BAYER AKTIENGESELLSCHAFT
Form 20-F
June 27, 2003

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As filed with the Securities and Exchange Commission on June 27, 2003

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

FORM 20-F

(Mark One)

o REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 001-16829

BAYER AKTIENGESELLSCHAFT
(Exact name of Registrant as specified in its charter)

BAYER CORPORATION*
(Translation of Registrant s name into English)

Federal Republic of Germany
(Jurisdiction of incorporation or organization)

Bayerwerk, Gebäude W11

Kaiser-Wilhelm-Allee
51368 Leverkusen, GERMANY
(Address of principal executive offices)

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

Title of each class:	Name of each exchange on which registered:
American Depositary Shares representing Bayer AG ordinary shares of no par value	New York Stock Exchange
Bayer AG ordinary shares of no par value	New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

(Title of class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

(Title of class)

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.

As of December 31, 2002, 730,341,920 ordinary shares, of no par value, of Bayer AG were outstanding.

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 x No o Not applicable.

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

Item 17 o Item 18 x

* Bayer Corporation is also the name of a wholly-owned subsidiary of the registrant in the United States.

** Not for trading, but only in connection with the registration of American Depositary Shares.

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Forward-Looking Information

This annual report contains forward-looking statements that reflect our plans and expectations. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance, achievements or financial position to be materially different from any future results, performance, achievements or financial position expressed or implied by these forward-looking statements. These factors include:

- Cyclicality in our industries;
- Reduced demand for older products in response to advances in biotechnology;
- Increasingly stringent regulatory controls;
- Increased raw materials prices;
- The expiration of patent protections;
- Environmental liabilities and compliance costs;
- Failure to compete successfully, integrate acquired companies or develop new products and technologies;
- Risks from hazardous materials;
- Litigation and product liability claims; and
- Fluctuations in currency exchange rates.

A discussion of these and other factors that may affect our actual results, performance, achievements or financial position is contained in Item 3, *Key Information Risk Factors,* Item 5, *Operating and Financial Review and Prospects* and elsewhere in this annual report.

Enforceability of Civil Liabilities under U.S. Federal Securities Laws

We are a German corporation. All of our directors and executive officers are residents of Germany. A substantial portion of our assets and those of such individuals is located outside the United States.

As a result, although a multilateral treaty to which both Germany and the United States are party guarantees service of writs and other legal documents in civil cases if the current address of the defendant is known, it may be difficult or impossible for you to effect service of process upon these persons from within the United States.

Also, because these persons and assets are outside the United States, it may be difficult for you to enforce judgments against them in the United States, even if these judgments are of U.S. courts and are based on the civil liability provisions of the U.S. securities laws.

If you wish to execute the judgment of a foreign court in Germany, you must first obtain from a German court an order for execution *(Vollstreckungsurteil).* A German court may grant an order to execute a U.S. court judgment with respect to civil liability under the U.S. federal securities laws if that judgment is final as a matter of U.S. law. In granting the order, the German court will not enquire whether the U.S. judgment was, as a matter of U.S. law, correct. However, the German court must refuse to grant the order if:

- the U.S. court lacked jurisdiction, as determined under German law;
- the person against whom the judgment was obtained did not receive service of process adequate to permit a proper defense, did not otherwise acquiesce in the original action and raises the lack of service of process as a defense against the grant of the execution order;

the judgment would conflict with the final judgment of a German court or with the final judgment of another foreign court that is recognizable under German law;

recognition of the judgment would violate an important principle of German law, especially basic constitutional rights; or

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there is a lack of reciprocity between Germany and the jurisdiction whose court rendered the original judgment.

You should be aware that German courts hold certain elements of some U.S. court judgments, for example punitive damages, to violate important principles of German law. Judgments for ordinary compensatory damages are generally enforceable, unless in an individual case one of the reasons described above would forbid enforcement.

If you bring an original action before a German court based on the provisions of the U.S. securities laws and the court agrees to take jurisdiction over the case, the court will decide the matter in accordance with the applicable U.S. laws, to the extent that these do not violate important principles of German law. However, the court may refuse to accept jurisdiction if another action is pending before a U.S. or other foreign court in the same matter. Furthermore, the court might decide that, for a lawsuit brought by a U.S. resident under U.S. law against a defendant that, like Bayer, has a significant presence in the United States, a U.S. court would be the more proper forum.

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PART I

Item 1. Identity of Directors, Senior Management and Advisors

Directors and Senior Management

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

Selected Financial Data

We derived the following selected financial data for each of the years in the five-year period ended December 31, 2002, from our consolidated financial statements. We have prepared our consolidated financial statements in accordance with International Financial Reporting Standards or IFRS and, where indicated, in accordance with U.S. Generally Accepted Accounting Standards or U.S. GAAP. Since 2002, IFRS is the term for the entire body of accounting standards issued by the International Accounting Standards Board, replacing the earlier IAS, or International Accounting Standards. Individual accounting standards that the IASB issued prior to this change in terminology continue to use the prefix IAS. Note 44 to our consolidated financial statements included in Item 18 of this annual report describes the reconciliation of significant differences between IFRS and U.S. GAAP.

Since January 1, 1999, we have prepared our financial statements in European Union euros ( ). In this annual report we have translated certain euro amounts into U.S. dollar amounts at the rate of $1.0485 = 1.00, the noon buying rate of the Federal Reserve Bank of New York on December 31, 2002. We have translated these amounts solely for your convenience, and you should not assume that, on that or any other date, one could have converted these amounts of euros into dollars at that or any other exchange rate.

The financial information presented below is only a summary. You should read it together with the consolidated financial statements included in Item 18.

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Consolidated Income Statement Data

	Year ended December 31,					
	2002	2002	2001	2000	1999	1998(1)
	$ (	in millions, except per share data)				
IFRS:						
Net sales	31,061	29,624	30,275	30,971	27,320	28,062
Of which discontinuing operations	698	666	1,105	1,850	3,357	5,981
Operating result	1,650	1,574	1,611	3,287	3,357	3,155
Of which discontinuing operations	1,028	980	406	172	1,195	359
Non-operating result	648	(618)	(496)	(297)	(521)	(427)
Income before income taxes	1,002	956	1,115	2,990	2,836	2,728
Income taxes	112	107	(154)	(1,148)	(818)	(1,113)
Income after taxes	1,115	1,063	961	1,842	2,018	1,615
Minority stockholders interest	(3)	(3)	4	(26)	(16)	(1)
Net income	1,111	1,060	965	1,816	2,002	1,614
Average number of shares in issue	730	730	730	730	730	730
Basic net income per share	1.52	1.45	1.32	2.49	2.74	2.21
Diluted net income per share	1.52	1.45	1.32	2.49	2.74	2.21
Dividends per share	0.94	0.90	0.90	1.40	1.30	1.02
U.S. GAAP:						
Net income	1,339	1,277	800	1,783	1,967	
Basic and diluted net income per share	1.83	1.75	1.10	2.44	2.69	

(1) The 1998 figures have been restated from German marks into euros at the irrevocably fixed conversion rate of DM 1.95583 = 1.00.

Consolidated Balance Sheet Data

	December 31,					
	2002 $	2002	2001	2000	1999	1998(1)
		(in millions, except per share data)				
IFRS:						
Total Assets	43,714	41,692	37,039	36,451	31,279	29,377
Of which discontinuing operations	0	0	820	1,662	1,440	5,238
Stockholders equity	16,079	15,335	16,922	16,140	15,006	12,568
Liabilities	27,509	26,237	20,019	20,074	16,097	16,598
Of which long-term financial obligations	7,673	7,318	3,071	2,803	2,359	2,404
Of which discontinuing operations	0	0	233	651	574	2,354
U.S. GAAP:						
Stockholders equity	17,545	16,734	18,300	19,110	17,177	
Total assets	44,737	42,668	37,831	38,740	32,769	

(1) The 1998 figures have been restated from German marks into euros at the irrevocably fixed conversion rate of DM 1.95583 = 1.00.

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Dividends

The following table indicates the dividends per share paid from 1998 to 2001. Shareholders who are U.S. residents should be aware that they will be subject to German withholding tax on dividends received. See Item 10, *Additional Information Taxation*.

	2002	2001	2000	1999	1998
Total dividend (in millions)	657	657	1,022	949	747
Dividend per share ( )	0.90	0.90	1.40	1.30	1.02

See also Dividend Policy and Liquidation Proceeds in Item 8, *Financial Information*.

Exchange Rate Data

The following table shows, for the periods and dates indicated, the exchange rate of the U.S. dollar to the euro based on the noon buying rate of the Federal Reserve Bank of New York. For periods prior to the introduction of the euro on January 1, 1999, we have converted the then-prevailing German mark/U.S. dollar rates to a notional euro/dollar rate at the irrevocably fixed euro/mark rate of 1.00 = DM 1.95583. Fluctuations in the exchange rate between the euro and the dollar will affect the market price of the shares and the ADSs, the dollar amount received by holders of shares and the ADSs on conversion by the Depositary of any cash dividends paid in euro and the dollar translation of our results of operations and financial condition.

Year	Period End	Average	High	Low
1998	1.1733	1.1132	1.2178	1.0548
1999	1.0070	1.0655	1.1812	1.0016
2000	0.9388	0.9233	1.0335	0.8270
2001	0.8901	0.8909	0.9535	0.8370
2002	1.0485	0.9454	1.0485	0.8594

Previous six months	High	Low
December 2002	1.0485	0.9927
January 2003	1.0861	1.0361
February 2003	1.0875	1.0708
March 2003	1.1062	1.0545
April 2003	1.1180	1.0621
May 2003	1.1853	1.1200

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Risk Factors

An investment in our shares or ADSs involves a significant degree of risk. You should carefully consider these risk factors and the other information in this annual report before deciding to invest in our shares or ADSs. The risks described below are the ones we consider material. However, they are not the only ones that may exist. Additional risks not known to us or that we consider immaterial may also have an impact on our business operations. The occurrence of any of these events could seriously harm our business, operating results and financial condition. In that case, the trading price of our shares or ADSs could decline and you could lose all or part of your investment.

Cyclicality may reduce our operating margins or cause operating losses

Several of the industries in which Bayer operates are cyclical. In particular, these industries include chemicals and polymers. Typically, increased demand during peaks in the business cycle in these industries leads producers to increase their production capacity. Although peaks in the business cycle have been characterized by increased selling prices and higher operating margins, in the past these capacity increases have led to overcapacities because they have exceeded demand growth. Low periods in the business cycles are then characterized by decreasing prices and excess capacity. These factors can depress operating margins and may result in operating losses.

We believe that several areas within the chemical and polymer industries currently show overcapacity, especially those areas, such as basic chemicals, that are subject to commoditization, and we expect that there may be further capacity additions in the next few years. We cannot assure you that future growth in demand will be sufficient to absorb current overcapacity or future capacity additions without significant downward pressure on prices and adverse effects on operating results.

The agriculture sector is moreover subject to seasonal and weather factors and fluctuations in crop prices, which can make its operations less predictable than those of our other business segments.

Advances in biotechnology may reduce demand for some of our older products

The growing importance of biotechnology, especially in the pharmaceutical and crop protection fields, could reduce market demand for some traditional products. In particular, new agrochemical compounds that achieve similar or improved results with less toxicity and smaller doses may reduce market demand for traditional chemical products.

Regulatory controls and changes in public policy may reduce the profitability of new or current products

We must comply with a broad range of regulatory controls on the testing, manufacture and marketing of many of our products. In some countries, including the United States, regulatory controls have become increasingly demanding. We expect that this trend will continue and will expand to other countries, particularly those of the European Union. A proposed new EU chemicals policy could mandate a significant increase in the testing and assessment of basic chemicals and chemical intermediates, leading to increased costs and reduced operating margins for these products. Although we have adopted measures to address these stricter regulations, such as increasing the efficiency of our internal research and development process in order to reduce the impact of extended testing on time-to-market, we cannot assure you that stricter regulatory regimes will not delay product development or restrict marketing and sales.

Our Pharmaceuticals, Biological Products segment and our Consumer Care, Diagnostics segment are subject to particularly strict regulatory regimes. Failure to achieve regulatory approval of new products can mean that we do not recoup our research and development investment through sales of that product. Withdrawal by regulators of an approval previously granted can mean that the affected product ceases to generate revenue. This can occur even if regulators take action falling short of actual withdrawal. For example, the U.S. Food and Drug Administration issued a recommendation to all manufacturers of products containing phenylpropanolamine (PPA). As a result, we voluntarily discontinued marketing our Consumer Care products that contained this

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substance. In addition, in some cases we may voluntarily cease marketing a product even in the absence of regulatory action.

Pharmaceutical product prices are subject to controls or pressures in many markets. Some governments intervene directly in setting prices. In addition, in some markets major purchasers of pharmaceutical products (whether governmental agencies or private health care providers) have the economic power to exert substantial pressure on prices. Price controls limit the financial benefits of growth in the life sciences markets and the introduction of new products. We cannot predict whether existing controls will increase or new controls will be introduced, further limiting our financial benefits from these products.

Similarly, international negotiations currently ongoing at the World Trade Organization may affect the agriculture policy of the European Union. For example, a change in EU agricultural policy leading to an increase in set aside acreage could reduce the overall market for agricultural products in the European Union. Additionally, a radical review and reduction of pricing support in the European Union could affect customer and pricing structure and harm our operating results. It is impossible at present to determine precisely what changes, if any, may occur or when. We expect the operating results of our Crop Protection and Animal Health segments to reflect the uncertainties of this industry.

Our operating margins may decrease if we cannot pass increased raw material prices on to customers or if prices for our products decrease faster than raw material prices

Significant variations in the cost and availability of raw materials and energy may reduce our operating results. Bayer uses significant amounts of petrochemical-based raw materials in manufacturing a wide variety of our products. We also purchase significant amounts of natural gas, coal, electricity and fuel oil to supply the energy required in our production processes. The prices and availability for these raw materials and energy vary with market conditions and may be highly volatile. There have been in the past, and may be in the future, periods during which we cannot pass raw material price increases on to customers. Even in periods during which raw material prices decrease, we may suffer decreasing operating profit margins if the prices of raw materials decrease more slowly than do the selling prices of our products. In the past, we have entered into hedging arrangements with respect to raw materials prices only to a limited extent. If the market for these hedging arrangements attains sufficient liquidity and we can obtain their protection at a reasonable cost, we would consider making more extensive use of these hedge instruments.

Litigation and administrative claims could harm our operating results and cash flows

We are or could become involved in a number of legal proceedings. See Item 8, *Financial Information Legal Proceedings*. Each of these proceedings or potential proceedings could involve substantial claims for damages or other payments. These proceedings include claims alleging product liability and claims alleging antitrust violations. If our opponents in these lawsuits obtain judgments against us, we could be required to pay substantial damages and related liabilities.

We are also plaintiff in lawsuits to enforce our patent rights in our products. If we are not successful in these actions, we would expect our revenue from these products to decline as generic competitors enter the market.

In cases where we believe it appropriate, we have established provisions to cover potential litigation-related costs. Increased risks currently result from litigation commenced in the United States after we voluntarily withdrew Lipobay/ Baycol and products containing PPA from the market. If plaintiffs in these actions substantially prevail despite our defense arguments, we could incur charges that exceed our insurance coverage. This event could materially affect our business and financial condition. There is considerable uncertainty associated with these proceedings; currently, therefore, we cannot accurately estimate our potential liability in connection with these actions. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

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The loss of patent protection or ineffective patent protection for marketed products may result in loss of sales to competing products

During the life of its patent, a patented product is normally only subject to competition from alternative products. After a patent expires, the producer of the formerly patented product is likely to face increased competition from generic products entering the market. This competition is likely to reduce market share and sales revenue. See Item 4, *Information on the Company Intellectual Property Protection,* for a discussion of the scheduled expiration dates of our significant patents. In addition, generic drug manufacturers, particularly in the United States, may seek marketing approval for pharmaceutical products currently under patent protection by attacking the validity or enforceability of a patent. If a generic manufacturer succeeds in voiding a patent protecting one of our products, that product could be exposed to generic competition before the natural expiration of the patent. See Item 8, *Financial Information Legal Proceedings,* for a discussion of several important patent-related proceedings in which we are involved.

The extent of patent protection varies from country to country. In some of the countries in which we operate, patent protection may be significantly weaker than in the United States or the European Union. Piracy of patent-protected intellectual property has often occurred in recent years, particularly in some Asian countries. In addition, in an effort to control public health crises, some developing countries, such as South Africa and Brazil, have announced plans for substantial reductions in scope of patent protection for pharmaceutical products. In particular, these countries could facilitate competition within their markets from generic manufacturers who would otherwise be unable to introduce competing products for a number of years. We do not currently expect any proposed patent law modifications to affect us materially. Nevertheless, if a country in which we sell a substantial volume of an important product were to effectively void our patent rights in that product, our revenue could suffer.

Failure to compete successfully or integrate newly acquired businesses may reduce our operating profits

Bayer operates in highly competitive industries. Actions of our competitors could reduce our profitability and market share. In some commodity areas (especially within our Plastics, Rubber segment, our Polyurethanes, Coatings, Fibers segment and our Chemicals segment), we compete primarily on the basis of price and reliability of product and supply. All of our segments, however, also compete in specialty markets on the basis of product differentiation, innovation, quality and price. Significant product innovations, technical advances or the intensification of price competition by competitors could harm our operating results.

