factors," "Item 4. Information on the Company" and "Item 5. Operating and Financial Review and Prospects" regarding our management objectives and the timing of intended disposals; and

statements in "Item 5. Operating and Financial Review and Prospects" regarding our management objectives, as well as trends in results, prices, volumes, operations, margins and overall market trends.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and that the actual results of our operations, financial condition and liquidity, and the development of the countries and the industries in which we operate may differ materially from those described in or suggested by the forward-looking statements contained in this annual report. In addition, even if our results of operations, financial condition and liquidity, and the development of the countries and the industries in which we operate, are consistent with the forward-looking statements contained in this annual report, those results or developments may not be indicative of results or developments in subsequent periods. Important factors that could cause actual results to differ materially from our expectations are contained in cautionary statements in this annual report and include, without limitation, the following:

We are subject to ongoing litigation and potentially substantial liabilities arising out of asbestos claims from discontinued operations.

If we are not able to comply with the covenants contained in our new \$1 billion credit facility, our financial position may be adversely affected.

Our ability to bid for large contracts depends on our ability to obtain performance guarantees from financial institutions.

We have retained performance guarantees related to our divested power generation business.

We have retained liability for environmental remediation costs relating to businesses that we sold in 2000, and we could be required to make payments in respect of these retained liabilities in excess of established reserves.

Bidding on large, long-term fixed price projects exposes our businesses to risk of loss.

We may continue to experience losses under some long-term contracts.

We operate in very competitive markets and could be adversely affected if we fail to keep pace with technological changes.

Industry consolidation could result in more powerful competitors and fewer customers.

Our business is affected by the global economic and political climate. A major terrorist event or prolonged military action could adversely affect our business, financial condition and results of operations.

We are subject to environmental laws and regulations in the countries in which we operate. We incur costs to comply with such regulations, and our ongoing operations may expose us to environmental liabilities.

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We may be the subject of product liability claims.

Our operations in emerging markets expose us to risks associated with conditions in those markets.

Our Oil, Gas and Petrochemicals business may experience losses if the oil and gas industry generally experiences a downturn.

Our international operations expose us to the risk of fluctuations in currency exchange rates.

We may encounter difficulty in managing our business due to the global nature of our operations.

Our reputation and our ability to do business may be impaired by corrupt behavior by any of our employees or agents or those of our subsidiaries.

We urge you to read the sections of this annual report entitled "Item 3. Key Information Risk Factors," "Item 4. Information on the Company" and "Item 5. Operating and Financial Review and Prospects" for a more complete discussion of the factors that could affect our future performance and the countries and industries in which we operate. In light of these risks, uncertainties and assumptions, the forward-looking circumstances described in this annual report and the assumptions underlying them may not occur.

Except as required by law or applicable stock exchange rules or regulations, we undertake no obligation to update or revise publicly any forward-looking statement, whether as a result of new information, future events or otherwise. All subsequent written and oral forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements referred to above and contained elsewhere in this annual report.

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### **PART I**

#### **Item 1. Identity of Directors, Senior Management and Advisers**

Not applicable.

#### **Item 2. Offer Statistics and Expected Timetable**

Not applicable.

#### **Item 3. Key Information**

### **SELECTED FINANCIAL DATA**

The following table presents our selected financial and operating information at the dates and for each of the periods indicated. You should read the following information together with the information contained in "Item 5. Operating and Financial Review and Prospects," as well as our Consolidated Financial Statements and the notes thereto, included elsewhere in this annual report.

Our selected financial data are presented in the following tables in accordance with U.S. GAAP and have been derived from our published consolidated financial statements.

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Our consolidated financial statements as of and for each of the years ended December 31, 2003, 2002 and 2001 were audited by Ernst & Young Ltd., except for the 2002 and 2001 consolidated financial statements of ABB Holdings Inc., a wholly owned subsidiary, the 2003, 2002 and 2001 financial statements of Jorf Lasfar Energy Company, a corporation in which we have a 50% interest, the 2002 and 2001 consolidated financial statements of Swedish Export Credit Corporation, in which we had a 35% interest as of December 31, 2002, and the 2001 financial statements of Scandinavian Reinsurance Company Limited, a wholly owned subsidiary, which were audited by other independent auditors.

Our consolidated financial statements as of and for each of the years ended December 31, 2000 and 1999, before reclassifications for operations discontinued in 2003, were audited jointly by Ernst & Young Ltd. and KPMG Klynveld Peat Marwick Goerdeler SA. The reclassifications that were applied to reclassify amounts related to operations discontinued in 2003 reflected in the Consolidated Financial Statements as of December 31, 2001, 2000 and 1999 and for each of the years ended December 31, 2000 and 1999 have not been audited.

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### INCOME STATEMENT DATA<sup>(1)</sup>:

	Year ended December 31,				
	2003	2002	2001	2000	1999
	(audited)	(audited)	(audited)	(unaudited)	(unaudited)
	(\$ in millions except per share data)				
Revenues	18,795	17,466	18,334	18,487	20,001
Cost of sales	(14,080)	(13,067)	(13,539)	(13,503)	(14,382)
Gross profit	4,715	4,399	4,795	4,984	5,619
Selling, general and administrative expenses	(3,830)	(3,954)	(3,929)	(4,001)	(4,656)
Amortization expense <sup>(2)</sup>	(40)	(41)	(188)	(185)	(164)
Other income (expense), net <sup>(3)</sup>	(189)	(58)	(161)	265	91
Earnings before interest and taxes	656	346	517	1,063	890
Interest and dividend income	144	189	348	386	511
Interest and other finance expense	(554)	(315)	(571)	(453)	(631)
Income from continuing operations before taxes and minority interest	246	220	294	996	770
Provision for taxes	(78)	(74)	(87)	(264)	(196)
Minority interest	(82)	(71)	(36)	(40)	(27)
Income from continuing operations	86	75	171	692	547
Income (loss) from discontinued operations, net of tax <sup>(4)</sup>	(853)	(858)	(837)	751	813
Cumulative effect of change in accounting principles (SFAS 133), net of tax <sup>(5)</sup>			(63)		
Net income (loss)	(767)	(783)	(729)	1,443	1,360
Basic earnings (loss) per share <sup>(6)</sup> :					
Income from continuing operations	0.07	0.07	0.15	0.59	0.46
Net income (loss)	(0.63)	(0.70)	(0.64)	1.22	1.15
Diluted earnings (loss) per share <sup>(6)</sup> :					
Income (loss) from continuing operations	0.07	(0.10)	0.15	0.58	0.46
Net income (loss)	(0.63)	(0.83)	(0.64)	1.22	1.15

### BALANCE SHEET DATA<sup>(1)</sup>:

	December 31,				
	2003	2002	2001	2000	1999
	2003	2002	2001	2000	1999

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December 31,

	(audited)	(audited)	(unaudited)	(unaudited)	(unaudited)
(\$ in millions)					
Cash and equivalents	4,669	2,336	2,311	1,185	1,364
Marketable securities	473	589	1,229	2,340	2,981
Total assets	30,413	29,533	32,305	30,962	30,613
Long-term borrowings	6,290	5,358	4,999	3,760	3,018
Total debt <sup>(7)</sup>	7,887	7,928	9,700	7,280	6,334
Capital stock and additional paid-in capital	3,067	2,027	2,028	2,082	2,071
Total stockholders' equity	3,026	1,013	1,975 <sup>(9)</sup>	5,171 <sup>(9)</sup>	4,271
Net operating assets <sup>(8)</sup>	9,686	9,826	9,478	10,612	9,863

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**CASH FLOW DATA<sup>(1)</sup>:**

Year ended December 31,

	2003	2002	2001	2000	1999
	(audited)	(audited)	(audited)	(audited)	(unaudited)
(\$ in millions)					
Net cash provided by (used in) operating activities	(161)	19	1,983	747	371
Net cash provided by (used in) investing activities	754	2,651	(1,218)	(489)	(109)
Net cash provided by (used in) financing activities	1,591	(2,812)	677	(392)	(1,187)

**OTHER FINANCIAL AND OPERATING DATA<sup>(1)</sup>:**

Year ended December 31,

	2003	2002	2001	2000	1999
	(audited)	(audited)	(audited)	(unaudited)	(unaudited)
(\$ in millions)					
Purchases of property, plant and equipment	547	602	761	553 <sup>(9)</sup>	839
Depreciation and amortization <sup>(4)</sup>	585	611	787	836 <sup>(9)</sup>	795
Research and development	613	547	590	657	820
Order-related development <sup>(10)</sup>	317	248	404	554	770

(1) In June 1999, ABB Ltd issued approximately 295 million registered shares (1,180 million, as adjusted for the share split) to the stockholders of ABB AB, a Swedish publicly listed company, and ABB AG, a Swiss publicly listed company. Preparatory to this transaction, ABB AG declared a special dividend such that, as a result, neither ABB AB nor ABB AG had operations or assets other than their respective 50% ownership interests in ABB Asea Brown Boveri Ltd. In exchange, the stockholders of ABB AB and ABB AG tendered all issued shares of the two companies except for 3% of total issued ABB AB stock. The stockholders of ABB AB who did not tender their shares for ABB Ltd shares received cash of \$438 million in return for their shares of ABB AB and the equivalent number of registered shares of ABB Ltd (approximately 20 million) were sold to third parties, resulting in a total of approximately 1,200 million issued shares of ABB Ltd as of June 28, 1999. These transactions resulted in ABB Ltd being the single parent entity for the ABB Group.

(2) Includes goodwill amortization of \$148 million, \$147 million and \$131 million in 2001, 2000 and 1999, respectively. In accordance with the adoption of Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, after January 1, 2002, goodwill is no longer amortized but is charged to operations when specified tests indicate that the goodwill is impaired. For additional information, see Note 2 to the Consolidated

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Financial Statements.

- (3) During 2003, 2002, 2001, 2000 and 1999, we incurred restructuring charges and related asset write-downs of \$325 million, \$270 million, \$221 million, \$192 million and \$141 million, respectively, relating to a number of restructuring initiatives throughout the world. The restructuring costs incurred in 2002, 2001, 2000 and 1999 were accrued in the respective periods pursuant to the requirements of EITF 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*. The restructuring costs incurred in 2003 were accrued pursuant to the requirements of Statement of Financial Accounting Standards No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*.
- (4) In 2003 and 2002, we recorded losses of \$496 million and \$127 million, respectively, relating to our Oil, Gas and Petrochemicals businesses. In 2003, 2002 and 2001, we recorded charges of \$145 million, \$420 million and \$470 million, respectively, related to the retained asbestos liability of our disposed power generation segment. During 2000, we recorded gains on the disposal of our power generation segment, which included our investment in ABB ALSTOM POWER NV and our nuclear business, which were partly offset by a \$70 million provision related to our retained asbestos liability, a \$300 million provision for estimated environmental remediation costs, \$136 million of accumulated foreign currency translation losses and operating losses associated with these businesses. In 1999, we recorded a gain on the formation of a joint venture with ALSTOM S.A., ABB ALSTOM POWER NV, as well as a gain on the disposal of our transportation segment, offset by a \$300 million provision related to our retained asbestos liability and contract loss provisions of \$560 million. As a result, our Consolidated Financial Statements present the net assets

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and results of operations of these segments, including charges incurred subsequent to the disposals, as discontinued operations. For additional information, see "Item 5. Operating and Financial Review and Prospects" and Note 18 to the Consolidated Financial Statements.

Prior to 2001, we estimated certain reserves for unpaid claims and expenses in our Insurance business by calculating the present value of funds required to pay losses at future dates. As of 2001, the timing and amount of future claims payments have become more uncertain. Therefore, the discounted value can no longer be reliably estimated. Instead, we now show the expected future claims at full face value, resulting in a net charge of \$295 million in income (loss) from discontinued operations, net of tax in the 2001 Consolidated Income Statement. For additional information, see "Item 5. Operating and Financial Review and Prospects" and Note 3 to the Consolidated Financial Statements.

- (5) We accounted for the adoption of Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133), as a change in accounting principle. Based on our outstanding derivatives at January 1, 2001, we recognized the cumulative effect of the accounting change as a loss in the Consolidated Income Statement. For additional information, see Note 2 to the Consolidated Financial Statements.
- (6) The number of shares and earnings per share data in the Consolidated Financial Statements have been presented as if ABB Ltd shares had been issued for all periods presented and as if the four-for-one split of ABB Ltd shares in May 2001 had occurred as of the earliest period presented.
- Basic earnings (loss) per share is calculated by dividing income (loss) by the weighted average number of shares outstanding during the year. Diluted earnings 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 and that any proceeds from such exercises were used to acquire shares of our stock at the average market price during the year or the period the securities were outstanding, if shorter. Potentially dilutive securities comprise: outstanding written call options, if dilutive; the securities issued under our management incentive plan, to the extent the average market price of our stock exceeded the exercise prices of such instruments; shares issuable in relation to outstanding convertible bonds, if dilutive; and outstanding written put options, for which net share settlement at average market price of our stock was assumed, if dilutive (see Notes 2, 22 and 24 to the Consolidated Financial Statements).
- (7) Total debt, also referred to as total borrowings, is equal to the sum of short-term borrowings and long-term borrowings.
- (8) Net operating assets is calculated based upon total assets (excluding cash and equivalents, marketable securities, current loans receivable, taxes and deferred charges) less total liabilities (excluding borrowings, taxes, provisions and pension-related liabilities).
- (9) Audited.
- (10) Order-related development activities are customer- and project-specific development efforts that we undertake to develop or adapt equipment and systems to the unique needs of our customers in connection with specific orders or projects. Order-related development amounts are initially recorded in inventories as part of the work in progress of a contract and then are reflected in cost of sales at the time revenue is recognized in accordance with our accounting policies.

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## DIVIDENDS AND DIVIDEND POLICY

Payment of dividends is subject to general business conditions, the ABB Group's current and expected financial condition and performance and other relevant factors including growth opportunities.

Dividends may be paid only if ABB Ltd has sufficient distributable profits from previous fiscal years or sufficient free reserves to allow the distribution of a dividend. In addition, at least 5% of ABB Ltd's annual net profits must be retained and booked as general legal reserves, unless these reserves already amount to 20% of ABB Ltd's nominal share capital. As a holding company, ABB Ltd's main sources of income are dividend, interest and debt payments from its subsidiaries. At December 31, 2003, of the CHF 8,942 million of stockholders' equity recorded in the unconsolidated statutory financial statements of ABB Ltd prepared in accordance with Swiss law, CHF 5,176 million was share capital, CHF 2,192 million was restricted, CHF 1,533 million was unrestricted and CHF 41 million was available for distribution.

The declaration of any dividend proposed by the board of directors of ABB Ltd requires approval at a general meeting of shareholders. In addition, the statutory auditors must confirm that the dividend proposal of the board of directors conforms to statutory law and the articles of incorporation of ABB Ltd. In practice, the shareholders' meeting usually approves dividends as proposed by the board of directors, if the board of directors' proposal is confirmed by the statutory auditors.

Dividends are usually due and payable no earlier than three trading days after the shareholders' resolution. Dividends for which no payment has been requested within five years after the due date accrue to ABB Ltd and are allocated to its free reserves. For information about the deduction of withholding taxes from dividend payments, see "Item 10. Additional Information Taxation."

We have established a dividend access facility for shareholders who are resident in Sweden under which these shareholders may register with Värdepapperscentralen VPC AB (Sweden) ("VPC"), as holder of up to 600,004,716 shares, and receive dividends in Swedish kronor equivalent to the dividend paid in Swiss francs without deduction of Swiss withholding tax. For further information, see "Item 10. Additional Information Taxation."

Because ABB Ltd pays cash dividends, if any, in Swiss francs (subject to the exception for certain shareholders in Sweden described above), exchange rate fluctuations will affect the U.S. dollar amounts received by holders of ADSs upon conversion of those cash dividends by Citibank, N.A., the depository, in accordance with the Amended and Restated Deposit Agreement dated May 7, 2001.

The following table sets forth in Swiss francs and in U.S. dollars (translated at the noon buying rate on December 31, 2003) the dividend paid per share with respect to the years ended December 31, 2002, 2001, 2000 and 1999. The board of directors has proposed that no dividend be paid with respect to the year ended December 31, 2003.

Year ended December 31,	Dividend per share	
	(CHF)	(\$)
2002		
2001		
2000	0.75	0.61
1999	0.75	0.61

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## RISK FACTORS

*You should carefully consider all of the information set forth in this annual report and the following description of risks and uncertainties that we currently believe may exist. Our business, financial condition or results of operations could be adversely affected by any of these risks. Additional risks of which we are unaware or that we currently deem immaterial may also impair our business operations. This annual report also contains forward-looking statements that involve risks and uncertainties. Our results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those described below and elsewhere in this annual report. See "Forward-Looking Statements."*

***We are subject to ongoing litigation and potentially substantial liabilities arising out of asbestos claims from discontinued operations.***

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When we sold our 50% interest in ALSTOM POWER NV, formerly ABB ALSTOM POWER NV ("ALSTOM POWER"), to ALSTOM S.A. ("ALSTOM") in May 2000, we retained ownership of Combustion Engineering Inc. ("Combustion Engineering"), a subsidiary that had conducted part of our discontinued power generation business and that now owns commercial real estate that it leases to third parties. Together with other third parties, Combustion Engineering is a co-defendant 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. Other ABB Group entities have sometimes been named as defendants in asbestos claims. These entities include 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 is currently a subsidiary of Asea Brown Boveri Inc. and was formerly a subsidiary of Combustion Engineering).

### *The creation of the CE Settlement Trust and the pursuit of a pre-packaged bankruptcy plan.*

In October 2002, we and Combustion Engineering determined that it was likely that the expected asbestos-related costs of Combustion Engineering would exceed the value of its assets (\$812 million as of September 30, 2002 and \$828 million as of December 31, 2002) if its historical settlement patterns continued into the future. We and Combustion Engineering determined to resolve the asbestos 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. We and Combustion Engineering determined to structure the Chapter 11 reorganization as a "pre-packaged plan," in which acceptances of the plan would be solicited prior to the filing of the Chapter 11 case, thus reducing the duration and expense of the bankruptcy proceedings.

On November 22, 2002, Combustion Engineering and the asbestos claimants' representatives entered into an agreement for settling open asbestos-related personal injury claims that had been lodged against Combustion Engineering prior to November 15, 2002 (the "Master Settlement Agreement"). Combustion Engineering also agreed, pursuant to the Master Settlement Agreement, to form and fund a CE Settlement Trust (the "CE Settlement Trust") to fund and administer the payment of asbestos-related personal injury claims settled under the Master Settlement Agreement. See "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability."

On January 17, 2003, we announced that we and Combustion Engineering had reached an agreement on a proposed pre-packaged plan with certain representatives of asbestos claimants with existing asbestos-related personal injury claims against Combustion Engineering (encompassing claimants who had lodged claims prior to November 15, 2002 and claimants who

had lodged claims 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. The pre-packaged plan provides for the creation of a trust, the Asbestos PI Trust, which is separate and distinct from the CE Settlement Trust, and addresses "Asbestos PI Trust Claims," which consist of present and future asbestos-related personal injury claims (including the claims previously settled pursuant to the Master Settlement Agreement only to the extent of any unpaid portions thereof) that arise directly or indirectly from any act, omission, products or operations of Combustion Engineering, Lummus or Basic. If the pre-packaged plan ultimately becomes effective, a channelling injunction would be issued under the U.S. Bankruptcy Code pursuant to which the Asbestos PI Trust Claims against ABB Ltd and its affiliates (including Combustion Engineering, Lummus and Basic), would be channelled to the Asbestos PI Trust. This would mean 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 its affiliates (including Combustion Engineering, Lummus and Basic). A preliminary injunction is currently in force.

### *The bankruptcy litigation and appeal process.*

The pre-packaged plan, including the channelling order, will become effective when the U.S. Bankruptcy Court recommends the issuance of a confirmation order (which occurred on July 10, 2003), the confirmation order is entered by the U.S. District Court (which occurred on August 8, 2003) and has become a final order that is not subject to appeal, and the other conditions to the effectiveness of the pre-packaged plan have been satisfied.

On June 23, 2003, the U.S. Bankruptcy Court issued an Order Approving the Disclosure Statement but Recommending Withholding of Confirmation of the Plan of Reorganization for Combustion Engineering for Ten Days (the "Ruling") and related findings of fact. See "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability." On July 10, 2003, the U.S. 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 pre-packaged plan be confirmed.

Following the issuance of the Supplemental Ruling, interested parties had a period during which they could appeal the 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, Basic and Lummus, filed appeals based on various objections to the Plan, as described in "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability."

The U.S. District Court held a hearing on July 31, 2003 with respect to the appeals and entered its confirmation order on August 8, 2003. The U.S. Federal Third Circuit Court of Appeals granted a motion for expedition of appeals and ordered that all briefs were to be filed by October 7, 2003. The Circuit Court has set June 3, 2004 as the date for the hearing. We cannot be certain of the duration or outcome of the appeal process. Regardless of whether or not the pre-packaged plan becomes effective, the Master Settlement Agreement, which settles the amount of and provides for the partial payment on approximately 110,000 asbestos claims, remains effective. See "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability" and Note 18 to our Consolidated Financial Statements.

*Ongoing exposure.*

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Based on our expectation that the pre-packaged plan ultimately will become effective, we have recorded a provision of \$813 million as of December 31, 2003, reflected in our Consolidated Balance Sheet, for resolution of the asbestos-related personal injury claims against Combustion Engineering, Lummus and Basic. Nonetheless, we cannot be certain of the duration of the asbestos-related litigation process, its outcome or its eventual cost to us. In particular, ongoing asbestos-related litigation resulting from a prolonged appeals process may hinder our ability to raise funds through capital markets transactions or otherwise, thereby limiting our ability to reduce our indebtedness. If the confirmation of the pre-packaged plan is later overturned, our ultimate liability for the resolution of asbestos-related personal injury claims and our reserves related thereto might change in a manner that would be uncertain and could have a material adverse impact on our business, consolidated financial condition, results of operations and cash flows.

For further information on the asbestos-related personal injury litigation, see "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability."

***If we are not able to comply with the covenants contained in our new \$1 billion credit facility, our financial position may be adversely affected.***

We entered into a three-year \$1 billion credit facility on November 17, 2003. The new credit facility became available in December 2003. It contains certain financial covenants in respect of minimum interest coverage, maximum net leverage and a minimum level of consolidated net worth, as well as specific negative pledges. If we are unable to comply with the covenants in the new credit facility, we may be required to renegotiate the facility with our lenders or to replace it in order not to default under it. We can offer no assurance that we would be able to renegotiate or replace the facility on terms that are acceptable to us, if at all. At December 31, 2003 and March 31, 2004, nothing was drawn under the new facility and we currently do not intend to draw on it. See "Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources Credit Facilities."

***Our ability to bid for large contracts depends on our ability to obtain performance guarantees from financial institutions.***

In the normal course of our business and in accordance with industry practice, we provide performance guarantees on large projects, including long-term operation and maintenance contracts, which guarantee our own performance. These guarantees may include guarantees that a project will be completed or that a project or particular equipment will achieve defined performance criteria. If we fail to attain the defined criteria, we must make payments in cash or in kind. Performance guarantees frequently are requested in relation to bids for large projects, both in our core power and automation businesses and in our Oil, Gas and Petrochemicals business.

Some customers will require that performance guarantees be issued by a financial institution in the form of a letter of credit, surety bond or other financial guarantee. If we cannot obtain such a guarantee from a financial institution on reasonable terms, we could be prevented from bidding on or obtaining the contract or our costs would be higher, which would reduce the profitability of the contract. Financial institutions will consider our credit ratings and financial position in the guarantee approval process. Our current credit rating and financial position do not prevent us from obtaining such guarantees from financial institutions, but they can make the process more difficult or expensive. Although our ability to obtain such guarantees has significantly improved in a number of countries in recent months, if we find that we cannot obtain sufficient guarantees from financial institutions in the future, there could be a material impact on our business, financial condition, results of operations or liquidity.

*We have retained performance guarantees related to our divested power generation business.*

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We have retained performance guarantees related to the power generation business that we contributed to the former ABB ALSTOM POWER joint venture. The guarantees primarily consist of performance guarantees, advance payment guarantees, product warranty 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 have maturity dates ranging from one to ten years and in some cases have no definite expiry. ALSTOM and its subsidiaries have primary responsibility for performing the obligations that are the subject of the guarantees. In connection with the sale to ALSTOM of our interest in the joint venture in May 2000, ALSTOM, (the parent company), and ALSTOM POWER (the former joint venture entity) have undertaken jointly and severally to fully indemnify us and hold us harmless against any claims arising under these guarantees. Due to the nature of product warranty guarantees and certain other guarantees, we are unable to develop an estimate of the maximum potential amount of future payments for these guarantees. Our best estimate of the total maximum potential exposure under all quantifiable guarantees we issued on behalf of our former power generation business was approximately \$1.2 billion as of December 31, 2003. This maximum potential exposure, as required by Financial Accounting Standards Board Interpretation No. 45 ("FIN 45"), is based on the original guarantee or contract amount and does not reflect any discounting of our assessment of actual exposure under the guarantees.

As of December 31, 2003, no losses have been recognized in connection with the guarantees relating to the divested power generation business. We have not concluded that a loss is probable under these guarantees and, therefore, we have not recorded a provision as of December 31, 2003. However, if we are required to fund payments under these guarantees following a failure of the divested power generation business to perform its obligations, and if ALSTOM is unable to fulfill its undertaking to indemnify us, we could incur material losses. See "Item 5. Operating and Financial Review and Prospects Contractual Obligations and Commercial Commitments Commercial Commitments Commitments Relating to Disposed Businesses."

*We have retained liability for environmental remediation costs relating to businesses that we sold in 2000, and we could be required to make payments in respect of these retained liabilities in excess of established reserves.*

We retained liability for environmental remediation costs at two sites in the United States that were operated by our nuclear technology business, which we sold in April 2000 to British Nuclear Fuels plc ("BNFL"). We have retained all environmental liabilities associated with our Combustion Engineering subsidiary's Windsor, Connecticut facility and a portion of the 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 upon decommissioning the facilities. Based on information that BNFL has made publicly available, we believe remediation may take until 2013 at the Hematite site and until 2008 at the Windsor site. At the Windsor site, we believe that a significant portion of such remediation costs will be the responsibility of the U.S. government pursuant to federal law, although the exact amount of such responsibility cannot reasonably be estimated. In connection with the sale of the nuclear business in April 2000, we established a reserve of \$300 million in respect of estimated remediation costs related to these facilities. Expenditures charged to the remediation reserve were \$6 million, \$12 million and \$6 million during 2003, 2002 and 2001, respectively. It is possible that we could be required to make expenditures in excess of the reserve, in a range of amounts that cannot reasonably be estimated. See "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Environmental."

*Bidding on large, long-term fixed price projects exposes our businesses to risk of loss.*

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Approximately 8% of the total U.S. dollar amount of orders booked in 2003 were "large orders," which we define as orders from third parties involving at least \$15 million worth of products or systems. Portions of our business involve orders related to long-term projects that can take many months or even years to complete. Additionally, such projects are typically performed on a fixed price or turnkey basis and are awarded on a competitive bidding basis. We may expend significant resources, both in management time as well as money, on bidding for projects that we are not awarded.

Risks are inherent in fixed-priced contracts because of the possibility of underbidding and the fact that we assume substantially all of the risks associated with completing the project and the post-completion warranty obligations. We also assume the project's technical risk, meaning that we must tailor our products and systems to satisfy the technical requirements of a project even though, at the time we are awarded the project, we may not have previously produced such a product or system. The revenue, cost and gross profit realized on such contracts can vary,

sometimes substantially, from our original projections because of changes in conditions, including but not limited to:

unanticipated technical problems with the equipment being supplied or developed by us which may require that we spend our own money to remedy the problem;

changes in the cost of components, materials or labor;

difficulties in obtaining required governmental permits or approvals;

project modifications creating unanticipated costs;

delays caused by local weather conditions; and

suppliers' or subcontractors' failure to perform.

These risks are exacerbated if the duration of the project is long-term because there is an increased risk that the circumstances upon which we originally bid and developed a price will change in a manner that increases our costs. In addition, we sometimes bear the risk of delays caused by unexpected conditions or events. Our long-term, fixed-price projects often make us subject to penalties if we cannot complete portions of the project in accordance with agreed-upon time limits. Therefore, losses can result from performing large, long-term projects on a fixed-price or turnkey basis. For example, in 2003 the operating income of our Oil, Gas and Petrochemicals business was adversely affected by cost overruns amounting to \$443 million, primarily relating to four large, long-term, fixed-price projects in the downstream business which had been contracted prior to 2002.

In connection with large, long-term projects, we routinely undertake substantial customer- and project-specific development efforts. In 2003 and 2002, we incurred order-related development expenditures of approximately \$317 million and \$248 million, respectively. Order-related development amounts are initially recorded in inventories as part of the work in progress of a contract and then are reflected in cost of sales at the time revenue is recognized in accordance with our accounting policies. To the extent that revenues on these projects cannot be recognized, we would not recover the order-related development expenditures. Additionally, to the extent that order-related development expenditures in a specific project exceed expectations, the profit margin on that project will be adversely affected.

***We may continue to experience losses under some long-term contracts.***

In several of our businesses, including the downstream business of our Oil, Gas and Petrochemicals division, the remaining portions of our Building Systems business and certain businesses within our Power Technologies and Automation Technologies divisions, we continue to

be party to long-term, fixed price contracts. Some of these contracts have resulted in losses due to, among other things, our inability to make proper estimates during the tendering process and weaknesses in project execution that have caused cost overruns. In 2002, the Oil, Gas and Petrochemicals business reported losses from cost overruns amounting to approximately \$224 million. To address the weaknesses that we believed contributed to these losses, in 2002 we adopted a selective bidding approach aimed at reducing project risks and securing better margins. However, our new approach may not be successful and, in any event, we have in 2003 and may continue in the future to experience losses on the contracts we entered into prior to adopting our new approach until they expire or are terminated. For example, in 2003 the operating income of our Oil, Gas and Petrochemicals business was adversely affected by cost overruns amounting to \$443 million, primarily relating to four large, long-term, fixed-price projects in the downstream business which had been contracted prior to 2002.

***We operate in very competitive markets and could be adversely affected if we fail to keep pace with technological changes.***

We operate in very competitive environments in several specific respects, including product performance, developing integrated systems and applications that address the business challenges faced by our customers, pricing, new product introduction time and customer service. The relative importance of these factors differs across the geographic markets and product areas that we serve. The markets for our products and services are characterized by evolving industry standards (particularly for our automation technology products and systems), rapidly changing technology (in both our power and automation businesses) and increased competition as a result of deregulation (particularly for our power

technology products and systems). For example, for a number of years power transmission and distribution providers throughout the world have been undergoing substantial deregulation and privatization. This has increased their need for timely product and service innovations that increase efficiency and allow them to compete in a deregulated environment. Additionally, the continual development of advanced technologies for new products and product enhancements is an important way in which we maintain acceptable pricing levels. If we fail to keep pace with technological changes in the industrial sectors that we serve, we may experience price erosion and lower margins.

The principal competitors for our automation technology products and services include Emerson Electric Co., Honeywell International, Inc., Invensys plc, Schneider Electric S.A. and Siemens AG. We primarily compete with Areva S.A. (which acquired ALSTOM's transmission and distribution division in January 2004), Schneider Electric SA and Siemens AG in sales of our power technology products and systems to our utilities customers. The principal competitors with our Oil, Gas and Petrochemicals business include Aker Kvaerner ASA, Bechtel Group, Inc., Cooper Cameron Corporation, FMC Technologies, Inc., Fluor Corporation, Halliburton Company and Technip-Coflexip S.A. All of our competitors are sophisticated companies with significant resources that may develop products and services that are superior to our products and services or may adapt more quickly than we do to new technologies, industry changes or evolving customer requirements. Our failure to anticipate or respond quickly to technological developments or customer requirements could adversely affect our business, results of operations, financial condition and liquidity.

***Industry consolidation could result in more powerful competitors and fewer customers.***

Competitors of all of our business divisions are consolidating. In particular, the automation industry is undergoing consolidation that is reducing the number but increasing the size of companies that compete with us. As our competitors consolidate, they likely will increase their market share, gain economies of scale that enhance their ability to compete with us and/or acquire additional products and technologies that could displace our product offerings.

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Our customer base also is undergoing consolidation. Consolidation among our customers' industries (such as the marine and cruise industry, the automotive, aluminum, steel, pulp and paper, pharmaceutical industries and the oil and gas industry) could affect our customers and their relationships with us. If one of our competitors' customers acquires any of our customers, we may lose its business. Additionally, as our customers become larger and more concentrated, they could exert pricing pressure on all suppliers, including ABB. For example, in an industry such as power transmission, which historically has consisted of large and concentrated customers such as utilities, price competition can be a factor in determining which products and services will be selected by a customer.

***Our business is affected by the global economic and political climate. A major terrorist event or prolonged military action could adversely affect our business, financial condition and results of operations.***

Our business has been adversely affected by the global economic downturn, particularly by depressed economic conditions in Europe and the United States. The business environment is influenced by numerous political uncertainties, which will continue to affect the global economy and the international capital markets. The threat of a major terrorist attack and the fear of prolonged military action have exacerbated volatility in the financial markets and caused consumer, corporate and financial confidence to weaken. As a result, many companies have experienced difficulties in achieving their revenue goals and have cancelled or delayed investments, expansions and recruitment.

In periods of slow growth or decline, our customers are more likely to decrease expenditures on the types of products and systems we supply and we are more likely to experience decreased revenues as a result. Although we expect continued growth in Asia, investments by our customers in Europe and the Americas may continue to be weak. Our Power Technologies division is affected mainly by the level of investments by utilities, and our Automation Technologies division is affected by conditions in a broad range of industries, including the automotive, pharmaceutical, pulp and paper, metals and minerals and manufacturing and consumer industries. Our Oil, Gas and Petrochemicals business is affected by conditions in the oil, gas and petrochemicals industry. If the current global economic and political climate fails to improve, this could have a material adverse effect on our business, financial condition, results of operations and liquidity.

***We are subject to environmental laws and regulations in the countries in which we operate. We incur costs to comply with such regulations, and our ongoing operations may expose us to environmental liabilities.***

Our operations are subject to U.S., European and other laws and regulations governing the discharge of materials into the environment or otherwise relating to environmental protection. Our manufacturing facilities use and produce paint residues, solvents, metals, oils and related residues. We use petroleum-based insulation in transformers, PVC resin to manufacture PVC cable and chloroparaffine as a flame retardant. We use inorganic lead as a counterweight in robots that we produce. These are considered to be hazardous substances in many jurisdictions in which we operate. We may be subject to liabilities for environmental contamination if we do not comply with applicable laws regulating such hazardous substances, and such liabilities can be substantial. All of our manufacturing operations are subject to ongoing compliance costs in

respect of environmental matters and the associated capital expenditure requirements.

In addition, we may be subject to significant fines and penalties if we do not comply with environmental laws and regulations including those referred to above. Some environmental laws provide for joint and several strict liability for remediation of releases of hazardous substances, which could result in our liability for environmental damage without regard to our negligence or fault. Such laws and regulations could expose us to liability arising out of the conduct of operations

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or conditions caused by others, or for our acts which were in compliance with all applicable laws at the time the acts were performed. Additionally, we may be subject to claims alleging personal injury or property damage as a result of alleged exposure to hazardous substances. Changes in the environmental laws and regulations, or claims for damages to persons, property, natural resources or the environment, could result in substantial costs and liabilities to us.

***We may be the subject of product liability claims.***

A malfunction in or the inadequate design of products, systems and services that we design and manufacture could result in product liability claims. Additionally, we may be subject to product liability claims for the improper installation of products and systems designed and manufactured by others.

Product liability claims against us typically involve claims of personal injury or property damage. If the claimant runs a commercial business, claims are often made also for financial losses arising from interruption of operations consequential to property damage. Because of our broad offering of products, these claims arise in different contexts, including the following:

If our power technology products and systems are defective, there is a substantial risk of fires, explosions and power surges and significant damage to electricity generating, transmission and distribution facilities.

If our automation technology products and systems are defective, our customers could suffer significant damage to facilities that rely on these products and systems to properly monitor and control their manufacturing processes.

Our Oil, Gas and Petrochemicals business makes and installs equipment and systems used in oil and gas exploration, production and refining. These products handle petroleum-based substances which can be highly combustible and which can result in significant fires or explosions if we improperly design, manufacture or install equipment.

If a very large product liability claim were sustained, our insurance protection might not be adequate or sufficient to cover such a claim in terms of paying any awards or settlements, and/or paying for our defense costs. If a litigant were successful against us, a lack or insufficiency of insurance coverage could result in an adverse effect on our business, financial condition, results of operations and liquidity. Additionally, a well-publicized actual or perceived problem could adversely affect our market reputation which could result in a decline in demand for our products.

***Our operations in emerging markets expose us to risks associated with conditions in those markets.***

An increasing amount of our operations are conducted in the emerging markets of Latin America, Asia, the Middle East and Africa. In 2003, approximately 30% of our consolidated revenues were generated from these emerging markets. Operations in emerging markets present risks that are not encountered in countries with well-established economic and political systems, including:

economic instability, which could make it difficult for us to anticipate future business conditions in these markets, cause delays in the placement of orders for projects that we have been awarded and subject us to volatile markets;

political or social instability, which makes our customers less willing to make investments in such regions and complicates our dealings with governments regarding permits or other regulatory matters, local businesses and workforces;

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boycotts and embargoes that may be imposed by the international community on countries in which we operate, which could adversely affect the ability of our operations in those countries to obtain the materials necessary to fulfill contracts and our ability to pursue business or establish operations in those countries;

significant fluctuations in interest rates and currency exchange rates;

the imposition of unexpected taxes or other payments on our revenues in these markets; and

the introduction of exchange controls and other restrictions by foreign governments.

In addition, the legal and regulatory systems of the emerging markets identified above are less developed and less well-enforced than in industrialized countries. Therefore, our ability to protect our contractual and other legal rights in those regions could be limited. We cannot offer any assurance that our exposure to conditions in emerging markets will not adversely affect our business, financial condition, results of operations and liquidity.

***Our Oil, Gas and Petrochemicals business may experience losses if the oil and gas industry generally experiences a downturn.***

Our Oil, Gas and Petrochemicals business, which we intend to divest, depends on the condition of the oil and gas industry and particularly on capital expenditure budgets of the companies engaged in the exploration, development and production of oil and gas. Our upstream oil and gas activities are substantially dependent on the condition of the offshore exploration and development market. The prices of oil and gas and their uncertainty in the future, along with forecasted growth in world oil and gas demand, will strongly influence the extent of offshore exploration and development activities. Offshore oil and gas field capital expenditures also are influenced by the sale and expiration dates of offshore leases, the discovery rate of new oil and gas reserves in offshore areas, local and international political and economic conditions, environmental regulation, coordination by the Organization of Petroleum Exporting Countries, the ability of oil and gas companies to access or generate capital and the cost of such capital. Similarly, our businesses that provide products, systems and services to the downstream refining and petrochemical industry are affected by capital expenditure budgets of our customers, which are, in turn, affected by refinery margins and prices for petrochemical products such as ethylene and polypropylene. In 2003, the Oil, Gas and Petrochemicals business generated revenues of \$3,374 million. These revenues are contained in the results of discontinued operations, reflecting our intention to sell this business. An adverse effect on the financial results of this division could have a material adverse effect on our consolidated results of operations.

***Our international operations expose us to the risk of fluctuations in currency exchange rates.***

**Currency Translation Risk.** The results of operations and financial position of most of our non-U.S. subsidiaries are reported in the currencies of countries in which those subsidiaries reside. That financial information is then translated into U.S. dollars at the applicable exchange rates for inclusion in our Consolidated Financial Statements. In 2003, approximately 78% of our consolidated revenues were generated in local currencies and translated into U.S. dollars. Of that amount, the following percentages were reported in the following local currencies:

Euro, approximately 32%;

Swedish krona, approximately 9%;

Swiss franc, approximately 5%;

Norwegian krone, approximately 6%; and



Pound sterling, approximately 3%.

The exchange rates between these currencies and the U.S. dollar fluctuate substantially, which has a significant translation effect on our reported consolidated results of operations and financial position. In 2003 as in 2002, the U.S. dollar continued to depreciate against most of the currencies in which our subsidiaries reported results of operations, which represented a reversal of the appreciation of the U.S. dollar against these currencies in 2001. In particular, in 2003 the U.S. dollar weakened by approximately 20% (2002: 6%) against the euro, 16% (2002: 8%) against the Swiss franc, 14% (2002: 13%) against the Norwegian krone and 20% (2002: 7%) against the Swedish krona. This resulted in an increase of reported revenues and earnings before interest and taxes when consolidated and translated in U.S. dollars of 12% and 8%, respectively, when based on average annual exchange rates of 2003 compared to average annual exchange rates of 2002. The resulting increase of reported revenues and earnings before interest and taxes when consolidated and translated into U.S. dollars was 3% and 4%, respectively, when based on average annual exchange rates of 2002 compared to average annual exchange rates of 2001.

**Currency Transaction Risk.** Currency risk exposure also affects our operations when our sales are denominated in currencies that are different from those in which our manufacturing costs are incurred. In this case, if after the time that the parties agree on a price, the value of the currency in which the purchase price is to be paid weakens relative to the currency in which we incur manufacturing costs, there would be a negative impact on the profit margin for any such transaction. This transaction risk may exist regardless of whether or not there is also a translation risk as described above.

Currency exchange rate fluctuations in those currencies in which we incur our principal manufacturing expenses (the euro, Swedish krona and Swiss franc) may distort competition between us and our competitors whose costs are incurred in other currencies. If our principal currencies appreciate in value against such other currencies, our competitiveness may be weakened. For further information on our currency translation and transaction risk, see "Item 11. Quantitative and Qualitative Disclosures about Market Risk Currency Fluctuations and Foreign Exchange Risk."

*We may encounter difficulty in managing our business due to the global nature of our operations.*

We operate in approximately 100 countries around the world and employ approximately 116,000 people. As of December 31, 2003, approximately 61% of our employees were located in Europe, approximately 16% in the Americas, approximately 13% in Asia and approximately 10% in the Middle East and Africa. In order to manage our day-to-day operations, we must overcome cultural and language barriers and assimilate different business practices. In addition, we are required to create compensation programs, employment policies and other administrative programs that comply with the laws of multiple countries. We also must communicate and monitor group-wide standards and directives across our global network. Our failure to successfully manage our geographically diverse operations could impair our ability to react quickly to changing business and market conditions and to enforce compliance with group-wide standards and procedures.

*Our reputation and our ability to do business may be impaired by corrupt behavior by any of our employees or agents or those of our subsidiaries.*

While we and our subsidiaries are committed to conducting business in a legal and ethical manner, there is a risk that our employees or agents may take actions that violate either the U.S. Foreign Corrupt Practices Act or legislation promulgated pursuant to the 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions or other applicable anti-corruption regulations. These actions could result in monetary penalties against us

or our subsidiaries and could damage our reputation and, therefore, our ability to do business. In addition to the risks that arise in countries that have experienced governmental corruption, there is also a risk that we will not be able to ensure that our internal control policies and procedures will protect us from fraud or other criminal acts committed by our employees.

In 2000, our internal audit group discovered during a regular compliance follow-up that several employees in the London region of our Manufacturing and Consumer Industries division (the business of which is now part of our Automation Technologies division) had intentionally concealed losses in 1999 and part of 2000 arising from contracts for which revenues were insufficient to cover costs. We believe that these activities were isolated in the London region of this division and did not extend to other operations. As a result of our investigation, we terminated the individuals involved and replaced the local management in the London region. If we had not discovered these activities, our net income for 1999 and 2000 would have been overstated by \$30 million and \$10 million, respectively. In 2001, we identified and recorded additional costs of approximately \$25 million relating to these activities.

During 2002 and 2003, we undertook an investigation of potentially improper business conduct within our Oil, Gas and Petrochemical division. In such internal investigations, we uncovered a limited number of improper payments by some of our employees and agents in the upstream business in Africa, Central Asia, and South America, which we voluntarily disclosed to the U.S. Department of Justice and the U.S. Securities and Exchange Commission. The payments, which violated our internal policies on business ethics, were made in order to obtain from local officials confidential information and commercial advantages, including with respect to contracts on which we were bidding. We have hired outside counsel and auditors (other than our auditors) to assist us in a compliance review to determine whether other instances of improper payments exist. The compliance review is being conducted jointly with the purchaser of the upstream part of the Oil, Gas and Petrochemicals business and with the purchaser's outside counsel and auditors, and satisfactory completion and disposition of the matters under review is a condition to the completion of the sale of this portion of the business. For more information, see "Item 5. Operating and Financial Review and Prospects Acquisitions, Investments and Divestitures Divestitures Pending Divestitures" and "Item 8. Financial Information Legal Proceedings."

#### **Item 4. Information on the Company**

### **INTRODUCTION**

We are a global provider of power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. We serve 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. We also deliver automation systems for measurement, control, motion, protection and plant optimization across a full range of industries. We apply our expertise to develop creative ways of integrating our products and systems with our customers' business processes to enhance their productivity and efficiency.

#### **History of the ABB Group**

The ABB Group was formed in 1988 through a merger between Asea AB and BBC Brown Boveri AG. Initially founded in 1883, Asea AB was a major participant in the introduction of electricity into Swedish homes and businesses and in the development of Sweden's railway network. In the 1940s and 1950s, Asea AB expanded into the power, mining and steel industries. Brown Boveri & Cie. (later renamed BBC Brown Boveri AG) was formed in Switzerland in 1891 and initially specialized in power generation and turbines. In the early to mid-1900s, it expanded its operations throughout Europe and broadened its business operations to include a wide range of electrical engineering activities.

In January 1988, Asea AB and BBC Brown Boveri AG each contributed almost all of their businesses to newly formed ABB Asea Brown Boveri Ltd, of which they each owned 50%. In 1996, Asea AB was renamed ABB AB and BBC Brown Boveri AG was renamed ABB AG. In February 1999, the ABB Group announced a group reconfiguration designed to establish a single parent holding company and a single class of shares. ABB Ltd was incorporated on March 5, 1999, under the laws of Switzerland. In June 1999, ABB Ltd became the holding company for the entire ABB Group. This was accomplished by having ABB Ltd issue shares to the shareholders of ABB AG and ABB AB, the two publicly traded companies that formerly owned the ABB Group. The ABB Ltd shares were exchanged for the shares of those two companies, which, as a result of the share exchange and certain related transactions, became wholly owned subsidiaries of ABB Ltd, and are no longer publicly traded. ABB Ltd shares are currently traded on the SWX Swiss Exchange (virt-x), the Stockholm Exchange, the New York Stock Exchange (in the form of ADSs), the Frankfurt Exchange and the London Stock Exchange.

#### **Organizational Structure**

In 2001, we realigned our worldwide business operations, replacing our six existing business segments with seven business divisions structured along customer groups. Four divisions, Utilities, Process Industries, Manufacturing and Consumer Industries, and Oil, Gas and Petrochemicals, were established to serve end-user customers. Two divisions, Power Technology Products and Automation Technology Products, were established to serve the four end-user divisions as well as certain external customers. Our Financial Services division served the ABB Group's businesses and external customers.

In April 2002, we announced our intention to sell our Building Systems business area (part of our Manufacturing and Consumer Industries division). The remaining business areas of the Manufacturing and Consumer Industries division were combined with our Process Industries division to form a new Industries division. In November 2002, we sold most of our Structured Finance business (part of our Financial Services division) and announced that we would sell the

remaining Structured Finance businesses that are unrelated to our core businesses. The remaining activities in the Financial Services division were transferred to the Corporate and Non-Core Activities divisions.

Effective January 1, 2003, we further realigned our business divisions to combine the Power Technology Products division and the Utilities division into a new Power Technologies division and the Automation Technology Products division and the Industries division into a new Automation Technologies division. Our Oil, Gas and Petrochemicals division, which we intend to divest, was reclassified as a discontinued operation along with a number of other businesses. Our remaining activities were grouped into a Non-Core Activities division. We began reporting our financial results to reflect this new structure starting with our results for the three months ended March 31, 2003.

We streamlined our divisional structure to sharpen our focus on power and automation technologies, to increase efficiency and to create a sustainable lower cost base. We consider the Power Technologies and Automation Technologies divisions to be our core divisions, and our management is focusing its attention on, and investments in, these divisions.

Our Non-Core Activities division comprises businesses and activities that are not integral to our focus on our power and automation technologies and that we are considering for sale, winding down or otherwise discontinuing. For a description of the businesses grouped within the Non-Core Activities division, see " Business Divisions Non-Core Activities."

The components of our Corporate division, as well as the activities that are classified as discontinued operations, are described in detail under " Business Divisions Corporate/Other" and " Discontinued Operations."

The following table sets forth the amount and percentage of ABB Group revenues derived from each of our business divisions for the fiscal years ended December 31, 2003 and 2002, based on our current organizational structure:

	Revenues Year ended December 31,		Percentage of Revenues Year ended December 31,	
	2003	2002	2003	2002
	(\$ in millions)		(%)	
Power Technologies	7,680	6,963	38	37
Automation Technologies	9,897	8,464	49	45
Non-Core Activities	2,537	3,447	13	18
<b>Subtotal</b>	<b>20,114</b>	<b>18,874</b>	<b>100</b>	<b>100</b>
Corporate/Other and Eliminations	(1,319)	(1,408)		
<b>Consolidated Revenues</b>	<b>18,795</b>	<b>17,466</b>		

For a breakdown of our consolidated revenues derived from each geographic region in which we operate, see "Item 5. Operating and Financial Review and Prospects Summary Financial Data."

Our principal corporate offices are located at Affolternstrasse 44, CH-8050 Zurich, Switzerland, telephone number +41-43-317-7111. Our agent for U.S. federal securities law purposes is ABB Holdings Inc., located at 501 Merritt 7, Norwalk, Connecticut 06851.

#### Cost Reduction Initiatives

In 2002, we introduced the Step Change Program, which is designed to increase the competitiveness of our core divisions, reduce overhead costs and streamline operations, expected to result in approximately \$900 million of cost savings on an annual basis by 2005. We expect the

savings to be roughly evenly divided between our two core divisions, Power Technologies and Automation Technologies, and a third category of overhead and headquarters costs. The primary focus of the program is on the 19 countries in which we have our largest operations. We expect approximately 50% of the cost savings to be achieved in our four largest country operations, Germany, Sweden, Switzerland and the United States. In addition to eliminating between 10,000 and 12,000 jobs over the period, the Step Change Program involves over 1,400 specific measures, identified and executed by each business unit, aimed at reducing costs. As of December 31, 2003, we had completed approximately two-thirds of our 1,400 initiatives.

As part of our initiative to streamline operations, in June 2003 we entered into a ten-year agreement with IBM pursuant to which IBM will take responsibility for the operation and support of information systems infrastructure in 13 countries in Europe and North America as well as our headquarters, representing approximately 90% of our information systems infrastructure. The agreement involved the transfer to IBM of 780 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.

For more information on the Step Change Program, see "Item 5. Operating and Financial Review and Prospects Restructuring Expenses Step Change Program."

## BUSINESS DIVISIONS

### Power Technologies Division

#### *Overview*

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 149 manufacturing plants and 38,700 employees as of January 1, 2004.

#### *Power Industry Background*

The portions of an electricity grid that operate at highest voltages are "transmission" systems, while those at lower voltages are "distribution" systems. Transmission systems link power generation sources to distribution systems. Distribution networks then branch out over shorter distances to carry electricity from the transmission system to end users. These electricity networks incorporate sophisticated devices to control and monitor operations and to prevent damage from failures or stresses.

Electricity is transformed at different stages in the delivery process between the source and the ultimate end user. For example, electrical power is often generated in large power plants at 10 to 20 kilovolts. Because this voltage is too low to be transmitted efficiently, transformers are used to increase the voltage of electricity (up to 1,100 kilovolts) for long-distance transmission. This reduces losses and increases the amount of power that can be carried per line.

Transformers are also used to decrease the voltage at the local end for distribution to end users, such as residential, commercial or industrial consumers. An electric utility distribution system comprises distribution substations and networks, both overhead and underground. Some large industrial and commercial facilities receive electricity at higher voltage levels from the transmission or distribution network, while most industrial, commercial and residential users receive electricity from distribution network feeders at lower voltages.

There is a global trend toward deregulation and privatization of the power industry, which is creating a more competitive environment for our customers. This trend is evident in the United

States, parts of Latin America and Western Europe, particularly in the United Kingdom and the Nordic countries. It is accelerating elsewhere in Europe and is developing in other regions. The creation of a free market for electricity requires our customers to become more cost-efficient and reliable to compete as a lowest-cost provider among power suppliers. Grid operators must be able to deliver power to customers that are hundreds or thousands of miles away within a few minutes. As more disturbance-sensitive loads (such as computers and telecommunications systems) have been added to networks, demand for reliable, high-quality electricity is increasing. Power suppliers can achieve this efficiency and

reliability in a number of ways, including the following:

Replacing and modernizing assets and investing in information technology-based control and monitoring equipment and communications networks to control and supervise power networks based on instantaneous access to information.

Upgrading current technologies and introducing new technologies to improve network reliability, increase network power rating and enhance the control of power flow through existing transmission and distribution assets.

**Business Areas**

The following table sets forth the approximate proportion of the Power Technologies division's revenue generated in 2003 by each of the business areas in the division:

Business Area	Proportion of Division Revenues
Power Systems	28%
Utility Automation Systems	15%
High-Voltage Products	16%
Medium-Voltage Products	17%
Power Transformers	14%
Distribution Transformers	10%

Two of the division's business areas Power Systems and Utility Automation Systems primarily provide engineering services drawing on the ABB Group's complete range of products and services. The other four business areas High-Voltage Products, Medium-Voltage Products, Power Transformers and Distribution Transformers are mainly product manufacturing businesses.

*Power Systems*

Our Power Systems business area undertakes turnkey contracts to install and upgrade transmission and distribution systems incorporating components manufactured by this division and the Automation Technologies division, as well as those manufactured by third parties.

We are a leader in high-voltage direct current ("HVDC") technology. HVDC transmission is an advanced technology for transporting electricity over long distances. It reduces power losses, increases system stability and provides a more controllable flow than high-voltage alternating current. An HVDC transmission system typically includes converters, which change alternating current to direct current and then back to alternating current when it reaches the terminal point, and transmission lines, either above or below ground. Advances in converter and cable technology have enabled us to introduce a system called HVDC Light . Converter stations for HVDC Light are approximately one-fifth the size of conventional HVDC technology for the same rated power. HVDC Light extends the range of applications for high-voltage direct current. Typical applications include interconnection of separate networks that operate on different frequencies or provide variational power quality, such as wind parks. The system can also be used as a substitute for local power generation in remote areas, islands or oil platforms.

We also provide flexible AC transmission systems ("FACTS") to enhance power grid stability, improve power quality and thus increase transmission capability. FACTS devices include series compensators, static VAR compensators ("SVCs") and SVC Light (based on the same unique technology as HVDC Light ).

HVDC, HVDC Light , FACTS, and SVC Light systems rely on advanced power semiconductor components. Our in-house power semiconductor unit enables us to develop and manufacture tailor-made components to maximize the performance of these systems. This business area supplies power semiconductor devices to other ABB businesses and to external customers in the power transmission and distribution, drives, and transportation markets.

The Power Systems business area also supplies substations to interconnect electricity grids operating on different voltage levels, to sectionalize portions of the grid and to protect the electrical system against damage from outside sources such as lightning and overload. By sectionalizing the grid, power can be rerouted from portions of the transmission system that are experiencing problems to sections that are functioning properly, thereby enhancing the overall reliability of the power supply. This business area delivers complete air and gas insulated

substations for power transmission. Substations are also necessary in a power distribution network to sectionalize and reduce the voltage of the main power lines and cables to the lower voltages required for efficient distribution and consumption. For power distribution, this business area sells traditional custom-engineered substations as well as compact, modular substations, which require less space than a conventional substation and thus are particularly well suited for urban settings. It also offers prefabricated secondary substations that can be installed more quickly than traditional substations, and which transform electricity to consumer-level voltages.

Power Systems also delivers the engineering, procurement and construction ("EPC") of overhead transmission lines, one of the main subsystems in a transmission network. ABB in-house engineering and manufacturing of steel transmission towers and composite insulators also add value in the delivery of a transmission line project. Power Systems also provides studies on the design of new transmission lines and system optimization that take into account technical, economic and environmental considerations.

This business area offers service contracts and support for management of existing power transmission and distribution assets, including both ABB products and those manufactured by third parties. In addition, it offers asset management services including technical consulting (system diagnostics, network analysis, planning and optimization), commercial consulting (cost reduction programs, investment strategies, reengineering of business processes) and execution (maintenance strategies, logistics).

#### *Utility Automation Systems*

Our Utility Automation Systems business area applies its power industry and automation expertise to integrate products manufactured by both the Power Technologies and the Automation Technologies divisions, as well as those of third parties, to provide utility customers with automation systems tailored for their generating plants or transmission and distribution networks.

In the area of power plant automation, the Utility Automation Systems business area offers complete system integration of instrumentation, control and electrical ("ICE") equipment for the power generation market. The services offered by the business area include combustion management, plant performance optimization, condition monitoring and asset management.

For water plants, the business area offers system integration for all ICE applications in water systems, including automation services for water treatment plants, distribution systems, waste water collection systems and wastewater treatment. The business area offers turnkey pumping

stations and control systems for water leakage management, lift-station monitoring and optimization of plant performance.

The Utility Automation Systems business area offers high-end supervisory control and data acquisition ("SCADA") systems to power and gas customers. SCADA systems are used to monitor and control energy transmission, distribution and power generation management systems. They are also used to operate market systems for power networks by tracking energy costs, end-user consumption and retail and wholesale prices, among other things. In addition, this business area offers customer care systems and asset management systems for electrical networks, district heating networks and gas networks. These allow utilities to optimize their business by improving the performance of their installed network equipment to meet changing customer requirements and new market conditions.

This business area also provides system integration for substations used in power generation, transmission and distribution. Its offering includes small electrical SCADA systems, wide area protection systems, feeder automation systems and power system monitoring, which provides real-time information that enables utilities to make informed system-related decisions.

The business area provides wireless and fixed communication systems for power, water and gas utilities, including both operational and corporate communication networks. It offers fiber optics, microwave radio and power line applications for data networking and broadband network management, as well as teleprotection and substation communication networks and voice switching management systems.

The Utility Automation Systems business area offers a range of service capabilities aimed at reducing the in-house operational and maintenance requirements of utility customers. It offers service contracts for spare parts management, support agreements, software and hardware upgrades and retrofits, service consulting, asset management and training.

#### *High-Voltage Products*

The High-Voltage Products business area provides power utilities with electricity transmission equipment that allows them to operate more efficiently and with lower environmental impact, both of which are significant business concerns in the market in which our customers operate.

The business area manufactures the principal components of power transmission systems (50 to 800 kilovolts), including air- and gas-insulated switchgear, cables, capacitors, high-voltage circuit breakers, grounding switches and instrument transformers. This business area is also responsible for the entire ABB portfolio of low, medium and high voltage capacitors and surge arresters. Its products and components also include circuit breaker drives and cable accessories. Some of the business area's products are integrated into the offering of the Power Systems business area or are sold through external channel partners such as engineering, procurement and construction firms.

#### *Medium-Voltage Products*

The Medium-Voltage Products business area develops products and systems that reduce outage times and improve power quality and control, which are key to improving operational efficiency of both utility and industrial customers. It supplies switching equipment both directly to end users and through distributors and original equipment manufacturers ("OEMs"). Most of its products provide connections between higher voltage substations and lower voltage uses. It produces a comprehensive line of medium-voltage equipment (1 to 50 kilovolts), including products such as indoor and outdoor switch disconnectors, breakers, reclosers, fuses, contactors, instrument transformers and sensors as well as air- and gas-insulated switchgear, motor control centers, and ring main units for primary and secondary distribution. It also produces indoor and outdoor modular systems, compact substations and power distribution centers. As with the High-Voltage Products

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business area, many of its components form part of the offering of the Power Systems business area. In addition, a significant portion of its products are sold through external channel partners such as OEMs.

#### *Transformers*

Effective January 1, 2004, the Power Technologies division merged its Power Transformers business area with its Distribution Transformers business area to form a single Transformers business area. The merger was intended to reduce product overlaps, eliminate redundant research and development efforts and improve supply chain management. The two former business areas already shared many production locations prior to their merger.

The Transformers business area designs and manufactures power transformers (72.5 to 800 kilovolts) for utility, transportation and industrial customers, as well as transformer components such as bushings and tap changers. The business area also produces insulation material. Transformers are typically used for power transmission and distribution systems, such as in large substations. Generator transformers are used in power generation when it is necessary to increase power voltage from a power plant for long-distance transmission. Industrial transformers are mainly delivered to the steel and aluminum industry, which need their own high-voltage transformers and substations on-site to service their heavy electricity requirements. Finally, the business area produces traction transformers used in electric locomotives. Customers in the components business come both from the transformer and electrical motor industry. The business area also provides a wide range of transformer service and retrofit solutions for utilities and industry customers.

The business area also manufactures distribution transformers for use in industrial facilities, commercial buildings and utility distribution networks to step down electrical voltage to the levels needed by end users. The business area manufactures and sells a full range of power distribution transformers (up to 72.5 kilovolts), including oil-type, dry-type and special application distribution transformers. Although oil-type transformers are more commonly used, demand for dry-type transformers is growing because they minimize fire hazards and have applications in high-density office buildings, windmills, offshore drilling platforms, naval vessels and high-volume industrial plants.

#### *Customers*

The Power Technologies 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. In 2003, the division's ten largest customers accounted for approximately 13% of its business volume, and its 34 largest customers accounted for approximately 20% of its business volume.

#### *Geographic Markets*

The following table sets forth the proportion of Power Technologies division's third-party revenues derived from each geographic region (based on the location of the customer, which may

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be different from the ultimate destination of the products' end use) in which the ABB Group operates:

	<b>Year ended December 31,</b>	
	<b>2003</b>	<b>2002</b>
	(%)	
Europe	37	34
The Americas	25	33
Asia	24	20
Middle East and Africa	14	13
<b>Total</b>	<b>100</b>	<b>100</b>

### *Sales and Marketing*

The Power Technologies division sells its products individually through its four product business areas and as parts of larger systems through its two engineering business areas. Most product sales are made through the division's own direct sales force, which is enhanced by industrial representatives and agents where appropriate. Direct sales account for about 75% of the division's total product sales, and sales through external channel partners, such as wholesalers, distributors and OEMs, account for the remaining 25%. Sales in the engineering business areas are handled primarily by the division's specialized sales engineering teams, although the division uses system integrators and other third-party sellers from time to time.

### *Competition*

On a global basis, the Power Technologies division's principal competitors are Areva (which acquired ALSTOM's transmission and distribution division in January 2004), Schneider and Siemens. In the distribution transformers market, the division also competes with companies such as Cooper Cameron and Howard Industries. In the utility automation area, the division's principal competitors are ALSTOM, Emerson, GE Harris, Honeywell, Invensys and Siemens.

### *Research and Development*

Research and development expenses for the Power Technologies division amounted to approximately \$170 million for 2003. The division's research and development activities in 2003 primarily related to streamlining product portfolios in all business areas. The aim is to increase product standardization and thus improve the efficiency of our design, supply, manufacturing, sales and distribution functions. Related research has focused on technologies that enable faster production cycles, mainly in the areas of new materials and design. In the Utility Automation Systems business area, research continued to focus on the standardization of controls and protection systems, with the goal of reducing costs in the production of substation automation systems, power plant controls and SCADA systems.

### *Capital Expenditures*

The Power Technologies division's capital expenditures for property, plant and equipment were \$120 million in 2003, compared to \$114 million and \$128 million in 2002 and 2001, respectively. Principal investments in 2003 included investments to replace existing equipment, particularly in Sweden, the United States, China and Germany, mainly in the Power Transformers business area. Geographically, in 2003, Europe accounted for about 52% of the capital expenditure, with about 23% in the Americas, about 19% in Asia and about 6% in Middle East and Africa. Asia and Middle

East experienced increases in the total amount of capital expenditure, particularly in China, India and Saudi Arabia. These expenditures were primarily financed internally.



## Automation Technologies Division

### *Overview*

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. This division had approximately 150 manufacturing, software and application centers and 55,300 employees as of January 1, 2004.

We are a recognized market leader in our core automation products and systems, with particular strength in process automation systems (including supervisory control and data acquisition, or SCADA, systems), quality control systems, advanced robotics, process instrumentation (including analytical measurement devices), electrical machines and alternating current, or AC, drives.

The Automation Technologies division offers its products, both as separately sold devices and as part of a total automation system, through three product-based business areas and three industry-based business areas, as discussed below. Stand-alone products, often sold in cooperation with channel partners such as distributors, wholesalers and OEMs, account for approximately 60% of the division's sales volumes. Systems sales account for about 20% of total division revenues, and our service business accounts for the remaining 20% of division revenues. The division focuses on developing synergies and efficiencies among its business areas, such as common marketing, software re-use and streamlined geographic sales and service networks.

### *Automation Industry Background*

Our customers use automation technologies primarily to improve product quality, productivity and consistency in industrial and manufacturing applications. The automation market can be divided into three sectors:

*Process automation* refers to control systems applied in processes where the main objective is continuous production, such as oil and gas, electricity, chemicals and pulp and paper. Product lines for this market include instrumentation, analytical measurement and control products and systems, as well as motors and drives. This division offers complete process automation systems that incorporate medium and low-voltage switchgear, synchronized drive systems, instrument and control and advanced diagnostic packages. Its products also include software to optimize the manufacturing and business processes.

*Factory automation* refers to discrete operations which manufacture individual items used mainly within the automotive, packaging and consumer goods industries. Product lines for this market include robots and robot cells, which include standardized and tailored systems for discrete applications such as painting, picking, packing, palletizing, welding and assembly. This division provides a comprehensive set of systems using these technologies, including application-specific software and configuration tools.

*Building automation* comprises product lines and applications particularly targeted at the building industry. Product lines for this market include a wide range of low-voltage products for control of climate, lighting and security, as well as software for optimal management of the energy cost of buildings.

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The Automation Technologies division manufactures products and systems relating to all three sectors, primarily focusing on process automation products and systems, as well as robotics technologies for factory automation. The division provides to its customers the full range of ABB's products on a stand-alone basis, or as part of systems involving conceptual design, detailed engineering, project management, installation and commissioning, as well as after-sales services and system optimization during the full life span of the system.

The Automation Technologies division product range has been enhanced through a number of strategic acquisitions in recent years. In early 1999, ABB acquired Eltag Bailey Process Automation, a leading global provider of control, instrumentation and process analytical products whose offering significantly extended our reach both in terms of automation technology and geography. In mid-2001, we acquired Entrelec, a French supplier of industrial automation and control products, including electrical connecting devices, time relays, signaling and safety devices and wiring accessories for the housing market. This acquisition further diversified our product range and expanded our customer base in European and American markets.

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In mid-2001, this division entered into a ten-year strategic alliance with The Dow Chemical Company ("Dow") in which Dow agreed to use our Industrial IT automation systems in nearly all of its new automation projects, as well as in retrofits of existing systems. Another significant strategic cooperation was forged in 2001 through a framework agreement with the original equipment manufacturer York International (United States), a long-time customer, for simplified account service, pricing and joint development spanning multiple product lines. In late 2002, the division was awarded two contracts for long-term asset management services totaling more than \$130 million at papermaker Carter Holt Harvey Limited (New Zealand) and petrochemical leader ENI Group (Italy). The division has similar strategic relationships with nearly 100 customers, and has been successful in expanding the scope of such agreements over time to cover additional ABB products and services. Significant agreements during 2003 included a frame agreement with transportation leader Bombardier for up to \$500 million in power and automation technologies, signed in cooperation with ABB's Power Technologies Division, and a \$34 million contract extension to provide site service, spare parts and modifications to oil producer Statoil.

In December 2003, this division commercially released the latest version of its Industrial IT process automation platform, called System 800xA. This system extends the capability of traditional process control systems, introducing advanced functions such as batch management, asset optimization and field device integration which "plug in" to a common user environment. The same user interface may also be used to manage components of existing multiple ABB control systems that have been installed in the market over the past approximately 20 years. In this way, System 800xA gives customers a way to migrate to new functions one step at a time, rather than having to make a large-scale capital investment to replace their entire control system. By creating a common user interface that can be used to manage multiple systems, the System 800xA also reduces the research and development investment needed to achieve a "one size fits all" solution across our large installed systems base.

Our customers are increasingly under pressure to deliver their products more quickly to their customers and to respond rapidly to changing customer preferences. At the same time, constant price pressure requires them to find ways to decrease production costs. Furthermore, as the quality of products becomes more equalized among our customers' competitors, our customers increasingly focus on design and branding to distinguish their products from those of their competitors. This change in focus means that much of the manufacturing and production activities are outsourced to sub-suppliers, which may manufacture products for a number of different companies in a given industry. The consolidation in the manufacturing role enables the sub-suppliers to provide products at a lower cost and presents further opportunities for ABB to provide flexible solutions for automation. Another growing practice among our customers is the

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outsourcing of non-core tasks such as maintenance and facilities management services. The division has sought to capitalize on this trend by providing an increasing number of service arrangements covering overall plant maintenance and asset optimization.

### ***Business Areas***

The following table sets forth the approximate amount of the Automation Technologies division's revenue generated in 2003 by each of the business areas in the division:

<b>Business Area</b>	<b>Proportion of Division Revenues</b>
Low-Voltage Products and Instruments	27%
Paper, Minerals, Marine and Turbocharging	21%
Drives, Motors and Electronics	17%
Robotics, Automotive and Manufacturing	14%
Petroleum, Chemical and Consumer Industries	14%
Control Platform and Enterprise Products	7%

The Automation Technologies division offers its products, both as separately sold devices and as part of complete automation systems, through three product-based business areas (Low-Voltage Products and Instruments; Drives and Motors; and Control Platform and Enterprise Products) and three industry-based business areas (Paper, Minerals, Marine and Turbocharging; Robotics, Automotive and Manufacturing; and Petroleum, Chemical and Consumer).

### ***Low-Voltage Products and Instruments***

The Low-Voltage Products and Instruments business area manufactures circuit breakers, controls, switches and fuse gear that are used in industrial electrical applications to protect, switch and control industrial equipment. In addition, our acquisition of Entrelec provided us with a range of connectors, terminal blocks and protection and monitoring devices that are used primarily in industrial applications.

Customers increasingly require low-voltage products with built-in intelligence, self-regulation and energy efficiency capabilities. To meet these requirements, we have recently launched several new product families for motor protection, monitoring and communications via advanced electronic sensing and feedback systems to control power distribution to industrial motors.

This business area also makes line protection products, wiring accessories and enclosures and cable systems that are primarily used for control and protection in building installations. It also produces European Installation Bus/Powernet systems, which integrate and automate a building's electrical installations, ventilation, security and data communication networks. Although it provides low-voltage products and systems for building automation, this business area is not involved in the execution of building system projects and installations (which is the business of the non-core Building Systems business area).

The process instrumentation products manufactured by this business area interact with the division's Open Control System products and include products for the measurement of process variables such as pressure, temperature, volume and flow. The increasing sophistication of many process automation systems often requires thousands of measurement points for such variables. These instrumentation products are sold separately or in combination with control systems. The various analytical measurement devices produced by this business area form an important part of instrumentation and control systems. These devices measure chemical characteristics while process instrumentation products measure physical characteristics. This business area's analytical product offerings include gas analyzers, chromatographs, spectrometers and paper quality control systems.

which perform either sample-based or continuous measurement of properties such as chemical or physical composition (for example, the water and fiber content of paper or the composition of gas), energy content and environmental emissions. These products are sold separately or through the end-user business areas as part of complete systems.

#### *Paper, Minerals, Marine and Turbocharging*

The Automation Technologies division's product offerings for the pulp and paper industries include quality control systems for pulp and paper mills, control systems, drive systems, on-line sensors, actuators and field instruments. On-line sensors measure product properties, such as weight, thickness, color, brightness, moisture content and additive content. Actuators allow the customer to make automatic adjustments during the production process to improve the quality and consistency of the product. Field instruments measure properties of the process, such as flow rate, chemical content and temperature.