From time to time we acquire all or a portion of an established business and combine it with our existing business units. Integration of existing and newly acquired businesses requires difficult decisions with respect to staffing levels, facility consolidation and resource allocation. We must also plan carefully to ensure that established product lines and brands retain or increase their market position. If we fail to effectively integrate a new business or if integration results in significant unexpected costs, our results of operations could suffer.

Failure to develop new products and production technologies may harm our competitive position

Bayer s operating results significantly depend on the development of commercially viable new products and production technologies. We devote substantial resources to research and development. Because of the lengthy development process, technological challenges and intense competition, we cannot assure you that any of the products we are currently developing, or may begin to develop in the future, will become market-ready and achieve substantial commercial success. If we are unsuccessful in developing new products and production processes in the future, our competitive position and operating results will be harmed.

Risks from the handling of hazardous materials could harm our operating results

Bayer s operations are subject to the operating risks associated with pharmaceutical and chemical manufacturing, including the related storage and transportation of raw materials, products and wastes. These hazards include, among other things:

pipeline and storage tank leaks and ruptures;

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explosions; and

discharges or releases of toxic or hazardous substances.

These operating risks can cause personal injury, property damage and environmental contamination, and may result in the shutdown of affected facilities and the imposition of civil or criminal penalties. The occurrence of any of these events may significantly reduce the productivity and profitability of a particular manufacturing facility and harm our operating results.

Although we maintain property, business interruption and casualty insurance that we believe is in accordance with customary industry practices, we cannot assure you that this insurance will be adequate to cover fully all potential hazards incident to our business.

For more detailed information on environmental issues, see Item 4, *Business Governmental Regulation.*

Environmental liabilities and compliance costs may have a significant negative effect on our operating results

The environmental laws of various jurisdictions impose actual and potential obligations on Bayer to remediate contaminated sites. These obligations may relate to sites:

that we currently own or operate,

that we formerly owned or operated, or

where waste from our operations was disposed.

These environmental remediation obligations could significantly reduce our operating results. In particular, our accruals for these obligations may be insufficient if the assumptions underlying these accruals prove incorrect or if we are held responsible for additional, currently undiscovered contamination. See Item 4, *Business Governmental Regulation*.

Furthermore, Bayer is or may become involved in claims, lawsuits and administrative proceedings relating to environmental matters. An adverse outcome in any of these might have a significant negative impact on our operating results.

Stricter environmental, safety and health laws and enforcement policies could result in substantial costs and liabilities to Bayer and could subject our handling, manufacture, use, reuse or disposal of substances or pollutants to more rigorous scrutiny than is currently the case. Consequently, compliance with these laws could result in significant capital expenditures as well as other costs and liabilities, thereby harming our business and operating results.

Fluctuations in exchange rates may affect our financial results

Bayer conducts a significant portion of its operations outside the euro zone. Fluctuations in currencies of countries outside the euro zone, especially the U.S. dollar, can materially affect our revenue as well as our operating results. For example, changes in currency exchange rates may affect:

the relative prices at which we and our competitors sell products in the same market; and

the cost of items we require for our operations.

Although these fluctuations can benefit us, they can also harm our results. From time to time, we may use financial instruments to hedge our exposure to foreign currency fluctuations. As of December 31, 2002, we had entered into forward foreign exchange contracts and currency swaps with a total notional value of 3.0 billion. See Item 11, *Quantitative and Qualitative Disclosures About Market Risk.*

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Item 4. Information on the Company

HISTORY AND DEVELOPMENT OF THE COMPANY

Bayer Aktiengesellschaft, or Bayer AG, is a stock corporation *(Aktiengesellschaft)* organized under the laws of the Federal Republic of Germany. In this annual report, Bayer AG refers solely to the ultimate parent company of the consolidated Bayer Group.

Bayer AG was incorporated in 1951 under the name Farbenfabriken Bayer AG for an indefinite term and adopted its present name in 1972. Bayer AG s registered office *(Sitz)* and principal place of business are at the Bayerwerk, 51368 Leverkusen, Germany. Its telephone number is +49 (214) 30-1 and its home page on the World Wide Web is at www.bayer.com. Reference to our website does not incorporate the information contained on the website into this annual report.

Although Bayer AG was incorporated in 1951, it traces its roots to Friedr. Bayer & Co., an aniline dye works founded in Wuppertal, Germany in 1863 by Friedrich Bayer and Johann Friedrich Weskott. This company achieved a leading position in its industry, opening facilities and agencies in the United States and in other European countries. Friedr. Bayer & Co. made numerous discoveries, most notably of aspirin (acetylsalicylic acid), perhaps the best-known and most widely used medication in world history.

In 1925 the original Bayer company merged with five other leading German chemical and pharmaceutical companies, including the ancestors of today s Aventis and BASF, to form I.G. Farbenindustrie AG, or I.G. Farben. After the second World War, the Allied High Commission, formed by the United States, the United Kingdom, France and the former Soviet Union to administer occupied Germany, seized the assets of I.G. Farben. Pursuant to Law No. 35 of the Allied High Commission, some of these assets were later distributed among 12 newly formed companies, including the present Bayer AG.

After World War I, the U.S. government expropriated the U.S. rights to the Bayer name and trademarks as enemy property. In 1986, Bayer reacquired the U.S. rights to the Bayer trademark with respect to products for the manufacturing industry and, in 1994, reacquired full U.S. rights to its name and trademarks, including the Bayer cross.

Friedr. Bayer & Co. established operations in the United States as early as 1870. In 1992 Bayer AG s U.S. subsidiaries Mobay Corporation, Miles Inc. and Agfa Corporation merged with the management holding company Bayer USA Inc. to form a new operating company, Miles Inc. In April 1995 Miles Inc. changed its name to the current form, Bayer Corporation.

Since 2000 we have incurred capital expenditures as follows:

	2002	2001	2000
		(euros in millions)	
Pharmaceuticals, Biological Products	178	375	482
Consumer Care, Diagnostics	272	238	167
Animal Health	26	45	42
CropScience	297	199	194
Plastics, Rubber	504	536	556
Polyurethanes, Coatings, Fibers	506	468	338
Chemicals	285	444	358
Total	2,068	2,305	2,137

In 2000 we spent a total of 4.2 billion on acquisition activity, mainly in further aligning our polymers and chemicals activities toward specialties through the acquisitions of Lyondell Chemical Company s polyols business, Sybron, CSM Holding, Inc. and Cytec s sizing and strength paper chemicals business. In the life science area we strengthened our crop protection business by acquiring the *Flint*® strobilurin product line. In 2001 we spent 0.5 billion on acquisitions, including rights to manufacture and market products that detect hepatitis C and HIV antibodies, as well as the corn herbicide *Mikado*®. We also made a 93 million equity

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investment in CuraGen. In 2002 we spent a total of 7.9 billion on acquisitions, mainly for the acquisition of Aventis CropScience effective June 1, 2002 from Aventis and Schering. Approval of this acquisition by the relevant antitrust authorities, particularly in Europe and the United States, was conditional upon our divesting or outlicensing a number of products. We also acquired Visible Genetics Inc. in Canada and Tectrade A/S in Denmark.

In 2000 the addition of a new partner in the DyStar joint venture reduced our capital share in that joint venture to 35 percent; since then we consider DyStar a non-core business. We continued to streamline our portfolio through 2000, divesting our animal health biologicals and solar-grade silicon businesses, Troponwerke, and Basics, our generic pharmaceuticals business in Germany. We divested our investments in Myriad Genetics Inc. and in Schein Pharmaceuticals, a U.S. generics business. In the first half of 2001, we also sold our acrylic fiber product line and classified the remainder of our Fibers business group under Discontinuing Operations. In May 2002 we reclassified Fibers as part of our continuing operations. See Item 5, *Operating and Financial Review and Prospects Overview*. In May 2001 we sold our interest in the EC Erdölchemie joint venture, which we had previously classified under Discontinuing Operations. As part of the streamlining of our portfolio, we sold Haarmann & Reimer effective September 30, 2002. We also sold the remaining 30 percent of our Agfa business segment, of which we had already divested 70 percent in 1999. Effective March 1, 2002 we sold our 94.9 percent interest in Bayer Wohnungen. In addition, we sold a large part of the global household insecticides business of our Consumer Care business group. As a further part of our drive to streamline our portfolio, we divested our French and Spanish generic pharmaceutical operations. We also sold our 50 percent interest in PolymerLatex. This transaction was closed on May 9, 2003.

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BUSINESS

We are a global company offering a wide range of products, including ethical pharmaceuticals, diagnostics and other health-care products; agricultural products; polymers; and chemicals.

Bayer comprises the parent company, Bayer AG of Leverkusen, Germany, and over 330 consolidated subsidiaries. We are organized into seven business segments Pharmaceuticals, Biological Products; Consumer Care, Diagnostics; Animal Health; CropScience; Plastics, Rubber; Polyurethanes, Coatings, Fibers; and Chemicals.

At their annual meeting in April 2002, Bayer AG s shareholders approved a plan to transform Bayer AG into a management holding company structure. The new holding company structure, which evolves out of our historical four pillar strategy, calls for the division of our business operations among four new, wholly-owned operating subsidiaries. Each of these will comprise one or more current business segments. The new subsidiaries are:

Bayer HealthCare AG (consisting of our three health care segments: Pharmaceuticals, Biological Products; Consumer Care, Diagnostics; and Animal Health);

Bayer CropScience AG (consisting of our CropScience segment);

Bayer Polymers AG (consisting of our Plastics, Rubber segment and our Polyurethanes, Coatings, Fibers segment); and

Bayer Chemicals AG (consisting of our Chemicals segment).

Under the plan, we have also created three additional subsidiaries (Bayer Technology Services GmbH, Bayer Business Services GmbH and Bayer Industry Services GmbH & Co. oHG). These will act as service companies that support the four operating subsidiaries as well as Bayer AG.

Under our plan for this new structure, we expect to transfer most of Bayer AG s assets to the new subsidiaries. As a matter of German law, Bayer AG s shareholders must approve these transfers. At the April 2002 annual shareholders meeting, the shareholders approved the transfer of assets to Bayer CropScience AG, with economic effect from January 1, 2002. At the annual shareholders meeting in April 2003, Bayer AG s shareholders approved the transfer of assets to the other three operating companies, as well as to the three service companies. Our transformation to the new holding company structure will be complete when these asset transfers have been recorded in the commercial register. However, at the April 2003 annual meeting, Bayer AG s shareholders resolved that, for tax and accounting purposes, the transformation shall have retroactive economic effect as from January 1, 2003 for Bayer HealthCare and Bayer Technology Services, as from July 1, 2003 for Bayer Chemicals and as from October 1, 2003 for Bayer Polymers, Bayer Business Services and Bayer Industry Services.

A shareholder of Bayer AG has filed a lawsuit in the regional court of Cologne, Germany (*Landgericht Köln*), challenging the planned new structure. The transfers of assets to our new subsidiaries cannot be recorded in the commercial register while this case is pending. See Item 8, *Financial Information Legal Proceedings*.

Under the new structure, Bayer AG s Board of Management would continue to determine the overall strategy of the Bayer Group and control resource allocation. Bayer AG would nominate the management of the subsidiary Group companies and set each company s performance criteria. These new entities will be wholly owned by Bayer AG, although we may consider strategic partnerships, particularly for our Health Care and Chemicals businesses. In our Pharmaceuticals business, we may consider entering into collaborations without being bound by a strict minimum ownership percentage, if we believe that such collaborations are in the best interest of our shareholders. We may also consider entering into collaborations in the Polymers sector, particularly in the area of production.

For the year ended December 31, 2002, Bayer reported total sales of 29.6 billion, an operating result of 1.6 billion, and net income of 1.1 billion. Sales from continuing operations amounted to 29.0 billion. As of December 31, 2002, we employed 122,600 people worldwide.

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The following table shows a breakdown by region of our sales in 2002:

Region	Sales (euros in millions)	Sales (percentage of total)
Europe	13,537	46.7
North America	8,992	31.1
Asia/Pacific	3,927	13.6
Latin America/ Africa/Middle East	2,502	8.6

Portfolio optimization has for many years been the focus of our strategy. In the past year, we completed the largest acquisition in the history of the company with the purchase of Aventis CropScience, while completing a series of divestitures with an aggregate value of approximately 5.5 billion under generally difficult market conditions. In the CropScience business, we continue to focus on integration measures and on further increasing our market share. In Plastics we believe opportunities exist to expand our market position, particularly in the area of high value plastics. Substantial development potential exists in Asia, especially in China. We also believe that there is a significant potential for improving earnings in our Polymers business. In our Chemicals business, we have significantly restructured our activities over the past years. We will continue to focus these efforts particularly on Specialty Chemicals, and we may consider entering into strategic partnerships in business areas where we have identified strategically meaningful opportunities.

We aim to avoid accidents, to prevent our activities from harming human and animal health and to tailor our product range to the tenets of sustainability. Bayer s long-term strategy and activities are guided by the principles of *sustainable development*. Our objective is to meet the economic, ecological and social needs of today s society without compromising the ability of future generations to meet their own needs. We contribute to sustainable development by participating in the worldwide Responsible Care® initiative developed by companies in the global chemical industry.

PHARMACEUTICALS, BIOLOGICAL PRODUCTS

Overview

Our Pharmaceuticals, Biological Products segment (formerly Pharmaceuticals) focuses on the development and marketing of ethical pharmaceuticals (medications requiring a physician s prescription and sold under a specific brand name) as well as biological products (for example, blood plasma products) and recombinant protein therapies. This segment formerly consisted of a single business group responsible for both pharmaceutical and biological products. Beginning in 2002, we have organized the segment internally into separate Pharmaceuticals and Biological Products business groups. The following table shows the segment s performance for the last three years.

	2002	2001	2000
	(euros in millions)		
External net sales	4,767	5,729	6,140
Percentage of total sales (continuing operations)	16.5	19.6	21.1
Intersegment sales	33	38	39
Operating result before exceptional items(1)	151	383	1,165
Percentage of total operating result (continuing operations)	15.3	20.8	35.6
Exceptional items(1)	(339)	(332)	(5)
Operating result	(188)	51	1,160

(1) In this table and the similar tables presented for our other segments, we use the term exceptional items to identify and segregate certain items reported in our operating results for the segment. These items relate primarily to restructuring activities, impairment charges and gains and losses from sales of operations. This use of exceptional items is consistent with our management s internal reporting process. Our management believes that this presentation provides the reader with additional information about our core activities at the Bayer Group and segment levels. See also Note 7 to our consolidated financial statements.

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The following table shows our sales during the past three years from the products that we regard as material to the sales of the segment as a whole.

	2002		2001		2000	
Product	Sales (euros in millions)	Percentage of segment sales	Sales (euros in millions)	Percentage of segment sales	Sales (euros in millions)	Percentage of segment sales
Cipro	1,411	29.6	1,964	34.3	1,785	29.1
Adalat	800	16.8	975	17.0	1,155	18.8
Kogenate	400	8.4	250	4.4	491	8.0
Gamimune-N	333	7.0	343	6.0	350	5.7

Segment Strategy

We are in the process of bundling our health care businesses (including Pharmaceuticals, Biological Products) into a single new, wholly-owned subsidiary of Bayer AG. See *Business*.

Our strategic priorities for the Pharmaceuticals, Biological Products segment include:

- restructuring our business to adjust the cost base, especially for research and development, without stifling our potential for long-term growth, and to evaluate potential strategic partnerships in order to fully exploit the value of the business;
- together with our co-promotion partner GlaxoSmithKline, continuing the launch in major European markets of Levitra, our vardenafil erectile dysfunction product, and preparing for Levitra s expected launch in the United States;
- focusing on the development of key projects in the pipeline;
- expanding into the oncology area; and
- increasing the market share and profitability of our Kogenate recombinant Factor VIII clotting factor.

In addition to our immediate priorities, life cycle management remains a continuous element of our strategy. Successful life cycle management enables us to extend the commercial success of established products. See *Research and Development Life Cycle Management.*

Major Products

Ciprofloxacin, marketed under the trademark *Cipro*® in the United States and *Ciproxin*®, *Ciproxine*®, *Ciprobay*® and *Ciflox*® in other countries, is a broad-spectrum antimicrobial agent of the fluoroquinolone class. We launched Cipro in 1986 and have since marketed it in more than 100 countries. Cipro s main uses are in the treatment of urinary tract infections and in severe hospital infections, where it competes with other fluoroquinolones as well as with antibiotics of other classes. It is also approved for the treatment of anthrax. In addition, in the United States in January 2003, we launched Cipro XR in a 500 mg extended release tablet for once daily administration in the treatment of uncomplicated urinary tract infections. In October 2002 we submitted to the FDA an application for approval of a 1,000 mg tablet of Cipro XR for once daily therapy of complicated urinary tract infections. Cipro is our leading pharmaceutical product.