We increasingly package our products with sophisticated software applications that link the production process to the customer's business planning functions. In this way, we can improve our customer's ability to plan and schedule the utilization and output from the mill which, in turn, enhances our customer's ability to meet its commercial objectives.

We offer our customers in the metals and minerals industries specialized products and services, as well as total production systems. We design, plan, engineer, supply, erect and commission electric equipment, drives, motors and equipment for automation and supervisory control within a variety of areas including mining, mineral handling, aluminum smelting, hot and cold steel applications and cement production.

In the marine field, we provide global shipbuilders with power and automation technologies for luxury cruise liners, ferries, tankers, offshore oil rigs and special purpose vessels. We design, engineer, build, supply and commission electrical systems and software for marine power generation, power distribution and diesel electric propulsion, as well as turbochargers to improve efficiency for diesel and gasoline engines. The main markets for these products and services are manufacturers of vessels within the oil and gas upstream industries (such as exploration/production and shuttle transport) and the cruise and ferry industries. An example of our innovation within the area of marine propulsion is the Azipod® (azimuthing podded) propulsion system, which we developed in a joint venture with leading shipbuilders. The Azipod® system improves vessel maneuverability at low speeds, resulting in faster docking and embarkation, lower operating costs and increased vessel capacity. In 2001, we introduced a Compact Azipod® product for use on smaller vessels. In addition to their marine uses, ABB turbochargers are used in various heavy-equipment applications such as construction.

#### *Drives, Motors and Electronics*

The Drives and Motors business area focuses on the ongoing development of low-voltage and medium-voltage AC drive products and systems for industrial, commercial and residential applications. Drives provide motion and torque while adding control and efficiency to equipment such as fans, pumps, compressors, conveyors, kilns, centrifuges, mixers, hoists, cranes, extruders, printing machinery and textile machines. Our drives are used in the building automation, marine, power, transportation and manufacturing industries, among others.

The Drives and Motors business area also produces a range of power electronics products. It produces static excitation and synchronizing systems that provide stability for power stations, as well as high power rectifiers that convert AC power to DC power for very high-amperage applications such as furnaces in zinc plants and aluminum and magnesium smelters. The business

area also manufactures frequency converters that use state-of-the-art semiconductor technology to convert electrical power into the type and frequency required by individual customers.

In addition, this business area supplies a comprehensive range of electrical motors and generators, including high-efficiency motors that conform to leading environmental and efficiency standards. Efficiency is an important criterion for selection by customers, because electric motors account for nearly two-thirds of the electricity consumed by industrial plants. This business area manufactures synchronous motors for the most demanding applications and a full range of low and high-voltage induction motors.

#### *Robotics, Automotive and Manufacturing*

The Robotics, Automotive and Manufacturing business area develops and manufactures industrial robots and related equipment for the automotive industry and other manufacturing industries. This business area designs, installs and commissions automation systems for customers in the automotive industry and their sub-suppliers, incorporating software developed by its engineers into its range of products, as well as those manufactured by the Power Technologies division. The products and systems are used in such areas as press shop, body shop, paint shop, power train assembly, trim and final assembly.

In addition to serving the automotive industry, this business area provides complete production automation systems for industry segments ranging from metal and glass fabrication to telecommunications. Manufacturers use our flexible automation and advanced robotics products for applications involving multiple tasks such as welding, material handling, painting, picking, packing and palletizing. For example, we provide painting systems for mobile phones, as well as robot cells to produce base stations for telecom companies. This business area incorporates software developed by its engineers into its automation products and the power products manufactured by the Power Technologies division to maximize energy efficiency and provide a secure power supply for manufacturing lines. Our services include design and project management, engineering, installation, training and life-cycle care of the complete production line.

#### *Petroleum, Chemical and Consumer Industries*

The Petroleum, Chemical and Consumer Industries business area supplies application-specific equipment and systems to the fine chemical, food and beverage, pharmaceutical, oil and gas, personal care, and agriculture milling industries. Its product portfolio includes control systems, instruments and analytic devices, safety systems, drives and motors. In the petroleum sector, it provides onshore, offshore and subsea production technology, gas gathering and processing, refining, transportation and distribution applications. In the pharmaceuticals and fine chemicals areas, the business area provides software and solutions for applications including manufacturing, packaging, quality control and compliance with regulatory agencies. Like other end-user business areas, it also offers full-service contracts, in which it takes over in-house maintenance activities for customers and applies strategies to reduce overall maintenance costs and helps optimize these investments.

#### *Control Platform and Enterprise Products*

The Control Platform and Enterprise Products business area develops, markets and sells control products and systems within the Industrial IT architecture. The business area emphasizes Open Control Systems, including batch control systems, supervisory control and data acquisition systems, and, to a lesser but increasing extent, programmable logic controls ("PLCs") and remote terminal units ("RTUs"). Control systems are the hubs that link instrumentation, devices and systems for control and supervision of an industrial process. One primary advantage of using

products and systems that conform to the Industrial IT architecture (which we refer to as Industrial IT Control Systems) instead of traditional Open Control Systems is that information is rendered accessible by other parties and systems across an organization at various points in the manufacturing process.

Control systems also enable customers to integrate their production systems with their enterprise, resource and planning systems thereby providing a link to their ordering, billing and shipping processes. This linkage, combined with the connection of our Industrial IT Control

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Systems to field instrumentation and automation power products, allows customers to manage their entire manufacturing and business process based on real-time access to plant information. Additionally, this coordination allows customers to employ information received from instrumentation and measurement products to increase production efficiency, optimize their assets and reduce environmental waste. These features of Industrial IT Control Systems enable customers to react quickly to changing circumstances based on accurate information while decreasing the possibility of errors.

The Control Platform and Enterprise Products business area also offers batch control and supervisory control and data acquisition systems. Batch control systems control the production of a variety of products in shorter runs, such as certain pharmaceuticals and food and beverage products. Supervisory control and data acquisition systems are used to collect and manage data over wide areas or long distances such as those involved in operating electric power networks.

This business area also provides a comprehensive range of force measurement products designed to improve control, productivity and quality in a wide variety of processes. These products measure flatness, roll force, strip and web tension, strip width, position and torque. These technologies are sold to the metal fabrication, paper and other industries.

Effective January 1, 2004, the Automation Technologies division merged its six business areas into three business areas as part of its drive to further simplify and focus the business and to improve efficiency. The new business areas are:

*Process Automation*, comprising the former Control Platform Products, Petroleum and Chemical, and Paper, Minerals, Marine and Turbocharging business areas

*Automation Products*, comprising the former business areas Low-Voltage Products and Instrumentation and Drives, Motors and Power Electronics.

*Manufacturing Automation*, previously called Robotics, Automotive and Manufacturing.

### **Customers**

The Automation Technologies division's end customers are primarily companies in the chemical, life sciences (pharmaceuticals), automotive, marine, turbocharging, metals, minerals, mining, cement, paper, petroleum, food and beverage, printing and building industries. In each of these industries, we sell both through direct sales forces as well as through third-party channels, such as distributors, wholesalers, installers, system integrators and OEMs.

### **Geographic Markets**

The following table sets forth the proportion of Automation Technologies division's third-party revenues derived from each geographic region (based on the location of the customer which may

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be different from the ultimate destination of the products' end use) in which the ABB Group operates:

	<b>Year ended December 31,</b>	
	<b>2003</b>	<b>2002</b>
	(%)	
Europe	61	63
The Americas	17	19
Asia	16	14
Middle East and Africa	6	4
<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 and in the Americas. We estimate this volume to be approximately 7% of the division revenues, divided equally between the ultimate destinations of Asia and the Americas.

### ***Sales and Marketing***

In each of the Automation Technologies division's business areas, sales are made both through direct sales forces as well as through third-party channel partners, such as distributors, wholesalers, installers and OEMs. The proportion of direct sales compared to channel partner sales varies among the different industries, product technologies and geographic markets. For the division as a whole, approximately 60% of products are sold through channel partners, with the remainder sold through the division's own direct sales channels.

### ***Competition***

The Automation Technologies division's principal competitors vary by product line but include Alstom, Emerson, Fanuc Ltd., General Electric, Honeywell, Invensys, Metso Automation Inc., Rockwell Automation, Inc., Schneider, Siemens, Voith AG, Aspen Technologies, Inc. and Yokogawa Electric Corporation.

### ***Research and Development***

Research and development expenses for the Automation Technologies division amounted to approximately \$356 million for 2003.

An important focus of the division's research programs is the group-wide commitment to Industrial IT. The Automation Technologies division is responsible for the development of the Industrial IT platform architecture and the base Industrial IT control products and systems. As a result, the division's research is heavily focused on intelligent, "information enabled" products and devices that may be integrated easily to provide better access to real-time information across the business enterprise. Increasing "productization" of automation technologies is intended to yield a growing portfolio of reusable building blocks that may be easily deployed and bundled by customers, channel partners and the division itself.

### ***Capital Expenditures***

The Automation Technologies division's capital expenditures for property, plant and equipment were \$157 million in 2003, compared to \$133 million and \$144 million in 2002 and in 2001, respectively. Principal investments in 2003 were primarily related to ordinary course purchases of machinery and equipment mainly in Germany, Italy, France, Sweden, Finland and Switzerland.

Geographically, in 2003, Europe accounted for about 89% of the capital expenditure, with about 5% in the Americas, about 5% in Asia and 1% in the Middle East and Africa. These expenditures were primarily financed internally.

### **Non-Core Activities**

Business activities that are not directly linked to our Power Technologies and Automation Technologies divisions (our core divisions) and which we are considering for sale, winding down or otherwise discontinuing are grouped together and their results are reported under the heading of Non-Core Activities. These activities comprise primarily the remaining parts of Equity Ventures business area, the remaining parts of the Structured Finance business area, the remaining parts of the Building Systems business area, the remaining parts of the New Ventures business area and a number of other activities, including Customer Service Workshops, Logistic Systems and the Group Processes business areas. The Insurance business area, which was previously included in Non-Core Activities, is now discussed as discontinued operations following our agreement in December 2003 to sell this business to White Mountains Insurance Group Limited of Bermuda. The businesses in the Non-Core Activities division are not being managed as an integral part of our business. The division had approximately 8,700 employees at December 31, 2003.

Following is a description of our principal businesses in the Non-Core Activities division.

#### ***Equity Ventures***

Our Equity Ventures business area owns and operates infrastructure projects in various countries. Equity Ventures originally focused its investment activities on independent power projects because it provided business opportunities for our former power generation division.

Subsequent projects also were selected primarily to develop opportunities to sell our equipment and systems. Therefore, the Equity Ventures portfolio reflects some of the businesses in which we were engaged when the investments were made. Our Equity Ventures business area is not pursuing further project development or additional investments, and we will consider selling the investments of this business area when we believe we have received an optimal offer. During 2003, we sold our stakes in ABB Redbank Project Pty Ltd. (a power plant) and ElectraNet Pty Ltd (an electricity transmission service provider), both in Australia.

### ***Structured Finance***

Our Structured Finance business area provides financing, including export, trade and project financing and asset-based leasing and lending. In 2002, we decided to sell our Structured Finance businesses. In 2003, we continued the divestment of our remaining Structured Finance business area, including our ownership interest in the Swedish Export Credit Corporation, certain lease and loan portfolios, ownership interests in infrastructure projects and other financial assets. We sold ABB Export Bank, previously part of our Structured Finance business area in December 2003. The remaining Structured Finance assets, representing approximately \$600 million of financing receivables, will be sold, discontinued or run off.

### ***Building Systems***

Our 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.

Following our decision to divest our Building Systems businesses in 2002, we finalized the divestment of a number of our activities in the Building Systems business area during 2003, including our activities in Austria, Belgium, the Netherlands, the Nordic region (Baltic states,

Denmark, Finland, Norway, Russia and Sweden), Portugal and the United Kingdom. We have not yet sold the Building Systems businesses in Germany, Poland, the United States, Hong Kong and Egypt. In February 2004, we signed an agreement to sell our Building Systems business in Switzerland to an investor group, while retaining a 10% interest in the business.

### ***New Ventures***

We established New Ventures in 2001 as a "fast lane" business incubator that would find, develop and invest in new business opportunities, both internally and externally. New Ventures had three investment portfolios the Industrial IT Venture Fund and Operational Ventures, both of which focused on investment opportunities externally, and Innovisions, which focused on opportunities internally. New Ventures' involved providing both seed funding for start-ups and growth funding for mature businesses. It also directly managed several majority-owned companies. In October 2002, we announced a restructuring program to discontinue non-core activities in New Ventures and transfer out a number of core activities to other business areas. In December 2003, we announced the sale of our wind energy business in Germany, which was primarily focused on the development and engineering, procurement and construction of wind parks, primarily in Europe. We intend to divest the remainder of the business area, which includes the distributed energy business and investments in emerging technology businesses.

### ***Group Processes***

We originally formed Group Processes as a business division in January 2001 to drive growth and cut costs by establishing common working processes and a common IT infrastructure for the entire ABB Group. The areas of focus included supply and demand chain management, project management, financial processes, internal audit, quality control and marketing and sales. In addition, this division provided shared services in areas such as accounting and payroll and training through local services centers in many countries. The division also provided IT infrastructure services and applications support. The division was dissolved in October 2002 when supply and demand chain management as well as marketing and sales activities, were moved into the core divisions to more closely link them to those businesses. The financial processes and shared services activities were moved into the Group's finance function, under the auspices of our chief financial officer. In February 2003, all the IT operations were moved into the office of the chief information officer. Effective January 1, 2004, activities in the Group Processes business area had been dissolved or integrated into the core divisions, and Group Processes no longer functions as a separate business area.

### ***Customer Service Workshop***

Our Customer Service Workshop operations consist of overhaul, repair and rewinding of rotating machine products manufactured by the Automation Technologies division, as well as those from third-party suppliers. Following the decision we made in 2002 to strategically reduce

our activities in this business, most of our activities were either transferred to the core divisions, closed or divested. We continue our efforts to divest or close the remaining portion of this business during 2004.

### ***Logistic Systems***

The Logistic Systems business area provides information technology packages and automation services to airports for baggage and material handling and air traffic management, as well as turnkey electromechanical systems and airfield lighting systems. In the Logistic Systems business area in 2003, we finalized our exit from Norway whereas our units in Italy, Singapore and Zimbabwe are completing certain projects before closure. We continue efforts to divest our German business.

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### **Corporate/Other**

Our Corporate/Other activities comprise headquarters and stewardship activities, research and development activities, and other activities, as described below. Corporate/Other had approximately 3,000 employees at December 31, 2003.

Headquarters and stewardship activities include the operations of our head office in Zurich, Switzerland, as well as the corresponding local holding companies in approximately 65 countries. These operations 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 supports the divisions in developing cross-divisional technology platforms and builds up our protected technology. Through our close cooperation with the world's leading universities, cutting edge technology is transferred to our products and systems.

Other activities include our Real Estate and Group Treasury Operations. Our Real Estate management objective is to enhance our competitiveness and effectively support our business activities, with the most efficient and profitable use of our real estate assets and facilities. Group Treasury Operations act as a cost center for internal treasury activities.

## **DISCONTINUED OPERATIONS**

### **Overview**

We have adopted, with effect from January 1, 2002, Statement of Financial Accounting Standards No. 144 ("SFAS 144"), *Accounting for the Impairment or Disposal of Long Lived Assets*. SFAS 144 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 was to allow for historically comparable data to be available to investors without the distortions created by divestments or operation abandonments, thereby improving the predictive value of financial statements.

The following businesses are included in our Consolidated Financial Statements as discontinued operations:

All of our Oil, Gas and Petrochemicals businesses, of which we agreed to sell our upstream businesses to a consortium consisting of Candover Partners Limited, JP Morgan Partners LLC and 3i Group PLC in January 2004. The upstream business is a global producer of equipment and services for oil and gas exploration and production. The remaining part of the Oil, Gas and Petrochemicals businesses 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.

Costs related to the potential asbestos obligation of our U.S. subsidiary, Combustion Engineering, of approximately \$145 million, \$420 million and \$470 million in 2003, 2002 and 2001, respectively. The status of our potential asbestos obligation is described in "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Asbestos Liability," as well as in Note 18 to the Consolidated Financial Statements.



Our Reinsurance business, which we agreed to sell to White Mountains Insurance Group Limited, a Bermuda-based insurance holding company, in December 2003. This business provides international reinsurance and insurance underwriting, as well as specialized primary insurance in the United States. The completion of this sale is subject to regulatory approvals

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and other customary closing conditions and is expected to take place in the second quarter of 2004.

Our Wind Energy business in Germany, of which we sold a portion to GI Ventures of Munich, Germany in December 2003. This business focused on the development and engineering, procurement and construction of wind parks in Europe.

The portion of our Structured Finance business that we sold to GE Commercial Finance ("GE") in November 2002. This business provided debt capital for projects and equipment, and asset-based financing (such as leasing).

Our MDVC cable business in Germany, which we agreed to sell to Wilms Group of Menden, Germany in December 2003 (this sale was completed in January 2004). This business manufactures medium- and high-voltage cables, cable systems and accessories for power suppliers and network operators.

ABB Export Bank, which we sold to a financial investor in December 2003. ABB Export Bank arranged international export, trade and project financing.

Our Metering business, which we sold to Ruhrgas Industries GmbH of Essen, Germany in December 2002. This business produced electricity, water, energy and gas meters, metering systems and load control systems.

A number of other businesses sold in 2003 including: Austevoll and Ølen, operations of Marine Austevoll, a marine switchgear business in Norway, that were sold to Scandinavian Electric Austevoll AS and Vassnes Elektro AS, respectively, both in Norway; our repair workshop business in Portugal that we intend to sell; and our retail software business in the United States that we have agreed to sell to PIM-Newco Incorporated. In 2002 the other divested businesses included: the components business of ABB Trasmissione e Distribuzione S.p.A (Italy), which was sold to EB Rebosio S.r.l.; Energy Information Systems Ltd of the United Kingdom, which was sold to ALSTOM, and the ABB Drying Business (a division of ABB Inc. comprising a number of legal entities), which was sold to Andritz AB and Andritz Ltd.

Various businesses that were abandoned in 2003 and 2002 for which a buyer could not be found.

Legal and professional fees related to the above disposals.

## **Oil, Gas and Petrochemicals**

### *Overview*

Our Oil, Gas and Petrochemicals business supplies a comprehensive range of products, systems and services to the global oil, gas and petrochemicals industries, from the development of onshore and offshore exploration technologies to the design and supply of production facilities, refineries and petrochemicals plants.

The oil, gas and petrochemicals industry is typically divided into two markets:

*Upstream markets:* Equipment, systems and services for onshore and offshore oil and gas exploration and production, including our areas of principal focus: subsea production, floating production systems and modification and maintenance.

*Downstream markets:* Processing of hydrocarbon raw materials, including refineries, petrochemical and chemical plants, gas processing and pipelines.

Our activities in this business are relatively evenly split between the upstream market and the downstream market, although large projects may shift the balance from year to year. Our upstream business focuses principally on the modification and maintenance, subsea and floating production markets. Our activities in the downstream markets range from EPC projects, engineering and project management services to licensing of technology to the refining and petrochemical industries.

One of the strengths of the Oil, Gas and Petrochemicals business is its research and development capabilities. Upstream, the business continues to focus on making oil and gas exploration and production more economical, no matter where the natural resources are found. Downstream, the business is improving oil and gas conversion technology so refineries can manufacture fuels to stringent environmental specifications.

***Products and Services***

The services, products and systems of the Oil, Gas and Petrochemicals business include:

*Downstream*

EPC projects, such as refineries and petrochemical plants, using ABB products and products procured from third parties; and

licensing of process technologies for refining, petrochemicals and gas processing, and proprietary heat transfer equipment.

*Upstream*

production and assembly of offshore production equipment, including specialized subsea equipment for production, controls and power distribution;

production of onshore and offshore pressure-containing equipment;

provision of project management and procurement services; and

modification and maintenance services for both offshore and onshore facilities.

In the upstream market, the division is a global producer of equipment and services for oil and gas exploration and production.

The division designs and manufactures subsea oil and gas production equipment for conventional subsea development as well as for deep waters. It offers a broad range of services, with particular expertise in offshore production, including:

front-end engineering and design studies, employing the division's technical and market expertise to develop a plan for building all or a portion of a production facility;

procurement of materials and equipment to be used in oil and gas production facilities, including equipment from the Oil, Gas and Petrochemicals division and other ABB business divisions;

management of projects for the development of a production facility; and

modification and maintenance, in which we apply our expertise to troubleshoot and make repairs and/or make proposals about enhancing productivity and efficiency.

In the downstream market, the Oil, Gas and Petrochemicals business is a full service engineering company. In addition to expertise in EPC projects, it licenses approximately 50 process technologies in the refining, chemical, petrochemical and polymer fields. It has particular expertise

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in ethylene process technologies through ABB Lummus Global, which is part of the ABB Group. Ethylene is used as a raw material in a wide variety of plastics. It also provides modernization and maintenance services for refining and petrochemical facilities in the downstream market.

Contracts for the Oil, Gas and Petrochemicals business's products and projects in both the upstream and downstream markets include both turnkey contracts and contracts providing for reimbursement of design, procurement, project management, construction management and commissioning. The business seeks to integrate its planning and project management expertise with the equipment that it produces, particularly in the turnkey EPC projects.

The Oil, Gas and Petrochemicals business is also active in the design and fabrication of a wide variety of gas treatment systems. It produces equipment that cleanses (tail gas clean-up) and neutralizes (acid gas sweetening) the hazardous components of gasses that result from the petrochemical refining process before those gasses are released into the atmosphere. Its services in this area and in the area of gas processing for producing products such as ethylene and propane include project definition, installation, training and technical assistance.

#### *Customers*

The Oil, Gas and Petrochemicals business serves a range of customers, including multinational integrated oil and gas companies, independent local and regional oil companies, national (*i.e.*, state-owned) oil companies, drilling contractors, engineering contractors, independent exploration and production companies and petrochemical companies.

#### *Sales and Marketing*

All sales and distribution activities of the Oil, Gas and Petrochemicals business, in both upstream and downstream oil and gas markets, are handled directly through dedicated sales forces with respect to both product and project sales.

#### *Competition*

The Oil, Gas and Petrochemicals division's competitors include the following:

##### **Upstream Market**

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Cooper Cameron  
 FMC Technologies  
 Halliburton  
 Aker Kvaerner  
 CSO/Technip  
 Wood Group

##### **Downstream Market**

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Bechtel Group  
 Fluor  
 Foster Wheeler Corporation  
 Institut Français du Pétrol (IFP)  
 Kellogg Brown & Root (a unit of Halliburton)  
 Snamprogetti S.p.A.  
 Technip-Coflexip  
 UOP LLP  
 Japan Gasoline Corp. (JGC)  
 Chiyoda

#### *Research and Development*

Research and development expenses for the Oil, Gas and Petrochemicals division amounted to approximately \$44 million for 2003. On the downstream side, key research and development activities included the start-up of a demonstration unit at the Tianjin Petrochemical Complex in China for the next generation of ethylene and propylene technology. Additional research in the downstream area related to new solid catalyst alkylation for refining clean fuels, new catalysts for

petrochemical and refinery processing, membrane solutions for gas processing, and metallocene catalysts for polypropylene.

On the upstream side, key research areas included long-range remote control of subsea oil and reserve monitoring systems to enable compact and more efficient extraction, processing and separation of oil and natural gas in water depths up to 3,000 meters and hostile environments, as well as specialized floating platform systems for deep water oil exploration in benign environments and small oil fields that require cost-effective resource recovery systems.

### *Capital Expenditures*

The Oil, Gas and Petrochemicals division's capital expenditures for property, plant and equipment were \$43 million, \$34 million and \$38 million in 2003, 2002 and 2001. The capital expenditures during this period related primarily to purchases of machinery and equipment in the United States, Great Britain, Italy and Norway.

### **Insurance Business**

Our Insurance business area provides international reinsurance and insurance underwriting through Sirius International and specialized primary insurance in the United States through Sirius America. In reinsurance, the reinsurer, in return for a premium payment, provides coverage to a primary insurance company for all or a specific portion of the primary insurer's obligation to its customer. The business area's brokerage companies, Komposit in Germany and ABB Insurance Brokers in Switzerland, provide services to ABB companies and third-party clients. Our network of branches and local companies comprises locations in Sweden, Germany, Belgium, Switzerland, Singapore and the United States.

An important part of the reinsurance portfolio is excess of loss coverage, mainly in the property, marine, aviation, oil and energy sectors. This type of insurance provides coverage against all or a specified portion of losses on underlying insurance contracts to the extent they exceed an agreed level of losses.

Investment income is a substantial component of this business area's results. We pursue prudent policies in managing our own funds and cooperate with investment managers to maximize returns within set guidelines.

We determine our insurance liability based on reports from primary insurers that we reinsure and underwriting associations, as well as on our management's, including in-house actuaries', estimates. These estimates include incurred but not reported losses, salvage and subrogation recoveries. We seek to reduce the loss from our underwriting liabilities by reinsuring certain levels of risks with other insurance enterprises or reinsurers. We use recoverable amounts to cover both our paid and unpaid losses. We estimate these recoverable amounts in a manner consistent with the claim liability associated with the relevant reinsurance policy. Contracts where it is not reasonably possible that the reinsurer may realize a significant loss from the insurance risk generally do not meet the conditions for reinsurance accounting and are recorded as deposits.

Provisions for unearned premiums and claims are calculated on a pro rata or more conservative basis over the period for which coverage is provided.

Expected trends of frequency, severity and other factors inherent in the loss reserve estimates can vary significantly as claims are settled. Accordingly, ultimate losses may materially differ from the amounts we have currently provided for.

The following table sets forth a reconciliation of the beginning and ending gross liability for unpaid claims and claim expenses and a reconciliation of the gross liability to the corresponding net liability:

**Year ended December 31,**

	2003	2002	2001
	(\$ in millions)		
Net liability, beginning of year	1,630	1,729	937
Reinsurance recoverable, beginning of year	337	324	268
<b>Gross liability, beginning of year</b>	<b>1,967</b>	<b>2,053</b>	<b>1,205</b>
Gross incurred claims and claim expenses related to:			
Current year	347	326	466
Prior years	267	221	638
<b>Total</b>	<b>614</b>	<b>547</b>	<b>1,104</b>
Gross payments for claims and claim expenses related to:			
Current year	34	42	64
Prior years	831	691	417
<b>Total</b>	<b>865</b>	<b>733</b>	<b>481</b>
Other	109	100	225
<b>Gross liability, end of year</b>	<b>1,825</b>	<b>1,967</b>	<b>2,053</b>
Reinsurance recoverable, end of year	343	337	324
<b>Net liability, end of year</b>	<b>1,482</b>	<b>1,630</b>	<b>1,729</b>

Prior to 2001, we presented a portion of our insurance reserves on a discounted basis, which estimated the present value of funds required to pay losses at future dates. During 2001, the timing and amount of claims payments being ceded to us in respect of prior years' finite risk reinsurance contracts changed and could not be reliably determined at December 31, 2001. Therefore, we did not discount our loss reserves, resulting in a charge to losses and loss adjustment expenses in 2001 of \$295 million, which is disclosed in the "Other" line item above. We believe that this variability in ceded loss payments will preclude us from discounting our loss reserves in the future until reliably determinable amounts and timing of these payments can be re-established. Accordingly, as of December 31, 2003, 2002 and 2001, the insurance reserves have not been presented on a discounted basis.

As we conduct our business in multiple currencies, we continuously evaluate currency risk and use derivatives such as currency forward contracts to reduce the currency risk. Currency translation is included in "Other" in the table above and represents the majority of amounts in this line item with the exception of the \$295 million adjustment for discounting of our loss reserves, discussed above.

The following information presents the development of the estimated year-end liability for unpaid claims and claim adjustment expenses for the five years prior to 2003. Sufficient data are only available for periods subsequent to 1997, as certain acquisitions and substantial changes to our Insurance business systems prevent us from obtaining reliable information prior to 1998.

The first line of the table reflects our estimated liability for unpaid claims and claim adjustment expenses recorded at the balance sheet date for each of the indicated years. This liability represents the estimated amount of losses and loss adjustment expenses for claims arising in all

prior years that are unpaid at the balance sheet date, including estimated losses that had been incurred but not yet reported to us.

The amounts following the first line of the table reflect the re-estimated amount of the previously recorded liability based on experience as of the end of the succeeding year. The estimate may change as additional information becomes available related to claims in any individual year. These changes are reflected in our operating results in the year the estimate is changed. The "Cumulative gross deficiency (redundancy)" line

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below represents the aggregate change in the reserve estimates from the original balance sheet dates through December 31, 2003. The amounts shown are cumulative in nature. For example, a deficiency recognized in 2002 relating to losses incurred prior to December 31, 1998 would be included in the cumulative deficiency amount for each year in the period 1998 through 2002. However, the deficiency would be reflected only in our 2002 operating results.

The next section of the table reflects the cumulative amount paid with respect to the re-estimated liability as of the end of each succeeding year. The last section of the table reflects the gross liability, reinsurance recoverable and net liability recorded at each year-end. The difference between the gross liability and re-estimated gross liability represents the "Cumulative gross deficiency (redundancy)."

	Year ended December 31,					2003
	1998	1999	2000	2001	2002	
(\$ in millions)						
Gross liability for unpaid claims and claim adjustment expenses	731	1,068	1,205	2,053	1,967	1,825
Gross liability re-estimated as of:						
One year later	624	844	1,650	1,887	1,646	
Two years later	602	1,083	1,597	2,037		
Three years later	611	998	1,754			
Four years later	648	1,114				
Five years later	643					
Total cumulative gross deficiency (redundancy)	(88)	46	549	(16)	(321)	
Cumulative amount of gross liability paid as of:						
One year later	184	212	447	622	801	
Two years later	218	488	861	1,197		
Three years later	352	707	1,354			
Four years later	482	1,034				
Five years later	664					
Gross liability, end of year	731	1,068	1,205	2,053	1,967	1,825
Reinsurance recoverable, end of year	161	254	268	324	337	343
Net liability, end of year	570	814	937	1,729	1,630	1,482
Re-estimated gross liability	643	1,114	1,754	2,037	1,646	
<b>Cumulative gross deficiency (redundancy)</b>	<b>(88)</b>	<b>46</b>	<b>549</b>	<b>(16)</b>	<b>(321)</b>	

### CAPITAL EXPENDITURES

Total capital expenditures for property, plant and equipment for the ABB Group (excluding discontinued operations) amounted to \$399 million, \$436 million and \$551 million in 2003, 2002 and 2001, respectively. The majority of the capital expenditures in 2003 related to replacement of existing equipment and improvements in existing production and testing sites, primarily in Germany, Sweden, Italy, the United States, France and China. Total divestitures of property, plant and

equipment amounted to \$153 million, \$459 million and \$169 million in 2003, 2002 and 2001, respectively. Of the total divestitures of 2003, \$96 million related to the sale of our real estate properties, mainly from Switzerland, the United States, the United Kingdom and France.

### SUPPLIES AND RAW MATERIALS

We purchase a variety of raw materials for use in our production and project execution processes. The main materials used in our products, by weight, are steel, copper, aluminum, mineral oil and various plastics. We also purchase a variety of fabricated products and electronic

components.

We operate a worldwide supply chain management network with employees dedicated to this function in business areas and key countries. The supply chain management network uses the scale of the ABB Group to maximize the efficiency of supply networks. We expanded our eBusiness activities within the last two years, including e-procurement for materials and services, and further developed advanced supplier collaboration tools and a supplier information system.

For many commodities that we purchase, including steel, fabricated copper and aluminum products and products derived from crude oil, the recovery in global economic growth, rising demand from China and changes in foreign exchange rates (particularly the U.S. dollar and the euro) have led to increases in raw materials costs for these commodities. While some of these increases will be offset through use of multi-year contracts and, in the case of copper and aluminum, through hedging, we expect prices to rise for many of these commodities in 2004 compared to 2003.

In the field of electronic components, subassemblies or fabricated products, prices remained stable or decreased slightly in 2003 compared to 2002. Electronic component lead times remained relatively short in the first half of the year, but increased in the second half, although there were no shortages. We expect to experience shortages and significant price increases for certain components during 2004, which we expect will primarily affect our Automation Technologies division.

There can be no assurance that our ability to obtain sufficient raw materials will not be adversely affected by unforeseen developments. In addition, the price of raw materials may vary, perhaps substantially, from year to year.

We hedge our exposure to commodity risk arising from the changes in prices of raw materials. We manage copper and aluminum price risk using swap and forward contracts based on the London Metal Exchange price for these commodities. Our hedging policy is designed to minimize price volatility and create a stable cost base for the ABB Group. Hedging has the effect of minimizing the unfavorable impact of price increases in commodities, but it also limits the favorable impact of decreasing prices. In most cases, the gains and losses derived from our commodity hedging transactions are deferred and reflected in the cost of goods sold when the underlying physical transaction takes place. In addition to using hedging to reduce our exposure to fluctuations in raw materials prices, in some cases we can reduce this risk by incorporating changes in raw materials prices into the prices of our products.

## RESEARCH AND DEVELOPMENT

Each year, we invest significantly in research and development. Our research and development area focuses on developing and commercializing the core technologies of our businesses that are of strategic importance to our future growth. In 2003, 2002 and 2001, we invested \$613 million, \$547 million, and \$590 million, respectively, or approximately 3.3%, 3.1%, and 3.2% of annual revenues, respectively, on research and development activities. We also had expenditures of

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\$317 million, \$248 million, and \$404 million, respectively, or approximately 1.7%, 1.4% and 2.2%, respectively, of annual revenues in 2003, 2002 and 2001, on order-related development activities. These are customer- and project-specific development efforts that we undertake to develop or adapt equipment and systems to the unique needs of our customers in connection with specific orders or projects. Order-related development amounts are initially recorded in inventories as part of the work in progress of a contract and then are reflected in cost of sales at the time revenue is recognized in accordance with our accounting policies.

In addition to continuous product development, and order-related engineering work, we develop future technology platforms for technology applications in our automation and power businesses in our Group research and development labs, which operate on a global basis. Through active management of our investment in research and development, we seek to maintain a balance between short-term and long-term research and development programs and optimize our return on investment.

Our global computer network links our engineers and scientists to facilitate the exchange of ideas and foster the development of new products and systems. A significant part of our research and development activities is carried out in our nine research and development centers in the United States, Europe and Asia.

In 2002 and 2001, we streamlined our portfolio of projects and sharpened the focus of our corporate research programs considerably. We have concentrated our research and development resources in two globally operating Group research and development laboratories, which focus on automation and power technologies, eliminating previous overlaps. In addition, we have shifted our resources toward new technologies, such

as Industrial IT and wireless applications. This new focus has led to a reduction of more than 200 employees working in corporate research and development.

We are building up new research and development activities in the United States and Asia, while moving away from research and development relating to mature technologies in Europe.

Our two global research and development laboratories are strategically focused on two key areas of research: automation and power. They coordinate their research and link in a fully networked, online environment our scientists and engineers with one another, and with partner universities, research institutes and organizations.

Recent developments include:

a broad campaign to implement our proprietary ABB Industrial IT architecture in all our products and systems;

a set of innovations relating to robots, including software for easy programming of robot applications, as well as the development of high precision robots for consumer products and manufacturing applications;

comprehensive software packages to serve the deregulated energy markets;

design optimized grids to facilitate the business processes of energy providers;

new products for the electrical power market to increase the efficiency, power quality and safety of the power transmission and distribution systems;

applications of power electronics in powerful drives for use in marine vessels, together with innovative propulsion concepts; and

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exploration of nanotechnologies, the design of material on a molecular base, for a variety of applications in our industry as well as micro-electromechanical systems in automation and power applications.

## **PATENTS AND TRADEMARKS**

We believe that intellectual property has become as important as tangible assets for a technology group such as ABB. Over the past ten years, we have almost doubled our total number of first patent filings, and we intend to continue our aggressive approach to seeking patent protection. Currently, we have over 14,000 patent applications and registrations, of which approximately 6,700 are pending applications. In 2003, we filed patent applications for more than 450 new inventions. Based on our existing intellectual property strategy, we believe that we have adequate control over our core technologies. The "ABB" trademarks and logo are protected in all of the countries in which we operate. We aggressively defend the reputation associated with the ABB brand.

## **ENVIRONMENTAL ACTIVITIES**

Environmental management is one of our highest business priorities. We address environmental issues in all our business operations. Our goal is to improve our social and environmental performance continuously, and improve the quality of life in the communities and countries where we operate.