Moxifloxacin, marketed under the tradename *Avalox*® in the United States and *Avelox*®, *Izilox*® and *Actira*® in other countries, is an antibiotic used to treat common bacterial respiratory tract infections. We currently market Avelox in more than 60 countries. It is indicated for the treatment of community-acquired pneumonia, acute exacerbations of chronic bronchitis and acute sinusitis. In late 2001 we launched *Avelox i.v.*®, a new intravenous form of this product, in the United States, our most important market for this product in terms of sales, and subsequently in other markets.

Adalat® is the brand name for nifedipine, the first representative of the dihydropyridine class of calcium antagonists. Calcium plays an important role in the body s regulation of blood pressure and the supply of blood to the heart tissues. Calcium antagonists can reduce blood pressure and improve blood supply to heart tissue.

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Kogenate® FS (*Kogenate® Bayer* in the EU) is a genetically engineered recombinant version of the protein Factor VIII (fVIII). Patients with hemophilia A cannot produce sufficient fVIII, and their blood therefore cannot clot properly. Physicians use both plasma-derived and recombinant fVIII to treat hemophilia. Because recombinant products like Kogenate do not derive from human donors, the risk that their users will inadvertently contract infection with HIV, hepatitis or other viruses occasionally present in plasma-derived products is greatly reduced. The production issues highlighted by the FDA inspections in late 2000 have been resolved.

We supply recombinant fVIII to Aventis Behring, which markets it under the brand name *Helixate FS®*. We produce recombinant fVIII under licenses from Genentech and another licensor, which together give us worldwide production rights.

Glucobay®, *Precose®* (in the United States) and *Prandase®* (in Canada) are our trade names for acarbose, an oral antidiabetic product that delays carbohydrate digestion. Glucobay improves metabolic control in diabetics alone or in combination with other anti diabetic drugs.

Gamimune®/*Polyglobin®* is a plasma-derived concentrate of human antibodies (*I*ntra-*V*enous *I*mmunoglobulin *G,* or IVIG) registered worldwide, including the United States, Canada, Germany and Japan. Physicians use it to treat immune system deficiencies as well as for the treatment of some autoimmune disorders, in which the immune system mistakenly attacks the body s own tissues.

Prolastin® (1-proteinase inhibitor human) is a plasma-derived product approved for use in the United States, Canada and several European countries. It is used for chronic therapy in individuals with emphysema related to congenital 1-antitrypsin (AAT) deficiency. AAT deficiency is an inherited disorder that causes insufficient AAT in the body. This deficiency can cause serious lung disease and, ultimately, emphysema.

We launched *Nimotop®* (nimodipine) globally in the mid-1980s. A member of the dihydropyridine class of calcium antagonists developed by Bayer researchers, Nimotop improves the stability and function of nerve cells following certain types of hemorrhage in the brain by inhibiting calcium influx into the cells. Physicians use Nimotop to treat aneurysmatic sub-arachnoid hemorrhage, a serious condition involving bleeding in the brain beneath its outer protective membrane following the rupture of a blood vessel.

We derive our *Plasbumin®* and *Plasmanate®* fluid management products from fraction V of human plasma. These products draw fluid from body tissues into the bloodstream, thereby helping to stabilize blood pressure and circulation in patients who have lost large amounts of blood through trauma, disease or surgery. Health care professionals use our fraction V products primarily in treating shock victims.

Trasylol® is a natural proteinase inhibitor obtained from bovine lung tissue. Used prophylactically, it reduces blood loss during coronary bypass surgery, reducing the patient s need for blood transfusions.

Microbial resistance to antibiotics

The development by microbes of resistance to antibiotics is a cause for concern for the medical community. Resistance development is a natural process. It is almost certainly impossible to eliminate it altogether. Although emergent ciprofloxacin or moxifloxacin resistance could become a problem on an isolated, individual-patient basis, we do not believe that microbial resistance will impair the general clinical usefulness of these two products in large patient populations in the foreseeable future.

We actively encourage health care professionals to adopt standards of appropriate antibiotic use to avoid facilitating the development of resistance. Inappropriate use of antibiotics is one factor that facilitates the development of microbial resistance. This includes using antibiotics when not indicated, for example, for treating viral infections, but it also includes not using the most efficacious antibiotics when there is a need for antibacterial treatment. To provide physicians and patients with information on how they can use antibiotics appropriately, we have initiated the LIBRAINITIATIVE.COM project to collect data on bacterial resistance on a global basis.

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Markets and Distribution

The Pharmaceuticals, Biological Products segment s principal markets are North America, Western Europe and Asia (especially Japan). The segment s sales by region and total, for the past three years are as follows:

	2002	2001	2000
		(euros in millions)	
Europe	1,411	1,629	1,698
North America	2,084	2,637	2,812
Asia/Pacific	884	1,022	1,159
Latin America/ Africa/Middle East	388	441	471
Total	4,767	5,729	6,140

The following table sets forth the segment s sales for the last three years, broken down by key products.

	2002	2001	2000
		(euros in millions)	
Cipro/ Ciprobay	1,411	1,964	1,785
Adalat	800	975	1,155
Kogenate	400	250	491
Gamimune N	333	343	350
Glucobay	287	312	311
Avelox	280	181	132
Trasylol	154	136	104
Prolastin	151	131	140
Nimotop	111	120	129
Fraction V products	85	101	118
Sum of top ten products	4,012	4,513	4,715
All other products	755	1,216	1,425
Total	4,767	5,729	6,140

Among the factors that have affected, or may affect, our Pharmaceuticals business are:

in Europe and North America, increasingly competitive price pressures, as managed care groups, health care institutions, government agencies and other purchaser groups seek price discounts and rebates for pharmaceutical products;

the impact of competing generic products entering the European and North American markets;

currency effects resulting from transactions in countries outside the euro zone;

competition from large pharmaceutical companies in the market with substantial resources for research, product development and promotion;

in Japan, regulation of pharmaceutical prices and mandatory price reductions stipulated by the Japanese Ministry of Health, Labor and Welfare.

We currently produce the active ingredients for our ethical pharmaceutical products almost exclusively at the Bayer facilities in Wuppertal and Leverkusen, Germany. Bayer facilities throughout the world compound our raw materials and package the finished product for shipment. Our main pharmaceutical production facilities are in Leverkusen, Germany; Garbagnate, Italy; Berkeley, California; and Shiga, Japan.

We obtain the raw materials for our ethical active ingredients partly from Bayer s Chemicals business segment and partly from third parties in Europe and Asia. Strategic reserves of our products help us ensure an unbroken supply chain. We obtain additional ingredients and packaging materials from diverse suppliers on a worldwide basis. We endeavor to approve several suppliers for each required material. At the same time, we are

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increasingly entering into global contracts in order to secure advantageous pricing. Where a required material is available from only one supplier, our policy is to amass a strategic reserve, typically equal to a 90-day supply, while mounting an intensive search for potential alternative suppliers.

We produce biological raw materials at our facilities in Clayton, North Carolina and, under license from Genentech, recombinant fVIII in Berkeley, California. We obtain raw plasma as well as some intermediates and supplies for plasma-derived products from third-party U.S. suppliers. The availability of raw plasma depends on the available donor base, purchases from other fractionators, regulatory procedures and ongoing consolidation with larger collectors.

We generally distribute our products through wholesalers, pharmacies and hospitals as well as, to a certain extent, directly to patients. Where appropriate, we actively seek to supplement the efforts of our sales force through co-promotion and co-marketing arrangements. In November 2001 we entered into a co-promotion agreement with GlaxoSmithKline for Levitra (vardenafil), our erectile dysfunction medication, currently approved in the EU and being launched in Germany and other major European markets. We expect approval in the United States and Japan. See *New Products.* In January 2003 Bayer and Aventis terminated negotiations regarding the establishment of a joint venture for biological products.

We encounter competition in all of our geographical markets from large national and international competitors. In the antibacterial products market, our main competitors are GlaxoSmithKline, Pfizer and Abbott Laboratories. Pfizer, Merck & Co., Novartis, and AstraZeneca are market leaders in the area of hypertension and coronary heart disease therapy. The market leaders for oral antidiabetics are Takeda, GlaxoSmithKline and Bristol-Myers Squibb. The erectile dysfunction market currently is dominated by Pfizer. Lilly has also recently entered the erectile dysfunction market. In cytostatics, Roche and Bristol-Myers Squibb have the largest market shares. Baxter, Bayer and Aventis are the leaders in the blood coagulation market. Together with Novartis, these three companies also play the major role in the markets for proteinase inhibitors and immunoglobulins.

Research and Development

We allocate the largest portion of our research and development budget to the Pharmaceuticals, Biological Products segment. Within this segment, we focus our research and development activities on therapeutic areas in which we believe there is a high degree of inadequately met medical need and where we expect our research and development investment to yield high productivity. Our established areas of core competency are bacterial infections as well as cardiovascular diseases and related disorders such as diabetes. Furthermore, we plan to steadily expand our activities in our recently established therapeutic area, oncology. Our current research and development portfolio also includes the following therapeutic areas: obesity, respiratory diseases (chronic obstructive pulmonary disease COPD and asthma); neurological disorders (stroke, traumatic brain injury, chronic pain), neurodegenerative disorders (Parkinson s disease and Alzheimer s disease), benign prostate hyperplasia/ urinary incontinence and viral infections, as well as such promising newly evolving markets as the treatment of erectile dysfunction.

In recent years we have supplemented our internal research activities, especially in the pharmaceuticals field, through research collaborations with third parties. See *Research and Development.*

The segment s largest research and development facilities are located in Wuppertal, Germany; West Haven, Connecticut; Berkeley, California and Kyoto, Japan.

Life cycle management

We apply life cycle management measures to our marketed products to expand the scope of possible treatment opportunities by identifying new indications and improved formulations. These measures have contributed to the maintenance of our leading position in antibacterials (Ciprofloxacin) as well as in the cardiovascular area (Adalat). Adalat is a prime example of successful life cycle management: seventeen years after the patent protection for nifedipine, its key component, expired, the drug generated 800 million in sales in 2002. Similarly, as our original patent for Ciprofloxacin expires in various jurisdictions, we are implementing life

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cycle management measures, such as improved formulations and dosage forms, for that drug. See *Major Products*.

New products

We received marketing approval from the European Commission in March 2003 for *Levitra*®, our erectile dysfunction medication. Levitra has already been launched in Germany and other major European markets. We expect to receive final marketing approval in the United States in the second half of 2003. The application that we filed with the Japanese authorities in December 2001 is currently under review. See Item 8, *Financial Information Legal Proceedings* for a discussion of the intellectual property status in the United States of Levitra and other erectile dysfunction medications.

Gamunex

Gamunex is a plasma-derived concentrate of human antibodies (IVIG). We manufacture Gamunex using a new purification process, which aims to assure product quality and supply reliability by eliminating viruses and other potential disease-causing agents. Biological Products has built a manufacturing facility exclusively dedicated to producing IVIG. Gamunex has been the subject of a large-scale clinical trial program for patients with certain forms of primary immune deficiency (PIP), congenital conditions in which the body s immune system is impaired, as well as idiopathic thrombocytopenic purpura (ITP), a condition in which the patient s own antibodies damage the cells that facilitate blood clotting. On the basis of these trials, we believe that Gamunex shows significantly improved effectiveness compared with earlier products used to treat these conditions.

Additional drug candidates in Phase II of clinical development are Repinotan, a Factor Xa inhibitor, a Raf Kinase inhibitor, and a novel Taxane. The respective indications are:

Product/ Brand name	Principal application	Status
Repinotan	Acute ischemic stroke	In Phase II
Faxtor Xa inhibitor	Thrombosis	In Phase II
Raf Kinase inhibitor	Cancer	In Phase II
Novel Taxane	Cancer	In Phase II

We plan to outlicense two projects in Phase II in the indications of chronic obstructive pulmonary disease and severe asthma. We have discontinued the development of Faropenem since the results of clinical trials indicated that it was unlikely that the product could be marketed successfully. Although Repinotan was ready for Phase III development, we revisited our clinical development strategy based on recent experiences in the stroke field and advice from key clinical experts, resulting in a revised study program for Phase II.

In May 2002 we entered into an agreement with Medicines for Malaria Venture (MMV), a World Health Organization (WHO) initiative, concerning the development of a new malaria drug based on the active substance artemisone. Under the agreement we will assume responsibility for the development of the drug, and after approval, WHO/MMV will oversee the distribution of the product in the public health systems of developing countries.

CONSUMER CARE, DIAGNOSTICS

Overview

Our Consumer Care, Diagnostics segment is comprised of the Consumer Care and the Diagnostics business groups.

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The following table shows the segment s performance for the last three years.

	2002	2001	2000
		(euros in millions)	
External net sales	3,755	4,104	3,888
Percentage of total sales (continuing operations)	13.0	14.1	13.4
Intersegment sales	2	2	
Operating result before exceptional items	408	388	311
Percentage of total operating result (continuing operations)	41.3	21.1	9.5
Exceptional items	193	(47)	(134)
Operating result	601	341	177

Segment Strategy

We are in the process of bundling our health care businesses (including Consumer Care, Diagnostics) into a single new, wholly-owned subsidiary of Bayer AG. See *Business.*

Our strategic priorities for the Consumer Care, Diagnostics segment are improving profitability, especially in the Diagnostics business, and gaining market share with selected core brands.

Consumer Care

Overview

Our Consumer Care business group develops and markets over-the-counter (OTC) medications (analgesics, cough and cold, dermatological and gastrointestinal remedies), as well as vitamin and nutritional supplements. It is our goal to achieve cost savings in the medium term by consolidating production. We have divested the household insecticide product lines in accordance with our strategy to focus on over-the-counter (OTC) medications, vitamins and nutritional supplements.

Major Products

Analgesics

The analgesics market comprises pain relief products both in oral form (for example, pills and tablets) and for topical use (for example, ointments and salves). We concentrate primarily on the oral products segment. Our OTC products also face competition from prescription drugs, for example cyclooxygenase (COX-II) inhibitor pain relievers.

Aspirin® (*Bayer*® brand aspirin in the United States) is a nonsteroidal anti-inflammatory drug (NSAID). It is used for pain relief and the prevention of second heart attacks. Bayer first synthesized aspirin in 1893 and began marketing it in powder form in Germany in 1900. We introduced the familiar aspirin tablets in 1910.

Aleve® is a nonprescription strength of the analgesic naproxen sodium. Aleve is a long-lasting pain reliever and can be used for fever reduction.

Our *Midol*® product family, which competes in the menstrual pain relief category, comprises several specific product positions, for example, Maximum Strength Menstrual Formula, Teen Formula, PMS and Cramp Pain. We sell Midol products only in the United States and Canada.

Cough/Cold

Within the total cough and cold market, we concentrate on the cold/flu remedy segment. This OTC category faces threats from non-medicinal remedies (for example, nutritional or herbal products such as zinc supplements and echinacea), as well as from preventive

medicines available by prescription or under development.

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Alka-Seltzer Plus® is an effervescent product to relieve symptoms accompanying the common cold. We market Alka-Seltzer Plus in the United States and Canada. *Tabcin*® is a line of products similar to Alka-Seltzer Plus; we market it primarily in Latin America. In late 2000, in response to a recommendation from the U.S. Food and Drug Administration to all manufacturers of products containing phenylpropanolamine, we discontinued marketing Alka-Seltzer Plus and similar products containing phenylpropanolamine in all of Consumer Care s markets. We completed our launch of reformulated products with Alka-Seltzer Plus in the United States in 2001 and outside the United States in 2002.

Aleve® Cold & Sinus was launched in the United States in 2000 as the first long-lasting combination of analgesic naproxen sodium and nasal decongestant.

Dermatologicals

The dermatological category includes a broad range of skin treatments. Within this market, we focus on the antifungal category, which in turn consists of three sub-segments: gynecological, dermatological and general topical/ other antifungals. All topical dermatologicals face significant threats from the prescription drug area as well as from locally marketed generic products and low-price brands.

Canesten® is treatment for vaginal yeast infections, athlete s foot and other dermatological problems. Originally introduced in 1973 as a prescription drug, Canesten has been switching to OTC status on a country-by- country basis since 1990.

Mycelex® is a treatment for vaginal yeast infections. Mycelex was previously available only with a prescription; it became an OTC medication in 1992.

Rid® is a topical head lice treatment. We acquired this brand from Pfizer (Warner-Lambert) in 2000.

Gastrointestinals

The gastrointestinal (GI) category includes antacids, anti-gas products, digestives, laxatives and anti-diarrheals. Our primary focus within this category includes all non-prescription segments except laxatives and anti-diarrheals. Longer term, all OTC GI products will face threats from related business areas including products switching from prescription to OTC status, OTC brand expansion from related categories (for example, anti-diarrheal brands extending or re-positioning to cover the antacid segment) and possible future preventative or curative therapies (for example, products that eradicate or manage the ulcer-causing bacterium *H. pylori*).

Alka-Seltzer® was developed in the late 1920s by Miles Laboratories and began U.S. national distribution in 1931. Alka-Seltzer is used for speedy relief of acid indigestion, sour stomach or heartburn with headache, or body aches and pains. Today we market Alka-Seltzer in close to 100 countries.

Phillips Milk of Magnesia® is a saline laxative used as an overnight remedy for constipation and acid indigestion, heartburn or sour stomach that may accompany it. The original Phillips formulation entered the U.S. market in 1873.