Our social and environmental efforts include:



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 latest technologies with emerging markets;

ensuring that our operations and processes comply with applicable environmental standards and legislation. Specifically, every operating unit must implement an environmental management system that continuously improves its environmental performance;

ensuring that our social and environmental policies are communicated and implemented;

working towards achieving best practices in occupational health and safety, and ensuring the health and safety of our employees, contractors and others involved in or affected by our activities; and

favoring suppliers that have sustainability policies and systems similar to our own.

In 2003, we began the process of updating our environmental policy, which was unchanged since its introduction in 1992, to better reflect our 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 ABB Group.

To continuously improve the environmental performance of our own operations, we are implementing environmental management systems according to the ISO 14001 standard on all our sites. We have implemented the ISO 14001 in 97% of our manufacturing facilities and service workshops (approximately 410 sites) and our environmental management program now includes

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operations in approximately 50 countries. We also require every operating unit within the ABB Group to implement an environmental management system that aims continuously to improve its environmental performance. We are now implementing an adapted environmental management system in our non-manufacturing organizations.

We have introduced the concept of Environmental Product Declarations to communicate the environmental performance of our core products. These describe the salient environmental aspects and impacts of a product line, viewed over its complete life cycle. Declarations are based on Life Cycle Assessment studies, created according to the international standard ISO/TR 14025. To date, approximately 50 declarations have been produced for major product lines, 10 of which have been externally certified by agencies such as Det Norske Veritas (DNV) of Norway and the RINA Management System Certification Society in Italy.

We have expanded the scope of our environmental reporting in recent years. In 2003, our formal reporting system covered approximately 80% of our employees. The parts of our business that are not yet covered by our reporting system have very limited environmental impacts. A total of 7 accidents were reported in 2003, none of which had a material environmental impact.

One of our corporate objectives is to phase out the use of the hazardous substances that are recorded on our list of "restricted" substances. Priorities for replacement are set by each business using criteria such as the environmental aspects of alternatives, the risk of the substance escaping into the environment, how hazardous the substance is, whether we can use the substance under strict control and whether there are any technically acceptable alternatives.

We have retained liability for environmental remediation costs at two sites in the United States that were operated by our former nuclear business, which we have sold to BNFL. The primary environmental liabilities associated with these sites relate to the costs of remediating radiological contamination upon decommissioning the facilities. For further information, see "Item 5. Operating and Financial Review and Prospects Contingencies and Retained Liabilities Environmental."

## REGULATION

Our operations are subject to numerous other governmental laws and regulations including those governing currency conversions and repatriation, taxation of foreign earnings and earnings of expatriate personnel and use of local employees and suppliers.

As a reporting company under Section 12 of the U.S. Securities Exchange Act of 1934, as amended, we are subject to the U.S. Foreign Corrupt Practices Act's antibribery provisions with respect to our conduct around the world.

Our operations are also subject to the 1997 Organization of Economic Cooperation and Development Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, as implemented by the 34 signatory countries. The convention obliges signatories to adopt national legislation that makes it a crime to bribe foreign public officials. As of December 31, 2003, those countries which have adopted implementing legislation and have ratified the convention include the United States, Switzerland and several European nations in which we have significant operations.

We and our subsidiaries conduct business in certain countries known to experience governmental corruption. While we and our subsidiaries are committed to conducting business in a legal and ethical manner, there is a risk that our employees or agents may take actions that violate either the U.S. Foreign Corrupt Practices Act or legislation promulgated pursuant to the 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. These actions could result in monetary penalties against us or our subsidiaries and could damage our reputation and, therefore, our ability to do business.

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## RECENT DEVELOPMENTS AND SIGNIFICANT TRANSACTIONS

For a description of our significant acquisitions, investments and divestitures in the last three fiscal years, see "Item 5. Operating and Financial Review and Prospects Acquisitions, Investments and Divestitures."

## SIGNIFICANT SUBSIDIARIES

ABB Ltd, Zurich, Switzerland is the ultimate parent company of the ABB Group, which is comprised of around 500 subsidiaries (excluding dormant companies) worldwide. Besides ABB Ltd, the only other listed company in the ABB Group is ABB Ltd, India, which is listed on the exchanges in India at Mumbai (BSE and NSE), Ahmadabad, New Delhi and Kolkata.

The following table sets forth, as of December 31, 2003, the name, country of incorporation and ownership interest of ABB Ltd of its significant subsidiaries:

Company Name / Location	Country	ABB Interest
		(%)
ABB S.A., Buenos Aires	Argentina	100.00
ABB Australia Pty Limited, Sydney	Australia	100.00
ABB AG, Vienna	Austria	100.00
ABB Ltda., Osasco	Brazil	100.00
ABB Bulgaria EOOD, Sofia	Bulgaria	100.00
ABB Inc., St. Laurent, Quebec	Canada	100.00
ABB (China) Ltd., Beijing	China	100.00

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Company Name / Location	Country	ABB Interest
Asea Brown Boveri Ltda., Bogotá	Colombia	99.99
ABB Technology SA, Abidjan	Ivory Coast	99.00
ABB Ltd., Zagreb	Croatia	100.00
ABB s.r.o., Prague	Czech Republic	100.00
ABB A/S, Skovlunde	Denmark	100.00
Asea Brown Boveri S.A., Quito	Ecuador	96.88
Asea Brown Boveri S.A.E., Cairo	Egypt	100.00
ABB AS, Tallinn	Estonia	100.00
ABB Oy, Helsinki	Finland	100.00
ABB S.A., Paris La Défense	France	100.00
ABB AG, Mannheim	Germany	100.00
ABB Automation Products GmbH, Eschborn	Germany	100.00
ABB Gebäudetechnik AG, Mannheim	Germany	100.00
ABB Process Industries GmbH, Eschborn	Germany	100.00
Asea Brown Boveri S.A., Metamorphosis Attica	Greece	100.00
ABB (Hong Kong) Ltd., Hong Kong	Hong Kong	100.00
ABB Engineering Trading and Service Ltd., Budapest	Hungary	100.00
ABB Ltd., Bangalore	India	52.11
ABB Ltd, Dublin	Ireland	100.00
ABB Technologies Ltd., Tirat Carmel	Israel	99.99
ABB S.p.A., Milan	Italy	100.00
ABB Sace S.p.A., Milan	Italy	100.00
ABB Trasmisione & Distribuzione S.p.A., Milan	Italy	100.00
ABB K.K., Tokyo	Japan	100.00
ABB Ltd., Seoul	Korea	100.00
ABB Holdings Sdn. Bhd., Subang Jaya	Malaysia	100.00
Asea Brown Boveri S.A. de C.V., Tlalnepantla	Mexico	100.00
ABB BV, Rotterdam	Netherlands	100.00
ABB Capital, B.V., Amsterdam	Netherlands	100.00
ABB Holdings BV, Amsterdam	Netherlands	100.00
Lummus Worldwide Contracting B.V. (LUWOCO), The Hague	Netherlands	100.00
ABB Limited, Auckland	New Zealand	100.00
ABB Holding AS, Billingstad	Norway	100.00
Asea Brown Boveri S.A., Lima	Peru	99.99
Asea Brown Boveri Inc., Paranaque, Metro Manila	Philippines	100.00
ABB Sp. zo.o., Warsaw	Poland	95.98
ABB S.G.P.S. S.A., Amadora	Portugal	100.00
Asea Brown Boveri Ltd., Moscow	Russia	100.00
ABB Contracting Company Ltd., Riyadh	Saudi Arabia	65.00

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ABB Holdings Pte. Ltd., Singapore	Singapore	100.00
ABB Holdings (Pty) Ltd., Sunninghill	South Africa	80.00
Asea Brown Boveri S.A., Madrid	Spain	100.00
ABB AB, Västerås	Sweden	100.00
Sirius International Försäkrings AB (publ), Stockholm	Sweden	100.00
ABB Asea Brown Boveri Ltd, Zurich	Switzerland	100.00
ABB Schweiz Holding AG, Baden	Switzerland	100.00
ABB LIMITED, Bangkok	Thailand	100.00
ABB Holding A.S., Istanbul	Turkey	99.95
ABB Ltd., Kiev	Ukraine	100.00
ABB Industries (L.L.C.), Dubai	United Arab Emirates	49.00
ABB Ltd., London	United Kingdom	100.00
ABB Holdings Inc., Norwalk	United States	100.00
ABB Inc., Raleigh, NC	United States	100.00
Asea Brown Boveri Inc., Norwalk, CT	United States	100.00
Asea Brown Boveri S.A., Caracas	Venezuela	100.00
ABB (Private) Ltd., Harare	Zimbabwe	100.00

**DESCRIPTION OF PROPERTY**

As of December 31, 2003, the ABB Group had manufacturing, production and development facilities in approximately 100 countries throughout the world with over 18 million square meters of land and over 7 million square meters of building space. The facilities consist mainly

of manufacturing plants, office buildings, research centers and warehouses. A substantial portion of our production and development activities is conducted in Germany, the United States, Sweden, Switzerland, Finland, Norway and Italy. We also own or lease other properties, including office buildings, warehouses, research and development facilities and sales offices in many countries. We own approximately 50% of the buildings and approximately 80% of the land on which our facilities are located and lease the remainder.

We own essentially all of the machinery and equipment used in our manufacturing operations. In certain countries, we have entered into sale-leaseback agreements, notably in Sweden and Switzerland. Our sale-leaseback arrangements generally pertain to administrative buildings and partly to manufacturing facilities. From time to time, we have a surplus of space arising from acquisitions, production efficiencies and/or restructuring of operations. Normally, we seek to sell such surplus space or, to a lesser extent, lease it to third parties.

It is our general policy to maintain facilities and equipment at quality levels assuring continuous production at good efficiency and safety standards. The net book value of our property, plant and equipment as of December 31, 2003 was \$2,840 million, of which machinery and equipment represented \$1,360 million and land and buildings represented \$1,480 million. We believe that our current facilities are in good condition and are adequate to meet the requirements of our present and foreseeable future industrial operations.

## **Item 5. 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, including those discussed in "Item 3. Key Information Risk Factors." See "Forward-Looking Statements" at the beginning of this annual report.

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## **ABOUT ABB**

We are a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. We employ approximately 116,000 people and operate in approximately 100 countries.

We are headquartered in Zurich, Switzerland and our shares are traded on the SWX Swiss Exchange (virt-x), the Stockholm Exchange, the New York Stock Exchange (in the form of ADSs), the Frankfurt Exchange and the London Stock Exchange.

We were formed in 1988, when Asea AB of Sweden and BBC Brown Boveri of Switzerland merged under the name ABB Ltd. Asea AB's history dates back to 1883. BBC Brown Boveri was founded in 1891.

## **MANAGEMENT OVERVIEW**

During the past three years, we have incurred significant net losses, principally as a result of a greater-than-anticipated increase in the number of, and in the amounts required to settle, certain asbestos-related claims, the weak performance of some of our businesses that are now classified as non-core activities or discontinued operations, as well as the effects on us of an overall weakening of global markets. As a result of these losses, combined with the effect of a repurchase of our own shares in 2001 and certain other factors, our consolidated stockholders' equity had decreased to approximately \$1.0 billion at December 31, 2002. During 2003, we carried out a capital strengthening program designed to improve our Consolidated Balance Sheet to appropriate levels for an industrial company of our size and to provide our core divisions with the financial flexibility they need for profitable growth. We used part of the proceeds from the capital strengthening program to repay the remaining portion of our then existing \$1.5 billion credit facility.

In addition to the capital strengthening program, we have taken a number of steps to realign our organization and cost base, including reducing our workforce, selling some of our non-core businesses and other assets, extending our debt maturity profile and pursuing a settlement in relation to our asbestos exposure in the United States. As a result of the capital strengthening program and despite the \$767 million net loss reported in 2003, our consolidated stockholders' equity had increased to approximately \$3.0 billion at December 31, 2003 and our Consolidated Balance Sheet included approximately \$5.1 billion of cash, equivalents and marketable securities at the same date.

In 2002, we introduced the Step Change Program, which is designed to increase the competitiveness of our core divisions, reduce overhead costs and streamline operations, and is expected to result in approximately \$900 million of cost savings on an annual basis by 2005. See

" Restructuring Expenses" and Note 25 to our Consolidated Financial Statements.

Marking further progress towards the settlement of the asbestos issue, a U.S. district court confirmed a pre-packaged Chapter 11 plan of reorganization filed for our subsidiary Combustion Engineering. The plan will become effective when the confirmation order issued in 2003 has become a final order that is not subject to appeal and the other conditions to the effectiveness of the plan have been satisfied. The U.S. Federal Third Circuit Court of Appeals granted a motion for expedition of appeals and has set June 3, 2004 as the hearing date with respect to the appeals. Regardless of whether or not the pre-packaged plan becomes effective, the Master Settlement Agreement, which settles the amount of and provides for the partial payment on approximately 110,000 asbestos claims, remains effective. See " Contingencies and Retained Liabilities" and Note 18 to our Consolidated Financial Statements. Although the nature of litigation makes it difficult to predict any particular outcome, we remain confident that the confirmation of the plan will be affirmed.

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Since 2002, we have disposed of a number of businesses and assets in furtherance of our strategy to focus on our core divisions. We also signed an agreement to sell the upstream part of our Oil, Gas and Petrochemicals businesses to a private equity consortium. See "Acquisitions, Investments and Divestitures." We have received proceeds of approximately \$1.2 billion from the divestments carried out in 2003 and with the divestment of the upstream part of our Oil, Gas and Petrochemicals businesses and the Reinsurance business, we are on course to generate proceeds of more than \$2 billion from our various divestment programs.

Our principal plans for 2004 include continued operational improvements in the core businesses and continued efforts to realize savings from the Step Change Program. We also intend to complete our divestment program (in particular, the remaining portion of our Oil, Gas and Petrochemical business and the remaining part of our Building Systems business), the disposal or closure of non-core activities and to further reduce our total debt using the proceeds of these divestments.

Effective January 1, 2004, some business areas within our business divisions were combined. The changes are further discussed in " Organizational Structure Our Business Divisions."

## ORGANIZATIONAL STRUCTURE

Effective January 1, 2003, we realigned our business divisions to combine our former Power Technology Products and Utilities divisions into a new Power Technologies division and combined our former Automation Technology Products and Industries divisions into a new Automation Technologies division. Our Oil, Gas and Petrochemicals businesses, a part of which we have agreed to sell, and our Insurance business area were reclassified as discontinued operations along with a number of other businesses in 2003 and 2002, respectively. Our remaining activities were grouped as Non-core activities and the remaining headquarter type functions were grouped into a Corporate/Other division. We began reporting our financial results to reflect this new structure effective January 1, 2003.

We streamlined our divisional structure to help sharpen our focus on power and automation technologies, to increase efficiency and to create a sustainable lower cost base. We consider the Power Technologies and Automation Technologies divisions to be our core divisions, and our management intends to focus its attention on, and future investments in, these divisions.

Effective January 1, 2004, some business areas within our business divisions were combined. The changes are further discussed within " Our Business Divisions."

### Our Business Divisions

#### *Power Technologies Division*

The ABB 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 39,000 employees at December 31, 2003. See "Item 4. Information on the Company Business Divisions Power Technologies Division Business Areas" for a breakdown of the approximate proportion of the Power Technologies division's revenue generated in 2003 by each business area in the division.

The Power Technologies division at January 1, 2004 consists of five business areas:

Power Systems

Utility Automation Systems

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High-Voltage Products

Medium-Voltage Products

Transformers

Our Power Systems business area generated approximately \$2.3 billion in revenues in 2003 and had approximately 8,000 employees at December 31, 2003. Key product lines in this business area include transmission and distribution substations, flexible alternating current transmission systems (FACTS) and high-voltage direct current (HVDC) systems, which are technologically advanced concepts to increase transmission capacity and stability in power networks. Our HVDC and FACTS business lines are supported by our own in-house power semiconductor factory. In addition, this business area undertakes turnkey contracts to install and upgrade transmission and distribution systems.

Our Power Systems business area sells primarily to utilities, but also to industrial end-users, and is complimented by a consulting and power systems services arm. Orders and revenues are evenly distributed among the Americas, Europe, the Middle East and Africa, and Asia-Pacific.

Our Utility Automation Systems business area generated approximately \$1.3 billion in revenues in 2003 and had approximately 5,500 employees at December 31, 2003. This business area is focused on automation, control and protection systems for power generation, power transmission and distribution networks, the energy market and water management. It also offers substation automation and protection products and systems and complete utility communication networks. Europe, Middle East and the United States are major markets, while activities in Asia are expanding.

Our High-Voltage Products business area generated approximately \$1.4 billion in revenues in 2003 and had approximately 6,000 employees at December 31, 2003.

This business area's primary products include high-voltage switchgear and high-current systems and cables. We sell high-voltage products primarily to utilities, as well as to distributors, wholesalers, installers, original equipment manufacturers and industrial end-users. We export mostly from Europe to all parts of the world.

Our Medium-Voltage Products business area generated approximately \$1.5 billion in revenues in 2003 and had approximately 7,000 employees at December 31, 2003. This business area develops, manufactures and sells a wide range of circuit breakers and contactors, fuses, sensors, switches, vacuum interrupters and outdoor distribution products and sells primarily to utilities, industrial end-users, distributors, wholesalers, installers and original equipment manufacturers. Revenues of this business are primarily generated in Western Europe, followed by Asia, North America and the Middle East.

The former Distribution Transformers and Power Transformers business areas, which shared many locations, were merged to form a single Transformers business area at the beginning of 2004. The merger is intended to help reduce product overlaps, eliminate redundant research and development efforts, and improve supply chain management.

The combined Transformers business area generated approximately \$2 billion in revenues in 2003 and, at December 31, 2003, had approximately 13,000 employees. The business area sells a wide range of transformers from single-phase transformers, to small, medium and large distribution transformers, reactors, traction, phase-shifting, converter and extra high-voltage transformers. Europe and the Americas account for a major portion of this business area's revenues while the revenues in Asia and the Middle East are improving.

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*Automation Technologies Division*

The ABB 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. The division had approximately 55,000 employees at December 31, 2003. See "Item 4. Information on the Company Business Divisions Automation Technologies Division Business Areas" for a breakdown of the approximate proportion of the Automation Technologies division's revenue generated in 2003 by each business area in the division.

The Automation Technologies division at January 1, 2004 consists of three business areas:

Automation Products

Process Automation

Manufacturing Automation

The Automation Products business area generated approximately \$4.5 billion in revenues in 2003 and had approximately 27,000 employees at December 31, 2003. Key products in the Automation Products business area include low and medium-voltage drives, as well as low and high-voltage motors, which are used in the building automation, marine, power, transportation, manufacturing and process industries. The business area also offers power electronics systems, which are sold to metals smelters, railway manufacturers and power plants.

Other low-voltage products offered by the Automation Products business area include devices for power quality and protection, wire management, switching and motor control. Instrumentation products include actuators and positioners, analytical instruments, as well as devices to measure flow, pressure, level, temperature and similar process variables.

Many of this business area's automation products are high volume products sold through channel partners, such as distributors, wholesalers, installers, and original equipment manufacturers. The business area is geographically diverse, with operations and customers throughout Europe, the Americas and Asia.

The Process Automation business area generated approximately \$4.0 billion in revenues in 2003 and had approximately 21,500 employees at December 31, 2003. It combines the resources of three former business areas: Control Platform and Enterprise Products; Petroleum, Chemical and Consumer; and Paper, Minerals, Marine and Turbocharging.

This new business area includes control, force measurement, marine and turbocharging systems among its key technologies. The largest among these is the design of systems for control and plant optimization in the process and utility industries, where our employees apply their extensive knowledge of customer processes to application-specific requirements.

Marine sector solutions include our systems for electric propulsion, power generation and distribution, automation and heating, ventilation and air conditioning systems aboard cruise, cargo and other offshore vessels. Our turbochargers add performance, environmental and fuel efficiency to large gasoline and diesel engines.

Our Process Automation business area is geographically diverse, with strategic hubs of activity, including research and development, in the United States, Europe, India, China and Southeast Asia. Revenues of this business area are primarily generated in Europe followed by the Americas and Asia with equal share and the Middle East with a comparatively lower share.

The Manufacturing Automation business area generated approximately \$1.4 billion in revenues in 2003 and had approximately 6,500 employees at December 31, 2003. Our Manufacturing Automation business has a large installed base of industrial robots more than 100,000 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 auto manufacturers for press automation, paint process automation and power train assembly.

This business area's research and development and manufacturing locations are focused in the United States and Sweden near major automotive centers. Most of our revenues in this business area are generated in the Americas, Western Europe and China.

### *Non-Core Activities Division*

Business activities that are not directly linked to our Power Technologies and Automation Technologies divisions (our core divisions) and which we are considering for sale, winding down or otherwise discontinuing are grouped together and their results are reported under the heading of Non-Core Activities. These activities comprise primarily the remaining parts of Equity Ventures business area, the remaining parts of the Structured Finance business area, the remaining parts of the Building Systems business area, the remaining parts of the New Ventures business area and a number of other activities, including Customer Service Workshops, Logistic Systems and the Group Processes business areas. The Insurance business area, which was previously included in Non-Core Activities, is now discussed as part of discontinued operations following our agreement in December 2003 to sell this business to White Mountains Insurance Group Limited of Bermuda. The businesses in the Non-Core Activities division are not being managed as an integral part of our business. The division had approximately 8,700 employees at December 31, 2003.

Our Equity Ventures business area owns and operates infrastructure projects in various countries. Our Equity Ventures business area originally focused its investment activities on independent power projects because it provided business opportunities for our former power generation division. Subsequent projects also were selected primarily to develop opportunities to sell our equipment and systems. Therefore, the Equity Ventures portfolio reflects some of the businesses in which we were engaged when the investments were made. Our Equity Ventures business area is not pursuing further project development or additional investments and we will consider selling investments of this business area when we believe we have received an optimal offer. During 2003, we sold our stakes in ABB Redbank Project Pty Ltd. (a power plant) and ElectraNet Pty Ltd (an electricity transmission service provider), both in Australia.

Our Structured Finance business area provides financing, including export, trade and project financing and asset-based leasing and lending. In 2002, we decided to sell our Structured Finance businesses. In 2003, we continued the divestment of our remaining Structured Finance business area, including our ownership interest in the Swedish Export Credit Corporation, certain lease and loan portfolios, ownership interests in infrastructure projects and other financial assets. We sold ABB Export Bank, previously part of our Structured Finance business area in December 2003. The remaining Structured Finance assets, representing approximately \$600 million of financing receivables, will be sold, discontinued or run off.

Our Building Systems business area designs, builds and maintains complete installations for industrial, infrastructure and commercial facilities, integrating products manufactured by our Power Technologies and Automation Technologies divisions, as well as those from third-party suppliers. Following our decision to divest our Building Systems businesses in 2002, we finalized the divestment of a number of our activities in the Building Systems business area during 2003,

including our activities in Austria, Belgium, the Netherlands, the Nordic region (Baltic states, Denmark, Finland, Norway, Russia and Sweden), Portugal and the United Kingdom. We have not yet sold the Building Systems businesses in Germany, Poland, the United States, Hong Kong and Egypt. In February 2004, we signed an agreement to sell our Building Systems business in Switzerland to an investor group, while retaining a 10% interest in the business.

We established New Ventures in 2001 as a "fast lane" business incubator that would find, develop and invest in new business opportunities, both internally and externally. New Ventures had three investment portfolios the Industrial IT Venture Fund and Operational Ventures, both of which focused on investment opportunities externally, and Innovisions, which focused on opportunities internally. Activities involved providing both seed funding for start-ups and growth funding for mature businesses. It also directly managed several majority-owned companies. In October 2002, we announced a restructuring program to discontinue Non-core activities in New Ventures and transfer out a number of core activities to other business areas. In December 2003, we announced the sale of our Wind Energy business in Germany, which was primarily focused on the development and engineering, procurement and construction of wind parks, primarily in Europe. We intend to divest the remainder of the business area, which includes the Distributed Energy business and investments in emerging technology businesses.

We originally formed Group Processes as a business division in January 2001 to drive growth and cut costs by establishing common working processes and a common IT infrastructure for the entire ABB Group. The areas of focus included supply and demand chain management, project management, financial processes, internal audit, quality control and marketing and sales. In addition, this division provided shared services in areas such as accounting and payroll and training through local services centers in many countries. This division also provided IT infrastructure services and applications support. The division was dissolved in October 2002 when supply and demand chain management as well as marketing and sales activities were moved into the core divisions to more closely link them to those businesses. The financial processes



and shared services activities were moved into our finance function, under the auspices of our chief financial officer. In February 2003, all the IT operations were moved into the office of the chief information officer. Effective January 1, 2004, activities in the Group Processes business area had been dissolved or integrated into the core divisions, and Group Processes no longer functions as a separate business area.

Our Customer Service Workshop operations consist of overhaul, repair and rewinding of rotating machine products manufactured by the Automation Technologies division, as well as those from third-party suppliers. Following the decision we made in 2002 to strategically reduce our activities in this business, most of our activities were either transferred to the core divisions, closed or divested. We continue our efforts to divest or close the remaining portion of this business during 2004.

The Logistic Systems business area provides information technology packages and automation services to airports for baggage and material handling, air traffic management, as well as turnkey electromechanical and airfield lighting systems. In the Logistic Systems business area in 2003, we finalized our exit from Norway whereas our units in Italy, Singapore and Zimbabwe are completing certain projects before closure. We continue efforts to divest our German business.

### *Corporate/Other*

Our Corporate/Other comprises headquarters and stewardship activities, research and development activities and other activities, as described below. Corporate/Other had approximately 3,000 employees at December 31, 2003.

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Headquarters and stewardship activities include the operations of our head office in Zurich, Switzerland, as well as corresponding local holding companies in approximately 65 countries. These operations 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 supports the divisions in developing cross-divisional technology platforms and builds up our protected technology. By close cooperation with the world's leading universities, cutting edge technology is transferred to our products and systems.

Other activities include our Real Estate and Group Treasury Operations. Our Real Estate management objective is to enhance our competitiveness and effectively support our business activities, with the most efficient and profitable use of our real estate assets and facilities. Group Treasury Operations act as a cost center for internal treasury activities.

The discussion that follows reflects how we managed and reported our businesses during 2003. Therefore, we refer to the business areas as they were prior to their realignment in 2004, discussed above. We have included a separate discussion of discontinued operations.

## **APPLICATION OF CRITICAL ACCOUNTING POLICIES**

### **General**

We prepare our Consolidated Financial Statements in accordance with accounting principles generally accepted in the United States ("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 those related to: costs expected to be incurred to complete projects; the costs of product guarantees and warranties; provisions for bad debts, inventories, investments, intangible assets and income taxes; provisions for restructuring, long-term service contracts, pensions and other post-retirement benefits, 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 changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact our Consolidated Financial Statements. We believe the following critical accounting policies reflect the more significant estimates and assumptions that we use in the preparation of 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 all of the following conditions are met: a persuasive evidence of an arrangement exists, the sales price is fixed and determinable, collectibility is reasonably assured and title, including the risks and rewards of ownership, has been transferred to the customer. When multiple elements such as products and services are contained in a single arrangement or in related arrangements with the same customer, we allocate revenue to each element based on its relative fair value, provided that such element

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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 contracts to deliver 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 or the contractual acceptance period has lapsed. As a result, significant contract interpretation is sometimes required to determine the appropriate period of revenue recognition.

These revenue recognition methods assume collectibility of the revenues recognized. When recording the respective accounts receivable, loss reserves 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. There remains the risk that greater defaults will occur than originally estimated. As such, the amount of revenues recognized might exceed the cash which will be collected, resulting in a deterioration of earnings in the future. This risk is likely to increase in a period 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 which we originally estimated. These risks are heightened if the duration of a contract increases or if the project is a turnkey project and the price is fixed, because there is a higher probability that the circumstances upon which we originally developed the estimates will change in a manner that increases our costs and that we will not recover them. Factors that could cause costs to increase include:

unanticipated technical problems with the equipment being supplied or developed by us which may require that we incur additional costs to remedy the problem;

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. We believe that this approach, referred to as the "catch-up approach," produces more accurate information because the cumulative revenue-to-date reflects 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 orders with risks resulting from order-specific conditions or guarantees, such as plants or installations. There is a risk that actual warranty costs will 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 or plan to sell certain businesses that are not part of our core power and automation technologies businesses. On January 1, 2002 we adopted Statement of Financial Accounting Standards No. 144 (SFAS 144), *Accounting for the Impairment or Disposal of Long Lived Assets*. SFAS 144 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 the 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 the 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 sometimes 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 in the individual line items within cash from operating, investing and financing activities, together with continuing operations, as permitted by U.S. GAAP.

For a description of the discontinued operations reflected in our Consolidated Financial Statements, see " Discontinued Operations."

### **Goodwill and Other Intangible Assets Impairment**

We review goodwill for impairment annually and whenever events or changes in circumstances indicate the carrying value of an asset may not be recoverable in accordance with the 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 of 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 we are not required to

perform further testing. 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.

We record any related impairment charge in other income (expense), net in our Consolidated Income Statement, 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 which 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 rate is 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 (as shown in Note 21 to our Consolidated Financial Statements).

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. If the expected rate of return on assets for 2004 were to decrease by 0.5% from the 2003 rate of 6.01%, then our 2004 pension costs would be approximately \$29 million higher.

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 assumption 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, 2003, the unfunded balance of our pension plans was \$1,636 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 \$866 million in relation to this unfunded benefit balance. The difference is primarily due to an unrecognized actuarial loss of \$737 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 which is included in the unrecognized actuarial loss of \$737 million and as described above, will result in lower net pension costs in future years, but did not affect earnings in the current year.

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 11.81% for 2003, then gradually declining to 5.96% per annum in 2013, and to remain at that level thereafter.

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 costs would have had the following effects at December 31, 2003:

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	One-percentage- point increase	One-percentage- point decrease
	(\$ in millions)	
Effect on total of service and interest cost components	2	(2)
Effect on accumulated post-retirement benefit obligation	23	(20)
<b>Taxes</b>		

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 we determine that it is more likely than not 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 income (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.

### 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.

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

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. Accordingly, VIEs entered into after January 31, 2003, are consolidated when we are considered the primary beneficiary. Also after January 31, 2003, previously consolidated variable interest entities would be deconsolidated when a triggering event, as defined by FIN 46, 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 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 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 careful analysis of each individual issue, often with assistance from both internal and external counsel and technical experts. The required amount of provision for contingencies of any type may change in the future due to new developments in the particular matter, including changes in approach to its resolution, such as in settlement strategy.

### Restructuring

We recorded significant provisions in connection with our restructuring programs. These 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. These costs are recorded primarily in other income (expense), net, in the Consolidated Income Statement unless the costs relate to discontinued operations in which case the change is recorded in discontinued operations, net of tax. See "Restructuring Expenses."

### **Our Insurance Business**

In December 2003 we entered into an agreement to sell our Reinsurance business and consequently we have 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.

We generally recognize premiums in earnings on a pro rata basis over the period coverage is provided. Premiums earned include estimates of certain premiums not yet collected. These premium receivables include premiums relating to retrospectively rated contracts. For such

contracts, a provisional premium is collected that will eventually be adjusted. We include an estimated value of the actual premium in receivables. Unearned premiums represent the portion of premiums written that is applicable to the unexpired terms of reinsurance contracts or certificates in force. These unearned premiums are calculated by the monthly pro rata method or are based on reports from ceding companies that we reinsure.

Insurance liabilities are reflected in liabilities held for sale and in discontinued operations, in our Consolidated Balance Sheet and represent 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 are 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 is analyzed in order to ascertain whether it is reasonable before application. We do not discount loss and loss adjustment expense reserves.

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

We reflect our liability for losses net of anticipated salvage and subrogation recoveries. Salvage and subrogation received and changes in estimates of future recoveries are reflected in current year underwriting results. We believe the liabilities for losses and loss adjustment expenses are 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 be more or less than the amounts ultimately paid when the claims are settled.

We seek 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 estimate these recoverable amounts in a manner consistent with the claim liability associated with the reinsurance policy. The risk of collectibility of these reinsurance receivables arises from disputes relating to the policy terms and the ability of the reinsurer to pay.

### **NEW ACCOUNTING PRONOUNCEMENTS**

In June 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 141, *Business Combinations*, and SFAS 142 which modified the accounting for business combinations, goodwill and identifiable intangible assets. All business combinations initiated after June 30, 2001, must be accounted for by the purchase method. Goodwill from acquisitions completed after that date is not amortized, but charged to operations when specified tests indicate that the goodwill is impaired, that is, when the goodwill's fair value is lower than its carrying value. Certain intangible assets are recognized separately from goodwill, and are amortized over their useful lives. During 2002, all goodwill was required to be tested for impairment as of January 1, 2002, with a transition adjustment recognized for any impairment found. We determined that no impairment of goodwill existed at January 1, 2002. All goodwill

amortization also ceased at that date. We recognized goodwill amortization expense in continuing operations of \$148 million in 2001, and goodwill amortization expense in discontinued operations of \$43 million in 2001. Accordingly, income from continuing operations in 2001 would have been \$319 million (\$ 0.28 per share), loss from discontinued operations in 2001 would have been \$794 million (\$ 0.70 per share) and net loss in 2001 would have been \$538 million (\$ 0.48 per share) if we had not recognized amortization expense for goodwill that is no longer being amortized in accordance with SFAS 142.

In June 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 143 (SFAS 143), *Accounting for Asset Retirement Obligations*, which is effective for fiscal years beginning after June 15, 2002, and requires that the fair value of a legal obligation associated with the retirement of tangible long-lived assets be recognized in the period in which it is incurred. The associated asset retirement costs are capitalized as part of the carrying amount of the asset and allocated to expense over its useful life. We adopted SFAS 143 effective January 1, 2003. The adoption of SFAS 143 did not have a material impact on our results of operations.

In August 2001, the Financial Accounting Standards Board issued Statement of Accounting Standards No. 144 (SFAS 144), *Accounting for the Impairment or Disposal of Long-Lived Assets*. This Statement supersedes Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-lived Assets to Be Disposed Of*, while retaining many of its requirements regarding impairment loss recognition and measurement. In addition, SFAS 144 broadens the presentation of discontinued operations to include more sold and abandoned businesses. We adopted this statement effective January 1, 2002, and, as a result, reflected the assets, liabilities and results of operations of several businesses and groups of assets as discontinued operations for all periods presented to the extent these businesses and groups of assets met the new criteria during 2003 and 2002. Disposals and abandonments in previous years were not re-evaluated or reclassified. See " Application of Critical Accounting Policies Accounting for Discontinued Operations."

In April 2002, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 145, *Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections*, which rescinds previous requirements to reflect all gains and losses from debt extinguishment as extraordinary. We elected to early adopt the new standard effective April 1, 2002, and, as a result, the gains from extinguishment of debt of \$12 million recorded as extraordinary items in 2001, are no longer reflected as extraordinary items.

In June 2002, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 146 (SFAS 146), *Accounting for Costs Associated with Exit or Disposal Activities*, which requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. The standard became effective January 1, 2003 and was applied to restructuring activities initiated after that date. Prior to January 1, 2003, we accounted for restructuring activities in accordance with Emerging Issues Task Force No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring)*. The adoption of SFAS 146 did not have a material impact on our financial position or results of operations.

In November 2002, the Financial Accounting Standards Board issued Interpretation No. 45 (FIN 45), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. FIN 45 requires the guarantor to recognize a liability for the non-contingent component of a guarantee; that is the obligation to stand ready to perform in the event that specified triggering events or conditions occur. The initial measurement of this liability is the fair value of the guarantee at its inception. The recognition of the liability is required even if it is

not probable that payments will occur under the guarantee or if the guarantee was issued with a premium payment or as part of a transaction with multiple elements. FIN 45 also requires additional disclosures related to guarantees. We adopted the disclosure requirements of FIN 45 on December 31, 2002. The recognition and measurement provisions of FIN 45 are effective for all guarantees entered into or modified after December 31, 2002. We adopted the recognition and measurement requirements of FIN 45 on January 1, 2003. The adoption of the recognition and measurement requirements of FIN 45 did not have a material impact on our results of operations.

In November 2002, the Emerging Issues Task Force of the Financial Accounting Standards Board issued Emerging Issues Task Force No. 00-21 (EITF 00-21), *Accounting for Revenue Arrangements with Multiple Deliverables*, which was amended in January 2003 and requires that (a) revenue should be recognized separately for separate units of accounting in multiple deliverables arrangements, (b) revenue for a

separate unit of accounting should be recognized only when the arrangement consideration is reliably measurable and the earnings process is substantially complete, and (c) consideration should be allocated among the separate units of accounting based on their relative fair value. EITF 00-21 is applicable to transactions entered into after June 30, 2003. The adoption of EITF 00-21 did not have a material impact on our financial position at December 31, 2003, or on our results of operations for the year then ended.

In December 2002, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 148 (SFAS 148), *Accounting for Stock-Based Compensation Transition and Disclosure an Amendment of FASB Statement No. 123*. We have elected to continue with our current practice of applying the recognition and measurement principles of APB No. 25, *Accounting for Stock Issued to Employees*. We have adopted the disclosure requirements of SFAS 148 effective December 31, 2002.

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 of our Consolidated Financial Statements for information relating to the impact of adopting FIN 46. FIN 46 was revised in December 2003. We will adopt the December revision (FIN 46R) by March 2004. We continue to evaluate the effects of the adoption of FIN 46R and do not expect such effects to be material to our consolidated financial positions or results of operations.

In May 2003, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 150 (SFAS 150), *Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*. SFAS 150 establishes how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. This statement requires that an issuer classify a financial instrument that is within the scope of the statement as a liability. SFAS 150 applies to all financial instruments entered into after May 31, 2003, and otherwise became effective for us after June 15, 2003. In November 2003, SFAS 150 was amended to indefinitely defer the measurement and recognition guidance for non-controlling interests that are classified as equity in a subsidiary, but that would be classified as a liability in our financial statements under SFAS 150. However, SFAS 150, as amended, provides guidance on classification and disclosure of mandatorily redeemable non-controlling interests. We have adopted the measurement, classification and disclosure criteria of SFAS 150, as amended. The adoption of SFAS 150 did not have a material impact on our financial position at December 31, 2003, or on our results of operations for the year then ended.

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" 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. We adopted EITF 03-4 in May 2003. As a result, we account for certain of our pension plans in Switzerland as cash balance plans in accordance with EITF 03-4. The adoption of EITF 03-4 reduced the unfunded amount of our Swiss pension plans by approximately \$406 million, but did not have a material impact on our financial position at December 31, 2003, or on our results of operations for the year then ended.

## RESTRUCTURING EXPENSES

### 2001 Program

In July 2001, we announced and initiated a restructuring program (2001 Program) in an effort to improve productivity, reduce our 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.

Restructuring charges relating to workforce reductions, lease terminations and other exit costs associated with the 2001 Program are included in other income (expense), net. We paid termination benefits of \$99 million, \$149 million and \$32 million to approximately 2,270, 4,000 and 2,150 employees in 2003, 2002 and 2001, respectively. Workforce reductions included production, managerial and administrative employees. Additionally, we paid approximately \$12 million, \$29 million and \$31 million to cover costs associated with lease terminations and other exit costs in 2003, 2002 and 2001, respectively. Based on changes in our original estimate, a \$22 million and \$21 million reduction in the amounts accrued for workforce reductions, lease terminations and other exit costs have been included in other income (expense), net, in 2003 and 2002, respectively. Currency fluctuations resulted in a \$23 million and \$25 million increase in the liabilities accrued for workforce



reductions, lease terminations and other exit costs in 2003 and 2002, respectively. Accrued liabilities included \$9 million and \$94 million for termination benefits and \$27 million and \$52 million for lease terminations and other exit costs at December 31, 2003 and 2002, respectively.

As a result of the 2001 Program, certain assets, inventories and property, plant and equipment have been identified as impaired or will no longer be used in continuing operations. We recorded \$18 million and \$41 million in 2002 and 2001, respectively, to write down these assets to fair value. These costs are included in cost of sales and other income (expense), net.

### **Step Change Program**

In October 2002, we announced the Step Change Program. We estimate that restructuring costs under the Step Change Program will be approximately \$200 million in 2004. The goals of the Step Change Program are to increase the competitiveness of our core businesses, reduce overhead costs and streamline operations by approximately \$900 million on an annual basis by 2005. We expect to complete the Step Change Program by mid-2004.

In order to achieve the desired cost savings, over 1,400 specific initiatives have been established and are being closely monitored by our management. We expect that the termination of between 10,000 and 12,000 employees will contribute to approximately 40% of the recurring cost savings on an annual basis, through the reduction of payroll and payroll-related costs. Additionally, we expect that productivity increases as a result of improved production methods, the continued consolidation of office space and manufacturing facilities and the closure of non-profitable units will generate approximately 20% of the cost savings. We expect to realize a significant part of the remaining 40% of the cost savings through outsourcing of selected activities. A large portion of the savings is related to the reorganization of our IT activities. This included the outsourcing of the major part of our information systems infrastructure services to the IBM Corporation ("IBM"), the

reduction of multiple finance platforms in certain countries and concentration of local transaction processes in shared services units, as well as the outsourcing of new applications with external suppliers. We expect the remainder of the savings to result from changes in the material supply process, logistics and efficiency gains in the use of materials in our products. Approximately two-thirds of our 1,400 initiatives had been completed by the end of 2003.

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. We paid termination benefits of \$145 million and \$13 million to approximately 1,500 and 200 employees in 2003 and 2002, respectively. Workforce reductions include production, managerial and administrative employees. Additionally, we paid approximately \$48 million and \$1 million to cover costs associated with lease terminations and other exit costs in 2003 and 2002, respectively. Based on changes in our original estimate, a \$4 million reduction in the amounts accrued for workforce reductions, lease terminations and other exit costs has been included in other income (expense), net in 2003. Currency fluctuations resulted in a \$27 million increase in the liabilities accrued for workforce reductions, lease terminations and other exit costs in 2003. Accrued liabilities included \$94 million and \$38 million for termination benefits and \$37 million and \$25 million for lease terminations and other exit costs at December 31, 2003 and 2002, respectively.

As a result of the Step Change Program, certain assets, inventories and property, plant and equipment have been identified as impaired or will no longer be used in continuing operations. We recorded \$3 million and \$2 million in 2003 and 2002, respectively, to write down these assets to fair value. These costs are included in cost of sales and other income (expense), net.

### **Other**

Certain restructuring programs were initiated 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 divestments of these operations.

Restructuring charges related to workforce reductions and lease terminations and other exit costs are included in other income (expense), net. In 2003, we paid termination benefits of \$34 million to approximately 1,300 employees and \$10 million to cover costs associated with lease terminations and other exit costs. Workforce reductions include production, managerial and administrative employees. Based on changes in our original estimate, a \$6 million decrease in the amounts accrued for workforce reductions, lease terminations and other exit costs have been included in other income (expense), net. Currency fluctuations resulted in a \$10 million increase in the liabilities accrued for workforce reductions, lease terminations and other exit costs. At December 31, 2003, accrued liabilities included \$67 million for termination benefits and \$35 million for lease terminations and other exit costs.

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As a result of other restructuring programs, certain assets, inventories and property, plant and equipment have been identified as impaired or will no longer be used in continuing operations. We

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recorded \$11 million in 2003, to write down these assets to fair value. These costs are included in cost of sales and other income (expense), net.

	<b>2001 Program</b>	<b>Step Change</b>	<b>Other</b>	<b>Total</b>
	(\$ in millions)			
<b>Year ended December 31, 2003</b>				
Restructuring charge for workforce reduction		181	83	264
Restructuring charge for lease terminations and other		54	25	79
Write-down cost		3	11	14
Change in estimate	(22)	(4)	(6)	(32)
	<b>(22)</b>	<b>234</b>	<b>113</b>	<b>325</b>
Total restructuring charges and related asset write-downs	(22)	234	113	325
Total cash payments during the year	111	193	44	348
Total accrued liabilities at the end of the year	36	131	102	269

	<b>2001 Program</b>	<b>Step Change</b>	<b>Other</b>	<b>Total</b>
	(\$ in millions)			
<b>Year ended December 31, 2002</b>				
Restructuring charge for workforce reduction	165	51		216
Restructuring charge for lease terminations and other	38	26		64
Write-down cost	18	2		20
Change in estimate	(21)		(9)	(30)
	<b>200</b>	<b>79</b>	<b>(9)</b>	<b>270</b>
Total restructuring charges and related asset write-downs	200	79	(9)	270
Total cash payments during the year	178	14		192
Total accrued liabilities at the end of the year	146	63		209

	<b>2001 Program</b>	<b>Step Change</b>	<b>Other</b>	<b>Total</b>
	(\$ in millions)			
<b>Year ended December 31, 2001</b>				
Restructuring charge for workforce reduction	109			109
Restructuring charge for lease terminations and other	71			71
Write-down cost	41			41

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	2001 Program	Step Change	Other	Total
Total restructuring charges and related asset write-downs	221			221
Total cash payments during the year	63			63
Total accrued liabilities at the end of the year	117			117

### ACQUISITIONS, INVESTMENTS AND DIVESTITURES

#### Acquisitions and Investments

In 2003, 2002 and 2001, we paid aggregate consideration of \$55 million, \$154 million and \$597 million, respectively, related to acquisitions and investments in new businesses, joint ventures and affiliated companies. Payments made for these acquisitions and investments, net of cash acquired, were \$55 million, \$144 million and \$578 million in 2003, 2002 and 2001, respectively.

In 2003 and 2002, we made no significant new acquisitions. However, in 2003 we increased our participation in a limited number of companies as part of our preparations for their eventual divestment and in 2002 we increased our investment in a small number of companies in which we had a controlling interest. In 2002, we also acquired an Italian small-ticket leasing business from Xerox Corp., which was later sold as part of Structured Finance business.

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In June 2001, we completed the acquisition of Entrelec Group, a France-based supplier of industrial automation and control products, for total consideration of \$284 million. The acquisition of Entrelec, which had operations in 17 countries, diversified our product range and expanded our customer base in high growth markets.

In June 2000, we entered into a share subscription agreement to acquire a 42% interest in b-business partners B.V. During 2001, we sold most of our interest to Investor AB (a related party), and b-business partners B.V. repurchased a number of shares. As a result, at December 31, 2003 we hold a 4% interest. We are committed to provide additional capital to b-business partners B.V. of approximately \$5 million (a euro-denominated commitment that may fluctuate with exchange rates). Further, b-business partners B.V. retains a put right to compel us to purchase 150,000 shares of b-business partners B.V. at a cost of approximately \$19 million (a euro denominated commitment that may fluctuate with exchange rates).

#### Divestitures

##### *Sales of Businesses, Joint Ventures and Affiliated Companies*

In 2003, 2002 and 2001, we received cash, net of cash disposed, from sales of businesses, joint ventures and affiliated companies of \$543 million, \$2,509 million and \$283 million. We recognized net gains in 2003, 2002, and 2001 within other income (expense), net, of \$43 million, \$98 million and \$34 million, respectively. We also recognized net losses in 2003, 2002, and 2001 within loss from discontinued operations, net of tax, of \$37 million, \$194 million and \$0 million, respectively. The material dispositions are described below.

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

Also in December 2003, as part of the planned divestment of the Wind Energy business, we sold the related business in Germany to GI Ventures GmbH for consideration of \$35 million including a vendor note of \$10 million. We recognized a loss on disposal of approximately \$25 million from the sale of this business, which is included in loss from discontinued operations, net of tax.

In August 2003, as part of our intention to gradually dispose of our Building Systems businesses, we sold to YIT Corporation of Helsinki, Finland our Building Systems businesses located in Sweden, Norway, Denmark, Finland, Russia and the Baltic states for consideration of \$213 million and we recorded a gain on disposal of approximately \$124 million. Additionally, throughout 2003, we sold other Building Systems businesses in a number of countries including Belgium, the Netherlands, Austria, Hungary and the United Kingdom. The aggregate proceeds from these divestments were \$21 million and we recorded a loss on disposal of approximately \$41 million from the sale of these businesses

which is recognized within other income (expense), net.

In June 2003, we sold our entire 35% 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 which is 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 a gain on disposal of approximately \$28 million which is included in other income (expense), net.

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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 the northern European and Nordic markets. We provided significant financial support to the VIE formed by the buyer upon acquisition. Following the introduction of FIN 46, we determined that, as a result of retaining such financing receivables, we are the primary beneficiary of the VIE and, accordingly, we consolidated this disposed entity in our Consolidated Financial Statements.

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

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 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. The \$20 million contingent payment remains unpaid as of December 31, 2003, as the amounts collected by GE have not met such specified targets. We recorded a loss on disposal of approximately \$146 million from the sale of this business, which is included in loss from discontinued operations, net of tax.

Pursuant to the sale and purchase agreement, we provided GE with cash collateralized letters of credit aggregating \$202 million as security for certain performance-related obligations retained by us, of which approximately \$128 million was outstanding as of December 31, 2003.

The sale and purchase agreement provided GE the option to require us 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. The fair value of GE's right to require us to repurchase certain designated assets was \$11 million at December 31, 2003. On January 26, 2004, we repurchased the financial assets for an amount of approximately \$28 million. Additionally, as a result of the exercise of GE's option, the cash collateralized letters of credit were reduced by \$35 million. No further obligation exists for us to repurchase any assets under the sale and purchase agreement with GE.

In January 2002, we disposed of our Air Handling business for cash proceeds of \$113 million (the sales price of \$147 million included a vendor note of \$34 million issued by the purchaser) to Global Air Movement (Luxembourg) SARL and recognized a gain in other income (expense), net of \$74 million.

During 2003, 2002 and 2001, we sold several operating units and investments for total proceeds of \$31 million, \$209 million and \$117 million, respectively, and recognized net gains on disposal of \$12 million, \$24 million and \$34 million, respectively, which are included in other income (expense), net. Net income from these businesses and investments was not significant in 2003, 2002 and 2001.

In January 2004, we sold our MDCV cable business, located in Germany, to the Wilms Group of Menden, Germany. We recorded \$10 million of impairment charges on this divestment in loss from discontinued operations, net of tax, in 2003.

In March 2004, we completed the sale of our Swiss Building Systems business to CapVis Equity Partners AG, a Swiss private equity company for approximately \$39 million, but retained a 10% ownership interest.

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*Other Divestitures*

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

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

### *Pending Divestitures*

We have previously announced our intention to sell a number of other businesses, including all of our Oil, Gas and Petrochemicals businesses and our remaining Building Systems businesses.

In January 2004, we entered into an agreement to sell the upstream part of our Oil, Gas and Petrochemicals businesses to a private equity consortium consisting of Candover Partners, JP Morgan Partners and 3i Group. The sale includes our United States based Vetco Gray unit and our Norway based Offshore Systems business. The initial purchase consideration for the business (including the consideration for our separate agreement not to compete with the business for a period of three years) is \$925 million. We may receive an additional consideration of up to \$50 million based on the financial performance of the business in 2004. The sale is expected to close by mid-year 2004, pending receipt of customary regulatory approvals and satisfaction of closing conditions, including the satisfactory completion and disposition of compliance matters under review. As part of the sale, we have agreed, among other things, to terminate certain securitization programs and operational leases, to indemnify the purchasers against certain pre-existing environmental and tax liabilities, to reimburse the purchasers against financial losses that may be incurred on certain ongoing projects of the business, to reimburse the purchasers for certain unfunded benefit liabilities and to indemnify the purchasers from liabilities that might arise out of matters revealed by the compliance review. We do not expect a significant gain or loss to be recognized on the sale of the upstream business.

The compliance investigation referred to above in connection with the description of the divestment of the upstream part of our Oil, Gas and Petrochemical businesses, was triggered by our discovery of a limited number of improper payments by some of our employees and agents in that business in Africa, Central Asia, and South America, which we have voluntarily disclosed to the U.S. Department of Justice and the U.S. Securities and Exchange Commission. The payments, which violated our internal policies on business ethics, were made in order to obtain from local officials confidential information and commercial advantages, including with respect to contracts on which we were bidding. We are cooperating fully with the U.S. Department of Justice and the U.S. Securities and Exchange Commission. We have hired outside counsel and auditors (other than our auditors) to assist us in a compliance review to determine whether other instances of improper payments exist. The compliance review is being conducted jointly with the purchasers of the business and with the purchasers' outside counsel and auditors. We are hopeful that we will complete the sale of the upstream part of our Oil, Gas and Petrochemicals business by mid-year 2004 and the remainder of the business by year-end 2004.

We are actively seeking a buyer for the remaining activities of our Oil, Gas and Petrochemicals businesses (remaining Oil, Gas and Petrochemicals businesses). The downstream activities of our Oil, Gas and Petrochemicals business is a full service engineering company, which in addition to expertise in Engineering, Procurement and Construction (EPC) projects, also licenses process technologies in the refining, chemical, petrochemical and polymer fields. An analysis of the operations of the Oil, Gas and Petrochemicals businesses is included in " Analysis of Results of Operations Business Divisions."

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We have also agreed to sell, or are negotiating to sell, a number of other businesses. These include our Reinsurance business, which, we agreed to sell in December 2003, to White Mountains Insurance Group Limited of Bermuda for approximately \$425 million. This business provides international reinsurance and insurance underwriting, as well as specialized primary insurance in the United States.

Impairment charges on the divestments of the Reinsurance business (which had not been completed by year-end) of \$154 million have been recorded in loss from discontinued operations, net of tax, in 2003. An analysis of the operations of these businesses is included in " Analysis of Results of Operations Business Divisions."

### **SUMMARY FINANCIAL DATA**

The following table shows the amount and percentage of our revenues derived from each of our business divisions (see also Note 26 to our Consolidated Financial Statements):

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	Revenues			Percentage of Revenues		
	Year ended December 31,			Year ended December 31,		
	2003	2002	2001	2003	2002	2001
	(\$ in millions)			(%)		
Power Technologies	7,680	6,963	6,776	37	35	32
Automation Technologies	9,897	8,464	8,496	47	43	40
<b>Non-Core Activities</b>						
Equity Ventures	26	19	34			
Remaining Structured Finance	48	66	97			
Building Systems	1,829	2,375	2,613			
New Ventures	53	50	97			
Other Non-Core Activities	581	937	1,278			
<b>Non-Core Activities Subtotal</b>	<b>2,537</b>	<b>3,447</b>	<b>4,119</b>	<b>12</b>	<b>18</b>	<b>20</b>
Corporate/Other	822	860	1,596	4	4	8
<b>Subtotal</b>	<b>20,936</b>	<b>19,734</b>	<b>20,987</b>	<b>100</b>	<b>100</b>	<b>100</b>
Consolidation effect and eliminations	(2,141)	(2,268)	(2,653)			
<b>Consolidated revenues</b>	<b>18,795</b>	<b>17,466</b>	<b>18,334</b>			

We conduct business in approximately 100 countries around the world. The following table shows the amount and percentage of our consolidated revenues derived from each geographic region (based on the location of the customer) in which we operate:

	Revenues			Percentage of Revenues		
	Year ended December 31,			Year ended December 31,		
	2003	2002	2001	2003	2002	2001
	(\$ in millions)			(%)		
Europe	10,332	9,739	10,368	55	56	57
The Americas	3,572	3,834	4,346	19	22	24
Asia	3,346	2,587	2,420	18	15	13
Middle East and Africa	1,545	1,306	1,200	8	7	6
<b>Total</b>	<b>18,795</b>	<b>17,466</b>	<b>18,334</b>	<b>100</b>	<b>100</b>	<b>100</b>

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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 affect:

our profitability,

the comparability of our results between periods, and

the carrying value of our assets and liabilities.

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.

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 foreign currency exchange rates and income statement and cash flow items are translated using average foreign currency exchange rates during 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 and the value of our assets and liabilities in our Consolidated Balance Sheet, even if our results of operations or the value of those assets and liabilities has not changed in their original currency. Consequently, 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 impact the comparability of our reported results of operations between financial periods and/or result in significant changes to the reported value of our assets and liabilities.

Because fluctuations in exchange rates affect the comparability of our results of operations between periods, the discussion of our results of operations below provides, where relevant, information with respect to orders, revenues and earnings before interest and taxes as reported in local currencies.

While we operate globally and report our financial results in U.S. dollars, because of the location of our more significant markets and because our headquarters are in Switzerland, foreign exchange rate movements between the U.S. dollar and both the euro (EUR) and the Swiss franc (CHF) are of particular importance to us.

In 2003, the euro strengthened against the dollar from a rate of \$1.05 to EUR 1.00 at the end of 2002 to a rate of \$1.26 to EUR 1.00. In 2002, the euro also strengthened against the dollar, increasing from a rate of \$0.88 to EUR 1.00 at the end of 2001 to a rate of \$1.05 to EUR 1.00 at the end of 2002. Similarly, the average U.S. dollar to euro foreign exchange rate was \$1.13, \$0.94 and \$0.89 to EUR 1.00 during 2003, 2002 and 2001, respectively.

In 2003, the Swiss franc strengthened against the dollar from a rate of \$0.72 to CHF 1.00 at the end of 2002 to a rate of \$0.81 to CHF 1.00. In 2002, the CHF also strengthened against the dollar, increasing from a rate of \$0.59 to CHF 1.00 at the end of 2001 to a rate of \$0.72 to CHF 1.00 at the end of 2002. Similarly, the average U.S. dollar to CHF foreign exchange rate was \$0.75, \$0.64 and \$0.59 to CHF 1.00 during 2003, 2002 and 2001, respectively.

## ORDERS

We book an order when a binding contractual agreement has been concluded with the customer covering, at a minimum, the price and the scope of products or services to be supplied. Approximately 8% of our total orders booked in 2003 were "large orders," which we define as orders from third parties involving at least \$15 million worth of products or systems. Portions of our

business involve orders related to long-term projects, which can take many months or even years to complete. Revenues related to these large orders are typically recognized on a percentage of completion basis over the period of time taken to complete the project. Of the total orders in the Power Technologies and Automation Technologies divisions in 2003, approximately 11% and 7% respectively, represented large orders.

The level of orders can fluctuate from year to year. Arrangements included in particular orders can be complex and non-recurring. Although large orders are more likely to result in revenues in future periods, 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 have the effect of reducing or eliminating the level of expected revenues or delaying the realization of revenues.

## PERCENTAGE OF COMPLETION METHOD OF ACCOUNTING

When we undertake a long-term project, we recognize costs, revenues and profit margin from that project in each period, based on the estimated percentage of the project completed. Profit margin is based on our estimate of the amount by which total contract revenues will exceed total contract costs at completion. Accordingly, as work progresses or as change orders are approved and estimates are revised, contract margins may be increased or reduced. Expected losses on loss contracts are recognized in full when known.

In an effort to reduce the amount of risk associated with long-term fixed price contracts we have shifted our focus to long-term reimbursable contracts, when possible, in which we charge our customers the sum of our materials, production, logistics, administrative and financial costs, together with a negotiated operating profit margin. While not eliminating the risk of loss completely, the nature of long-term reimbursable contracts generally means that costs resulting from contract delays or cost increases may be recovered from the customer more easily than in the case 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 impact.

## PERFORMANCE MEASURES

We evaluate the performance of our divisions based upon earnings before interest and taxes (EBIT), or operating profit, which excludes interest and dividend income, interest and other finance expense, provision for taxes, minority interest and loss from discontinued operations, net of tax. We also evaluate the performance of our divisions in terms of their revenues, including interdivisional revenues. Approximately, 95% of our core divisions' revenues are third-party customer sales.

## ANALYSIS OF RESULTS OF OPERATIONS

### Consolidated

*Year ended December 31, 2003 compared with year ended December 31, 2002*

#### *Orders*

Orders (excluding orders for discontinued operations) increased \$1,351 million, or 8%, to \$18,703 million in 2003 from \$17,352 million in 2002. As reported in local currencies, orders declined by 5% in 2003 compared to 2002. The level of orders in 2003 compared to 2002 increased in the core divisions, both in U.S. dollar terms and local currencies, whereas in Non-core activities, orders declined primarily due to the ongoing divestment of the activities resulting in fewer businesses generating orders.

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#### *Revenues*

Revenues increased by \$1,329 million, or 8%, to \$18,795 million in 2003 from \$17,466 million in 2002. As reported in local currencies, revenues decreased 6% in 2003 compared to 2002. The reported increase reflects the effect of translating revenues generated in local currencies into the U.S. dollar, which weakened against most of our local currencies.

*Power Technologies division* revenues increased by \$717 million or 10%, to \$7,680 million in 2003 from \$6,963 million in 2002. As reported in local currencies, revenues remained flat in 2003 compared to 2002. Strong revenue increases in local currencies in our Medium-Voltage Products business area were offset by revenue decreases in local currencies in both our Power Systems and Utility Automation Systems business areas.

*Automation Technologies division* revenues increased by \$1,433 million, or 17%, to \$9,897 million in 2003 from \$8,464 million in 2002. As reported in local currencies, revenues increased 3% in 2003 compared to 2002. This increase was primarily due to a strong revenue increase in local currencies in our Petroleum, Chemical and Consumer Industries business area, partly offset by a revenue decrease in our Paper, Minerals, Marine and Turbocharging business area.

*Non-core activities* revenues decreased by \$910 million, or 26%, to \$2,537 million in 2003 from \$3,447 million in 2002. As reported in local currencies, revenues decreased 39% in 2003 compared to 2002. The decrease was mainly due to a lower revenue base resulting from the



disposal of Building Systems businesses in several countries and the ongoing disposal and reduction of our remaining non-core activities.

A more detailed discussion of the results of our individual divisions follows in " Business Divisions."

*Cost of sales*

Cost of sales increased by \$1,013 million, or 8%, to \$14,080 million in 2003 from \$13,067 million in 2002. Cost of sales as a percentage of revenues was 75% in 2003 and 2002. While the reduction of costs from the Step change program decreased the overall cost base, decreases in sales prices caused by market price pressures offset these gains, resulting in the costs of sales as a percentage of sales remaining flat year on year.

In our Power Technologies division, cost of sales as a percentage of revenues remained flat at 79% in 2003 and 2002. This was a result of ongoing productivity improvements and cost savings resulting from the Step change program being offset by changes in product mix and price level erosion.

In our Automation Technologies division, cost of sales as a percentage of revenues increased by 1% to 71%, from 70% in 2002. This increase was a result of savings in supply chain management and manufacturing and engineering activities being more than offset by ongoing price pressure and the negative impact on costs of the strengthening of the euro versus the U.S. dollar.

Cost of sales in our Non-core activities is primarily attributable to our Building Systems businesses. Cost of sales was \$1,890 million in 2003 and \$2,499 million in 2002. The decrease is mainly due to the divestment of the Building Systems businesses in several countries.

Cost of sales consists primarily of labor, raw materials and related components, as well as provisions for warranty claims, contract losses and project penalties. In addition, cost of sales includes order-related development expenses related to projects for which we have recognized corresponding revenues. Order-related development expenditures reflected in cost of sales were \$317 million and \$248 million in 2003 and 2002, respectively. Order-related development

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expenditures are initially recorded in inventories as part of the work-in-progress of a contract, and then reflected in cost of sales at the time revenue is recognized.

*Selling, general and administrative expenses*

Selling, general and administrative expenses decreased by \$124 million, or 3%, to \$3,830 million in 2003 from \$3,954 million in 2002. As reported in local currencies, selling, general and administrative expenses decreased by 15% in 2003 compared to 2002. This improvement occurred across our operations and reflects the cost savings generated by the Step change program. As a percentage of revenues, selling, general and administrative expenses decreased to 20% in 2003 from 23% in 2002 reflecting the impact of the Step change program. Non-order related research and development costs, which are included in selling, general and administrative expenses, were \$613 million and \$547 million in 2003 and 2002, respectively.

*Amortization expense*

Amortization expense was \$40 million in 2003 compared to \$41 million in 2002. The expense in 2003 and 2002 primarily reflects the amortization of intellectual property related to the 1999 acquisition of Elsag Bailey Process Automation N.V.

*Other income (expense), net*

Other income (expense), net, principally consists of: restructuring charges; our share of income or loss on investments, principally from our Equity Ventures business area; gains or losses from sales of businesses which are not accounted for as discontinued operations; gains or losses from sales of investments and property, plant and equipment; license income and write-downs of tangible and intangible assets.

Other income (expense), net, increased to an expense of \$189 million in 2003 from an expense of \$58 million in 2002. The increased expense was principally a result of an increase in restructuring charges in 2003 to \$325 million compared to \$259 million in 2002; a decrease in our share of income from investments in 2003 to \$101 million compared to \$182 million in 2002; a decrease in gains from the sales of businesses in 2003 to \$69 million versus \$113 million in 2002 and a decrease in asset write-downs and other items in 2003 to \$34 million

compared to \$94 million in 2002.

The increase in restructuring charges in 2003 was primarily a result of costs incurred in 2003 from the streamlining of the Building Systems business in Germany and from lease cancellation costs associated with the closing and divestment of businesses in the U.K. and Germany, which were not present in 2002. The decrease in our share of income from investments in 2003 compared to 2002 was primarily due to a decrease in income from our stake in Swedish Export Credit Corporation, which we divested in the second quarter of 2003. The decrease in gains from the sales of businesses in 2003 was primarily caused by the loss recorded in 2003 on the sale of Swedish Export Credit Corporation of approximately \$80 million, which partly offset the \$83 million net gain recorded from the sale of our Building Systems businesses in several countries and a \$28 million gain recorded from the sale of our interest in Electranet Pty Ltd. and in ABB Redbank Project Pty Ltd. In 2002, we recorded a gain of approximately \$74 million from the sale of our Air Handling business. Asset write-downs and other items decreased primarily because of the non-recurrence of write-downs in our Non-core activities and Corporate/Other, which decreased to \$9 million and \$10 million in 2003 from \$47 million and \$37 million in 2002 respectively, mainly due to software write-downs.

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#### *Earnings before interest and taxes*

Earnings before interest and taxes, or operating income, increased by \$310 million, or 90%, to \$656 million in 2003 from \$346 million in 2002. As reported in local currencies, earnings before interest and taxes improved by 70% in 2003 when compared to 2002. The effects of our Step change cost reduction program significantly contributed to the increase in earnings before interest and taxes. As a percentage of revenues, earnings before interest and taxes increased to 3% in 2003 from 2% in 2002.

#### *Net interest and other finance expense*

Net interest and other finance expense refers to the aggregate of the Consolidated Income Statement line items interest and dividend income and interest and other finance expense. Interest and other finance expense includes impacts associated with the change in fair value of the embedded derivative contained in our \$968 million convertible bonds; amortization of financing costs associated with the issuance of our debt securities; losses on marketable securities and investments accounted for at cost; and interest expense on our borrowings. Net interest and other finance expense increased by \$284 million, or 225%, to an expense of \$410 million in 2003 compared with an expense of \$126 million in 2002.

Interest and dividend income decreased by \$45 million, or 24%, to \$144 million in 2003 from \$189 million in 2002 primarily due to lower market interest rates.

Interest and other finance expense increased to \$554 million in 2003 from \$315 million in 2002, an increase of \$239 million or 76%. Included in interest and finance expense in 2003 is an expense of \$84 million associated with the change in fair value of the embedded derivative contained in our \$968 million convertible bonds, compared to a net gain of \$215 million in 2002 for the same item. The unrealized gain (loss) resulted from the application of Statement of Financial Accounting Standards No. 133 (SFAS 133), *Accounting for Derivative Instruments and Hedging Activities*, whereby a portion of the issuance proceeds is deemed to relate to the value of the derivative on issuance, creating a discount upon the issuance of the bonds. Subsequent changes in the value of the derivative and the continued amortization of the discount upon issuance are included in interest and other finance expense. This accounting treatment is more fully described in Note 15 to our Consolidated Financial Statements. Amortization of financing costs associated with the issuance of our debt securities was flat between 2003 and 2002. Also included in interest and finance expense in 2003 is a \$40 million expense relating to the loss on disposal of Sinopec Corp. and a \$36 million expense relating to the loss on sale of marketable securities, which were not present in 2002.

#### *Provision for taxes*

Provision for taxes increased by \$4 million to \$78 million in 2003 compared to \$74 million in 2002. The effective tax rate calculated as the provision for taxes, divided by income from continuing operations before taxes and minority interest was 31.7% in 2003 and 33.6% in 2002.

The decrease in the effective tax rate is primarily attributable to \$56 million of adjustments, relating to the favorable resolution of certain prior year tax matters, including the release of \$38 million tax provision related to a tax case ruled in our favor. This is partially offset by the \$84 million loss on the change in fair value of the embedded derivative contained in our \$968 million convertible bonds, which is taxed at a rate that is lower than our effective tax rate.

The effective tax rate in 2002 of 33.6% was also impacted by the change in fair value of the embedded derivative contained in our \$968 million convertible bonds, as the \$215 million gain partially offset by additional financing related costs, restructuring costs and costs related to Non-core activities that are taxed at rates lower than our effective tax rate.

*Income from continuing operations*

Income from continuing operations increased by \$11 million to \$86 million in 2003 compared to \$75 million in 2002. The increase reflects the impact of the items discussed above.

*Loss from discontinued operations, net of tax*

Loss from discontinued operations, net of tax, decreased by \$5 million to \$853 million in 2003 from \$858 million in 2002. Tax expense in discontinued operations increased by \$168 million to \$218 million in 2003 compared to \$50 million in 2002.

A detailed discussion of the results of the significant businesses classified as discontinued operations follows in " Business Divisions."

*Net Loss*

Net loss decreased by \$16 million, or 2%, to \$767 million in 2003 from \$783 million in 2002.

*Earnings per share***Basic and Diluted Earnings (Loss) Per Share**

	<b>Year ended December 31,</b>	
	<b>2003</b>	<b>2002</b>
	(\$)	
<b>Income (loss) from continuing operations:</b>		
Basic	0.07	0.07
Diluted	0.07	(0.10)
<b>Loss from discontinued operations, net of tax:</b>		
Basic	(0.70)	(0.77)
Diluted	(0.70)	(0.73)
<b>Net Loss:</b>		
Basic	(0.63)	(0.70)
Diluted	(0.63)	(0.83)

Basic earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the year. Diluted earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the year, assuming that all potentially dilutive securities were exercised and that any proceeds from such exercises were used to acquire shares of our stock at the average market price during the year or the period the securities were outstanding, if shorter. Potentially dilutive securities comprise: outstanding written call options, if dilutive; the securities issued under our management incentive plan, to the extent the average market price of our stock exceeded the exercise prices of such instruments; shares issuable in relation to the convertible bonds, if dilutive; and outstanding written put options, for which net share settlement at average market price of our stock was assumed, if dilutive.

The shares issuable in relation to the warrants and options outstanding in connection with our management incentive plan were excluded from the computation of diluted earnings per share in all periods presented as their inclusion would have been antidilutive. In 2002, the shares issuable in relation to the convertible bonds were included in the computation of diluted earnings per share for the period they were outstanding.

Basic loss per share was \$0.63 in 2003 compared to a loss per share of \$0.70 in 2002. The difference was largely the result of the factors mentioned above which impacted earnings.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

*Orders*

Orders (excluding orders for discontinued operations) decreased \$1,299 million, or 7%, to \$17,352 million in 2002 from \$18,651 million in 2001. As reported in local currencies, orders declined by 10% in 2002 compared to 2001. The level of orders in 2002 compared to 2001 increased in the Automation Technologies division but decreased in the Power Technologies and Non-core divisions.

*Revenues*

Revenues decreased by \$868 million, or 5%, to \$17,466 million in 2002 from \$18,334 million in 2001. As reported in local currencies, revenues decreased 8% in 2002 compared to 2001. The underlying decrease in revenues on a local currency basis was primarily within our Non-core activities.

*Power Technologies division* revenues increased by \$187 million, or 3% to \$6,963 million in 2002 from \$6,776 million in 2001. As reported in local currencies, revenues increased 1% in 2002 compared to 2001. Revenues showed a modest increase in most business areas, partially offset by a decrease in our Distribution Transformers business area.

*Automation Technologies division* revenues decreased by \$32 million, to \$8,464 million in 2002 from \$8,496 million in 2001. As reported in local currencies, revenues decreased 3% in 2002 compared to 2001. Revenue growth in our Petroleum, Chemical and Consumer business area was offset by a reduction in revenues in most of the other business areas due to weaker demand.