Talcid® was originally a prescription medication developed and sold by our Pharmaceuticals segment. Since 1988 it has obtained OTC status in several countries in Europe, Asia and South America. Talcid is used for the relief of symptoms from heartburn and acid indigestion.

Nutritionals

The nutritionals category is very broad, encompassing vitamins, minerals, multi-vitamins/ minerals, herbals, sports nutrition and specialty supplements in many different forms. Applicable regulations vary greatly, both from country to country and across nutritional segments (for example, herbals vs. vitamins). As a general rule, however, regulation of nutritionals tends to be less stringent than that of other OTC products. Bayer s primary interests in the nutritionals field are in the vitamin and mineral (especially multi-vitamins/ minerals) and herbals segments.

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One-A-Day® multivitamins entered the marketplace in 1940. Since 1994 we have offered a variety of special formulations, such as Men s, Women s, 55 Plus, Maximum and Essential formulas. In 1998 One-A-Day introduced a line of multivitamin/ herbals blends to target specific health concerns (for example, Energy, Memory and Prostate).

Flintstones® are multivitamin dietary supplements containing (depending on type) 10-19 essential nutrients for children ages 2-12. They were introduced nationally in the United States in 1969. *Bugs Bunny*® children s sugar-free multivitamins were introduced in 1971 in the United States. To strengthen our position in the children s vitamin market, we launched *Scooby Doo*® children s vitamins in the United States in 2001.

Markets and Distribution

Our Consumer Care business group now focuses on the OTC market for medicinal products that consumers may generally purchase without a prescription. In some European markets, this category also includes products sold to consumers on a prescription basis and later reimbursed under an insurance plan.

The business group s sales by region and totals for the past three years are as follows:

	2002	2001	2000
		(euros in millions)	
Europe	452	467	465
North America	680	894	749
Asia/Pacific	188	222	207
Latin America/ Africa/Middle East	396	512	502
Total	1,716	2,095	1,923

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
		(euros in millions)	
Analgesics	621	775	731
Cough/Cold	120	177	110
Dermatologicals	218	246	225
Gastrointestinals	209	266	239
Nutritionals	174	197	179
Other	374	434	439
Total	1,716	2,095	1,923

The business group is not generally subject to seasonality. Although consumer purchases of OTC cough/cold medications may vary at different times of the year, these variations do not have a material impact on the results of the segment as a whole.

Consumer Care procures many high-volume raw materials internally from other Bayer business groups and companies. Our major externally procured high-volume raw materials are sodium citrate, sodium bicarbonate, citric acid and ascorbic acid. These are readily available and are usually not subject to significant price fluctuations. Changes in oil and energy prices can affect a few key items, such as acetylsalicylic acid, phenol and aluminum foil. We diversify our raw materials sources internationally to help balance currency exchange rate risk.

The typical sales and marketing channels of the business group worldwide are supermarket chains and other mass marketers. In Europe, however, pharmacies are the usual distribution channel.

We regard Johnson & Johnson, GlaxoSmithKline, Wyeth and Pfizer as our major competitors in the Consumer Care business.

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Research and Development

The Consumer Care business group focuses its research and development activities on developing and implementing products and programs to contribute to business growth, including:

efficient development of new products to support current brands; and

clinical and regulatory strategies to creatively pursue ingredient prescription-to-OTC transitions and technology programs.

The business group s primary research and development facilities are located in Morristown, New Jersey and Leverkusen, Germany. The Leverkusen-based activities are currently being relocated to Morristown.

We currently have six products in late stages of development. Depending on approval by regulatory authorities and completion of internal prelaunch activities, we expect to launch these products during 2003. These products are:

Product/ Brand name	Principal application	Status
ASA & Pseudoephedrin	Congestion, pain relief	Registration approved, launch expected 2003
Fluconazol	Vaginal Mycosis	Registration approved, launch expected 2003
ASP Fast Dissolve	Cough & Cold	Launch expected 2003
Bayer Muscle & Joint	Topical pain	Launch expected 2003
PhillipsChews	GI	Launch expected 2003
RID Pure	Lice treatment	Launch expected 2003

Bayer Corporation is involved in a 50 percent joint venture with Hoffmann-LaRoche to market and sell Aleve, Mycelex, Vanquish and Midol in the United States. Both partners are actively involved in research and development planning for these products.

Diagnostics

Overview

With approximately 8,000 employees worldwide, Bayer Diagnostics, based in Tarrytown, New York, is one of the largest diagnostics businesses in the world. We support customers in over 100 countries with an extensive portfolio of products for the central laboratory, near patient testing, and self-testing environments. These products serve in the assessment and management of health in such areas as infectious diseases, cardiovascular disease, oncology, virology, women s health and diabetes.

Diagnostics acquired Visible Genetics (VGI) in the fourth quarter of 2002, which expands Bayer s position in the Nucleic Acid Diagnostics segment of the Central Laboratory Market. VGI introduced the first FDA-approved product for HIV resistance testing and provides additional expertise in HIV and HCV testing. The VGI acquisition serves the strategic goal to serve the market with an expanded infectious disease portfolio. We also signed a joint venture agreement with Matsushita Electric Industrial Co. to establish Viterion TeleHealthcare LLC, a company intended to market products and services for the telemedicine sector. The company was established in January 2003.

Major Products

Central Laboratory Testing

The *ADVIA*® family of products is the centerpiece of our laboratory testing portfolio, which provides a wide range of solutions for the central laboratory. ADVIA products include medium- and high-throughput systems for immunoassay diagnostics (the measurement of such substances as proteins, steroids, drugs and antibodies in patients blood), clinical chemistry and hematology analysis and other diagnostic disciplines. The main systems include *ADVIA Centaur*®, *ADVIA 1650*® and *ADVIA 120*®.

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In addition to our ADVIA products, we also offer the *ACS:180*® and *Bayer Immuno 1*® immunodiagnostic analyzers, as well as the *Clinitek Atlas*® urine chemistry system for high volume urinalysis testing. For highly specific testing of infectious diseases, we offer a family of DNA probes under the *Versant*® brand for the testing of HIV and Hepatitis B and C. NAD techniques detect nucleic acids such as DNA and RNA to allow for effective treatment of infectious and other diseases.

Near Patient Testing

We offer a variety of solutions for the near patient testing environment, both in the hospital and in physicians office laboratories. For the critical care environment, we offer the *Rapid*® family of instruments and reagents for the measurement of blood gases, electrolytes and coagulation.

In the field of urinalysis, we offer the *Multistix*® family of reagent strips for visual reading of up to 10 parameters and the *Clinitek*® line of instruments for automated readings. We also offer the *DCA 2000+*® analyzer for use in physicians offices to complement our diabetes self-testing products. The DCA 2000+ allows doctors to rapidly assess the effectiveness of diabetic patients self-monitoring over a period of time.

Self-Testing

In the self-testing segment we launched the *Ascensia*® brand for our diabetes testing products. Our key products include the *Ascensia Dex/Esprit*® blood glucose meter, which incorporates a 10-test cartridge to provide greater convenience to patients who test their blood sugar levels several times per day, and our best-selling diagnostics product, the *Ascensia Elite*®, a versatile blood glucose meter that serves a wide spectrum of patient needs.

Markets and Distribution

Our Diagnostics business group markets its products in over 100 countries worldwide, both directly and through a network of distributors. Our principal markets include North America, Western Europe and Japan.

The business group s sales by region and total, for the past three years are as follows:

	2002	2001	2000
		(euros in millions)	
Europe	742	697	700
North America	901	880	868
Asia/Pacific	268	276	307
Latin America/ Africa/Middle East	128	156	90
Total	2,039	2,009	1,965

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
		(euros in millions)	
Laboratory testing (excl. NAD)	813	791	776
NAD testing	99	86	65
Near patient testing	398	407	419
Self-testing	729	722	705
Other		3	

Total	2,039	2,009	1,965

Diagnostics sales are typically lower in the first quarter, but show a slightly stronger performance in the fourth quarter.

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We manufacture or assemble a significant portion of our own products. To do so, we rely on a supplier management process to supply raw materials, sub-assemblies and finished goods on an OEM (original equipment manufacturer) basis. Most of our direct materials are readily available commodities. Typically, these materials are not subject to significant changes in price or availability.

Some direct or OEM materials that we require would pose a substantial risk to the business if they were to become unavailable. In these instances, strategic reserves of selected direct materials or finished products help to ensure that our customers have a continuous and reliable supply. We maintain a global supplier base with contracts in place where appropriate. Our supplier management process includes procedures for continuous supplier monitoring and evaluation, as well as new supplier analysis and qualification.

We market our laboratory testing and NAD products, as well as most of our near patient testing products, directly to customers, who are primarily reference or private laboratories and hospitals. We channel our self-testing products to the consumer market through distributors and large pharmacy and retail chains. In the near patient testing segment, we market urine chemistry strips primarily through distributors.

Our primary competitors in the diagnostics market are:

Laboratory testing: Abbott, Roche, Beckman Coulter, Dade Behring and Johnson & Johnson;

NAD testing: Roche and Abbott;

Near patient testing: Roche and Radiometer; and

Self-testing: Roche, Johnson & Johnson (Lifescan) and Abbott.

Research and Development

Our Diagnostics business group focuses its research and development activities primarily on strengthening its core product lines and on expanding into high growth/high margin segments of the market:

In laboratory testing, through internal development and in-sourcing of the ADVIA family of systems and in the expansion of high value assays in oncology, cardiovascular and infectious disease testing.

In NAD testing, through menu expansion of assays for infectious disease and oncology testing.

In near patient testing, through enhancements of our Rapid systems, a new hospital point-of-care platform, and new chemistry strips for urinalysis.

In self-testing, through internal development and in-sourcing of mass market, user-friendly whole blood glucose monitoring systems and by focusing research in minimally- and non-invasive technologies.

The division s primary research and development facilities are located in the United States: in Medfield and Cambridge, Massachusetts; Tarrytown, New York; Elkhart, Indiana; and Berkeley, California.

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We currently have a number of products in late stages of development. Depending on completion of clinical trials and subsequent grant of any necessary FDA approvals, we expect to launch these products during the periods indicated below. These products are:

Product/Brand name	Principal application	Status
ADVIA IMS® Integrated Modular System	Modular platform, combining immunodiagnostic and clinical chemistry on a single instrument with a broad assay menu	Launch planned for 2003
ADVIA Centaur® menu extension	Extension of immunoassay menu, including full ID panel	Launches planned for 2003 through 2004
VERSANT HIV 3.0	Quantitative detection of HIV	Launched in November 2002
VERSANT HCV 3.0	Quantitative detection of hepatitis C	Launched in May 2003
RapidLab 1200	Blood gas/electrolyte analyzer	Launch planned for 2004
Multistix PRO	Addition of proprietary microalbumin and creatine reagent pads for improved screening for kidney dysfunction	Launched in January 2002
Ascensia® Contour®	Next generation whole blood glucose monitoring single strip system	Launched in April 2003

ANIMAL HEALTH

Overview

Our Animal Health segment researches, develops and markets new products for the health care of animals. These products are divided between the two business units Livestock and Companion Animal. The main activities of the Animal Health business group are the development of therapies for infectious diseases caused by bacteria, virus and parasites, and the development of pharmacologicals. This range of products is supplemented by a line of cosmetic care products as well as farm hygiene products.

The following table shows the segment s performance for the last three years.

	2002	2001	2000
	(euros in millions)		
External net sales	850	858	873
Percentage of total sales (continuing operations)	2.9	2.9	3.0
Intersegment sales	1	4	6
Operating result before exceptional items	180	161	148
Percentage of total operating result (continuing operations)	18.2	8.8	4.5
Exceptional items	(11)	0	25
Operating result	169	161	173

Segment Strategy

We are in the process of bundling our health care businesses (including Animal Health) into a single new, wholly-owned subsidiary of Bayer AG. See *Business.*

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Animal Health collaborates closely with our Pharmaceuticals business group and CropScience segment as well as other life science companies in research and development in order to bring to the market new active ingredients and products that combat diseases in animals.

Major Products

The imidacloprid combinations *Advantage*® and *Advantix*® as well as *Baytril*® are the two most important product types in our Animal Health business.

Parasiticides

Advantix® is a flea and tick control product in an easy-to-use spot-on application form with additional repelling effect against ticks and mosquitoes.

Advantage® is a flea control product in an easy-to-use, spot-on application form.

The *Droncit*® and *Drontal*® product family offers solutions for the control of tapeworm and roundworm.

Bayticol® is a topical product against major tick species that attack livestock animals.

Baycox® is a product for controlling coccidiosis, primarily in poultry and, more recently, in piglets.

Antimicrobials

The *Baytril*® family is our line of fluoroquinolone antimicrobials for the treatment of severe bacterial infections in animals.

Biologicals

The *Bayovac*® vaccine family comprises two main product types. Foot and mouth disease, or FMD, vaccines have been part of this product line for 50 years. Our Bayovac IBR Marker vaccines, used in controlling bovine respiratory disease, make it possible to distinguish vaccinated from infected animals.

Farm Hygiene

Integrated into our livestock business is our biosecurity management process that includes Farm Hygiene products. These products include insecticides for fly control, rodenticides against rats and mice (which now belong to CropScience but are also marketed by Animal Health) and disinfectants against bacteria.

Nutritionals

These highly generic and homogenous commodities are essential for higher value proprietary products like Baytril and Baycox to participate in the Asian market.

Markets and Distribution

The Animal Health business covers worldwide markets, including emerging markets such as China, Vietnam and others in South-East Asia. We divide our marketing activities into two main segments, marketing for food-producing animals and marketing for companion animals including horses.

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The two segments combined sales by region and totals for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	243	237	228
North America	337	340	339
Asia/Pacific	136	134	150
Latin America/ Africa/Middle East	134	147	156
Total	850	858	873

The following table sets forth the segment s sales for the last three years, broken down by category of activity.

	2002	2001	2000
	(euros in millions)		
Parasiticides	448	455	443
Antimicrobials	205	208	191
Biologicals	39	45	81
Nutritionals	63	69	78
Others	95	81	80
Total	850	858	873

On a worldwide basis, the activities of the Animal Health segment are not subject to any significant seasonal effects. Business entities belonging to the Bayer Group are the primary suppliers of materials for Animal Health.

Depending on local legislation, Animal Health products may be available to end users on a prescription or non-prescription basis. End users purchase prescription products from veterinarians or pharmacies. Non-prescription products are available through retailers, cooperatives or directly to integrators in the livestock segment; to pet shops and other specialized channels in the companion animal market; and on the mass markets.

Our main competitors in the animal health business are Merial, Pfizer Animal Health and Intervet.

Research and Development

The Animal Health segment focuses its research and development activities on antimicrobials, parasiticides and pharmacologicals. A particular goal of our research and development efforts is to provide the segment with innovative and patent-protected products (new active ingredients, formulations and application technologies).

The segment s primary research and development facilities are located in Monheim, Germany and Kansas City, Missouri.

We currently have several products or product families in late stages of development. Subject to regulatory approval, we expect to launch these products between 2003 and 2006. These products are:

Projects	Indication	Status
Endoparasiticide and ectoparasiticide combinations		launch/in registration

	Control of fleas, ticks, heartworm and gastrointestinal worms in cats and dogs	
Red mite control remedy	Poultry	in clinical development
Pain remedy	Pain therapy in dogs and cats	in clinical development
Baycox calves	Coccidiosis control in calves	in clinical development
Baytril swine (North America)	Antimicrobial infections in pigs	in registration
Pradofloxacin	Antimicrobial for dogs and cats	in clinical development

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CROPSCIENCE

Overview

Our CropScience segment develops and markets chemical crop protection products, seeds and integrated biotechnology solutions for agricultural and non-agricultural uses. CropScience operates through three business groups: Crop Protection, Environmental Science and BioScience. Crop Protection develops and markets chemical crop protection products for the control of insects, weeds and fungi. It develops active ingredients for new modes of action for enhanced effectiveness against these target pests. Environmental Science markets pest-control products for non-agricultural uses. The business group s portfolio includes products for lawn and garden care, termite and vector control, and rural hygiene and household care. BioScience focuses on the research, development and commercialization of conventional seeds and biotechnology products. The following table shows CropScience s performance for the last three years.

	2002	2001	2000
		(euros in millions)	
External net sales	4,697	2,838	2,582
Percentage of total sales (continuing operations)	16.2	9.7	8.9
Intersegment sales	90	102	97
Operating result before exceptional items	(15)	464	410
Percentage of total operating result (continuing operations)		25.2	12.5
Exceptional items	(107)	0	1
Operating result	(122)	464	411

The following table shows the sales during the past three years from the product that we regard as material to the sales of CropScience as a whole.

	2002		2001		2000	
Product	Sales (euros in millions)	Percentage of segment sales	Sales (euros in millions)	Percentage of segment sales	Sales (euros in millions)	Percentage of segment sales
Imidacloprid (Confidor, Gaucho, Admire, Provado)*	561	11.9	608	21.4	560	21.7

**Also used in our Animal Health segment s Advantage product.*

Segment Strategy

In 2002 we reorganized our former Crop Protection segment in connection with the acquisition of Aventis CropScience. In the short term, the completion of the integration and divestiture processes is a high priority. In nearly all countries, we have merged the activities of the two companies, and we have initiated important integration projects to achieve our synergy targets. In addition, we have substantially completed the divestitures required in connection with antitrust approvals for the acquisition. See *Notes to the Consolidated Financial Statements of the Bayer Group Acquisitions/ Divestitures*.