*Non-Core activities revenues* decreased by \$672 million, or 16% to \$3,447 million in 2002 from \$4,119 million in 2001. As reported in local currencies, revenues decreased by 22% in 2002 compared to 2001. This decrease resulted from the sale of the Air Handling business in January 2002, market downturns in the Building Systems business area and the strategic reduction of our presence in some of the markets of the Logistics Systems and Customer Systems business areas.

A more detailed discussion of the individual divisions follows in " Business Divisions."

*Cost of sales*

Cost of sales decreased by \$472 million, or 3%, to \$13,067 million in 2002 from \$13,539 million in 2001. Cost of sales as a percentage of revenues increased by 1% to 75%, from 74% in 2001. The decrease was primarily the result of operational improvements within the Automation Technologies division and the non-recurrence of a number of costs from 2001 within the Non-core activities. Cost of sales for Non-core activities during 2001 included \$329 million for the Air Handling business area which we sold in January 2002. In 2001, within Non-core activities costs and provisions were recorded in relation to alternative energy projects of \$55 million in the New Ventures business area. The non-recurrence of these costs in 2002 in the Non-core activities has been partly offset by project write-downs, closure and restructuring costs within the Building Systems business area. Order-related development expenditures amounted to \$248 million and \$404 million, in 2002 and 2001, respectively.

*Selling, general and administrative expenses*

Our selling, general and administrative expenses increased by \$25 million, or 1%, to \$3,954 million in 2002 from \$3,929 million in 2001. As reported in local currencies, selling, general and administrative expenses decreased by 3% in 2002 compared to 2001. This improvement on a

local currency basis was the result of the continuing group-wide cost reduction and efficiency improvement initiatives from 2001 and the recovery of payments from a former chief executive officer. This improvement was slightly offset by the group-wide integration costs of group processes. As a percentage of revenues, selling, general and administrative expenses increased by 2% to 23% in 2002, from 21% in 2001. Non-order related research and developments costs, which are included in selling, general and administrative expenses, were \$547 million in 2002 and \$590 million in 2001. In 2002, the core-divisions incurred non-order related research and development costs of \$441 million compared to \$449 million in 2001.

*Amortization expense*

Amortization expense decreased by \$147 million, or 78%, to \$41 million in 2002 from \$188 million in 2001. This decrease reflects the implementation of SFAS 142, pursuant to which we ceased amortizing goodwill effective January 1, 2002. The expense in 2002 primarily reflects the amortization of intellectual property related to the 1999 acquisition of Elsag Bailey Process Automation N.V.

*Other income (expense), net*

Other income (expense), net, decreased by \$103 million, or 64%, to an expense of \$58 million in 2002 from an expense of \$161 million in 2001. The increase in capital gains to \$113 million in 2002 from \$56 million in 2001 primarily reflected the gain on the sale of our Air Handling business in January 2002. In addition income from equity accounted companies, license income and other increased to \$182 million in 2002 from \$93 million in 2001 (primarily related to our investment in the Swedish Export Credit Corporation). These increases were partly offset by the combined effects of the increase in restructuring expenses to \$259 million in 2002 from \$221 million in 2001 and the increase in asset write-downs of both tangible and intangible assets to \$94 million in 2002 from \$89 million in 2001.

*Earnings before interest and taxes*

Earnings before interest and taxes, or operating income, decreased by \$171 million, or 33%, to \$346 million in 2002 from \$517 million in 2001. As reported in local currencies, earnings before interest and taxes decreased by 42% in 2002 compared to 2001. This decrease is primarily attributable to the decreased revenue base in 2002 compared to 2001.

*Net interest and other finance expense*

Net interest and other finance expense refers to the aggregate of the Consolidated Income Statement line items interest and dividend income and interest and other finance expense. Net interest and other finance expense decreased by \$97 million, or 43%, to \$126 million in 2002 compared to \$223 million in 2001. In 2002, net interest and other finance expense includes the change in fair value of the embedded derivative contained in our \$968 million convertible bonds and lower market interest rates that were partially offset by costs of \$99 million associated with our debt refinancing. Total borrowings decreased in November 2002 due to the sale of our Structured Finance business, whereas average borrowings were flat for the year 2002.

Interest and dividend income decreased by \$159 million, or 46%, to \$189 million in 2002 from \$348 million in 2001, among other things due to the sale of trading securities following the cessation of proprietary trading in former Treasury Centers and the reduction in market interest rates.

Interest and other finance expense improved by \$256 million, or 45%, to \$315 million in 2002 from \$571 million in 2001, primarily due to a reduction in total borrowings and as a result of the

change in fair value of the embedded derivative contained in our \$968 million convertible bonds resulting in a net gain of \$215 million in 2002. These gains were partly offset by costs of \$99 million associated with our debt refinancing.

*Provision for taxes*

Provision for taxes decreased \$13 million to \$74 million in 2002 from \$87 million in 2001. The effective tax rate calculated as the provision for taxes, divided by income from continuing operations before taxes and minority interest was 33.6% in 2002 and 29.6% in 2001.

*Income from continuing operations*

Income from continuing operations decreased by \$96 million to \$75 million in 2002 from \$171 million in 2001. The decrease reflects the impact of the items discussed above.

*Loss from discontinued operations, net of tax*

Loss from discontinued operations, net of tax, was \$858 million in 2002, compared to \$837 million in 2001. Tax expense in discontinued operations increased by \$35 million to \$50 million in 2002 compared to \$15 million in 2001.

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A detailed discussion of the results of the significant discontinued businesses follows in " Business Divisions."

### *Net loss*

As a result of the factors discussed above, net loss increased by \$54 million, or 7%, to a loss of \$783 million in 2002 from a loss of \$729 million in 2001.

### *Earnings (loss) per share*

#### Basic and Diluted Earnings (Loss) Per Share

	Year ended December 31	
	2002	2001
	(\$)	
<b>Income (loss) from continuing operations:</b>		
Basic	0.07	0.15
Diluted	(0.10)	0.15
<b>Loss from discontinued operations, net of tax:</b>		
Basic	(0.77)	(0.73)
Diluted	(0.73)	(0.73)
<b>Net Loss:</b>		
Basic	(0.70)	(0.64)
Diluted	(0.83)	(0.64)

Basic loss per share was \$0.70 and \$0.64 in 2002 and 2001, respectively, resulting from the factors mentioned above.

In 2002, the potential common shares from the convertible bonds were included in the computation of diluted loss per share. The diluted loss per share was \$0.83 and \$0.64 in 2002 and 2001, respectively, resulting from the factors mentioned above.

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## **Business Divisions**

### *Overview*

In order to streamline our structure and improve operational performance we have, as of January 1, 2003, put into place two new divisions: Power Technologies, which combines the former Power Technology Products and Utilities divisions; and Automation Technologies, which combines the Automation Technology Products and Industries divisions. We present segment data below to reflect this change and we have restated data with respect to prior years.

The tables below present revenues, earnings before interest and taxes (or operating income) and operating margins from continuing operations by division for the years 2003, 2002 and 2001 and net operating assets by division at December 31, 2003, 2002 and 2001 (see also Note 26 to the Consolidated Financial Statements):

	Revenues			Net Operating Assets		
	Year ended December 31,			Year ended December 31,		
	2003	2002	2001	2003	2002	2001
	(\$ in millions)			(\$ in millions)		
Power Technologies	7,680	6,963	6,776	2,624	2,335	2,054

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	Revenues			Net Operating Assets		
	2003	2002	2001	2003	2002	2001
Automation Technologies	9,897	8,464	8,496	3,787	3,483	3,173
<b>Non-Core Activities</b>						
Equity Ventures	26	19	34	1,151	1,062	1,069
Structured Finance	48	66	97	643	1,165	1,513
Building Systems	1,829	2,375	2,613	9	68	(35)
New Ventures	53	50	97	313	262	269
Other Non-Core Activities	581	937	1,278	(237)	(159)	(527)
<b>Total Non-Core Activities</b>	<b>2,537</b>	<b>3,447</b>	<b>4,119</b>	<b>1,879</b>	<b>2,398</b>	<b>2,289</b>
Corporate/Other	822	860	1,596	2,524	2,346	2,732
Inter-division elimination	(2,141)	(2,268)	(2,653)	(1,128)	(736)	(770)
<b>Consolidated</b>	<b>18,795</b>	<b>17,466</b>	<b>18,334</b>	<b>9,686</b>	<b>9,826</b>	<b>9,478</b>

	Earnings before interest and taxes			Operating margins		
	Year ended December 31,			Year ended December 31,		
	2003	2002	2001	2003	2002	2001
	(\$ in millions)			(%)		
Power Technologies	563	433	405	7.3	6.2	6.0
Automation Technologies	773	517	514	7.8	6.1	6.0
<b>Non-Core Activities</b>						
Equity Ventures	76	43	75	n/a	n/a	n/a
Structured Finance	(65)	96	1	n/a	n/a	n/a
Building Systems	(104)	(113)	18	n/a	n/a	n/a
New Ventures	(21)	(37)	(143)	n/a	n/a	n/a
Other Non-Core Activities	(67)	(170)	(64)	n/a	n/a	n/a
<b>Total Non-Core Activities</b>	<b>(181)</b>	<b>(181)</b>	<b>(113)</b>	<b>(7.1)</b>	<b>(5.3)</b>	<b>(2.7)</b>
Corporate/Other	(475)	(350)	(157)	n/a	n/a	n/a
Inter-division elimination	(24)	(73)	(132)	n/a	n/a	n/a
<b>Consolidated</b>	<b>656</b>	<b>346</b>	<b>517</b>	<b>3.5</b>	<b>2.0</b>	<b>2.8</b>

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*Division Costs*

Cost of sales and selling, general and administrative expenses comprise substantially all of the operating expenses for all divisions. Cost of sales includes, among other things, personnel costs, the cost of raw materials, components, order-related research and development and procurement costs related to the sale of our products and services. Selling, general and administrative expenses include the overhead related to the sales force and all costs related to general management, human resources, financial control, corporate finance and non-order related research and development.

Further details of the divisional performances follow.

*Power Technologies*

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Power Technologies serves electric, gas and water utilities as well as industrial and commercial customers, with a broad range of products, systems and services. Ongoing deregulation and privatization in these markets are driving demand by increasing competition in the market. This has led to industry consolidation and pressures on the utilities to make existing plants more competitive by modernizing equipment and outsourcing activities such as service and maintenance. The trend is advanced but continuing in the United States, Western Europe, and parts of Latin America. This trend is beginning to take hold in most other markets as well.

The demand in China, India and the Middle East remained strong in 2003. The Eastern European market showed good growth, whereas growth in Western Europe was modest.

In North America demand was weak due to the flat economic growth in the major industrial countries. Political and financial uncertainties continued to depress energy markets in Latin America.

In 2004, we expect order growth in Eastern Europe to continue and the mixed economic environment in Western Europe to remain. Demand in Latin America is expected to stay modest, whereas the low demand in the United States is expected to improve in the second half of 2004. We expect the strong growth in Asia and the Middle East to continue. On a global basis, we expect the market to improve in 2004. We expect higher investments in the utility industry, strong recovery from original equipment manufacturers and mixed levels of demand in the other industries we serve, depending on segment and market.

### *Year ended December 31, 2003 compared with year ended December 31, 2002*

Orders increased by \$955 million, or 14%, to \$7,708 million in 2003 from \$6,753 million in 2002. As reported in local currencies, orders increased by 4% in 2003 compared to 2002. Orders increased in all business areas on a reported basis, whereas in local currencies orders in our High-Voltage Products business area remained flat and showed a slight decrease in the Power Transformers and Distribution Transformers business areas. The strongest order increase, both nominal and in local currencies, was experienced in our Medium-Voltage Products and Utility Automation Systems business areas, following a good growth in our base orders. In the Utility Automation Systems business area, the order increase was further enhanced by a higher level of large project awards. Regionally, the increase was driven by double-digit growth in the Middle East, Asia and Eastern Europe. Orders from other divisions were \$420 million in 2003 (representing 5% of division orders) compared to \$408 million in 2002 (representing 6% of division orders).

Revenues increased by \$717 million, or 10%, to \$7,680 million in 2003 from \$6,963 million in 2002. As reported in local currencies, revenues remained flat in 2003 compared to 2002. Our Medium-Voltage Products business area showed a strong increase in revenues based on good growth in China and Eastern Europe. Our Power Systems and Utility Automation Systems business areas both showed a decrease in revenues in local currencies due to a low order intake in the

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second half of 2002. The revenue performance also reflected the loss of revenues from three businesses that were divested in the United States, Poland and Italy. Adjusted for change in scope of business due to these divestments, revenues in local currencies increased by 3% in 2003 compared to 2002. Revenues from other divisions were \$410 million in 2003 (representing 5% of division revenues) compared to \$195 million in 2002 (representing 3% of division revenues).

Cost of sales was \$6,078 million representing 79% of revenues in 2003 compared to \$5,516 million representing 79% of revenues in 2002. Despite difficult markets in 2003 characterized by a less favorable product mix and price level erosion, most noticeably in our Power Transformers business area with smaller declines in our High-Voltage Products and Medium-Voltage Products business areas, cost of sales as percentage of revenues remained flat mainly due to ongoing productivity improvements and cost savings.

Selling, general and administration expenses increased in U.S. dollar terms by \$28 million or 3% to \$980 million in 2003 from \$952 million in 2002. As reported in local currencies, selling, general and administration expenses decreased by 9% in 2003 compared to 2002. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 13% in 2003 compared to 14% in 2002 reflecting the impact of the various restructuring and efficiency improvement programs.

Earnings before interest and taxes, or operating income, increased by \$130 million, or 30%, to \$563 million in 2003 from \$433 million in 2002. As reported in local currencies, earnings before interest and taxes increased by 22% in 2003. The increase in operating income was primarily due to the elimination of overlapping product lines and production sites, as well as productivity improvements. All business areas, with significant improvements from the Medium-Voltage Products and Power Systems business areas, contributed to this increase except the Power Transformers business area. Earnings in Power Transformers decreased due to low volumes in Canada and the United States following the weak market demand. The restructuring and related asset write-downs was \$64 million in 2003 and \$62 million in 2002 and the operating margin



increased from 6.2% in 2002 to 7.3% in 2003.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

Orders decreased by \$614 million, or 8%, to \$6,753 million in 2002 compared to \$7,368 million in 2001. As reported in local currencies, orders decreased 9% in 2002 compared to 2001. This decrease was primarily related to the Power Systems business area, which experienced a significant reduction in large orders compared to 2001, when we won two large orders in China and Brazil with a combined value of more than \$500 million. In addition, our adoption in 2002 of a selective bidding approach aimed at reducing project risks and securing better margins, reduced the number of bids and consequently, the order intake. Orders decreased in all business areas except the Medium-Voltage Products business area, which increased orders from improving demand in Asia. Orders from other divisions were \$408 million in 2002 (representing 6% of division orders) compared to \$927 million in 2001 (representing 13% of division orders).

Revenues increased by \$187 million, or 3%, to \$6,963 million in 2002 from \$6,776 million in 2001. As reported in local currencies, revenues increased by 1% in 2002 compared to 2001. The business area High-Voltage Products showed a strong growth in revenues, whereas the Medium-Voltage Products and Power Transformers business areas showed moderate growth partly offset by a moderate decrease in our Distribution Transformers business area. Revenues were sustained by a high order backlog at the end of 2001 and a strong demand in Asia Pacific markets during 2002. Revenues from other divisions were \$195 million in 2002 (representing 3% of division revenues) compared to \$612 million in 2001 (representing 9% of division revenues).

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Cost of sales was \$5,516 million representing 79% of revenues in 2002 compared to \$5,324 million representing 79% of revenues in 2001. Cost of sales as a percentage of revenues remained flat.

Selling, general and administration expenses decreased in U.S. dollar terms by \$8 million to \$952 million in 2002 compared to \$960 million in 2001. As reported in local currencies, selling, general and administration expenses decreased by 3% in 2002 compared to 2001. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 14% in 2002 compared to 15% in 2001 primarily due to the ongoing restructuring programs.

Earnings before interest and taxes, or operating income, increased by \$28 million, or 7%, to \$433 million in 2002 compared to \$405 million in 2001. As reported in local currencies, earnings before interest and taxes increased by 7% in 2002 compared to 2001. Operating income in the Power Systems business area decreased mainly due to the execution of low-margin projects taken before 2001. This decrease was more than offset by higher earnings in the High-Voltage Products and Medium-Voltage Products business areas as a result of reductions in overlapping product lines, production lines and the size of the workforce in many countries. The restructuring and related asset write-downs decreased from \$76 million in 2001 to \$62 in 2002 and the operating margin remained at 6% in both 2002 and 2001.

***Automation Technologies***

The Automation Technologies division's customers span a broad range of industry sectors and geographic regions. Consequently, demand is influenced by many factors and can vary significantly among customer groups within a given time period. Our customers use automation technologies primarily to improve productivity, quality, and consistency in industrial and manufacturing applications.

During 2003, market demand was mixed in Western Europe, with significant growth in the Eastern European countries. North American markets remained weak for much of the year, with signs of an upturn in the fourth quarter, particularly in the United States industrial sector. Latin America remained flat, with low levels of capital investment by our customers. Continued strong growth was seen in Asia, highlighted by continued double-digit improvements in China and India.

From an industry perspective, the automotive sector remained weak, characterized by price pressure. Petroleum, Chemicals, Paper, Marine and Turbocharging remained flat. Investment by the minerals and mining industry was down as a result of price pressure. Consumer industries and life sciences showed modest growth, with continued strength in oil and gas due to continued demand for automation systems in connection with production projects. The service activities within process industries continued to be in demand in this environment of cautious capital investment, with revenue growth for 2003.

In 2004, we expect to see signs of a recovery in Europe and North America, a flat market in Latin America, continued strong growth in Asia, and somewhat improved market conditions in the Middle East and Africa. We anticipate a healthy growth in the chemicals and life sciences sectors, a gradual recovery in the marine, minerals, and paper industries, and increased demand in the automotive and general industries.

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*Year ended December 31, 2003 compared with year ended December 31, 2002*

Orders increased by \$1,281 million, or 15%, to \$9,961 million in 2003 compared to \$8,680 million in 2002. As reported in local currencies, orders increased 2% in 2003 compared to 2002. A strong increase in orders in local currencies came from our Petroleum, Chemical and Consumer industries business area, supported by the receipt of a \$173 million order for turnkey gas

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compressors for a pipeline project in Poland. Our Paper, Minerals, Marine and Turbocharging business area experienced weak markets in paper and minerals industries and our Robotics, Automotive and Manufacturing business area experienced weakness in the automotive industry in North America. All other business areas increased orders both in product and service businesses. Orders from other divisions were \$474 million in 2003 compared to \$429 million in 2002, representing 5% of division orders in both the periods.

Revenues increased by \$1,433 million or 17%, to \$9,897 million in 2003 compared to \$8,464 million in 2002. As reported in local currencies, revenues increased 3% in 2003 compared to 2002. Higher backlog from the large projects won during 2002 helped to increase revenues significantly in our Petroleum, Chemical and Consumer Industries business area. The Paper, Minerals, Marine and Turbocharging business area's revenues decreased due to lower order backlog and weak markets in the paper industry. Most other business areas showed moderate revenue increases reflecting volume improvements in products and service sales. Regionally, Asia and Europe had double-digit growth rates, whereas revenues in the Americas remained flat in local currencies. Revenues from other divisions were \$455 million in 2003 compared to \$409 million in 2002, representing 5% of division revenues in both periods.

Cost of sales was \$6,991 million representing 71% of revenues in 2003 compared to \$5,933 million representing 70% of revenues in 2002. Cost of sales as a percentage of revenues showed a moderate increase due to ongoing price pressure and the negative impact of the strengthening of the euro offsetting savings in supply management, manufacturing and engineering activities.

Selling, general and administration expenses increased in U.S. dollar terms by \$115 million or 6% to \$1,966 million in 2003 compared to \$1,851 million in 2002. As reported in local currencies, selling, general and administration expenses decreased by 8% in 2003 compared to 2002. Expressed as a percentage of revenues, selling, general and administration expenses decreased to 20% in 2003 compared to 22% in 2002 reflecting the impact of the various restructuring and efficiency improvement programs.

Earnings before interest and taxes, or operating income, increased by \$256 million or 50%, to \$773 million in 2003 compared to \$517 million in 2002. As reported in local currencies, earnings before interest and taxes increased 33% in 2003 compared to 2002. The significant improvement in operating income was mainly due to productivity improvements and successful cost savings programs combined with ongoing growth in the service business resulting in increased operating income in all business areas in 2003. Restructuring and related asset write-downs were higher at \$140 million during 2003 as compared to \$137 million during 2002 and the operating margin increased to 7.8% in 2003 compared to 6.1% in 2002.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

Orders increased by \$381 million, or 5%, to \$8,680 million in 2002 compared to \$8,299 million in 2001. As reported in local currencies, orders increased 1% in 2002 compared to 2001. Strong demand in India and China led to increased order intake in our Petroleum, Chemical and Consumer Industries business area. Our Control Platform and Enterprise Products business area experienced a moderate decline in orders due to generally weak capital spending by participants in the process industries. Higher demand for robotics products in several industries led to higher orders in the Robotics, Automotive and Manufacturing business area. Low-Voltage Products and Instrumentation and Drives and Motors business areas experienced a flat development with the increased demand from industrial customers in China for products and systems, being offset by decreased orders from Europe and North America. Orders from other divisions were \$429 million in 2002 (representing 5% of division orders) compared to \$482 million in 2001 (representing 6% of division orders).

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Revenues decreased \$32 million to \$8,464 million in 2002 compared to \$8,496 million in 2001. As reported in local currencies, revenues decreased by 3% in 2002 compared to 2001. Revenues mainly increased, in the Petroleum, Chemical and Consumer Industries business area due to strong order backlog at the end of 2001 and improved market conditions in the Middle East, Africa and Asia. This increase was more than offset by a reduction in revenues in all the other business areas due to generally weaker market conditions. Revenues from other divisions were \$409 million in 2002 (representing 5% of division revenues) compared to \$610 million in 2001 (representing 7% of division revenues).

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Cost of sales was \$5,933 million representing 70% of revenues in 2002 compared to \$6,005 million representing 71% of revenues in 2001 reflecting the impact of productivity improvement programs.

Selling, general and administration expenses increased in U.S. dollar terms by \$62 million or 3% to \$1,851 million in 2002 compared to \$1,789 million in 2001. As reported in local currencies, selling, general and administration expenses remained flat. Expressed as a percentage of revenues, selling, general and administration expenses increased to 22% in 2002 compared to 21% in 2001, primarily due to increased research and development costs.

Earnings before interest and taxes, or operating income, increased modestly by \$3 million to \$517 million in 2002 compared to \$514 million in 2001. As reported in local currencies, earnings before interest and taxes decreased 4% in 2002 compared to 2001. This reduction was mainly due to increased restructuring and asset write-downs of \$137 million in 2002 as compared to \$81 million during 2001. Earnings decreased in all business areas, except in the Drives and Motors business area, which remained flat. The operating margin increased to 6.1% in 2002 compared to 6.0% in 2001.

### *Non-Core Activities*

Business activities that are not directly linked to our Power Technologies and Automation Technologies divisions and which we are considering for sale, winding down or otherwise discontinuing are grouped together and their results are reported under the heading of Non-Core Activities. These comprise primarily the remaining parts of the Equity Ventures business area, the remaining parts of the Structured Finance business area, the remaining parts of the Building Systems business area, the remaining parts of the New Ventures business area and a number of other remaining activities, including Customer Service Workshop, Logistic Systems and the Group Processes business areas. The Insurance business area, which was previously included in Non-core activities, is now included as part of discontinued operations following our agreement in December 2003 to sell this business to White Mountains Insurance Group Limited of Bermuda.

In April 2002, we decided to dispose of our Building Systems businesses. The gradual disposal process was envisaged to extend over a non-defined period of time preceded by restructuring in several locations. The disposal of our Building Systems businesses contemplated that we 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, we concluded that classification of the Building systems businesses as discontinued operations according to SFAS 144 was not appropriate. The results of operations of these businesses and the results from the disposal of each disposed business are reported in our Consolidated Income Statement within continuing operations, through the date of disposition.

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### *Year ended December 31, 2003 compared with year ended December 31, 2002*

Orders decreased by \$1,164 million, or 33%, to \$2,313 million in 2003 compared to \$3,477 million in 2002. As reported in local currencies, orders decreased by 45% in 2003 compared to 2002. The reduction in orders is primarily due to the ongoing divestment process combined with difficult market conditions in the Building Systems business area, and the discontinuation and reduction of activities in the Group Processes business area. Orders from other divisions amounted to \$524 million in 2003 (representing 23% of the division orders in 2003) and \$871 million in 2002 (representing 25% of the division orders in 2002).

Revenues decreased by \$910 million, or 26%, to \$2,537 million in 2003 compared to \$3,447 million in 2002. As reported in local currencies, revenues declined 39% in 2003 compared to 2002. Revenues from other divisions amounted to \$553 million in 2003 (representing 22% of the division revenues in 2003) and \$875 million in 2002 (representing 25% of division revenues in 2002).

The major components of the Non-core Activities division's revenues are the following:

*Building Systems* revenues decreased by \$546 million, or 23%, to \$1,829 million in 2003 compared to \$2,375 million in 2002. As reported in local currencies, revenues decreased 34% in 2003 compared to 2002. The decrease in revenues was due to the lower revenue base resulting from our divestment of the majority of the businesses in this business area and continued difficult market conditions in the remaining units. Other non-core activities include Group Processes revenues that decreased by \$241 million, or 32%, to \$517 million in 2003 from \$758 million in 2002. As reported in local currencies, revenues decreased by 40% in 2003 compared to 2002. This decrease was mainly due to the reduction of our activities in this area. Of the remaining businesses, revenues decreased by \$115 million, or 64%, to \$64 million in 2003 from \$179 million in 2002. The decrease was mainly due to the ongoing divestment and closing process in our Customer Service Workshop and Logistic Systems business areas.

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Earnings before interest and taxes, or operating loss, remained flat at a loss of \$181 million in 2003 and 2002. As reported in local currencies, operating loss decreased by 6% in 2003 compared to 2002. This result was primarily attributable to the following:

*Equity Ventures* operating income increased by \$33 million to \$76 million in 2003 compared to \$43 million in 2002. As reported in local currencies, operating income increased by 38% in 2003 compared to 2002. The increase primarily resulted from the gain realized from the divestments of ABB Redbank Project Pty Ltd. and ElectraNet Pty Ltd. in Australia.

*Structured Finance* operating loss increased by \$161 million to a loss of \$65 million in 2003 compared to an income of \$96 million in 2002. This increase primarily resulted from a loss on disposal of approximately \$80 million in 2003 following the divestment of our stake in the Swedish Export Credit Corporation in early 2003, compared to an income from equity accounted companies of \$125 million recognized in 2002.

*Building Systems* operating loss decreased by \$9 million to \$104 million in 2003 compared to \$113 million in 2002. As reported in local currencies, operating loss decreased by 20% in 2003 compared to 2002. The operating loss for 2003 included the gain on sale of the businesses located in the Nordic Region for approximately \$124 million being partially offset by the loss on sale of the businesses located in several other countries, principally Belgium, the Netherlands, Austria and the UK for approximately \$41 million. Excluding these non-recurring items, the operating loss was \$187 million in 2003 compared to \$113 million in 2002. The increase in the loss from the prior year is the result of additional restructuring costs and the weak underlying market conditions with the remaining businesses.

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*New Ventures* operating loss decreased by \$16 million to \$21 million in 2003 compared to \$37 million in 2002. As reported in local currencies, the operating loss decreased by 51% in 2003 compared to 2002. The decrease was largely due to the benefits of restructuring activities throughout all businesses leading to a significant reduction in selling, general and administrative expenses and considerably lower asset write-downs than in earlier years.

*Other Non-core Activities* operating loss decreased by \$103 million to \$67 million in 2003 compared to \$170 million in 2002. Group Processes represented approximately \$52 million and \$105 million of this loss in 2003 and 2002, respectively. The improvement in Group Processes was due to the non-recurrence of costs for software write-downs in 2002 and reduced general and administrative expenses as a result of the ongoing dissolution of the Group Processes business area.

### *Year ended December 31, 2002 compared with year ended December 31, 2001*

Orders decreased by \$583 million, or 14%, to \$3,477 million in 2002 compared to \$4,060 million in 2001. As reported in local currencies, orders decreased by 20% in 2002 compared to 2001. The reduction in orders was primarily due to the sale of our Air Handling business, decreased orders in our Building Systems business area resulting from market downturns across Europe and the planned reduction of our presence in some of the markets of the Logistic Systems and Customer Service Workshop business areas. Orders from other divisions amounted to \$871 million in 2002 (representing 25% of the division orders in 2002) and \$870 million in 2001 (representing 21% of the division orders in 2001).

Revenues decreased by \$672 million, or 16%, to \$3,447 million in 2002 compared to \$4,119 million in 2001. As reported in local currencies, revenues decreased 22% in 2002 compared to 2001. Revenues from other divisions amounted to \$875 million in 2002 (representing 25% of the division revenues in 2002) and \$821 million in 2001 (representing 20% of the division revenues in 2001).

The major components of the Non-Core Activities division's revenues are the following:

*Building Systems* revenues decreased by \$238 million, or 9%, to \$2,375 million in 2002 compared to \$2,613 million in 2001 due to market downturns across Europe, particularly Germany and selective order taking. As reported in local currencies, revenues decreased by 14% in 2002 compared to 2001. Other non-core activities included Group Processes revenues that increased by \$20 million, or 3%, to \$758 million in 2002 from \$738 million in 2001. As reported in local currencies, revenues decreased by 3% in 2002 compared to 2001. Of the remaining businesses within Other Non-core activities, revenues decreased by \$361 million, or 67%, to \$179 million in 2002 from \$540 million in 2001, mainly due to the sale of the Air Handling business.

Earnings before interest and taxes, or operating loss, increased by \$68 million to \$181 million in 2002 compared to \$113 million in 2001. As reported in local currencies, operating loss increased by 65% in 2002 compared to 2001. The reasons for the increase in operating loss are outlined below.

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*Equity Ventures* operating income decreased by \$32 million to \$43 million in 2002 compared to \$75 million in 2001. As reported in local currencies, operating income decreased by 44% in 2002 compared to 2001. The decrease was the result of reduced returns from investments and the effects of closing down development and office activities.

*Structured Finance* operating income increased by \$95 million to \$96 million in 2002 compared to \$1 million in 2001. The increase primarily resulted from our 35% stake in Swedish Export Credit Corporation in Sweden, which in 2002 reported income from equity accounted companies of \$125 million in 2002 compared to a loss of \$16 million in 2001.

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*Building Systems* operating income decreased by \$131 million to a loss of \$113 million in 2002 compared to an income of \$18 million in 2001. The decrease was due to: project write-downs in Germany, Sweden, United Kingdom and Denmark; closure costs in Italy and Poland; and restructuring costs in Germany.

*New Ventures* operating loss decreased by \$106 million to \$37 million in 2002 compared to \$143 million in 2001. As reported in local currencies, operating loss decreased by 74% in 2002 compared to 2001. The decrease was due to the non-recurrence of costs and provisions for alternative energy projects and asset write-downs in 2001.

*Other Non-core Activities* operating loss increased by \$106 million to \$170 million in 2002 compared to \$64 million in 2001. Group Processes represented approximately \$105 million and \$54 million of the losses in 2002 and 2001, respectively. The increase in Group Processes was mainly due to the write-down of software and increased general and administrative expenses.

### ***Corporate/Other***

Our corporate/other activities comprise headquarters and stewardship, research and development and other activities.

#### *Year ended December 31, 2003 compared with year ended December 31, 2002*

Total operating costs increased by \$76 million, or 18%, to \$499 million in 2003 compared to \$423 million in 2002. In local currencies, operating costs increased 5% in 2003 compared to 2002.

Headquarters and stewardship operating costs increased by \$153 million, or 81%, to \$342 million in 2003 compared to \$189 million in 2002. In local currencies, operating costs were 87% higher in 2003 compared to 2002. The increase in operating costs was mainly due to the non-recurrence of one-time events in 2002 such as the recovery of payments from a former chief executive officer.

Corporate research and development costs were \$92 million in 2003 compared to \$93 million in 2002. In local currencies, operating costs improved by 14% in 2003 compared to 2002. The improvement in operating costs was mainly due to a continuous attention to reducing unnecessary costs and a strong focus on the reduction of administrative overhead.

Other operating costs (including Real Estate, Group Treasury Operations and consolidation) decreased by \$76 million, or 54%, to \$65 million in 2003 compared to \$141 million in 2002, mainly due to lower costs following the cessation of proprietary trading and the consequent reduction in number of employees in Group Treasury Operations in 2002 and a reduction in earnings from certain intra-Group transactions when compared to 2002. In local currencies, operating costs improved by 83% in 2003 compared to 2002.

#### *Year ended December 31, 2002 compared with year ended December 31, 2001*

Total operating costs increased by \$134 million, or 46%, to \$423 million in 2002 compared to \$289 million in 2001. As reported in local currencies, operating costs increased by 91% in 2002 compared to 2001.

Headquarters and stewardship operating costs decreased by \$5 million, or 3%, to \$189 million in 2002 compared to \$194 million in 2001.

Corporate research and development costs decreased by \$10 million, or 10%, to \$93 million in 2002 compared to \$103 million in 2001 as a result of the reorganization in our global research and development centers and the related headcount reductions. As reported in local currencies, research and development costs decreased 13% in 2002 compared to 2001.

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Other operating costs (including Group Treasury Operations, Real Estate and consolidation) increased by \$149 million to \$141 million in 2002 compared to an income of \$8 million in 2001, mainly due to a reduction in rental income as a result of asset sales, increased lease obligations in Real Estate, the reduced trading result of Group Treasury Operations following the cessation of proprietary trading in 2002 and a higher elimination of earnings from certain intra-Group transactions when compared to 2001.

### **Discontinued Operations**

Loss from discontinued operations, net of tax, in our Consolidated Income Statement includes the following items:

All of our Oil, Gas and Petrochemicals businesses, of which we agreed to sell our upstream businesses to a consortium consisting of Candover Partners, JP Morgan Partners and 3i Group in January 2004. The upstream business is a global producer of equipment and services for oil and gas exploration and production. The remaining part of the Oil, Gas and Petrochemicals businesses primarily consists of a full service engineering company which in addition to having expertise in EPC projects also licenses process technologies in the refining, chemical, petrochemical and polymer fields.

Costs related to the potential asbestos obligation of our U.S. subsidiary, Combustion Engineering Inc. The status of our potential asbestos obligation is contained in "Contingencies and Retained Liabilities - Asbestos Liability," as well as in Note 18 to the Consolidated Financial Statements.

Our Reinsurance business, which we agreed in December 2003 to sell to White Mountains Insurance Group Limited, a Bermuda-based insurance holding company. The completion of this sale is subject to regulatory approvals and other customary closing conditions and is expected to take place in the second quarter of 2004.

Our Wind Energy business in Germany, of which we sold a portion to GI Ventures AG of Munich, Germany, in December 2003. This business focused on the development and engineering, procurement and construction of wind parks in Europe.

The portion of our Structured Finance business which we sold to General Electric Capital Corporation (GE) in November 2002. This business provided debt capital for projects and equipment, and asset-based financing (such as leasing).

Our MDVC Cable business located in Germany, which we agreed in December 2003 to sell to Wilms Group of Menden, Germany (this sale was completed in January 2004). This business manufactures medium and high-voltage cables, cable systems and accessories for power suppliers and network operators.

ABB Export Bank, which we sold to a financial investor in December 2003 as a continuation of the divestment of our Structured Finance business. ABB Export Bank arranged international export, trade and project financing.

Our Metering business, which we sold to Ruhrgas Industries GmbH of Essen, Germany, in December 2002. This business produced electricity, water, energy and gas meters, metering systems and load control systems.

A number of other businesses sold in 2003 and those we are planning to sell in 2004 including: Austevoll and Ølen, operations of Marine Austevoll, a marine switchgear business in Norway, that were sold to Scandinavian Electric Austevoll AS and Vassnes Elektro AS, respectively, both in Norway; our Repair Workshop business in Portugal which we intend to sell; and our Retail software business in the United States that we have agreed to sell to

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PIM-Newco Incorporated. In 2002, the other divested businesses included: The Components business of ABB Trasmisione e Distribuzione S.p.A (Italy), which was sold to EB Rebosio S.r.l.; Energy Information Systems Ltd of the United Kingdom, which was sold to Alstom SA; and the ABB Drying Business (a division of ABB Inc. comprising a number of legal entities), which was sold to Andritz AB and Andritz Ltd.

Various businesses that were abandoned in 2003 and 2002 for strategic reasons or for which a buyer could not be found.

Legal and professional fees related to the above disposals.

Loss from discontinued operations, net of tax, was \$853 million, \$858 million and \$837 million in 2003, 2002 and 2001, respectively. The loss from discontinued operations, net of tax, for the above items is detailed below.

<b>Discontinued operations</b>	<b>Year ended December 31,</b>		
	<b>2003</b>	<b>2002</b>	<b>2001</b>
	(\$ in millions)		
Oil, Gas and Petrochemicals	(496)	(127)	9
Combustion Engineering (Asbestos)	(145)	(420)	(470)
Reinsurance	(97)	22	(336)
Wind Energy	(42)	(1)	
Structured Finance	(29)	(183)	8
MDCV Cables	(24)	(1)	(5)
ABB Export Bank	(9)	10	6
Metering	(3)	(54)	14
Other abandoned or sold businesses/Other	(8)	(104)	(63)
	<b>(853)</b>	<b>(858)</b>	<b>(837)</b>

The above includes the businesses' operational results, accumulated foreign currency translation adjustments, allocation of interest in accordance with EITF 87-24, capital gains and losses on sale, impairment charges, goodwill write-offs and other costs.

We expect to continue to identify non-core businesses for disposal. If 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 discontinued operations in our Consolidated Balance Sheet. We will reclassify the prior years' presentation to reflect the disposals on a comparable basis.

### *Oil, Gas and Petrochemicals*

Capital expenditures by customers of the Oil, Gas and Petrochemicals businesses are influenced by oil company expectations about the oil price, which is determined by supply and demand for crude oil and natural gas products, the energy price environment that results from supply and demand imbalances and consolidation of the oil and gas markets. Key factors that may influence the worldwide oil and gas market include production restraint of OPEC nations and other oil-producing countries, global economic growth, technological progress in oil exploration and production and the maturity of the resource base. The downstream markets are in the short term influenced by capacity utilization and in the long term by factors such as economic growth, substitution of products and demand for more environmentally friendly products.

While there are signals of an improving outlook for 2004 as the global economy stabilizes, spending for upstream and downstream projects remained modest throughout 2003. The oil price

remained within the OPEC target band of \$22 to \$28 per barrel during most of 2003 and moved towards the high end of this band towards the end of 2003 due to recovery in underlying consumption, reflecting the faster pace of global economic recovery. Investment growth in

exploration and production in the upstream market (from the well or bore hole to the refinery) was soft and predominantly outside North America. Competition in the downstream markets remained intense throughout 2003. Refining expenditures continued to be driven by clean fuel regulations, with some increase in demand in Asia as those economies continue to grow. The petrochemical cycle is emerging from an extended downturn during which there was lower investment in new capacity. The increased use of plastics and textiles, particularly in growing economies, is resulting in increased investment in both low material cost regions such as the Middle East and in major petrochemical consuming markets such as India and China.

In January 2004, we announced the sale of our upstream businesses to a consortium consisting of Candover Partners, JP Morgan Partners and 3i Group. For further information on the sale of our upstream businesses, see " Acquisitions, Investments and Divestitures Pending Divestitures."

The remaining Oil, Gas and Petrochemicals businesses are available for immediate sale and continue to be actively marketed. It is unlikely that significant change to the divestment strategy will be made or that the plan to divest the remaining Oil, Gas and Petrochemicals businesses will be withdrawn in the future. Management anticipates divesting this business in 2004.

In 2002, we initiated a strategic shift to narrower-scope, lower risk projects based on a more selective bidding process in the downstream oil and gas business (typically from the refinery to industrial manufacturers or distributors) and a shift from fixed price contracts towards lower-risk reimbursable contracts, which allow a more balanced sharing of risks and opportunities between customer and contractor. To prepare the remaining Oil, Gas and Petrochemicals businesses for disposal, we streamlined the management structure of the businesses and in October 2003, announced that the chief financial officer, would have direct management responsibility for our entire Oil, Gas and Petrochemicals businesses until they are divested.

*Year ended December 31, 2003 compared with year ended December 31, 2002*

Orders decreased by \$942 million, or 26%, to \$2,683 million in 2003 compared to \$3,625 million in 2002. As reported in local currencies, orders decreased by 31% in 2003. Orders in 2003 included \$20 million received from our other divisions, compared to \$23 million in 2002. The overall decrease is primarily due to a 40% decrease in large orders, mainly attributable to our strategic decision to de-emphasize fixed priced EPC contracts in favor of lower-risk reimbursable contracts, to limit construction in the scope of work in our downstream business and to more selectively tender for project work. In addition, both upstream and downstream experienced a decline in orders due to an overall relatively soft market.

Revenues decreased by \$467 million, or 12%, to \$3,402 million in 2003 compared to \$3,869 million in 2002. As reported in local currencies, revenues decreased by 17%. In 2003, revenues included \$28 million of sales to our other divisions, compared to \$15 million in 2002. The upstream business recorded revenues of approximately \$1,524 million and \$1,538 million in 2003 and 2002, respectively. The remaining Oil, Gas and Petrochemicals businesses recorded revenues of approximately \$1,878 million and \$2,331 million in 2003 and 2002, respectively. The overall decrease in revenues was the result of a lower backlog going into 2003 and a relatively low order intake in 2003, reflecting the shift in our market strategy pertaining to fixed priced EPC contracts in the downstream business.

The net loss increased by \$369 million to \$496 million in 2003 compared to \$127 million in 2002. The upstream business recorded net income of approximately \$4 million and \$98 million in

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2003 and 2002, respectively. The decrease in net income of \$94 million was attributable to costs associated with the future sale of the upstream business of approximately \$44 million and \$13 million of allocated interest expense in accordance with EITF 87-24. The remaining Oil, Gas and Petrochemicals businesses had net losses of \$500 million and \$225 million in 2003 and 2002, respectively. The remaining Oil, Gas and Petrochemicals businesses were adversely affected by charges of \$399 million, primarily in four large, long-term, downstream fixed price projects booked prior to the implementation of our current bidding strategy for such contracts. The customers and the countries in which the project execution took place were in each case unrelated. These charges are related to delays, project cost overruns and write-down of assets that we, for various reasons, consider no longer to be recoverable. There is inherent risk in fixed priced EPC contracts and we have experienced losses from such contracts due to, among other things, our inability to make proper estimates during the tendering process and weaknesses in project execution. In any event, we may continue to experience losses on the contracts we entered into prior to adopting our new approach until they expire or are terminated, but the number of such contracts and the remaining risks, both inherent and specific, associated with them has been significantly reduced as a result of the measures we have taken to address these problems. We also recorded a valuation allowance on deferred tax assets of approximately \$120 million related to the remaining Oil, Gas and Petrochemicals businesses as we determined it was more likely than not that such deferred tax assets would not be realized.



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*Year ended December 31, 2002 compared with year ended December 31, 2001*

Orders increased by \$222 million, or 7%, to \$3,625 million in 2002 compared to \$3,403 million in 2001. As reported in local currencies, orders increased by 3% in 2002. Orders in 2002 included \$23 million received from our other divisions, compared to \$15 million in 2001. A 22% increase in large orders was attributable to the award of the ExxonMobil Sakhalin order within our downstream business, offset by a reduction resulting from a shift in strategy from fixed price contracts towards lower-risk reimbursable contracts. The increase in the downstream business offset a general reduction in the upstream business.

Revenues increased by \$380 million, or 11%, to \$3,869 million in 2002 compared to \$3,489 million in 2001. As reported in local currencies, revenues increased by 7% in 2002. In 2002, revenues included \$15 million of sales to our other divisions, compared to \$11 million in 2001. The upstream business recorded revenues of approximately \$1,538 million and \$1,470 million in 2002 and 2001, respectively. The remaining Oil, Gas and Petrochemicals businesses recorded revenues of approximately \$2,331 million and \$2,019 million in 2002 and 2001, respectively. The overall increases came from improvements in the upstream and downstream businesses, reflecting a high order backlog going into 2002 and a relatively high level of order intake in 2002.

We recorded a net loss of \$127 million in 2002 compared to net income of \$9 million in 2001 that represents a decrease of \$136 million. The upstream business recorded net income of approximately \$98 million and \$93 million in 2002 and 2001, respectively. The increase in net income of \$5 million was attributable to the increase in revenues for the same period. The remaining Oil, Gas and Petrochemicals businesses had net losses of \$225 million and \$84 million in 2002 and 2001, respectively. The remaining Oil, Gas and Petrochemicals businesses were adversely affected by cost overruns and project delays, which resulted in a charge of \$224 million in 2002, primarily in four, long-term, large downstream fixed price projects booked prior to the implementation of current bidding strategy for such contracts. The loss was partially offset by an increase in revenues for the same period.

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### ***Asbestos***

Loss from discontinued operations, net of tax, also includes costs related to the potential asbestos obligation of our U.S. subsidiary, Combustion Engineering Inc., of approximately \$145 million, \$420 million and \$470 million in 2003, 2002 and 2001, respectively. See "Contingencies and Retained Liabilities - Asbestos Liability."

### ***Reinsurance Business***

In December 2003, we agreed to sell our Reinsurance business to White Mountains Insurance Group Limited of Bermuda for approximately \$425 million.

Our Reinsurance business provides international reinsurance and insurance underwriting and specialized primary insurance in the United States. In reinsurance, the reinsurer, in return for a premium payment, provides coverage to a primary insurance company for all or a specific portion of the primary insurer's obligation to its customer.

*Year ended December 31, 2003 compared with year ended December 31, 2002*

Revenues increased by \$145 million, or 22%, to \$816 million in 2003 compared to \$671 million in 2002. Included in revenues are revenues from other business areas of \$34 million and \$27 million in 2003 and 2002, respectively. The increase in revenues 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 a net loss of \$97 million in 2003 compared to net income of \$22 million in 2002 that represents a decrease of \$119 million. The decrease was the result of a \$154 million impairment charge and an allocation of interest of \$15 million in accordance with EITF 87-24 being partially offset from income from operations of approximately \$72 million due to higher technical insurance results and improved investment income in the major operating units. The impairment charge recorded 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, expected selling costs of \$25 million, deferred tax write-offs of approximately \$16 million and an accumulated foreign currency translation gain of \$24 million.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

Reinsurance revenues decreased by \$267 million, or 28%, to \$671 million in 2002 compared to \$938 million in 2001. Included in revenues are revenues from other business areas of \$27 million and \$5 million in 2002 and 2001, respectively. The decrease in revenues was primarily

due to the cessation of new reinsurance activity in Scandinavian Reinsurance Company Limited, Bermuda.

We recorded net income of \$22 million in 2002 compared to a net loss of \$336 million in 2001 that represents an increase of \$358 million. The increase was the result of the non-recurrence of a number of costs from 2001. Prior to 2001, we presented a portion of our insurance reserves on a discounted basis, which estimated the present value of funds required to pay losses at future dates. During 2001, the timing and amount of claims payments being ceded to us in respect of prior years' finite risk reinsurance contracts changed and could not be reliably determined at December 31, 2001. Therefore, we were no longer able to continue to discount our loss reserves and were required to record a charge to losses and loss adjustment expenses in 2001 of \$295 million. In addition, the Reinsurance business area also recorded provisions for \$138 million in underwriting losses, including provisions totalling \$48 million relating to the events of September 11, 2001, leading to the significantly negative insurance results. The benefit of the non-recurrence of these costs was partially offset by lower revenues.

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### ***Wind Energy***

Our Wind Energy business in Germany was primarily focused on the development of Wind Parks mainly in Europe. In December 2003, we sold part of our Wind Energy business in Germany to GI Ventures AG of Munich, Germany, with the remaining portion set to be sold in 2004.

*Year ended December 31, 2003 compared with year ended December 31, 2002*

Revenues decreased by \$32 million, or 67%, to \$16 million in 2003 compared to \$48 million in 2002. The decrease in revenues was primarily due to a large order progressing through the execution phase with no other significant replacement orders.

The net loss increased by \$41 million to \$42 million in 2003 from \$1 million in 2002. 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 loss from operations of \$8 million.

This unit did not exist in this form in 2001 and therefore no comparison between 2002 and 2001 is provided.

### ***Structured Finance***

In November 2002, we completed the sale of most of our Structured Finance business to GE.

*Period from January 1 to November 30, 2002 compared with year ended December 31, 2001*

Revenues increased by \$42 million, or 19%, to \$262 million in 2002 from \$220 million in 2001. The revenue increase reflects the acquisition of a portfolio of small, mainly standardized leases as well as growth in the businesses existing portfolio of such small leases.

We recorded a net loss of \$183 million in 2002 compared to net income of \$8 million in 2001 that represents a decrease of \$191 million. 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 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. The lower operating income in general reflected the change in strategy to refrain from new lease and financing transactions, leading to a corresponding reduction in business activity during 2002.

### ***MDCV Cable Business***

In December 2003, we agreed to sell our MDCV cable business, located in Germany, to the Wilms Group of Menden, Germany. This business manufactures medium and high-voltage cables, cable-systems and accessories for power suppliers and network operators. The sale was completed in January 2004.

*Year ended December 31, 2003 compared with year ended December 31, 2002*

Revenues decreased by \$3 million, or 4%, to \$79 million in 2003 compared to \$82 million in 2002 mainly due to the loss of important projects. Included in revenues are revenues from other business areas of \$5 million and \$4 million in 2003 and 2002, respectively.

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The net loss increased by \$23 million to \$24 million in 2003 compared to \$1 million in 2002. 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.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

Revenues increased by \$20 million, or 32%, to \$82 million in 2002 compared to \$62 million in 2001 primarily due to extension of the product mix. Included in revenues are revenues from other business areas of \$4 million and \$2 million in 2002 and 2001, respectively.

The net loss decreased by \$4 million, or 80% to \$1 million in 2001 compared to \$5 million in 2001, reflecting a more favorable product mix.

***ABB Export Bank***

In December 2003 we completed the sale of ABB Export Bank to an investor in Sweden. ABB Export Bank was part of our Structured Finance business area and arranged export, trade and project financing. Backed by national export credit agencies or bilateral and multilateral institutions such as the World Bank, ABB Export Bank lent money to our customers in various countries, in all currencies accepted by the agency involved.

*Period from January 1 to December 16, 2003 compared with year ended December 31, 2002*

Revenues decreased by \$15 million, or 56%, to \$12 million in 2003 compared to \$27 million in 2002 due to lower business volumes, the sale of assets following our decision to divest the business and lower interest rates. Included in revenues are revenues from other business areas of \$3 million and \$10 million in 2003 and 2002, respectively.

We recorded a net loss of \$9 million in 2003 compared to net income of \$10 million in 2002 that represents a decrease of \$19 million. 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.

*Year ended December 31, 2002 compared with year ended December 31, 2001*

Revenues decreased by \$10 million, or 27%, to \$27 million in 2002 compared to \$37 million in 2001 due to lower business volumes, the sale of assets following our decision to divest the business and lower interest rates. Included in revenues are revenues from other business areas of \$10 million and \$8 million in 2002 and 2001, respectively.

Net income increased by \$4 million, or 67% to \$10 million in 2002 compared to \$6 million in 2002.

***Metering***

In December 2002, we sold our Metering business to Ruhrgas Industries GmbH of Germany. This business produced electricity, water, energy and gas meters, metering systems and load control systems.

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*Period from January 1 to December 4, 2002 compared with year ended December 31, 2001*

Revenues decreased by \$76 million, or 17%, to \$372 million in 2002 compared to \$448 million in 2001. The 2002 figure is for eleven months trading as the business was sold to Ruhrgas Industries GmbH at the beginning of December 2002. The 2002 annualized revenues decreased as a result of the weak market conditions in North America, Latin America and Germany.

We recorded a net loss of \$54 million in 2002 compared to net income of \$14 million in 2001 that represents a decrease of \$68 million. 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 provisioning of \$46 million, capital 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, being the difference between the proceeds received and net assets of the business.

## LIQUIDITY AND CAPITAL RESOURCES

### Principal Sources of Funding

In 2003, as in 2002 and 2001, 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, described below, 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, additionally in 2003 from our capital strengthening program described below. 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 " Convertible 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 future growth of our core operations, has deleveraged our balance sheet by reducing our gearing from 86% at December 31, 2002 to 70% at December 31, 2003 (see " Financial Position") and has given us more flexibility, particularly with regard to the timing of our divestment program.

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 requirements and capital expenditure requirements, as well as meet our debt repayments and other financial commitments for the next 12 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

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50% 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 " Convertible 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, 2003, after considering the effects of interest rate swaps, the effective average interest rate on our floating rate long-term borrowings (including current maturities) of \$4,241 million and our fixed rate long-term borrowings (including current maturities) of \$1,754 million was 3.2% and 5.8%, respectively. This compares with an effective rate of 3.0% for floating rate long-term borrowings and 5.0% for fixed-rate long-term borrowings as of December 31, 2002. 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.

### Convertible Bonds and Notes

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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 1,000 million Swiss francs aggregate principal amount of convertible unsubordinated bonds due 2010 (approximately \$722 million at the date of issuance). 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%. 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. Consequently, the bonds are now convertible into 104,931,794 fully paid ordinary ABB shares.

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% 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% 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

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6.5%. 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% of the principal amount thereof, plus any accrued interest. The net proceeds from the issue of these bonds were placed in escrow and were released to us upon successful completion of the rights issue in December 2003.

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%. 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 discussed above, the conversion price of the bonds was adjusted 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.

The 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 shares on virt-x exceeds 130% of the conversion price or (2) at least 85% 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, ordinary shares or any combination thereof.

Also in May 2002, we issued 200 million pounds sterling (approximately \$292 million) aggregate principal amount of bonds due 2009 (sterling-denominated bonds), which pay interest semi-annually in arrears at 10% per annum. We also issued in May 2002, 500 million euro (approximately \$466 million) aggregate principal amount of bonds, due 2008 (euro-denominated bonds), which pay interest annually in arrears at 9.5% 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% and 9.5%, 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% per annum to 11.5% and 11%, 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 2003 was an increase in interest expense of approximately \$13 million and future years will 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 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.

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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 new unsecured syndicated \$1 billion three-year revolving credit facility (new credit facility) which became available in December 2003 after the fulfillment of certain conditions including the repayment and cancellation of the existing \$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 "Convertible Bonds and Notes"). This new credit facility is for general corporate purposes. At December 31, 2003 and March 31, 2004, nothing was outstanding under the new facility and although we currently do not intend to draw on it, it provides us with additional financial flexibility.

The new credit 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 beginning with the period ending December 31, 2003. 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 new facility also contains provisions for the mandatory prepayment and cancellation of the facility upon a change of control of ABB Ltd.

The new credit 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, negative pledges and restrictions on the early redemption of capital market instruments, such as bonds having a maturity date beyond that of the facility. However, the facility permits the lengthening of the maturity profile of our debt through the early redemption of any bonds or other capital market instruments out of the net cash proceeds of any capital market instrument issued after November 17, 2003 and having a maturity date not earlier than the capital market instruments being repaid.

The new credit 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. As long as there is no drawing under the facility, a failure to comply with the financial covenants and other obligations in the facility will not cause a cross default to other indebtedness.

The new credit facility replaced a secured \$1.5 billion 364-day revolving credit facility entered into in December 2002. The \$1.5 billion facility was 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. As of December 31, 2002, no amounts had been drawn under the \$1.5 billion facility. Beginning January 2003, amounts were drawn under the facility within the facility's specified monthly drawing limits until September when the amount drawn was reduced such that at September 30, 2003 an amount of \$753 million was outstanding under the facility. The maximum amount available under the facility reduced from \$1,500 million to \$1,250 million, \$1,200 million and \$1,000 million at the beginning of October, November and December 2003, respectively. In December 2003, the remaining amount outstanding was repaid, the facility cancelled and the related security released.

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 the 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

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commencing December 31, 2002. In addition, in order to ensure the continued availability of the credit 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.

The \$1.5 billion facility prohibited the voluntary prepayment of any banking facility, the prepayment or early redemption of any bonds or capital market instruments, the repurchase of any of our shares, as well as the declaration or payment of dividends as long as the facility was outstanding.

### 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. 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. The fair value of the retained interests at December 31, 2003 and 2002 was approximately \$367 million and \$497 million, respectively.

We retain servicing responsibility relating to the sold receivables. Cash settlement with the QSPEs in 2001 and through the third quarter of 2002 took place monthly on a net basis which gave us daily access to the cash moving through the securitization programs.

During the fourth quarter of 2002, a number of changes were made to the two securitization programs as a consequence of our credit rating falling below BBB (Standard & Poor's) and Baa2 (Moody's). These changes included, in the case of the first program, twice monthly settlements (instead of monthly), the sale of additional receivables as security, changes in eligibility criteria for receivables to be sold and the establishment of certain banking and collection procedures in respect of sold receivables. Changes in the second program included the introduction of net cash settlements twice per month (instead of monthly), the daily transfer of collections of sold receivables, as well as a fixed percentage of retained interest on the sale of new receivables. In 2003, further amendments have been made to the second program, including the return to a dynamic calculation of the retained interest on the receivables sold rather than a fixed percentage. Under the amended terms of the second 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 our company.

As discussed above, we retain an interest in the sold receivables. Retained interests at December 31, 2003 and 2002 amounted to \$390 million and \$514 million, respectively. The decrease in the retained interest during 2003 was primarily related to businesses that were classified as discontinued operations or held for sale being phased out of the securitization programs during the year.

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

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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.

The net cash paid to QSPEs during 2003 and 2002 was \$119 million and \$384 million, respectively, comprising the cash flows in the table below:

	Year ended December 31,	
	2003	2002
Gross trade receivables sold to QSPEs (\$482 and \$800)*	5,661	5,972

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**Year ended December 31,**

Collections made on behalf of and paid to QSPEs (((\$663) and (\$735))*	(5,883)	(6,074)
Purchaser's liquidity and program fees (((\$2) and (\$5))*	(21)	(37)
Decrease (increase) in retained interests (\$119 and (\$91))*	124	(245)
Net cash paid to QSPEs during the year (((\$64) and (\$31))*	(119)	(384)

\* Related to assets held for sale and in discontinued operations for 2003 and 2002, respectively

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 us were phased out of the securitization programs during the year.

We pay purchaser's, liquidity and program fees on our securitization programs. Purchaser's and program fees are based on the amount of funding that we receive, while liquidity fees are based on the programs' size. The reduction in gross receivables sold, a lower average funded volume, a reduction in default and delinquency rates, as well as the fact that 2002 contained costs related to restructuring the programs, all contributed to lower purchaser's, liquidity and program fees in 2003 compared to 2002. The total cost of \$21 million and \$37 million in 2003 and 2002, respectively, related to the securitization of trade receivables, is included in the determination of current earnings.

At December 31, 2003 and 2002, of the gross trade receivables sold, the total trade receivables for which cash has not been collected at those dates amounted to \$898 million and \$1,026 million, respectively.

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 2003 and 2002 were approximately \$1,400 million (of which \$581 million related to assets held for sale and in discontinued operations) and \$534 million (of which \$22 million related to assets held for sale and in discontinued operations), respectively. The related costs, including the associated gains and losses, were \$12 million (of which \$3 million related to assets held for sale and in discontinued operations) in 2003 and were not significant in 2002. The increase in the amount of receivables transferred outside of the securitization programs related to an increase in the sales and transfers of receivables meeting the requirements of SFAS 140.

For a further discussion of our securitization programs, see Notes 2 and 7 to our Consolidated Financial Statements.

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### 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 (compared to long-term ratings of A2 and AA- from Moody's and Standard & Poor's, respectively, at December 31, 2001). On January 13, 2003, Standard & Poor's further lowered our long-term company rating to BB+ and our long-term unsecured debt to BB-. The ratings from both Moody's and Standard & Poor's have remained unchanged during the remainder of 2003, such that at December 31, 2003, our long-term company ratings were Ba3 and BB+ (our long-term unsecured debt was rated B1 and BB-) from Moody's and Standard & Poor's, respectively. In late October 2003, both rating agencies changed the outlook on these ratings to positive from negative. 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. Although our credit ratings are below investment grade, we expect that we will continue to be able to access the bond markets as we did in 2003 (see "Convertible Bonds and Notes"). 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



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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, Norway, Russia, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey and Venezuela.

Furthermore, restricted cash amounting to \$394 million and \$377 million is not included in cash and equivalents on our Consolidated Balance Sheet at December 31, 2003 and 2002, respectively.

### Financial Position

During 2003 and 2002, the divestments and discontinuations of certain businesses were treated as discontinued operations pursuant to SFAS 144, as discussed in detail under " Application of Critical Accounting Policies Accounting for Discontinued Operations." 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 in discontinued operations. 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*.

Our operating assets which include marketable securities, receivables, inventories and prepaid expenses decreased by \$195 million to \$10,417 million at December 31, 2003, from \$10,612 million

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at December 31, 2002. Operating assets exclude cash and equivalents and assets held for sale and in discontinued operations.

Primarily as a result of the sale of shares in the China National Petrochemical Corporation (Sinopec Corp.), marketable securities decreased by \$116 million from \$589 million at December 31, 2002 to \$473 million at December 31, 2003. Receivables increased by \$203 million from \$5,134 million at December 31, 2002 to \$5,337 million at December 31, 2003. Inventories increased by \$344 million from \$2,261 million at December 31, 2002 to \$2,605 million at December 31, 2003. These increases reflect the impact of translating balance sheet amounts from local currencies to U.S. dollars for reporting purposes as a result of a decline in 2003 in the U.S. dollar as compared to currencies of other countries in which we operate. Expressed in local currency terms, receivables decreased in the Building Systems business area, which is being divested, primarily as a result of reduced business volumes and closing of old contracts, while in the core divisions the decrease was due to our continued focus on reducing the working capital level.

Prepaid expenses and other decreased by \$626 million, from \$2,628 million at December 31, 2002 to \$2,002 million at December 31, 2003. This decrease primarily reflects a \$565 million decrease in the fair value of derivative assets.

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. Operating liabilities decreased by \$1,712 million to \$11,112 million at December 31, 2003 from \$12,824 million at December 31, 2002. Total accounts payable increased by \$256 million mainly due to translating balance sheet amounts from local currencies to U.S. dollars for reporting purposes. Expressed in local currency terms, accounts payable decreased by 9%, primarily as a result of the reduced operations in our Building Systems business area, which is being divested.

Short-term borrowings and current maturities of long-term borrowings decreased by \$973 million, reflecting our strategy to reduce our overall debt position and lengthen our maturity profile. See " Liquidity and Capital Resources." In addition, accrued liabilities and other decreased by \$995 million, primarily reflecting a reduction of \$882 million in the fair value of derivative liabilities and a reduction in the provision for asbestos-related issues by \$278 million (see " Contingencies and Retained Liabilities Asbestos Liability") which were partly offset by increased provisions for warranty and other obligations.

Financing receivables, which include receivables from leases and loans receivable, decreased by \$275 million to \$1,330 million at December 31, 2003 from \$1,605 million at December 31, 2002. This is primarily due to the sale of various leasing assets within the remaining portion of our Structured Finance business, in line with our focus on core business and improving the liquidity levels.

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We sold many of our investments and joint venture participations as part of our divestment program during 2003. Major divestitures included the sale of our 35% stake in the Swedish Export Credit Corporation, and, two projects in our Equity Ventures portfolio a power plant project and a power transmission project both in Australia. As a consequence, investments and other assets decreased by \$109 million to \$1,326 million at December 31, 2003 from \$1,435 million at December 31, 2002.

Property, plant and equipment increased by \$139 million to \$2,840 million at December 31, 2003 from \$2,701 million at December 31, 2002, reflecting the impact of translating balance sheet amounts from local currencies to U.S. dollars for reporting purposes. Expressed in local currency terms, property, plant and equipment decreased by 7% primarily as a result of the sale of real

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estate properties and normal levels of depreciation. The core divisions have invested \$277 million in tangible fixed assets during 2003 compared to \$247 million during 2002. Total intangible assets, including goodwill and other increased by \$72 million, to \$2,880 million at December 31, 2003 from \$2,808 million at December 31, 2002. However, total intangible assets in local currency terms decreased by 5%, mainly due to the write down of capitalized software in Group Processes. In accordance with SFAS 142, goodwill is no longer amortized as of January 1, 2002.

Our gearing ratio (defined as total borrowings divided by the sum of total borrowings and the stockholders equity including minority interest), excluding the assets and liabilities in the discontinued operations, was 70% at December 31, 2003, compared to 86% at December 31, 2002. This change reflected the increase in equity through our rights issue completed in December 2003. Total borrowings decreased by \$41 million to \$7,887 million at December 31, 2003 from \$7,928 million at December 31, 2002. Short-term borrowings, including current maturities of long-term borrowings, decreased by \$973 million, or 38%, to \$1,597 million outstanding at December 31, 2003 from \$2,570 million outstanding at December 31, 2002. Long-term borrowings increased by \$932 million, or 17%, mainly as a result of the two bond issuances completed during 2003, to \$6,290 million at December 31, 2003 from \$5,358 million at December 31, 2002. For a description of the bonds issued during 2003, see "Liquidity and Capital Resources." A component of the \$968 million convertible bonds issued in May 2002 must be accounted for as an embedded derivative in accordance with SFAS 133, as our shares are denominated in Swiss francs while these bonds are denominated in U.S. dollars. A portion of the issuance proceeds is deemed to relate to the value of the derivative on issuance and subsequent changes in value of the derivative are 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 creates a discount on issuance, which is amortized to earnings over the life of the bonds. The value of the derivative moves inversely to movements in our share price. The change in value of the embedded derivative, primarily due to the changes in our share price, combined with the amortization of discount on issuance, increased total borrowings by \$84 million in 2003 and decreased total borrowings by \$215 million in 2002. Long-term debt at December 31, 2003 as a percentage of total debt was 80% compared to 68% at December 31, 2002 as a result of our strategy to lengthen the debt maturity profile.

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### Cash Flow

The effects of the discontinued operations are not segregated in the Consolidated Statements of Cash Flows, as permitted by SFAS No. 95, *Statement of Cash Flows*. The Consolidated Statements of Cash Flows can be summarized into main activities as follows:

	Year ended December 31,		
	2003	2002	2001
	(\$ in millions)		
Net income (loss), net of adjustments for non-cash items	(414)	(399)	1,228
Changes in operating assets and liabilities	253	418	755
<b>Sub-total: Cash flows provided by (used in) operations</b>	<b>(161)</b>	<b>19</b>	<b>1,983</b>
Acquisitions, investments, divestitures, net	488	2,365	(295)
Asset purchases, net of disposals	(392)	(126)	(609)
Other investing activities	658	412	(314)
<b>Sub-total: Cash flows provided by (used in) investing activities</b>	<b>754</b>	<b>2,651</b>	<b>(1,218)</b>
Change in borrowings, net of repayments	(1,028)	(2,815)	2,639
Treasury and capital stock transactions	2,675		(1,393)

Year ended December 31,

	Year ended December 31,		
Dividends paid			(502)
Other financing activities	(56)	3	(67)
<b>Sub-total: Cash flows provided by (used in) financing activities</b>	<b>1,591</b>	<b>(2,812)</b>	<b>677</b>
Effects of exchange rate changes	150	141	(72)
Adjustment for the net change in cash and equivalents in assets held for sale and in discontinued operations	(1)	26	(244)
<b>Net change in cash and equivalents continuing operations</b>	<b>2,333</b>	<b>25</b>	<b>1,126</b>

*Cash flows provided by (used in) operating activities*

Cash provided by operating activities of the Power Technologies division of \$616 million and of the Automation Technologies division of \$848 million during 2003, resulting from higher earnings and working capital improvements were more than offset by \$239 million cash used in Non-core activities, \$526 million cash used in Oil, Gas and Petrochemicals division, \$388 million payments towards the settlement of asbestos related issues and \$472 million towards corporate overhead and interest payments resulting in \$161 million net cash used in operations during 2003. This represents a decrease of \$180 million from 2002.

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 bought and held principally for the purpose of sale in the near term are classified as trading securities. Marketable securities classified as available-for-sale are treated as part of investing activities. A reduction in business volumes in the Oil, Gas and Petrochemical businesses as a result of a shift from executing lump sum projects to reimbursable contracts resulted in a substantial reduction in accounts payable and consequently increased cash outflow from changes in operating assets and liabilities. This partly offset the increase in cash flow from the reduction in net operating assets in the core divisions. Non-core activities also generated cash through changes in operating assets and liabilities due to reduced volume of business activities, primarily from the Building Systems business.

During 2002, net cash provided by operating activities of the Power Technologies division was \$335 million and of the Automation Technologies division was \$524 million primarily resulting from improved earnings and reduced net working capital levels. Net cash provided by Non-core activities was \$224 million mainly due to the net cash proceeds from the sale of marketable securities (trading) of \$498 million. Oil, Gas and Petrochemicals businesses used cash of \$251 million due to

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increased project losses and higher working capital levels while the cash payments related to asbestos were \$246 million. Corporate cash outflows were \$480 million, influenced by the increased costs in respect of the credit facility and other financing arrangements, resulting in overall net cash provided by operating activities of \$19 million. This represented a decrease of \$1,964 million from 2001.

During 2001, improved earnings and collections of receivables resulted in net cash provided by operating activities of the Power Technologies division of \$675 million and of the Automation Technologies division of \$1,056 million. In addition, net cash provided by the Oil, Gas and Petrochemicals businesses was \$476 million primarily due to a substantial increase in accounts payable. These were partly offset by net cash used in Non-core activities of \$77 million and in Corporate of \$147 million resulting in an overall net cash provided by operating activities in 2001 of \$1,983 million. Net income, net of adjustments for non-cash items was \$1,228 million, primarily due to improved profitability in Power Technologies and Automation Technologies division. This was further influenced by the decrease in net operating assets of \$755 million in 2001 resulting largely from the increase in accounts payable.

*Cash flows provided by (used in) investing activities*

Investing activities include: acquisitions of, investments in and divestitures of businesses; purchases of property, plant and equipment, net of disposals; net investments in marketable securities that are not held for trading purposes; and accounts receivable from leases and third-party loans (financing receivables). Net investments in available-for-sale marketable securities and financing receivables are summarized in the table above as "other investing activities." Net cash provided by investing activities was \$754 million during 2003, a decrease of \$1,897 million from \$2,651 million during 2002.

We continued our program of divesting non-core businesses and other assets during 2003. We received cash proceeds of approximately \$149 million from the sale of our 35% stake in Swedish Export Credit Corporation and approximately \$90 million from the sale of our investments in two projects in Equity Ventures – a power plant project and a power transmission project, both in Australia. Approximately \$213 million was 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 about \$50 million and the sale 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 flow from purchases of, investments in, and divestitures of businesses was \$488 million during 2003. The cash flows from investing activities during 2002 was largely influenced by the sale of the major part of our Structured Finance business to GE for approximately \$2 billion. We also received cash proceeds of approximately \$113 million from the sale of the Air Handling business and approximately \$223 million from the sale of our Metering business during 2002. In addition, we received net cash proceeds of approximately \$55 million from the divestments of and investments in certain smaller businesses during 2002 resulting in net cash flow from purchases of, investments in and divestitures of businesses of 2,365 million. In 2001, cash used for acquisitions of new businesses totaled \$578 million (including \$284 million, related to the acquisition of Entelec). These cash outflows were only partially offset by cash proceeds from disposals of businesses for an amount of \$283 million resulting in net cash flow from purchases of, investments in, and divestitures of businesses to \$295 million.

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 the level of investment in property plant and equipment remained at nearly the same level in both years, proceeds of approximately \$300 million from the sale of our real estate properties in Sweden,

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substantially offset the outflows of investment in property, plant and equipment during 2002. Cash used for purchases of property, plant and equipment, net of disposals during 2001 was \$609 million reflecting lower proceeds from the disposals of fixed assets in 2001.