CropScience aims to increase profitability by introducing new products, realizing our synergy targets, controlling costs and streamlining its portfolio. From time to time, CropScience may seek to optimize its portfolio through strategic joint ventures and acquisitions.

In Crop Protection, the strategic focus is to capitalize on our strong product portfolio and introduce the new products in the pipeline.

Environmental Science is among the leading suppliers for non-agricultural pest control products worldwide, based on total sales. The group s objective is to maintain this leading market position. Strategic cornerstones will be selective partnerships for the lawn and garden business in the United States and the continuous optimization of our portfolio.

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With the acquisition of Aventis CropScience, CropScience has gained access to the field of biotechnology. CropScience continues to analyze its opportunities in the market for agronomic trait technologies, which are traits that a crop exhibits while it is still on the farm, such as insect resistance or herbicide resistance. CropScience is also further exploring the opportunities in the emerging field of quality traits, which are post-farm traits, such as fiber quality or nutritional value. Additionally, Nunza, a leading international developer and supplier of high quality conventional vegetable seed varieties, is an important pillar of our BioScience business.

Major Products

Crop Protection

Insecticides

Imidacloprid is an active ingredient in the chemical class of neonicotinoids. It helps control many pests, including aphids, thrips, whiteflies, leafhoppers, locusts, leafminers, wireworms, and many species of beetles, and is suitable for a wide variety of application methods, including foliar spray, soil drench, seed treatment and drip irrigation. Key brands containing Imidacloprid are *Confidor*®, *Admire*® and *Provado*®. Imidacloprid is now marketed in more than 120 countries for use on numerous important crops.

Aldicarb (*Temik*®) is a broad-spectrum carbamate insecticide and nematicide in granular form. Temik is applied to soil to protect crop roots from insects and nematodes and to protect against pests such as aphids or mites. Temik is used on a large number of crops like cotton, citrus and potatoes.

Deltamethrin (*Decis*®) is a broad-spectrum pyrethroid insecticide. Although used primarily against biting insects, it is also effective against various sucking pests. Decis is marketed in more than 100 countries for use on a wide range of crops (including cotton, soybeans, vegetables and cereals).

Fungicides

Tebuconazole prevents the targeted fungus from synthesizing vital components of its cell membrane. It can be used as a spray (*Folicur*® and related product brands) and in special applications, such as sealing wounds in woody plants and in material protection. In addition, Tebuconazole has certain plant growth-regulatory properties that are useful in certain crops.

Trifloxystrobin is a strobilurin-type broad-spectrum fungicide used primarily to protect cereals and a variety of other crops. It is used in foliar sprays as a straight product under our lead brand *Flint*® and in numerous combinations such as *Stratego*® and *Sphere*®.

Fosetyl Aluminum is a fungicide with specific activity against downy mildew fungi in vines, fruits and vegetables. A key property of Fosetyl Aluminum is its upward and downward mobility in plants. Sprayed on leaves, it is either absorbed and transported inside the plants downward to the roots to protect them against attack from fungi in the soil, or it is re-directed inside the plants upward to protect newly emerging leaves as well. It is used in foliar sprays and soil drenches as a straight product under our lead brand *Aliette*® and in various combinations under brands like *Mikal*® or *Valiant*®.

Herbicides

Fenoxaprop-P-ethyl (*Puma*®), CropScience s best selling herbicide, is used in more than 73 countries and is one of the leading products used worldwide against grass weeds in cereals, rice, soybeans and canola.

Metribuzin (*Sencor*®) is used against broadleaf weeds and grasses. The product is applied on potatoes, soybeans, sugar cane, tomatoes and other crops. Despite Metribuzin s maturity, its lifecycle has been extended by using the product as a mix partner with other key herbicides.

Flufenacet®, introduced in 1998, is effective in low dosages to protect numerous crops, including corn, soybeans, potatoes, cereals and rice, against grass weeds. *Axiom*®, *Define, Domain*®, *Epic*® and *Terano*® are key Flufenacet brands.

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Glufosinate-Ammonium (*Basta*®) is a post-emergence herbicide with a broad spectrum of efficacy against annual and perennial weeds and grasses. It is primarily used on perennial tree crops, vegetables, non-crop areas and as a harvest aid. *Liberty*®, introduced in 1998 in the United States and Canada, refers to the registered trade name of Glufosinate-Ammonium applied on herbicide tolerant crops.

The active ingredients Phenmedipham, Desmedipham and Ethofumesate make up the *Betanal*® product family, the basis of weed control systems in various beet varieties. Constant product innovation improving efficacy and product use have extended the life cycle of the product family, resulting in its strong position in the sugar beet market.

Seed Treatment

The insecticidal active ingredient Imidacloprid (*Gaucho*®) is CropScience s best selling seed treatment product. It is registered in over 100 countries for the treatment of early season pests and soil and leaf pests in key crops such as sugarbeet, corn, cereals and cotton.

Tebuconazole (*Raxil*®) is registered in our most important markets worldwide as a seed treatment to control seed and soilborne diseases in cereals.

Environmental Science

Environmental Science markets its products to different end customers, particularly targeting pest management professionals, homeowners and do-it-yourself gardeners.

Imidacloprid-based *Premise*® is a termite control product launched in the United States in 1996. *Merit*®, another imidacloprid-based compound, is used in the green industry segment, in particular in turf and ornamentals. It controls a large spectrum of insects such as grubs and cutworms.

Deltamethrin (*K-Othrine*®, *Deltagard*®), another important insecticide used in Environmental Science, controls a large spectrum of flying and crawling insects. Deltamethrin is recommended by the World Health Organization and has been used for many years to control insect-borne diseases such as malaria.

Maxforce® is an insecticide used in passive treatment applications such as gels and baits. It contains Hydramethylnone or Fipronil. Maxforce s range of products includes a large number of insecticides controlling crawling insects.

The products targeted at the non-professional users are marketed under the umbrella brands *Bayer Advanced*® in the United States and *Bayer Garden*® in Europe.

BioScience

Nunza is a leading international developer and supplier of high quality vegetable seed varieties that are marketed to professional outdoor and greenhouse growers, plant raisers and the food processing and service industries. The main crop seeds are carrots, onions, melons, leeks and tomatoes. The commercial name in Asia/Pacific and Europe is *Nunhems*® and *Sunseeds*® in the Americas.

LibertyLink® corn, provided by licensee seed companies in North America, provides farmers with the ability to utilize Liberty® brand herbicide (Glufosinate-Ammonium) in a post emergent weed control program for corn.

FiberMax® cottonseed brand was launched in the U.S. market in 1998. Additionally it was introduced in Greece, Spain, Turkey and some Latin American countries.

InVigor® hybrid canola (oilseed rape) varieties are suitable in several climate and soil conditions for a variety of agricultural practices. InVigor hybrid canola is a high yielding variety and affords agricultural management options that require less cultivation techniques. These hybrid varieties also have tolerance to Glufosinate-Ammonium.

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Markets and Distribution

Europe has traditionally been CropScience s strongest crop protection market, accounting for 39 percent of our sales in 2002.

CropScience s sales by region and total for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	1,851	1,063	925
North America	1,024	636	574
Asia/Pacific	797	558	555
Latin America/ Africa/Middle East	1,025	581	528
Total	4,697	2,838	2,582

The following table sets forth CropScience s sales for the last three years, broken down by category of activity.

	2002	2001	2000
	(euros in millions)		
Insecticides	1,250	1,059	1,026
Fungicides	1,030	821	722
Herbicides	1,452	538	451
Seed Treatment	270		
Total Crop Protection	4,002	2,418	2,199
Environmental Science	605	420	383
BioScience	90		
Total	4,697	2,838	2,582

Because nearly 80 percent of CropScience s business is realized in the northern hemisphere, the business is affected by the seasonality of the various crop cycles.

CropScience obtains a significant part of its raw materials from within the Bayer group but also enters into contractual agreements with non-Bayer companies.

CropScience markets its Crop Protection products through a two or three-step distribution system, depending on local market conditions. Under this system, products are sold either to wholesalers or directly to retailers.

Environmental Science products are marketed either through specialized distribution channels or agricultural distribution channels depending on the target segments.

BioScience markets its seeds to end users, distributors and processing industries. Biotechnology traits are mainly distributed through out-licensing to seed companies, which produce commercial seeds on the licensor s behalf. In some cases, traits are provided to other bioscience companies that utilize the technology in their own research and products.

Our main competitors in the Crop Protection business are Syngenta, Monsanto, BASF, Dow AgroSciences and DuPont. Dow AgroSciences and Syngenta are our main competitors in the overall Environmental Science business. In the business of biotechnology-based products and seeds, DuPont, Monsanto and Syngenta are the market leaders.

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Research and Development

Crop Protection

Bayer CropScience Research and Development is globally represented with main facilities in Monheim (headquarters) and Frankfurt, Germany; Lyon and Sophia Antipolis, France; Kansas City, Missouri and Raleigh, North-Carolina; and Yuki City, Japan.

The responsibility of Research and Development is to discover and develop customer-focused, innovative and profitable solutions in crop protection.

Research covers all activities to identify new active ingredients that can be developed as insecticides, fungicides or herbicides. Genomics, high throughput screening and combinatorial chemistry are part of the technological platform for finding new lead structures.

Collaborations with research companies supplement our internal research activities (for example target identification carried out by GenOptera LLC, a joint venture between Bayer and Exelixis, Inc.).

Once a compound is identified for development, its biological, environmental and toxicological profile, as well as its economic potential, are assessed. Suitable candidates are launched in the market.

CropScience actively supports its products through continuous life cycle management. This includes the development of new formulations for existing active ingredients and expanding their applicability to additional crops and countries.

Environmental Science

The molecules invented by Crop Protection Research are tested and evaluated in Environmental Science for potential development. Development projects include passive treatments (gels, baits) and innovative formulations to control insects, as well as new herbicide products and new mixtures of fungicides for the turf and ornamental market segments.

BioScience

The BioScience research and discovery facilities are located in Lyon, France; Haelen, Netherlands; Ghent, Belgium and Potsdam, Germany.

Agricultural biotechnological research and development is predominantly directed toward crop protection and yield enhancement, reproductive biology (hybrids), stress tolerance and carbohydrate modification. The technologies include all relevant tools to improve key crops (for example corn, cotton, rice) for growers and industrial partners, from identifying the gene of interest to development. We pursue cooperative arrangements to leverage our portfolio and plant transformation technologies over a larger genetic pool (germ plasm). Research activities range from the discovery of additional agronomic traits to the discovery of new quality traits to enhance crops for the food, feed and industrial applications markets.

The following new active ingredients were launched in 2002 or are expected to be launched in 2003:

New active ingredients	Product Family	Status
Methoxyfenozide(1)	Insecticides	Launched in 2002
Mesosulfuron	Herbicides	Launched in 2002
Foramsulfuron	Herbicides	Launched in 2002
Spirodiclofen	Insecticides	Launch expected in 2003
Clothianidin(2)	Insecticides	Launch expected in 2003

(1) Co-development with Dow AgroScience

(2) Co-development with Sumitomo Chemical Takeda Agro Ltd.

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PLASTICS, RUBBER

Overview

Our Plastics, Rubber segment comprises the business groups Plastics and Rubber. The following table shows the segment s performance for the last three years.

	2002	2001	2000
		(euros in millions)	
External net sales	5,378	5,581	5,816
Percentage of total sales (continuing operations)	18.6	19.1	20.0
Intersegment sales	115	116	122
Operating result before exceptional items	175	288	560
Percentage of total operating result (continuing operations)	17.7	15.7	17.1
Exceptional items	(102)	(50)	(45)
Operating result	73	238	515

No individual product is material to the revenue of the segment as a whole.

Segment Strategy

We plan to hold our Plastics, Rubber segment and our Polyurethanes, Coatings, Fibers segment through a single new wholly-owned subsidiary of Bayer AG that will be responsible for all of Bayer s Polymers businesses. See *Business*.

Our goal is to continue our leading market position in high-value added plastic and rubber products. We intend to continue developing new applications for our products. We aim to improve profit margins by continually streamlining our existing product portfolio, implementing efficient cost structures, eliminating capacity constraints and further exploiting our regional growth potential. We intend to boost our returns through stringent cost and efficiency programs. As part of these programs, we have announced that we plan to reduce the headcount in the Plastics, Rubber segment and the Polyurethanes, Coatings, Fibers segment.

Plastics

Overview

With its broad product portfolio, our Plastics business group is one of the leading global suppliers and manufacturers of engineering thermoplastics. Many Bayer materials have chemical and physical properties that enable them to resist very low or very high operating temperatures as well as corrosive chemicals and solvents.

Major Products

Amorphic thermoplastics

Polycarbonates

Polycarbonates are plastics that are transparent and highly stable across a wide temperature range. Polycarbonates almost completely dominate the field of optical data storage media, such as recordable CDs and DVDs, and are widely used throughout the electrical/ electronics segments in general. The construction industry is also a major user of polycarbonates. *Makrolon*® is our leading polycarbonate product. Its key characteristics include high transparency, heat resistance and toughness. It can be both sterilized and recycled. Our other polycarbonates include the *APEC*® range.

Styrenics

Styrenics lend themselves well to blending with other forms of plastic. Blend technology can transform a palette of a few basic polymers into a wide range of new, advanced polymers with tailored properties, creating user-specific solutions and, in many cases, cost advantages as well. *Novodur*®, and *Lustran*®, acrylonitrile/

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butadiene/styrene (ABS) copolymers, are our leading stryrenics. Other styrenics include *Lustran SAN*®, *Bayblend*® (Polycarbonate/ABS blend), *Triax*® and *Centrex*®.

Fabricated Products

We also produce plastic films as well as solid and multiwall sheets and sheeting with a broad range of characteristics for a wide variety of applications. These materials consist of polycarbonate, polycarbonate blends or polyester PET-G. We market our films under the trade names *Makrofol*® and *Bayfol*®, and our sheeting as *Makrolon*® and *Vivak*®.

Semi-crystalline polymers

Polyamides

Polyamides are tough, strong, high-performance plastics. They are resistant to chemicals and can often replace metal and other materials. The most important consumers of polyamides are the automotive, food packaging and electrical/ electronic industries. In addition, we use these materials in producing halogen-free flame retardant products. In the automotive field alone, applications of polyamides range from such long-established uses as coolant casings, hubcaps, door handles, external mirrors, sun-roofs and central electrical systems to more recent developments, such as tail pipes, vehicle electronics and anti-lock braking systems. *Durethan*® is our range of engineering thermoplastics based an PA 6, PA 66 and their copolyamides.

Polyesters

Semicristalline thermoplastic polyesters like polybutylene terephthalate (PBT) and engineering plastics polyethylene terephthalate show high resistance to chemicals, heat distortion, stress cracking and low water absorption. They are used unreinforced, glass fiber reinforced, flame retardant, filled and in blends. *Pocan*® is our trademark for engineering thermoplastics based on PBT and PET.

Thermoplastic polyurethanes

Thermoplastic polyurethanes, or TPUs, belong to the high-performance thermoplastic elastomers family. A key TPU property is high abrasion- and wear-resistance. TPU s abrasion- and wear-resistance properties are substantially superior to those of abrasion-resistant rubber compounds. Its wet abrasion resistance surpasses even that of most metals. We market our thermoplastic polyurethanes under the trademarks *Desmopan*® in Germany and other EU countries and *Texin*® in the United States.

Markets and Distribution

We sell the products of our Plastics business group to some 6,500 customers worldwide. These customers include injection-molding operators and a large number of plastic-component manufacturers, whose products are overwhelmingly used in the automotive, electrical, electrical engineering, construction, data technology, medical and leisure fields.

The business group s sales, by region and total, for the past three years are as follows:

	2002	2001	2000
		(euros in millions)	
Europe	1,502	1,572	1,574
North America	824	846	994
Asia/Pacific	736	735	730
Latin America/ Africa/Middle East	175	221	222
Total	3,237	3,374	3,520

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The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
		(euros in millions)	
Amorphic polymers (polycarbonates, styrenics and structural fabricates)	2,709	2,767	2,918
Semi-crystalline polymers (polyamides, polyesters and thermoplastic polyurethanes)	528	607	602
Total	3,237	3,374	3,520

The market for engineering thermoplastics is characterized by constant pressure on margins and growing price competition due to globalization, consolidation and increasing customer purchasing power. The primary driver of competition is price. Our major customers also expect global presence, technical support and service and reliable delivery. In order to meet these demands and to achieve leadership in both cost and technology, we are extending our production and marketing presence in our key regions and markets.

Despite continually growing demand, overcapacity remains a global problem. Although several producers have cancelled or postponed expansion plans, capacity continues to increase. We expect that the industry will continue to consolidate and that new, low-cost technologies will replace small, increasingly obsolete facilities.

Bayer does not produce basic petrochemicals. The principal raw materials of our Plastics business group are styrene, butadiene, acrylonitrile, acetone, phenol, cyclohexane, butandiol and dimethylterephthalate. Because many of these materials derive from petrochemicals, we obtain them almost exclusively from third parties. We do, however produce Bisphenol-A (another key polycarbonate component) internally. Nevertheless, our costs are affected by fluctuations in raw material prices, driven in turn by fluctuations in oil prices. We typically procure third-party raw materials under long-term, as-if-producer contracts that establish cost-based pricing formulas, limiting raw material price fluctuation to the effects of fluctuation in the price of crude oil and energy.