Cash provided by other investing activities increased to \$658 million in 2003 from \$412 million in 2002 and \$314 million of cash used in 2001. The cash provided by other investing activities largely resulted from the cash inflows from financing receivables of \$390 million through the sale and closure of many leasing assets related to the remaining parts of 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 Insurance business which we agreed to sell during the fourth quarter of 2003 and the sale of our shares in the China National Petrochemical Corporation (Sinopec Corp.) for approximately \$82 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*

Our financing activities primarily include borrowings, both from the issuance of debt securities and directly from banks, treasury and capital stock transactions and payment of dividends. Net cash provided by financing activities was \$1,591 million during 2003. As part of our strategy to lengthen our debt maturity profile, we replaced maturing short-term borrowings with long-term borrowings. See "Liquidity and Capital Resources" for a detailed discussion on the nature of borrowings. Cash outflows in connection with borrowings amounted to \$1,028 million, reflecting the repayment of short-term (including current portion of long-term) borrowings as they fell due, partially offset by the cash inflows from the proceeds of the 1 billion Swiss francs convertible bonds and 650 million euro aggregate principal of bonds issued in September and November 2003, respectively.

During 2002, net cash outflows from borrowings were \$2,815 million reflecting our strategy to reduce our overall level of borrowings, including net cash outflows of \$1,677 million in respect of borrowings with maturities of 90 days or less (including current portion of long-term borrowings) and net cash outflows of \$1,138 million in respect of other borrowings.

During 2001, cash provided by borrowings, net of repayments amounted to \$2,639 million. Our level of borrowings increased significantly during the first nine months of 2001 mainly due to the financing of the repurchase of our own shares, as well as a higher level of activity in project financing. Toward year-end 2001, we decreased our borrowings significantly through a strong increase in our cash flow from operations.

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. There were no treasury and capital stock transactions or dividends paid in 2002. In 2001, there was \$1,393 million net cash used in treasury and capital stock transactions and \$502 million in dividend payments.

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**CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS****Contractual Obligations**

The following table summarizes certain of our contractual obligations and principal payments under our debt instruments and leases at December 31, 2003:

	Payments due by period				
	Total	Less than 1 year	2-3 years	4-5 years	After 5 years
	(\$ in millions)				
Long-term debt obligations	7,641	1,351	1,841	1,777	2,672
Other short-term debt obligations	246	246			
Operating lease obligations	1,880	363	533	361	623

**Commercial Commitments**

Certain guarantees issued or modified after December 31, 2002 are accounted for in accordance with FIN 45. Upon issuance of certain guarantees, a liability, equal to the fair value of the guarantee, is recorded. For further discussion of FIN 45, see "New Accounting Pronouncements."

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.

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. Performance guarantees include surety bonds, advance payment guarantees and performance standby letters of credit.

Financial guarantees represent irrevocable assurances that we will make payment to the 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.

***Commitments Relating to Disposed Businesses***

We retained obligations for guarantees related to the power generation business contributed to the former ABB ALSTOM POWER NV joint venture. The guarantees primarily consist of performance guarantees, advance payment guarantees, product warranty guarantees and other miscellaneous guarantees under certain contracts such as indemnification for personal and property injuries, taxes and compliance with labor laws, environmental laws and patents. The guarantees have maturity dates ranging from one to ten years and in some cases have no definite expiry. 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 us and hold us harmless against any claims arising under such guarantees. Due to the nature of product warranty guarantees and the miscellaneous guarantees, we are unable to develop an estimate of the maximum potential amount of future payments for these guarantees issued on behalf of the former power generation business. Our best estimate of the total maximum

potential exposure of all quantifiable guarantees we issued on behalf of our former power generation business was approximately \$1,200 million and \$2,200 million at December 31, 2003 and 2002, respectively. The maximum potential exposure is based on the original guarantee or contract amount and does not reflect the completion status of the project. At December 31, 2003, no losses have been recognized relating to guarantees issued on behalf of the former power generation business. We believe that it is not probable that we will incur a loss under these guarantees and therefore, in accordance with SFAS 5, a provision has not been recorded at December 31, 2003 and 2002.

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In November 2002, we completed the sale of most of our Structured Finance business to General Electric Capital Corporation (GE). Pursuant to the sale and purchase agreement, we provided GE with cash collateralized letters of credit aggregating \$202 million, of which approximately \$128 million was outstanding at December 31, 2003 as security for certain performance-related obligations retained by us in connection with the sale. The sale and purchase agreement provided GE the option to require us 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. The fair value of GE's right to require us to repurchase certain designated assets was \$11 million at December 31, 2003. On January 30, 2004, we repurchased the financial assets discussed above for an amount of approximately \$28 million. Additionally, the \$128 million in cash collateralized letters of credit at December 31, 2003 was further reduced by \$35 million as a result of the expiration of the option on February 1, 2004. No further obligation exists for us to repurchase any assets under the sales and purchase agreement with GE.

### *Other Commitments*

At December 31, 2003 and 2002, we had \$207 million and \$223 million, respectively, of financial guarantees outstanding. Of that amount, \$189 million and \$206 million, respectively, were issued on behalf of companies in which we currently have or formerly had an equity interest. The guarantees have maturity dates ranging from one to thirteen years. We believe that it is not probable that we will incur a loss under these guarantees and therefore, in accordance with SFAS 5, no provision has been recorded at December 31, 2003 and 2002.

We have granted lines of credit and have committed to provide additional capital for certain equity accounted companies. At December 31, 2003 and 2002, the total unused lines of credit amounted to \$11 million and \$22 million, respectively, and the capital commitments amounted to \$88 million and \$84 million, respectively. Included in the \$88 million and \$84 million are capital commitments of \$24 million and \$20 million, respectively, related to b-business partners B.V.

### *Guarantees Relating to Our Performance*

In accordance with industry practice we also issue letters of credit, surety bonds and other performance guarantees on major projects, including long-term operation and maintenance contracts, which guarantee our own performance. Such guarantees may include guarantees that a project will be completed or that a project or particular equipment will achieve defined performance criteria. If we fail to attain the defined criteria, we must make payments in cash or in kind. We record provisions in the Consolidated Financial Statements at the time it becomes probable that we will incur losses pursuant to a performance guarantee. We do not expect to incur significant losses under these guarantees in excess of our provisions. However, such losses, if incurred, could have a material impact on our Consolidated Financial Statements.

When we guarantee our own performance, some customers will require that the guarantee be issued by a financial institution. If we cannot obtain the guarantee from a financial institution, we could be prevented from bidding on or obtaining the contract. Financial institutions will consider our

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credit ratings in the guarantee approval process. Our current credit rating does not prevent us from obtaining guarantees from financial institutions, but can make the process more difficult or expensive. If we cannot obtain guarantees from financial institutions in the future, there could be a material impact on our Consolidated Financial Statements.

### *Pension and Other Postretirement Obligations*

At December 31, 2003, our pension and other postretirement plan liabilities exceeded the plan assets by \$1,636 million and \$367 million, respectively. This underfunding is not a short term obligation for us. Of the \$1,636 million pension underfunding, \$1,449 million relates to pension plans which are not required to be funded pursuant to local government and tax requirements and contains liabilities that will not be paid until a current employee retires.

We expect to contribute \$248 million to our pension plans and \$27 million to our other postretirement benefit plans in 2004.

## **RELATED AND CERTAIN OTHER PARTIES**

In the normal course of our industrial 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 industrial 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 industrial activities, we engage in transactions with businesses that we have divested. We believe that the terms of the transactions we conduct with these companies are negotiated on an arm's length basis. For additional information, see "Item 7. Major Shareholders and Related Party Transactions."

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 investment, we may provide products to the project, may act as contractor of the project and may operate the finished product. We may also grant lines of credit to these entities and guarantee their obligations, as discussed in "Contractual Obligations and Commercial Commitments Commercial Commitments." The entity created would 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 Sheet. The carrying value for the equity accounted companies at December 31, 2003 and 2002 was \$562 million and \$730 million, respectively.

Our Consolidated Financial Statements include the following aggregate amounts related to transactions with related and certain other parties:

	2003	2002
	(\$ in millions)	
Revenues	123	93
Receivables	98	75
Other current assets	17	27
Financing receivables (non-current)	22	76
Payables	6	30
Short-term borrowings	32	39
Long-term borrowings	48	1
Other current liabilities	4	21

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## 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 and to improve the condition of the environment in the affected area or to pay for such improvements) or other penalties. 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 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 permits 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. For detailed information please refer to our Annual Report 2003, Sustainability Review.

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 of. 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, 2003, 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 viability, as well as on the nature and extent of the contamination. Nevertheless, such laws commonly impose liability that is strict, joint and several, 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 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 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, during 2000, we established in other liabilities a reserve of \$300 million in connection with our estimated remediation costs related to these facilities. Expenditures charged to the remediation reserve were \$6 million, \$12 million and \$6 million during 2003, 2002 and 2001, respectively. In connection with the pre-packaged 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 reasonably be 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.

### **Product and Order Related Contingencies**

In 1998, we entered into an engineering, procurement and project management contract with a customer for an oil and petrochemical refinery in India with a contract value of approximately \$860 million. The project, which is subject to a reimbursable cost agreement, is approximately 60% complete and has been stalled for the past few years due to complications encountered by the customer in obtaining necessary additional financing. Given the uncertainty as to whether the project will be restarted, we recorded a loss of \$108 million in 2003 to write down its remaining net assets associated with this project. If the project is not restarted, we will be subject to certain contingent liabilities to third parties.

### **Asbestos Liability**

#### *Overview*

When we sold our 50% 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. Other ABB Group entities have sometimes been named as defendants in asbestos claims. These entities include 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 is currently a subsidiary of Asea Brown Boveri Inc. and was formerly a subsidiary of Combustion Engineering). These claims, however, have been less significant than the Combustion Engineering claims and have not had a material impact on our financial position, results of operations or cash flows.



From 1989 through February 17, 2003 (the date that Combustion Engineering filed for Chapter 11 as described below) approximately 438,000 asbestos-related claims have been 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 111,000 are claims that we have treated as settled (including those settled under the Master Settlement Agreement described below) but under which there are continuing payments. Approximately 29,000 new claims were made in the period from January 1, 2003 to February 17, 2003; 79,000 in 2002 and 55,000 in 2001. Approximately 30,000 claims were resolved in the period from January 1, 2003 to February 17, 2003 (all but 111 of which were resolved under the Master settlement Agreement); approximately 34,500 claims were resolved in 2002 and approximately 27,000 claims were resolved in 2001. At December 31, 2003, there were approximately 14,800 claims pending against Basic and Lummus. Additionally, at December 31, 2003, there were 287 cases described below (involving approximately 8,700 claims) against ABB entities other than Combustion Engineering, Lummus and Basic.

At December 31, 2003 and 2002, provisions of \$813 million and \$1,091 million, respectively, were recorded on a consolidated basis in respect of the asbestos claims and related defense costs. These provisions were based on our obligations under Combustion Engineering's Chapter 11 plan of reorganization, as described below, and assumed the confirmation and effectiveness of the pre-packaged plan. These provisions do not reflect probable insurance recoveries on those claims. We recorded receivables of approximately \$232 million and \$241 million at December 31, 2003 and 2002, respectively, for probable insurance recoveries, which were established with respect to asbestos claims. During 2002 and 2001, 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. Cash payments, before insurance recoveries, to resolve Combustion Engineering's asbestos claims were \$391 million (including \$369 million contributed to the CE Settlement Trust, described below), \$236 million (including \$30 million contributed into the CE Settlement Trust), and \$136 million in 2003, 2002 and 2001, respectively. Administration and defense costs were \$36 million, \$32 million and \$13 million in 2003, 2002 and 2001, respectively.

Cash payments to resolve claims against entities other than Combustion Engineering, Lummus and Basic have been immaterial to date, totalling less than \$0.3 million in the aggregate. We have not maintained a reserve for the claims pending against such entities. Of the claims outstanding at December 31, 2003, approximately 2,250 claims were brought in Mississippi in 2002 in a single case that names hundreds of co-defendants and makes no specific allegations of any relationship between any ABB entity and the plaintiffs. Approximately 3,900 claims have been brought in Ohio 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 ABB entity. The remaining claims are pending in various jurisdictions. We generally seek dismissals from claims where there is no apparent linkage between the plaintiffs and any ABB entity. As these claims are unrelated to Combustion Engineering, Lummus or Basic, they will not be resolved pursuant to the pre-packaged bankruptcy plan of Combustion Engineering described below. Our experience resolving these claims to date indicates that they have 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***

In October 2002, we and Combustion Engineering 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. At that time, we and Combustion Engineering were actively considering various options for resolving Combustion Engineering's asbestos liabilities, including the possible reorganization of Combustion Engineering under Chapter 11 of the U.S. Bankruptcy Code. In that context, we believed that estimating Combustion Engineering's asbestos liabilities based on historical settlement patterns was no longer appropriate. Subsequently, we and Combustion Engineering determined to resolve the asbestos 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. We and Combustion Engineering determined to structure the Chapter 11 reorganization as a "pre-packaged plan," in which acceptances of the plan would be solicited prior to the filing of the Chapter 11 case, thus reducing the duration and expense of the bankruptcy proceedings.

Beginning in October 2002, we and Combustion Engineering 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 fund and administer the payment of 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 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 amount of and provides for the partial payment on approximately 110,000 open asbestos-related personal injury claims that had been lodged against Combustion Engineering.

Pursuant to the Master Settlement Agreement, the CE Settlement Trust was 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 by December 31, 2003;

a promissory note from Combustion Engineering in the principal amount of approximately \$101 million (guaranteed by Asea Brown Boveri Inc., a subsidiary of ABB Ltd); and an assignment by Combustion Engineering of the \$311 million unpaid balance of principal and interest due to Combustion Engineering from Asea Brown Boveri Inc. under a loan agreement dated May 12, 2000 (guaranteed by ABB Ltd).

#### ***Pre-Packaged Plan of Reorganization***

On January 17, 2003, we announced that we and Combustion Engineering 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 "Plan"). The agreement was reached with certain representatives of asbestos claimants with existing asbestos-related personal injury claims against Combustion Engineering (encompassing claimants who had lodged claims prior to November 15, 2002 and claimants who had filed claims after that date and were not eligible to participate in the

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Master Settlement Agreement) and with the proposed representative of persons who may be entitled to bring asbestos-related personal injury claims in the future.

The Plan provides for the creation of the Asbestos PI Trust, an independent trust which is separate and distinct from the CE Settlement Trust and addresses Asbestos PI Trust Claims, which consist of present and future asbestos-related personal injury claims (including the claims previously settled pursuant to the Master Settlement Agreement only to the extent of any unpaid portions thereof) that arise directly or indirectly from any act, omission, products or operations of Combustion Engineering, Lummus or Basic. If the Plan ultimately becomes effective, a channelling injunction would be issued under the U.S. Bankruptcy Code pursuant to which the Asbestos PI Trust Claims against ABB Ltd and its affiliates (including Combustion Engineering, Lummus and Basic) would be channelled to the Asbestos PI Trust. This would mean 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 its affiliates (including Combustion Engineering, Lummus and Basic). A preliminary injunction is currently in force. The Asbestos PI Trust would be funded with cash and other assets, including approximately 30 million common shares of ABB Ltd. The total package is valued at approximately \$800 million.

The Plan sets forth distribution procedures for the allocation of funds to the claimants. The Plan provides that the unpaid portion of claims that were settled pursuant to the Master Settlement Agreement will also be entitled to distributions from the Asbestos PI Trust.

On the effective date of the Plan, the Asbestos PI Trust will be funded as follows:

a \$20 million 5% term note with a maximum term of ten years from the effective date of the Plan, 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% of the voting securities of the

reorganized Combustion Engineering);

excess cash held by Combustion Engineering on the effective date of the Plan;

a promissory note 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 commencing in 2004, with \$50 million to be paid during 2004, \$100 million to be paid during 2005 and \$100 million to be paid during 2006, and further providing for payments amounting to \$50 million to be paid no later than 2010 (\$ 25 million of which may be payable as early as 2006) and contingent payments of an additional aggregate amount of \$50 million (in equal \$25 million installments) in 2008 and 2009 if ABB Ltd meets certain financial performance standards (an EBIT margin of 12% in 2007 and 2008);

a non-interest bearing promissory note on behalf of Lummus in the amount of \$28 million payable in relatively equal annual installments over 12 years;

a non-interest bearing promissory note 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 at December 31, 2003 of \$154 million and \$86 million at December 31, 2002. Our obligation to deliver these CE Settlement Shares will continue to be marked to market, with changes in the fair value of the CE Settlement Shares reflected in earnings until such CE Settlement Shares are contributed to the Asbestos PI Trust;

we will execute and deliver a nuclear and environmental indemnity with regard to obligations arising out of Combustion Engineering's Windsor, Connecticut site for the benefit of Combustion Engineering;

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Combustion Engineering, Lummus and Basic will assign to the Asbestos PI Trust any proceeds under certain insurance policies and insurance settlement agreements. Aggregate unexhausted product liability limits are 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 less than the policy limits. In addition, Combustion Engineering will assign to the Asbestos PI Trust scheduled payments under certain of its insurance settlement agreements (\$86 million at December 31, 2003); and

if Lummus is sold within 18 months after the effective date of the Plan, ABB Inc. will contribute \$5 million to the CE Settlement Trust and \$5 million to the Asbestos PI Trust. If the CE Settlement Trust has ceased to exist at that time, both \$5 million payments will be made to the Asbestos PI Trust, but in no event will this contribution exceed the net proceeds from the sale of Lummus.

***Next Steps in the Chapter 11 Process***

The Plan, including the channelling injunction, will become effective when the U.S. Bankruptcy Court recommends the issuance of a confirmation order (which occurred on July 10, 2003), the confirmation order is entered by the U.S. District Court (which occurred on August 8, 2003) and has become a final order that is not subject to appeal, and certain other conditions to the effectiveness of the Plan have been satisfied.

The solicitation of votes to approve the Plan began on January 19, 2003, and Combustion Engineering filed for Chapter 11 in the U.S. Bankruptcy Court in Delaware on February 17, 2003 based on the previously negotiated Plan. The voting period closed on February 19, 2003, and approximately 97% of qualified ballots voted to approve the Plan. A confirmation hearing and related hearings commenced on April 7, 2003 and continued from time to time through early June 2003. On June 23, 2003, the U.S. 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 "Ruling") and related findings of fact. The Ruling approved the disclosure statement that was the document used as the basis for soliciting approval of the Plan from asbestos claimants and verified the voting results that approved the Plan. Although the Ruling did not confirm the Plan, it indicated that the U.S. Bankruptcy Court would recommend that the Plan be confirmed if we and Combustion Engineering 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 U.S. 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 Plan be confirmed.

Following the issuance of the Supplemental Ruling, interested parties had a period during which they could appeal the 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, Basic and Lummus, filed appeals based on various objections to the Plan, including the following:

arguments that Combustion Engineering is not permitted to obtain a channelling injunction that protects Combustion Engineering's affiliates with respect to claims against Combustion Engineering;

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arguments that asbestos claims against Lummus and Basic cannot be made subject to a channelling injunction;

arguments that the disclosure provided in connection with the solicitation of acceptances of the Plan did not satisfy the required standards;

arguments that claimants covered by the Plan would fare better outside the Plan;

arguments that the Plan and the Bankruptcy Court's rulings improperly affect the rights and obligations of insurance carriers who have continuing obligations to provide insurance coverage with respect to Combustion Engineering's asbestos liabilities;

arguments that the Plan and the Bankruptcy Court's rulings fail to address properly the indemnification rights of certain insurers; and

arguments that the Bankruptcy Court was in error in not permitting the release of the trust created under the Master Settlement Agreement and certain other entities, under the Plan.

The U.S. District Court held a hearing on July 31, 2003, with respect to the appeals and entered its confirmation order on August 8, 2003. The U.S. Federal Third Circuit Court of Appeals granted a motion for expedition of appeals and ordered that all briefs were to be filed by October 7, 2003. The Circuit Court has set June 3, 2004 as the date for the hearing. We cannot be certain of the duration or outcome of the appeal process. Regardless of whether or not the Plan becomes effective, the Master Settlement Agreement remains effective.

#### ***Effect of the Plan on our Financial Position***

We recorded expenses related to asbestos of \$145 million, \$420 million and \$470 million in loss from discontinued operations, net of tax, for 2003, 2002 and 2001, respectively. 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 previously considered contingent, as well as \$36 million of other costs. The 2002 amount reflected our estimate of incremental total costs to be incurred based upon the terms of the Plan. In 2001, loss from discontinued operations, net of tax, reflected a charge to earnings based on Combustion Engineering's forecasts of the expected cost of future claim settlements over a period of several years and estimates of the amounts recoverable from insurance when the claims were settled.

Based upon expected implementation of the Plan, we have recorded provisions of \$813 million at December 31, 2003, in accrued liabilities and other. If the Plan becomes 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. 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. In the event

the Plan does not become effective, the ultimate cost for the resolution of asbestos-related personal injury claims against Combustion Engineering, Lummus and Basic may be significantly higher and could have a material adverse impact on our consolidated financial position, results of operations and cash flows.

## Item 6. Directors, Senior Management and Employees

### BOARD OF DIRECTORS

Our 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 our board of directors, as well as the information and control instruments vis-à-vis the executive committee, are set forth in the regulations of the board of directors. We have been granted an exception by the Federal Office of Justice of Switzerland (*Bundesamt für Justiz*) to the rule that a majority of the members of the board of directors of ABB must be citizens of Switzerland with residence in Switzerland according to Article 708 para 1 of the Swiss Code of Obligations.

Our articles of incorporation stipulate that the board of directors must consist of not fewer than seven and no more than 13 members at any time. Swiss law and our articles of incorporation also provide that each director must be a shareholder of ABB Ltd. Directors are elected for terms of one year by the shareholders in a shareholders' meeting. Members of the board of directors whose terms of office have expired are immediately eligible for re-election. Our articles of incorporation do not provide for the retirement or non-retirement of directors under an age-limit requirement. Our internal regulations provide that a director shall resign at the annual general meeting of shareholders taking place in the year of his 70th birthday.

The board of directors appoints its Chairman and one or more Vice Chairmen, as well as the persons entrusted with our management and representation, whom the board of directors is also responsible for removing. At present, the position of Vice Chairman is vacant.

The following table sets forth the names and the years of birth of our directors and their current positions with ABB.

Name	Born	Current Position
Jürgen Dormann	1940	President, Chairman and Chief Executive Officer
Roger Agnelli	1958	Director
Louis R. Hughes	1949	Director
Hans Ulrich Märki	1946	Director
Michel de Rosen	1951	Director
Michael Treschow	1943	Director
Bernd W. Voss	1939	Director
Jacob Wallenberg	1956	Director

ABB Ltd became the ultimate holding company of the ABB Group on June 28, 1999. The biographies of Messrs. Dormann and Wallenberg also note the years of service they provided to ABB Asea Brown Boveri Ltd, the former parent company of the ABB Group.

*Jürgen Dormann* has been the Chairman of ABB's board of directors since November 2001 and has been ABB's President and Chief Executive Officer since September 2002. He has been a member of ABB's board of directors since June 28, 1999. From 1998 to 1999, he served as a member of the board of directors of ABB Asea Brown Boveri Ltd. He is the chairman of the supervisory boards of Aventis and Lion Bioscience. He is currently a member of the supervisory board of Allianz; he has resigned this position with effect from May 5, 2004. Mr. Dormann is a German citizen.

*Roger Agnelli* was elected to ABB's board of directors at the annual general meeting of shareholders on March 12, 2002. He is the President and Chief Executive Officer of Companhia Vale do Rio Doce. He is also a member of the boards of directors of Valepar, Companhia Paulista

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de Força e Luz, Companhia Siderurgica Nacional, LATASA, VBC Energia, Brasmotor, Mahle Metal Leve, Rio Grande Energia and Serra da Mesa Energia. Mr. Agnelli is a Brazilian citizen.

*Louis R. Hughes* was elected to ABB's board of directors at the annual general meeting of shareholders on May 16, 2003. Mr. Hughes is the chairman of the board of directors of Maxager Technology and is a member of the boards of directors of BT Group, Electrolux and Sulzer. Mr. Hughes was the president and chief operating officer of Lockheed Martin Corp. in 2000 and was an executive vice president of General Motors from 1992 to 2000. He was also the acting chief executive officer of Wavcrest Laboratories from 2002 to 2003 and is now a member of its board of advisors. Mr. Hughes is a United States citizen.

*Hans Ulrich Märki* was elected to ABB's board of directors at the annual general meeting of shareholders on March 12, 2002. He is general manager of IBM Europe/Middle East/Africa and a member of the board of directors of Mettler-Toledo International. Mr. Märki is a Swiss citizen.

*Michel de Rosen* was elected to ABB's board of directors at the annual general meeting of shareholders on March 12, 2002. He is the chairman, chief executive officer and president of ViroPharma. He is a member of the boards of directors of Innaphase and Ursinus College. Mr. de Rosen is a French citizen.

*Michael Treschow* was elected to ABB's board of directors at the annual general meeting of shareholders on May 16, 2003. He is the chairman of the board of directors of Ericsson. He is the vice chairman of the Confederation of Swedish Enterprise and a member of the board of directors of Electrolux. From 1997 to 2002, he was the president and chief executive officer of the Electrolux Group. Prior to 1997, he was the president and chief executive officer of Atlas Copco. Mr. Treschow is a Swedish citizen.

*Bernd W. Voss* was elected to ABB's board of directors at the annual general meeting of shareholders on March 12, 2002. He is a member of the supervisory board of Dresdner Bank. He is also a member of the boards of directors of Allianz Leben, Continental, Quelle, TUI, Wacker Chemie and Osram. Mr. Voss is a German citizen.

*Jacob Wallenberg* has been a member of ABB's board of directors since June 28, 1999. From March 1999 to June 1999, he served as a member of the board of directors of ABB Asea Brown Boveri Ltd. He is the chairman of the board of directors of Skandinaviska Enskilda Banken and W Capital Management. He is vice-chairman of Investor, the Knut and Alice Wallenberg Foundation, Atlas Copco, SAS and Electrolux, and a member of the boards of directors of the Confederation of Swedish Enterprise and the Nobel Foundation. Mr. Wallenberg is a Swedish citizen.

### SENIOR MANAGEMENT

#### Executive Committee

Our board of directors has delegated the executive management of ABB to the chief executive officer and the other members of the executive committee. The chief executive officer, and under his direction the other members of the executive committee, are responsible for our overall business and affairs and day-to-day management. The chief executive officer reports to the board regularly, and whenever extraordinary circumstances so require, on the course of our 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 executive committee is appointed and discharged by the board and consists of the chief executive officer, the chief financial officer and the other executive vice presidents.

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The following table sets forth the names and the years of birth of the members of the executive committee, their current positions with us and the dates of their initial appointment to their current positions.

<b>Name</b>	<b>Born</b>	<b>Current Position</b>	<b>Year of Appointment</b>
Jürgen Dormann	1940	President, Chairman and Chief Executive Officer	2002
Peter Voser	1958	Chief Financial Officer	2002

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Name	Born	Current Position	Year of Appointment
Dinesh C. Paliwal	1957	Head of Automation Technologies Division	2003
Peter Smits	1951	Head of Power Technologies Division	2003
Gary Steel	1952	Head of Human Resources	2003

*Jürgen Dormann.* For Mr. Dormann's biography, see above under " Board of Directors."

*Peter Voser* has been our Chief Financial Officer since March 2002. Since August 2003, he has been given responsibility for the management of our Oil, Gas and Petrochemicals division until it is divested. Mr. Voser was Chief Financial Officer of Shell Europe Oil Products from 1999 until early 2001, when he became Chief Financial Officer of Shell Oil Products. Mr. Voser is proposed to be elected as a member of the Supervisory Board of AEGON at its annual general meeting on April 22, 2004. Mr. Voser is a Swiss citizen.

*Dinesh C. Paliwal* has been the Head of our Automation Technologies division since January 2003. From April 2002 to January 2003, he was our Executive Vice President responsible for our Industries Division. Between January 1, 2001 and March 2002, he was our Executive Vice President responsible for our Process Industries division. From 1999 to 2001, he was responsible for our worldwide activities in the Automation Segment for the paper, printing, metals, mining and cement industries. From 1998 to 1999, he was responsible for our worldwide activities in the Automation Segment for the pulp, paper and printing industries. From 1994 to 1998, he was Vice President responsible for our automation activities in process industries in China and Northeast Asia. From 1990 to 1994, he was Director of Marketing and Sales for our automation activities for the paper industry in Asia. Prior to 1990, he held several positions in sales and project management. Mr. Paliwal is an Indian citizen.

*Peter Smits* has been the Head of our Power Technologies division since January 2003. From 2001 to January 2003, he was Executive Vice President responsible for the Power Technology Products division. From 1998 to 2001, he was Senior Vice President, Business Area Manager Distribution Transformers, at ABB T&D Ltd. From 1994 to 1998, he was President and Country Manager at Asea Brown Boveri SA, Belgium. From 1990 to 1994, he served as President at Pfleiderer Verkehrstechnik GmbH. From 1988 to 1990, he held the position of Vice-President at ABB Schaltanlagen GmbH and was Business Unit Manager within our High-Voltage Switchgear business area. From 1980 to 1988, he held several positions at Asea Lepper GmbH. Mr. Smits is a German citizen.

*Gary Steel* was appointed our Head of Human Resources in January 2003. In 2002, he was the Human Resources Director, Group Finance at Shell. Between 1976 and 2002, he held several human resources and employee relations positions at Shell. Mr. Steel is a Scottish citizen.

On February 27, 2004, the board of directors of ABB announced that Fred Kindle would be appointed as ABB's new chief executive effective January 2005. Mr. Kindle will join ABB on September 1, 2004, and will assume the roles of president and chief executive officer of ABB in January 2005. At that time, our current chief executive officer, Mr. Jürgen Dormann, will revert to a single role as chairman of ABB. Mr. Kindle is currently the chief executive officer of Sulzer where he will remain until mid-2004. Mr. Kindle has been with the Sulzer Group since 1992. In 1999, he

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became responsible for Sulzer Industries. In 2001, he became chief executive officer of Sulzer. Since 2003, he has been a member of Sulzer's board of directors. He is also a member of the board of directors of VZ Holding. Mr. Kindle has dual Liechtenstein and Swiss citizenship.

#### Senior Officers

The following table sets forth the names of our senior officers, their current positions with us and the dates of their initial appointment to their current positions.

Name	Current Position	Year of Appointment
Markus Bayegan	Chief Technology Officer	2001
John Scriven	General Counsel, Head of Group Function Legal and Compliance	2003
Alfred Storck	Deputy Chief Financial Officer, Head of Group Function Corporate Finance and Taxes	2003

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*Markus Bayegan* has been our Chief Technology Officer since January 2001. From 2000 until our realignment in January 2001, he was Executive Vice President responsible for our research and development activities worldwide. From 1998 to 2000, he served as Senior Corporate Officer for our group research and development activities worldwide. From 1994 to 1998, he served as Senior Vice President of Technology for our Building Technologies Segment. From 1987 to 1998, he served as president of ABB Corporate Research, A/S, a Norwegian subsidiary. From 1985 to 1998, he was Professor in Electronics Manufacturing at the Norwegian Institute of Technology. Prior to joining us, he was employed by EB Corporation, a Norwegian electromechanical and telecommunication company that we acquired. Mr. Bayegan is a Norwegian citizen.

*John Scriven* joined ABB Ltd in May 2003 and has assumed the positions of General Counsel, Head of Group Function Legal and Compliance and Secretary to the ABB Ltd board of directors. From 2001 to 2003, he was "of Counsel" at the Homburger Rechtsanwälte law firm in Zurich, Switzerland. From 1975 to 2000, he held various executive positions within the legal department of The Dow Chemical Company at both its corporate headquarters in the United States and Switzerland. From 1994 to 2000, he held the position of Vice President, General Counsel and Secretary at The Dow Chemical Company, Midland, Michigan, USA. He is currently a member of the board of directors of the American Arbitration Association. Mr. Scriven holds both British and Swiss citizenship.

*Alfred Storck* has been our Deputy Chief Financial Officer since February 2003 and has been our Head of Group Function Corporate Finance and Taxes since January 2001. From 1997 to 2001, he was the head of Corporate Staff Corporate Finance and Taxes. From 1988 (when BBC Brown Boveri AG and Asea AB merged) to 1997, he was our Group Tax Officer. Mr. Storck is a German citizen.

### CORPORATE GOVERNANCE

We are committed to the highest international standards of corporate governance, and we support the general principles as set forth in the Swiss Code of Best Practice for Corporate Governance as well as those of the capital markets where ABB shares are listed: the SWX Swiss Exchange, the Stockholm Exchange, the London Stock Exchange, the Frankfurt Stock Exchange and the New York Stock Exchange (where our shares are traded in the form of ADSs).

In addition to the provisions of the Swiss Code of Obligations, our principles and rules on corporate governance are laid down in our articles of incorporation, our board regulations, our standards for corporate governance, the charters of our board committees, the board membership

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guidelines, several internal directives (such as the directive on insider information) and the code on business ethics. It is the duty of our 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.

In November 2003, the Securities and Exchange Commission approved changes to the New York Stock Exchange's listing standards related to the corporate governance practices of listed companies. Under these rules, listed foreign private issuers, such as ABB, must disclose any significant ways in which their corporate governance practices differ from those followed by U.S. domestic companies under the New York Stock Exchange listing standards. This disclosure can be found on our web site under [www.abb.com/about](http://www.abb.com/about).

#### **Duties of Directors and Officers**

The directors and officers of a Swiss corporation are bound, as specified in the Swiss Code of Obligations, to perform their duties with all due care, to safeguard the interests of the corporation in good faith and to extend equal treatment to shareholders in like circumstances.

The Swiss Code of Obligations does not specify what standard of due care is required of the directors of a corporate board. However, it is generally held in Swiss doctrine and jurisprudence that the directors must have the requisite capability and skill to fulfill their function, and must devote the necessary time to the discharge of their duties. Moreover, the directors must exercise all due care that a prudent and diligent director would have taken in like circumstances. Finally, the directors may not take any actions that may be harmful to the corporation.

#### ***Exercise of Powers***

Directors as well as other persons authorized to act on behalf of a Swiss corporation may perform all legal acts on behalf of the corporation which the business purpose as set forth in the articles of incorporation of the corporation, may entail. Pursuant to court practice, such directors



and officers can take any action that is not explicitly excluded by the business purpose of the corporation. In so doing, however, the directors and officers must still pursue the duty of due care and the duty of loyalty described above and must extend equal treatment to the corporation's shareholders in like circumstances. Our articles of incorporation do not contain provisions concerning a director's power, in the absence of an independent quorum, to vote on the compensation to themselves or any members of their body.

### ***Conflicts of Interest***

Swiss law does not have a general provision on conflicts of interest and our articles of incorporation do not limit our directors' power to vote on a proposal, arrangement or contract in which the director or officer is materially interested. However, the Swiss Code of Obligations requires directors and officers to safeguard the interests of the corporation and, in this connection, imposes a duty of care and loyalty on directors and officers. This rule is generally understood and so recommended by the Swiss Code of Best Practice for Corporate Governance as disqualifying directors and officers from participating in decisions, other than in the shareholders' meeting, that directly affect them. In addition, in 2003 our board of directors created the new position of lead director who will intervene and lead proceedings, where the chairman of the board, as a result of his executive role as chief executive officer, would be exposed to conflicting interests. See " Board Practices."

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### ***Confidentiality***

Confidential information obtained by directors and officers of a Swiss corporation acting in such capacity must be kept confidential during and after their term of office.

### ***Sanctions***

If directors and officers transact on behalf of the corporation with *bona fide* third parties in violation of their statutory duties, the transaction is nevertheless valid as long as it is not explicitly excluded by the corporation's business purpose as set forth in its articles of incorporation.

Directors and officers acting in violation of their statutory duties whether transacting with *bona fide* third parties or performing any other acts on behalf of the company may, however, become liable to the corporation, its shareholders and its creditors for damages. The liability is joint and several, but the courts may apportion the liability among the directors and officers in accordance with their degree of culpability.

In addition, Swiss law contains a provision under which payments made to a shareholder or a director or any person(s) associated therewith other than at arm's length must be repaid to the company if the shareholder or director or any person associated therewith was acting in bad faith.

If the board of directors has lawfully delegated the power to carry out day-to-day management to a different corporate body, *e.g.*, the executive committee, it is not liable for the acts of the members of that different corporate body. Instead, the directors can only be held liable for their failure to properly select, instruct and supervise the members of that different corporate body.

### **Board Practices**

Board meetings are convened by the chairman or upon request by a director or the chief executive officer. During 2003, six board meetings were