We market substantially all our plastics products through regional distribution channels, supported by regional competence centers and by our head office. In addition, we also use e-commerce as a platform for marketing and distribution and other business functions.

Our most significant global competitor in all regions is General Electric Plastics. We also compete with several other companies, most notably BASF, Dow and DuPont. Particularly in the Far East, local competitors with more limited product portfolios, such as Teijin, Chimei, Idemitsu, Mitsubishi and LG, are also important market players.

Research and Development

The Plastics business group focuses its research and development activities on process development in polycarbonates, styrenics and semi-crystalline thermoplastics. We are introducing a new polycarbonate melt manufacturing process, standardizing worldwide processes for the manufacture of emulsion ABS, and furthering the development of the PA 6 polymerization process. In product development, we focus on consolidating our product portfolio, developing new blends, refining optical data carriers and modifying the surface of plastics with coatings.

The business group s primary research and development facilities are located in Krefeld and Dormagen, Germany; Pittsburgh, Pennsylvania; Addyston, Ohio; and Moxi, India.

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We currently have six products in late stages of development. We expect to launch these products during 2003. These products are:

Product/ Brand name	Application	Status
Makrolon sheet grade	Sheets with transparent IR protection	Start commercialization
Extension of Bayblend FR series	Business machines/ information technology	Start commercialization
Triax for online painting	Automotive exterior parts	Start commercialization
Structural hybrid components	Automotive	Start commercialization
Halogenfree flame retardant Pocan	Electric/ Electronic	Start commercialization
Light-stable Desmopan	Instrument panels	Start commercialization

Rubber

Overview

As a leading supplier of raw materials, our Rubber business group is an important partner to the rubber and tire industry. Our portfolio comprises synthetic rubber, rubber chemicals and modifiers for the plastics industry, along with special preparations and processing chemicals. On May 9, 2003, we sold our interest in PolymerLatex, a joint venture with Degussa AG, after receiving approval from the relevant antitrust authorities.

Major Products

Solid Rubber

We produce a wide range of synthetic rubber products. Our customers may process our rubber materials into end products, often blending them with other synthetic rubbers or natural rubber to form a wide range of compounds. Our products offer customers an array of varying characteristics, including processability, hardness, flexibility and wear, heat and chemical resistance, to suit their specific needs. The tire industry is a major user of our rubber products. Our rubber products are also the basis for a wide variety of other articles such as hoses, cable and wire sheathing, footwear and golf balls. In addition, some of our polymers are formulated as adhesives.

Rubber Chemicals

We produce a broad range of chemical products for use in the rubber compounding and production process. These products help rubber producers to control the speed of vulcanization, to protect rubber products against degradation through heat, oxidation and chemicals, and to alter the consistency and properties of rubber products.

Rhein Chemie

Our subsidiary Rhein Chemie produces a wide variety of substances used in rubber manufacture and processing.

Markets and Distribution

The main markets for the Rubber business group are Europe and North America. The tire and automotive industries generate about 60 percent of the business group s revenue, both from new car production and replacement tires.

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The business group s sales by region and total for the past three years are as follows:

	2002	2001	2000
		(euros in millions)	
Europe	1,008	1,060	1,033
North America	658	720	762
Asia/Pacific	347	307	367
Latin America/ Africa/Middle East	128	120	134
Total	2,141	2,207	2,296

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
		(euros in millions)	
Solid Rubber	1,373	1,420	1,468
Rubber Chemicals	292	288	314
PolymerLatex	179	190	184
Rhein Chemie	280	293	318
Other	17	16	12
Total	2,141	2,207	2,296

Our Rubber business group is not subject to significant seasonality.

In procuring many of our chemical raw materials, we benefit from integration with the other companies of the Bayer Group.

We regard the following companies as the major competitors of our Rubber business group:

Solid Rubber: Goodyear, Exxon, Enichem, Dow Chemical and Nippon Zeon; and

Rubber Chemicals: Flexsys and Crompton.

Research and Development

The Rubber business group focuses its research and development activities on creating new products, improving processing technology and improving testing methods. The business group s primary research and development facilities are located in Leverkusen and Dormagen, Germany, and Sarnia, Canada.

Because a substantial portion of our business comes from the automotive sector, anticipating and meeting that sector s needs is a key priority of our research and development effort. In the tire field, we concentrate on improvements in rolling resistance, wet grip and wear. In the non-tire automotive industry, the primary goal is developing rubber parts that have longer durability in more demanding environments.

We currently have five products in late stages of development. We expect to launch these products during 2003. These products are:

Product/ Brand name	Application	Status

Therban PT	Injection moulding	Production trials
Therban XT	Improved hot abrasion and adhesion	Market development
Polymer Gel (Tradename to be decided)	Low density, polymer filler for tires and technical goods	Sampling to customers
Levapren 900	PVC substitute in NBR blends	Sampling to customers
Vulcuren	Natural rubber/ truck tire	Trial product, sampling to customers

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POLYURETHANES, COATINGS, FIBERS

Overview

Our Polyurethanes, Coatings, Fibers segment comprises the Polyurethanes, the Coatings and Colorants and the Fibers business groups. The following table shows the segment s performance for the last three years.

	2002	2001	2000
		(euros in millions)	
External net sales	5,397	5,439	5,582
Percentage of total sales (continuing operations)	18.6	18.6	19.2
Intersegment sales	78	138	462
Operating result before exceptional items	243	129	577
Percentage of total operating result (continuing operations)	24.6	7.0	17.7
Exceptional items	(448)	(120)	(53)
Operating result	(205)	9	524

No individual product is material to the revenue of the segment as a whole.

Segment Strategy

We plan to hold our Polyurethanes, Coatings, Fibers segment and our Plastics, Rubber segment through a single new wholly-owned subsidiary of Bayer AG that will be responsible for all Bayer s Polymers businesses. See *Business*.

Our goal is to continue expanding our global position in polymers. In 2000 we supplemented our existing portfolio by acquiring Lyondell s polyol business. We now plan to focus on capacity expansion in Asia, where we see opportunities for above-average growth. We intend to boost our returns through stringent cost and efficiency programs. As part of these programs we have announced that we plan to reduce the headcount in the Polyurethanes, Coatings, Fibers segment and in the Plastics, Rubber segment.

Polyurethanes

Overview

Our Polyurethanes business group focuses on the development, production and marketing of isocyanates and Polyol materials for PUR formulations and systems used in producing a wide variety of polyurethane polymers for a broad range of industrial and consumer applications.

Products

Polyurethanes are polymers formed through the reaction of two liquid chemicals: an isocyanate typically diphenylmethane diisocyanate (MDI) or toluene diisocyanate (TDI) and a polymeric alcohol such as polyether polyols. We produce a range of different isocyanates and polyether polyols under such brand names as *Desmodur*®, *Desmophen*®, *Baydur*® and *Bayflex*®. The characteristics of a given polyurethane depend on both the material components used as well as the precise proportion of each used in the mix.

Our customers use our isocyanates or polyether polyols, or both, to create their own specific polyurethane formulations. In addition, upon request we design and evaluate custom blends to meet specific customer requirements. When we have perfected a formulation for a specific end product, we deliver the components to the customer, who then combines them at his manufacturing site. The customer receives a ready-to-use two-component system. The precise formulation of each custom blend is proprietary.

Typical applications for which our customers use our polyurethane raw materials include furniture, mattresses, automotive components, appliances, sport and leisure equipment and construction.

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Markets and Distribution

Europe and the NAFTA nations remain the primary markets for our Polyurethanes business group, although Asia is growing in importance.

The Polyurethanes business group s sales by region and total for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	1,287	1,340	1,218
North America	1,143	1,237	1,175
Asia/Pacific	439	416	394
Latin America/ Africa/Middle East	387	200	343
Total	3,256	3,193	3,130

The following table sets forth the business group s sales for the last three years, broken down by product type.

	2002	2001	2000
	(euros in millions)		
TDI	593	575	583
MDI	1,099	1,177	980
Polyethers	1,347	953	1,226
Others	217	488	341
Total	3,256	3,193	3,130

For our customers applications, there are no significant man-made or natural substitute materials for flexible polyurethane foams. Polystyrenes can compete with rigid polyurethane foams if the required materials are in sheet or block form. Conversely, polyurethane elastomers compete with other thermoplastic materials on cost, performance and fit with the production mix at the customer s site.

In the automotive area, there is constant competition between polyurethanes and other polymers in many applications, except for seating and steering wheels, due to required physical properties, costs, design or functional requirements.

On a worldwide level, the Polyurethane business group s sales are not subject to significant seasonality. On the regional level, business can display indirect seasonality where, for example, revenue depends on such seasonal industries as construction and other outdoor applications.

The basic raw materials for our Isocyanates and Polyols are commodity petrochemical products. We typically purchase these on the open market, partially under long-term contracts, as Bayer generally does not produce petrochemicals. However, through our acquisition of Lyondell s polyol business, we have acquired a low-cost source for propylene oxide, one of our key raw materials. Although these raw materials are readily available, they are subject to price fluctuation driven by, for example, changes in world oil prices.

The Polyurethanes business group sells its products directly to customers and, to a much smaller degree, through so-called system houses and traders. System houses typically serve smaller-volume customers and may be either independent companies or the subsidiaries of larger companies. It is our strategy to systematically establish our own regional system houses.

To further increase efficiency along the supply chain, we are establishing regional supply chain centers, replacing country-specific organizations, to fill orders. Ultimately, we plan to have the regional supply chain centers balance worldwide supply with regional demand.

Our main competitors are BASF, Dow Chemical and Huntsman.

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Research and Development

The Polyurethanes business group focuses its research and development activities on:

reducing the thermoconductivity of rigid polyurethane foams;

halogen-free flame retardants;

halogen-free blowing agents;

reduction of volatile components in polyurethane raw materials;

new applications for polyurethanes and polyurethane raw materials; and

reducing costs and improving quality in production processes.

The business group s primary research and technical development facilities are located in Dormagen and Leverkusen, Germany, Pittsburgh, Pennsylvania, and South Charleston, West Virginia.

The main areas of innovation in the polyurethane field are currently the development of new or improved polyether polyol types and blends as well as the improvement of manufacturing processes. The business group concentrates its research and development efforts with respect to aromatic isocyanates on improving existing products and technologies for their manufacture. High throughput experiments are used for the development of new formulations and will help to reduce time-to-market for new products.

Coatings and Colorants

Overview

Our Coatings and Colorants business group develops and markets a wide variety of products that serve as raw materials for lacquers, coatings, sealants and adhesives and colorants for plastics and building materials. Colorants has been transferred to Bayer Chemicals as of January 2003.

Major Products

Resins and Hardeners

Polyurethane lacquers are formed through the combination of an isocyanates component with a polyol or polyester component. We offer a variety of components (for example *Desmophen*®, *Rucote*® and *Bayhydrol*®) and isocyanates (for example *Desmodur L*®, *Desmodur N*®, *Desmodur BL*®, *Bayhydur*®, and *Crelan*®). This variety enables us to provide custom-tailored solutions for a number of different applications.

Special raw materials

Our special raw material unit produces such specialty products as *Impranil*®/*Baybond*®, our polyurethane coating systems for textiles.

Adhesive raw materials

Dispercoll® and *Desmocoll*® are our raw materials for adhesives. Their primary users are shoe manufacturers, though we also have customers from the automotive, furniture and building industries.

Colorants

Bayferrox® is our iron oxide-based colorant, available in a variety of colors for a wide range of uses. For example, it imparts the characteristic reddish tone of roofing tiles.

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Markets and Distribution

Our Coatings and Colorants business group is a major producer of raw materials for coatings and adhesives as well as of organic and inorganic dyes and pigments. The primary ultimate end-users of our products are the automotive, furniture and plastics industries; other users include the textile, shoe, paint and building industries.

The business group s sales by region and total for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	891	961	934
North America	538	555	523
Asia/Pacific	345	336	311
Latin America/ Africa/Middle East	167	162	178
Total	1,941	2,014	1,946

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
	(euros in millions)		
Resins	282	253	211
Aliphatic isocyanates	578	553	543
Aromatic isocyanates	212	230	223
Special raw materials	161	186	161
Adhesive raw materials	218	242	240
Colorants	490	550	568
Total	1,941	2,014	1,946

Our revenue is not subject to significant seasonality over the course of the typical year. Some of the individual markets and regions that we serve experience seasonal fluctuation, such as the building industry during the winter months or southern Europe during the summer. All markets and regions taken as a whole, however, produce relatively constant revenue throughout the year.

Temporary fluctuations in prices, such as the price of crude oil, can have a significant effect on the cost of our raw materials. Nevertheless, because of our broadly diversified supplier base and raw material mix, we are not significantly dependent on any single raw material or supplier of raw materials.

We coordinate and carry out our sales and marketing from our head office in Leverkusen, Germany, as well as through our various national subsidiaries. In addition, e-commerce is becoming increasingly important in our marketing activities. Our key account managers handle our globally active major customers directly.

We regard the following companies as the chief competitors of our Coatings and Colorants business group:

Resin components: Solutia;

Aliphatic isocyanates: Rhodia;

Organic pigments: Ciba and Clariant; and

Inorganic pigments: Rockwood, formerly known as Laporte.

Research and Development

The Coatings and Colorants business group focuses its research and development activities on developing new high performance resin components and aliphatic and aromatic polyisocyanates, which we formulate into environmentally friendly coatings, reducing their use of natural resources. We are also exploring ways of reducing the amount of solvent needed for the use of our raw materials within coating applications.

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The business group s primary research and development facilities are located in Leverkusen and Dormagen, Germany and Pittsburgh, Pennsylvania.

Fibers

Overview

Our Fibers business has been reclassified from discontinuing operations to continuing operations under the segment Polyurethanes, Colorants, Fibers. Our Fibers business focuses on the development, production and marketing of fibers for the textile industry under the tradename *Dorlastan*®, and for general applications under the tradenames *Atlas*®, *Perlon*® and *Bayco*®. We will evaluate the strategic direction of the reclassified operations of the business group, including the production facilities for Dorlastan spandex fibers and Perlon monofil at three sites Dormagen and Goch, Germany, and Bushy Park, South Carolina.

Markets and Distribution

The Fibers business group s sales by region and total for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	99	134	257
North America	52	54	67
Asia/Pacific	24	15	55
Latin America/ Africa/Middle East	25	29	127
Total	200	232	506

CHEMICALS

Overview

The Chemicals segment is comprised of the Basic and Fine Chemicals, Specialty Products, H.C. Starck and Wolff Walsrode business groups.

The following table shows the Chemical segment s performance for the last three years.

	2002	2001	2000
	(euros in millions)		
External net sales	3,304	3,749	3,410
Percentage of total sales (continuing operations)	11.4	12.9	11.7
Intersegment sales	409	456	466
Operating result before exceptional items	160	271	370
Percentage of total operating result (continuing operations)	16.2	14.7	11.3
Exceptional items	(26)	(68)	24
Operating result	134	203	394

No individual product is material to the revenue of the Chemicals segment as a whole.

Segment Strategy

The focus of our activities in the Chemicals segment is improving our margins. We aim to achieve this goal by streamlining our portfolio and focusing on selected activities in the chemical industry. A recent example is the divestment of the non-core Haarmann & Reimer subsidiary effective September 30, 2002.

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Basic and Fine Chemicals

Overview

Our Basic and Fine Chemicals business group focuses on the development, manufacture and marketing of a wide range of basic chemicals as well as a growing range of high specification, customized fine chemicals for use in advanced industrial sectors such as life sciences.

Basic chemicals are produced in bulk quantities using few synthesis steps. Their raw materials are basic organic and inorganic substances (for example benzene or chlorine). We produce most of our basic chemicals in dedicated, continuous-process manufacturing plants using advanced technologies to optimize production and quality.

Fine chemicals are high added-value, multi-step synthesis products made to exact specifications by sophisticated and complex chemical synthesis processes. Fine chemicals comprise two broad categories:

multi-customer products, or catalogue products sold to more than one customer; and

single customer products, synthesized to the specifications of individual customers. Production of our single-customer fine chemicals often involves various levels of customer partnership as well as custom-tailored research and manufacturing; typical examples are life science intermediates for the pharmaceutical and agrochemical industries.

The product range of the Basic and Fine Chemicals business group contains approximately 2,700 individual products and articles for thousands of applications.

Markets and Distribution

The business group s principal markets are industries using organic or anorganic intermediates, custom manufacturing and fine chemicals for the photographic, electronics and life science industries.

The business group s sales, by region and total, for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	611	666	622
North America	124	167	194
Asia/Pacific	127	122	129
Latin America/ Africa/Middle East	69	70	61
Total	931	1,025	1,006

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
	(euros in millions)		
Fine chemicals	215	276	272
Basic chemicals	515	506	487
Inorganic basic chemicals	170	220	197
Others	31	23	50
Total	931	1,025	1,006

Our Basic and Fine Chemicals business group is not seasonal. Basic chemicals are more influenced by fluctuations in raw material prices (for example toluene, benzene) than are fine chemicals, primarily because our basic chemical operations make greater use of petrochemicals, whose prices are driven by changing oil prices.

We market the products of our Basic and Fine Chemicals business group primarily through Bayer s worldwide network of trading companies and agencies, with their specialized and experienced salespeople.

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The business group s chief competitors in the various industrial intermediates segments are Solutia, Clariant, BASF and Tessenderlo. In various fine chemicals segments, we compete against Lonza, DSM, Clariant and Rhodia.

Research and Development

Research and development for Fine Chemicals concentrates on the development of innovative, cost efficient and reliable processes for the custom manufacturing of industrial intermediates and products.

For Basic Chemicals, our efforts focus on technological and chemical improvements of manufacturing processes of industrial intermediates.

The business group s primary research and development facilities are located in Leverkusen, Germany.

Specialty Products

Overview

In contrast to other chemicals business lines, our Specialty Products business group displays a high degree of custom tailoring for the specific needs of its customers. The business group serves a broad range of industries, including textile, paper and leather manufacture; material protection products; polymer producing and processing industries; and water treatment.

The Specialty Products business group offers its customers thousands of compounds. We have a variety of broad product families, each of which contains several product lines. Each product line represents numerous individual compounds that are related to a general chemical composition and area of function.

Markets and Distribution

The specialty chemicals market is highly segmented. Market participants range from small local suppliers to multinational concerns. In recent years this market has been consolidating, with heavy mergers and acquisition activity. We believe that this business group s products are, because of their specialized nature, less subject to commoditization than other chemical products, and that Specialty Products profitability may be more sustainable than that of the broader chemicals market.

Given the individualized nature of its products, the business group s marketing activities focus on individual customer requirements. Specialty Products has a worldwide network of local subsidiaries and production sites. This network uses an internal sales force. Technicians back up our marketing efforts by assisting customers in creating tailor-made solutions and providing them with commercial and technical assistance.

The business group s sales by region and total, for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	631	644	607
North America	294	379	239
Asia/Pacific	264	244	257
Latin America/ Africa/Middle East	214	202	209
Total	1,403	1,469	1,312

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The following table sets forth the business group s external sales for the last three years, broken down by category of activity.

	2002	2001	2000
		(euros in millions)	
Textile, paper and leather chemicals	890	1,038	873
Performance chemicals, material protection, ion exchange resins and others	513	431	439
Total	1,403	1,469	1,312

The market for specialty chemicals is not generally subject to seasonality. Fluctuations in the business cycle and rising oil prices affect this market to a lesser degree than they affect the market for basic chemicals.

Specialty Products acquires a major part of the raw materials it uses internally from other companies of the Bayer Group. There are typically multiple sources for the rest of its raw materials; we purchase these from suppliers worldwide, usually under long-term contracts. Specialty Products has historically not been affected by shortages; however, rising oil prices have had a moderate impact on production cost.

We regard Avecia, BASF, Ciba Specialty Chemicals, Clariant, Rhodia and Rohm & Haas as our principal competitors across a number of the Specialty Products business group s activities.

Research and Development

The Specialty Products business group focuses its research and development activities on:

new products for the textile industry;

high-performance data storage media for information technology;

improved ion exchange resins for waste water treatment and metal recovery;

new fungicides for material protection; and

improved optical brighteners and sizing agents for the paper industry.

The business group s primary research and development facilities are located in Leverkusen, Germany; Ede, the Netherlands; and Woodbridge, Connecticut.

We currently have over 100 products in late stages of development. We expect to launch these products during 2003 and 2004. In 2002 we launched more than 80 products of our 2002/2003 pipeline.

H.C. Starck

Overview

Our subsidiary H.C. Starck develops, produces and markets metallic and ceramic powders and mill products for various markets and applications. H.C. Starck constantly pursues its policy of forward integration. With the integration of CSM Industries, we have made full use of the synergies of the two companies. As a result of this acquisition, we are able to manufacture higher-value-added products made from tungsten and molybdenum for the medical, aerospace, electronics, explosive detection and other demanding markets. In the first quarter of 2003, H.C. Starck acquired a majority interest in InDec B.V. InDec produces ceramic cells for use in fuel cell systems. We expect these ceramic cells to enable H.C. Starck to advance into the Solid Oxide Fuel Cell (SOFC) market and to develop higher-value added products in the field of functional ceramics. There are many future large-scale applications of SOFC systems, such as residential and commercial co-generation,

auxiliary power units for trucks, buses and passenger cars and numerous other applications where reliable, high quality power is needed.

Major Products

We produce a broad portfolio of products ranging from ceramic materials to such metals as tungsten, molybdenum, tantalum and niobium and their various alloys and compounds for industrial customers. We manufacture these materials not only in the form of ceramic or metallic powders but also as solid intermediates or

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finished parts. This gives us the ability to partner with our customers and provide engineering and design services for a wide variety of markets and end uses. We bring this ability to customers in the aerospace, medical, chemical, electronic, lighting, sophisticated tooling and optical components industries.

Heavy metal and Tungsten alloy

Kulite™ is our trademark for fabricated parts made from tungsten alloy powders. These products are used, for instance, as balance weights in the aerospace industry.

Battery intermediates

Ampergy® is our trade name for our nickel hydroxide and cobalt suboxide battery intermediates. Our customers in the electrochemical industry use Ampergy in making rechargeable batteries for modern communications devices and in large-scale industrial batteries.

Metallic chemical products

Molyform® powders are our molybdenum disulfide solid lubricants. We market a range of powdered lubricants under the brand name *Lubriform*®. Our customers use these compounds in producing lubricants. The automotive industry also uses Molyform in manufacturing brake linings.

Amperkat® is the trade name for our line of chemical catalysts. The chemical industry uses these products in a variety of applications, such as chemical synthesis, plastics production, hydration processes and desulphurization for generating low sulphur diesel-fuels.

Thermal spray powders

Amperit® is the trade name of our line of thermal spray powders. Our customers use these powders to give their products a variety of protective coatings. Our Amperit customers are primarily from the machine tool and aeronautics industries.

Ceramic products

Because of their resistance to corrosive substances, high mechanical durability and low weight, high-performance ceramic materials are increasingly replacing metals in various industrial uses. We produce a broad range of component intermediates for use in advanced ceramics.

Markets and Distribution

World tungsten demand has stagnated since the middle of 2002 after a long period of growth, while the hard metals markets in the United States, Europe and Japan are declining. The market for battery intermediates has recovered slightly, and the battery industry is expecting moderate growth. Prices are still under extreme pressure because of the competitive situation resulting from overcapacity.

The weakness of the electronic market intensified in 2002. Combined with inventory reduction at all levels of the supply chain, it caused a significant decrease in both sales and profits for our electronic business.

Although growth in the demand for ceramic products has been steady, strong competitive pressure has depressed prices. We expect, however, that the market for H.C. Starck Ceramics products will continue to grow steadily for the foreseeable future.

For our fabricated products business, we believe that we gain strength from the wide variety of markets and customers that we serve. We believe that China will be a promising market with large demand for all of our fabricated products in the lighting, telecommunications and transportation industries.

In 2002 the main factor influencing the H.C. Starck Group was the downturn of the electronics industry.

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The business group s external sales by region, as well as its overall sales, for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	248	325	280
North America	148	234	143
Asia/Pacific	196	208	196
Latin America/ Africa/Middle East	15	44	46
Total	607	811	665

China is the primary source for the raw materials for tungsten products. In the past, China had limited production, thereby causing shortages. We have our own tungsten production and recycling facilities, however, and are therefore only partly dependent on Chinese imports and do not bear the full brunt of raw material price increases. Tantalum raw-material prices have normalized during 2002, and we believe that our supply of raw material is secure due to long term contracts.

H.C. Starck has its own international sales organization in Europe, the United States and Japan, its most important markets. In addition, we have liaison offices for Scandinavia, the Benelux countries, France, Italy and the United Kingdom that maintain direct contact with our customers. We also have a liaison office in Singapore for the South-East Asia region. In other countries we either rely on the Bayer-wide sales organization or use third-party sales agents.

We regard the following companies as our chief competitors:

Metallic products and compounds: Bergla, Cabot Group (including its associated joint ventures), Mitsui, MolymetOMG, Osram Sylvania, Umicore, Plansee AG, Philips Elmet, Phelps Dodge;

Battery intermediates: OMG, Tanaka, Umicore;

Chemical catalysts: Activated Metals, Degussa, Grace-Davison, Engelhard;

Ceramic products: Denki Kagaku, SB Boron; GE Ceramics, Tokuyama Soda; and

Thermal spray powders: Praxair, Sulzer Metco, Woka.

Research and Development

H.C. Starck focuses its research and development activities on innovative products and system solutions. For example, we are developing high-capacity tantalum and niobium powders as intermediates for capacitors, and precursors for thin metallic films in microelectronic devices. We are also developing high-purity tantalum and niobium compounds for electroceramics and surface acoustic wave filters in computers and mobile telephones. H.C. Starck is also strongly committed to developing materials for secondary batteries, fuel cells, hybrid vehicles and other energy storage and power generation applications.

The business group s primary research and development facilities are located in Germany, the United States (all refractory metals) and Japan (tantalum products and battery intermediates).

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We currently have seven products in late stages of development, and expect to start and continue their launch during 2003. These products are:

Product/Brand name	Application
Niobium and Niobium Oxide powder	Capacitors
Ta/Nb mill products	Capacitors
High-capacity tantalum powder	Capacitors
Sophisticated electronic heat sinks	Electronics
High temperature furnace Materials	Furnace construction
Refractory metals products	Refractory metals products
Alternative (ferrous, nickel, cobalt) binders	Diamond tools and hard metals

Wolff Walsrode

Overview

We operate the Wolff Walsrode business group primarily through Wolff Walsrode AG, our wholly-owned subsidiary, assisted by other companies of the Bayer Group. The business group develops and markets cellulose derivatives, primarily for use in building materials, industrial coatings and inks, pharmaceuticals, food and health care products, as well as various plastic films.

To prepare for divestments of a significant portion of Wolff s films businesses, we have organized the business group into five new operating subsidiaries. Additionally, we created a service company that supplies the enterprises at Bomlitz with predominantly technical services. These subsidiaries are owned by Wolff Walsrode AG, which now serves as a holding company. In 2001, we sold the Covexx business, which had been responsible for our former Combithen and Combitherm food packaging film lines. In January 2002, Wolff s former thermoplastic polyurethane films business was integrated into Bayer s Plastics business group.

Major Products

Cellulose Derivatives

Walocel M® is an additive that regulates water balance. It improves the workability and adhesion of building materials such as tile adhesives, plasters, mortars and dispersion paints.

Walsroder NC® serves in resin form in wood coatings and other industrial coatings as well as in printing inks for flexible packaging. It is also used as a component of nail polish and other specialty items.

Walocel C® is used primarily as a thickener and binder in water-based systems. It is used in pharmaceuticals, dairy products and toothpaste, as well as in ceramics compounding, textile and paper manufacture and oil drilling.

Plastic films

Walothen® is a class of films based on Polypropylen for food and cigarette packaging and paper lamination.

Walsroder® is a casing used in the production of a wide range of sausages.

Markets and Distribution

Wolff competes in the building materials, industrial coatings, flexible packaging ink and life sciences markets as well as in specialized industrial fields. We market our plastic films primarily for use in food packaging, including sausage casings.

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The business group s sales by region and total, for the past three years are as follows:

	2002	2001	2000
	(euros in millions)		
Europe	251	301	295
North America	41	79	76
Asia/Pacific	20	20	19
Latin America/ Africa/Middle East	51	44	37
Total	363	444	427

The following table sets forth the business group s sales for the last three years, broken down by category of activity.

	2002	2001	2000
	(euros in millions)		
Cellulose derivatives	231	210	195
Plastic films	114	221	229
Other	18	13	3
Total	363	444	427

The decrease in plastic films sales in 2002 resulted primarily from the divestments discussed above. The increase in the segment Other in 2001 and 2002 is based on external sales of our service companies at the Bomlitz location.

Wolff generally conducts direct sales operations in Germany and the United States for its cellulose products and in Germany for its plastic films. Outside these areas, we ordinarily sell through Bayer s worldwide sales organization, although we do sometimes use independent distributors.

The main raw material for our cellulose derivatives is chemical-grade cellulose derived from wood pulp and cotton. Because pulp producers have been expanding capacity in recent years, we have not had any significant problems with availability. The raw materials for our plastic films include a variety of polymers. These polymers are readily available, but can be subject to price volatility caused by fluctuation in the price of oil.

Because many of its customers are producers of building materials, our cellulose derivatives business has traditionally been subject to seasonality tied to the seasonality of the building trade. Our sales outside Europe, however, have tended increasingly to balance this effect. Although our plastic films business is not generally seasonal, our sales of Walsroder sausage casings are strongest in autumn.

Our chief competitors in the cellulose derivatives business are Hercules (Aqualon), Dow, Clariant, Bergerac NC/SNPE, NEC/ICI, TNC, Nitroquimica Brasileira, Noviant and Akzo. In the plastic films business, our main competitor is Exxon Mobil (BOPP films).

Research and Development

Wolff Cellulosics is the Bayer Group s competence center for cellulose chemistry. Our research on cellulose and other polysaccharides takes advantage of the unique structural and chemical properties of these important renewable materials. By converting them into Wolff s derivative specialty products and optimizing their application properties, high customer value is created. This work is focused on products such as additives for building materials, binders for printing inks and coatings, as well as formulation aids for food, cosmetics and pharmaceuticals. Besides product development, we are constantly improving our production processes.

Wolff s primary research and development facilities, including a new pilot plant, are in Bomlitz, near Walsrode, Germany.

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The following new products were developed in close cooperation with our customers and introduced to the market by Wolff in 2002:

New Walocel M additives (based on methyl cellulose): A product line for high performance tile adhesives and a special grade for cement extrusion applications;

a highly viscous Walocel C additive (based on carboxy methyl cellulose) used for example, in pet food formulations;

phthalate-free plastified nitrocellulose that complies with the new European regulations; and

a new supply form of nitrocellulose (free-flowing product packed in cartons).

We currently have two additional product lines in late stages of development:

Product/ Brand name	Application	Status
New Walocel M additive (based on hydroxy propyl methyl cellulose, HPMC)	Formulation of pharmaceuticals and food	Pre-marketing
New Walocel M additive (based on methyl cellulose)	Ready to use Joint compounds (filling compounds for wall board joints)	Pre-marketing

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RESEARCH AND DEVELOPMENT

To supplement our internal research and development efforts, we have established an integrated program for collaborations with research-oriented companies that are leaders in their technologies. Focusing primarily on the life sciences, and especially on pharmaceuticals research, our research collaboration program brings together over 20 major research partners to create a pool of expertise covering the entire research cycle, from discovery of biological mechanisms through characterization of new active compounds to identification of a novel development candidate. We regard research collaboration as indispensable to maintain a continuous flow of innovative active ingredients for human and animal health and crop protection products. See also *CropScience Research and Development*.

The following table illustrates the phases of the typical life sciences/pharmaceutical research cycle, the various disciplines and techniques involved and the partners that provide us with active assistance in our research efforts.

Research Cycle	Discipline/Technique	Partners
Understanding the disease mechanism and identifying new targets	Genomics (*mapping the expression of a gene in an organism or tissue*); Functional genomics (*functional analysis of genetic data*); Proteomics *(mapping protein expression and function in an organism or tissue*); Bioinformatics (*applying the tools of information technology to biological data analysis*)	Millennium; Incyte; Affymetrix; CuraGen; Oxford Glycoscience; Exelixis; Paradigm LION Bioscience; Incyte Exelixis; Paradigm
Screening the candidate substances	High throughput screening, or HTS (*rapid, automated testing of compounds for potential effectiveness against a given target*) Toxico- and Pharmacogenomics (*increasing the quality and probability of success of drug candidates*)	Axxam; Greiner CuraGen
Increasing the pool of potential drug candidates by small-chemical molecules and macromolecules (*proteins, peptides*)	Combinatorial chemistry/Substance synthesis (*techniques for increasing the number and diversity of test compounds*); Pool of Bayer biomolecules (for example, *monoclonal antibodies)*	ArQule; ComGenex Morphosys

In addition to the collaborations focusing on disease mechanisms and screening, we have established collaborations in the field of medicinal chemistry. These collaborations together with our internal research efforts have given us access to approximately one million substances; the HTS technologies that we developed in collaboration with our partners enable us to screen more than 200,000 substances for a given target in a single day.

Three of our research partnerships those with Millennium Inc., LION Bioscience and CuraGen are of particular importance. Although our relationship with each of our individual research partners is important to us, it is the cooperative structure as a whole that is a key element of our strategy. With the exception of the three collaborations mentioned above, we do not regard our arrangements with any single partner as material from a financial or business perspective for the Bayer Group as a whole.

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Millennium

Together with Millennium, we have created a substantial collaborative effort to use the tools of genomics to identify new drug targets. Through this collaboration, we expect Millennium to provide us with more than 100 assays on disease-relevant proprietary target genes for high-throughput screening.

We expect to invest up to $465 million in our collaboration with Millennium. The current collaboration program is scheduled to expire on October 31, 2003. An additional goal of our collaboration is to obtain technology and know-how to enable us to continue the genomics program independently after the completion of the collaboration.

LION Bioscience

We have established two collaboration projects with LION Biosciences, a bioinformatics technology provider.

Under the first project, which began in 1999, LION established a subsidiary in Cambridge, Massachusetts, LION Bioscience Research Inc. (LBRI). LBRI provides our life sciences effort with a strong IT platform and software development program and allows us to review drug-relevant target gene data for further use in our laboratories. LBRI delivered more than 400 disease-related targets, which we have developed into a large number of new patent applications.

In October 2000 we began our second project with LION, in the field of pharmacophore informatics. The goal of this collaboration is to develop software tools to cross-link biological and chemical data.

We expect to invest a total of $82.5 million in our collaborations with LION, including a $30 million equity investment that we have already made. We have an option to acquire LBRI when both collaboration projects are complete.

CuraGen

In 2001 we initiated two collaborative projects with CuraGen. In the first project, CuraGen agreed to provide drug targets during an initial five-year period. The goal is to identify drug candidates for obesity and diabetes treatment for clinical development over a 15-year period. During this period, we share the expenses of pre-clinical and clinical development (up to $1.3 billion). We also share with CuraGen co-promotion rights and any profits derived from these drugs.

The goal of the second project is to compile a database of gene-based markers and information to predict potential drug toxicities, understand how specific drugs function and identify new disease conditions. Through this project, we expect to reduce drug development costs and create safer and more effective drugs. We plan to invest a total of $124 million in this five-year project, including an $85 million equity investment that we have already made.

Product Development Collaborations

We have two major collaborations for co-development of drug candidates, one with Onyx and one with GlaxoSmithKline.

Onyx. Bayer and Onyx are co-developing Raf Kinase Inhibitor, an investigational compound directed against a specific molecular target involved in excess growth signaling in cancer. This collaboration results in Onyx funding 50 percent of the development costs for Raf-Kinase Inhibitor. In return, Onyx has a 50/50 profit share in the United States, where the companies may co-promote the product. Everywhere else in the world except Japan, Onyx s share is somewhat less than 50 percent since Bayer has exclusive marketing rights. In Japan, Bayer funds product development and Onyx receives a royalty.

GlaxoSmithKline. Vardenafil, the active ingredient of Levitra, researched by Bayer, will be marketed by Bayer and GlaxoSmithKline through a worldwide co-promotion and co-development agreement signed in November 2001.

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INTELLECTUAL PROPERTY PROTECTION

To succeed, Bayer must continually seek new products that provide our customers with better solutions for existing problems and new solutions for emerging problems. This requires us to expend significant effort on research, development, manufacturing and marketing. To preserve the value of our investment, we rely on the patent and trademarks laws of the jurisdictions where we do business. In addition, our production technologies typically incorporate specialized proprietary know-how.

We have both developed intellectual property internally and acquired it as assignee through acquisitions. In addition, Bayer may from time to time grant licenses to third parties to use our patents and know-how, and may obtain licenses from others to manufacture and sell products using their technology and know-how.

Patents

We seek to protect our products with patents in major markets. Depending on the jurisdiction, patent protection may be available for:

- individual active ingredients;
- specific compounds, formulations and combinations containing active ingredients;
- manufacturing processes;
- intermediates useful in the manufacture of products;
- genomic research; and
- new uses for existing products.

The protection that a patent provides varies from country to country, depending on the type of claim granted, the scope of the claim s coverage and the legal remedies available for enforcement. For example, although patent protection in the United States is generally strong, under some circumstances U.S. law permits generic pharmaceuticals manufacturers to seek regulatory approval of generic products before the patents expire. See Item 8, *Financial Information Legal Proceedings*. In addition, some developing countries have announced plans to reduce patent protection for some drugs.

The advance of genomic research has accelerated our patent filings for biological products. We typically seek protection upon determining a gene s function.

We currently hold thousands of patents, and have applications pending for a significant number of new patents. Although patents are important to our business, we believe that, with the exception of the patents covering Adalat, Avelox, Cipro and Imidacloprid, no single patent (or group of related patents) is material to our business as a whole.

Term and Expiration of Patents

Patents are valid for varying periods, depending on the laws of the jurisdiction granting the patent. In some jurisdictions, patent protection begins from the date a patent application was filed; in others, it begins on the date the patent is granted.

The European Union, the United States, Japan and certain other countries extend or restore patent terms or provide supplementary protection to compensate for patent term loss due to regulatory review and substantial investments in product research and development and regulatory approval. Our policy is to obtain these extensions where possible.

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Patent protection in our major markets for some of our key products is scheduled to expire in the near term. Although the expiration of a patent for an active ingredient normally results in the loss of market exclusivity, we may continue to derive commercial benefits from:

later-granted patents on processes and intermediates used in manufacturing the active ingredient;

patents relating to specific uses for the active ingredient;

patents relating to novel compositions and formulations; and

in certain markets (including the United States), market exclusivity under laws other than patent laws.

The following table sets forth the expiration dates in our major markets of the patents covering Adalat, Avelox, Ciprofloxacin, Imidacloprid and Vardenafil:

	Market							
Product	**Germany**	**France**	**U.K.**	**Italy**	**Spain**	**Japan**	**U.S.A.**	**Canada**
Adalat								
Crystal patent (Retard)				2003			2010	
Adalat CC (Coat Core)	2008	2008	2008	2008	2008	2008	2008	2009
Gits/Oros excl. license (Alza)	2004	2004	2003	2004	2004	2004		2004
Avelox								
Compound	2009	2009	2009	2014	2009	2009	2014	2016
Hydrochloride-Monohydrate	2016	2016	2016	2016	2016	2016	2016	2016
Tablet formulation	2019	2019	2019	2019	2019	2019	2019	2019
Ciprofloxacin								
Active ingredient		2004	2002	2009			2003	2004*
Process	2002	2002	2002	2002	2003	2002		2004
IV formulation	2006	2006	2006	2006	2006	2006	2007	2008
Tablet formulation	2007	2007	2007	2007	2007	2007	2011	2009
Imidacloprid	2006	2006	2006	2006	2007	2005	2006	2007
Vardenafil compound	2028	2028	2018	2018	2028	2018	2018	2018

* Composition

See Item 8, *Financial Information Legal Proceedings* for a description of patent-related litigation in which we are involved.

Trademarks

Our best-known trademarks include Alka-Seltzer, Aspirin, Canesten, Flint, One-A-Day, Rid and Admire, as well as the Bayer name itself and our distinctive Bayer cross . Trademark protection varies widely throughout the world. In some countries, trademark protection continues as long as the mark is used. Other countries require registration of trademarks. Registrations are generally for fixed but renewable terms. Although our portfolio of trademarks is important to our business, we do not believe that any single trademark is material to Bayer s business as a whole.

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GOVERNMENTAL REGULATION

Our business is subject to significant government regulation. Many of our products must be examined and approved by regulatory agencies for safety, environmental impact and effectiveness before we may market them. In addition, all our operations must comply with applicable environmental regulations.

Product Regulation

The primary emphasis of product regulation is to assure the safety and effectiveness of our products. Regulation in the United States is of particular importance because of the United States large share of the worldwide market. In the United States, the Food and Drug Administration (FDA) regulates many of our products, primarily in our Health Care business. In addition, our pharmaceutical facilities typically require regulatory approval and are subject to periodic re-inspection.

The Toxic Substance Control Act (TSCA) administered under the U.S. Environmental Protection Agency (EPA) regulates product registrations (PMNs) for new industrial chemicals and polymers and can also regulate existing chemicals under test rules. In addition, the U.S. FDA food-contact regulations permit use of many of our chemicals and materials in food-contact applications. Furthermore, the EPA registers biocidal products for use in anti-microbial applications in addition to those for agricultural uses. For industrial chemicals and polymers in the United States, in order to insure proper use and handling, product safety is regulated by the OSHA Hazard Communication. This regulation requires notification to our workers and customers through Material Safety Data Sheets and precautionary labels for potential hazards from exposure to chemicals.

Pharmaceutical Products

Pharmaceutical products must be examined and approved by regulatory agencies for safety and efficacy before we may market them. Our pharmaceutical facilities require regulatory approval and are subject to periodic re-inspection. All our operations must comply with applicable quality and environmental regulations.

The various regulatory authorities administer and execute requirements covering the testing, safety, efficacy, labeling, approval, manufacturing and marketing of prescription pharmaceuticals. Pharmaceutical products must receive regulatory approval before they can be marketed. The regulatory requirements follow stringent standards that vary by country. Before a drug can qualify for marketing approval, a registration dossier must be submitted to a regulatory authority for review and evaluation. The registration dossier principally contains detailed information about the safety, efficacy and quality of a new medication. It also provides details about the manufacturing process, the production facilities and information to be provided to patients. The registration process can last from a few months to a few years and depends on the nature of the medication under review, the quality of the submitted data and the efficiency of the relevant agency. If a drug meets the approval requirements, the regulatory authority will grant a product license for marketing. In some countries, negotiation on pricing and reimbursement follow the grant of the product license. The process of developing a pharmaceutical product from discovery through testing, registration and initial product launch could take approximately 10 years. The manufacturer is required to monitor adverse reactions and report them to the appropriate authorities.

Increasing requirements from the FDA, the U.S. regulatory agency, have resulted in a higher investment of time and money necessary to develop new products and bring them to market. The Food and Drug Administration Modernization Act of 1997 was principally designed to streamline regulatory procedures and improve the regulation of drugs, medical devices and food with a view to expediting the premarket review process for new products.

In the European Union, there are two different approval procedures available: a centralized procedure and one based on the Mutual Recognition Procedure. The London-based European Agency for the Evaluation of Medicinal Products governs the centralized drug registration and approval process and consists of two committees, one for proprietary medicinal products (CPMP) and one for veterinary medicinal products (CVMP). The other method is the Mutual Recognition Procedure, in which one country makes the principal evaluation. The other member states then have 90 days to decide if they accept or reject the decision made by the reference member state.

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Historically, two issues have complicated the approval process in Japan for drugs developed outside of that country. First, the Japanese approval agency does not recognize documents used in registration procedures in other countries. Second, the Japanese approval agency requires that tests to determine appropriate dosages for Japanese patients be conducted on Japanese patient volunteers. However, with the process of ICH (International Conference on Harmonization), the Japanese approval agency is increasingly accepting study results and documentation used in registration procedures in the United States and Europe.

Our pharmaceuticals segment markets substances known as biologicals . Biologicals derive from biological sources (e.g. from human plasma or from cell lines genetically engineered to produce a specific protein). In the United States and other markets, biologicals are regulated more stringently than other drug products. For example, in order to minimize the risk of infectious disease transmission, human plasma-derived products require donor screening and plasma testing, as well as multiple manufacturing steps designed to remove viruses and other infectious agents. Biological products are chemically complex, often depending on a precise structure (e.g. the specific folding of a molecule) for their effectiveness. Regulations require us to subject these products to rigorous testing to ensure stability throughout their shelf-life. Because biological products typically cannot withstand conventional sterilization techniques, we must use special processes to ensure sterility. Under applicable regulatory requirements, we must submit detailed documentation to demonstrate appropriate controls over our manufacturing facilities, including associated equipment and supporting utilities like water supply and climate control.

In recent years, the European Union, the United States and Japan have sought to shorten development and registration times for medicinal products by harmonizing the individual requirements of the three regions. This process is called the International Conference on Harmonization. For the foreseeable future, however, we will need to obtain approval in each market.

Consumer Care and Diagnostics products

Many of the products of Consumer Care, such as over-the-counter medications, are subject to regulations similar to those in the Pharmaceuticals segment. In the United States, the FDA and, in part, the Federal Trade Commission oversee the marketing, manufacturing and labeling of dietary supplements, including vitamins.

The products of the Diagnostics business group are in vitro diagnostic (IVD) products, subject to regulatory controls similar to those governing the development and marketing of pharmaceutical products. In the United States, the FDA regulates IVD products as medical devices, through its Center for Devices and Radiological Health. All manufacturers of medical devices must register their facilities with the FDA. Registered establishments are subject to periodic inspections by FDA investigators to ensure compliance with quality standards.

Most IVD products require FDA clearance or approval before they may be marketed. For devices requiring clearance, we seek where possible to obtain it on the grounds that the new product is substantially equivalent to a product the FDA has already cleared. FDA clearance usually takes between two and eighteen months, depending on the degree of novelty involved. For truly new IVD products, we must submit extensive data to the FDA based on actual clinical trials. FDA approval almost invariably involves an inspection of our facilities and a review of our design and manufacturing processes. After obtaining FDA approval, we must report all adverse incidents in which a product was allegedly involved.

In the European Union, two Directives regulate these products. The Medical Device Directive governs diagnostic products that come in direct contact with the human body. The IVD Directive, as the name implies, applies to products used *in vitro*, that is those that do not come in direct contact with the human body. In Japan a special section of the Pharmaceutical Affairs Law regulates diagnostic products. In Australia and Canada, the applicable laws and regulations are similar to the European model. Many countries in South America and Asia have regulatory requirements similar to those promulgated either by the FDA or the European Commission. All of these requirements involve product registration and approval and the reporting of adverse incidents and corrective actions.

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Animal Health Products

The FDA s Center for Veterinary Medicine is responsible for ensuring that animal drugs and medicated feeds are safe and effective for their intended uses and that food from treated animals is safe for human consumption. Animal health products are also regulated in the United States by the U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA).

Crop Protection Products

In most countries crop protection products must obtain government regulatory approval prior to marketing. This regulatory framework seeks to protect the consumer, the applicator and the environment. The strictest standards are applied in the United States, Japan and Western Europe. Because humans may be exposed to these products (for example, through residues on food) the safety assessment considers human risk as well. If the product is used on a food crop, a legal limit for chemical residue is established.

It generally takes seven to nine years from discovery of a new crop protection product until the dossier is submitted to the appropriate regulatory authority for product approval. Afterwards the authorities usually need another two to four years to evaluate the data submitted in order to decide whether a registration can be granted.

The introduction of new regulations, data requirements or test guidelines is a normal part of enhancing safety assessments for plant protection products. However, unpredictable new requirements and inappropriate deadlines have led to numerous delays of registrations of plant protection products in the past, especially in the authorization processes in the EU and in the NAFTA countries. Therefore, our CropScience segment must anticipate new regulatory trends and must closely follow the process of developing and requiring new data. CropScience also actively participates in these processes by commenting on draft guidelines and regulations proposed by the authorities.

Environmental Science Products

In both the professional and the consumer business, as in crop protection, our products must obtain government regulatory approval prior to marketing. In most countries Environmental Science products are regulated by authorities other than those which regulate the crop protection products. The regulatory requirements are often different from crop protection products, due to different routes of exposure. Generally, there is an increase of regulatory requirements, in particular in the United States, Europe and Japan. To some extent the regulatory files developed for crop protection products with the same active ingredients can also be used for the regulatory purposes in the Environmental Science area.

In Europe the products sold in the professional pest control area fall under the Biocidal Products Directive (BPD), and basic manufacturers must develop complete regulatory dossiers in order to support their active ingredients and products under the BPD. Green industry products and consumer lawn and garden products are governed by the Plant Protection Directive.

In the United States registration of Environmental Science products is granted by the EPA. There has been an increase of registration requirements due to the implementation of the Food Quality Protection Act (FQPA), which considers both dietary and non-dietary exposure aspects.

The review period for registration depends on the country and could vary from two to five years for a product containing a new active ingredient.

BioScience Products

Biotechnology products, in particular those based on genetic modification, are subject to specific regulatory oversight covering environmental impact as well as use and trade of products and derivatives in food and feed. In the United States, the main regulatory authorities are the USDA, the FDA and the EPA.

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Proposed new EU Regulations

We must comply with an increasing range of regulatory measures concerning testing, manufacturing and marketing of our products. In some countries, including the United States, regulatory controls have become increasingly demanding. We expect this trend to continue and expand to other countries.

Within the European Union a new chemicals policy has been proposed and may become effective in 2005/2006. It will mandate a significant increase in the testing and assessment of basic chemicals and chemical intermediates, leading to increased costs and reduced operating margins for these products. Although we have adopted measures to address the stricter regulations, such as increasing the efficiency of our internal research and development process in order to reduce the impact of extended testing on time-to-market, we cannot assure that stricter regulatory regimes will not delay product development or restrict marketing and sales.

In addition, an EU directive on emissions trading, expected to become effective in 2005, could affect Bayer s business opportunities especially in Europe. The directive requires carbon dioxide emissions to be reduced by 21 percent in Germany and 7.5 percent in Belgium, in each case based on 1990 carbon dioxide emission levels. Compliance with this directive could require relevant capital expenditures by Bayer.

Health, Safety and Environmental Regulation

The production and distribution of many Bayer products involves the use, storage, transportation and disposal of toxic and hazardous materials. We are subject to increasingly stringent environmental regulations, which address:

emissions into the air;

discharges of waste water;

other releases into the environment;

generation, handling, storage, transportation, treatment and disposal of waste; and

maintenance of safe conditions in the workplace.

We are subject to regulations that may require us to remove or mitigate the effects of the disposal or release of chemical substances. Under some of these regulations, a current or previous owner or operator of property may be held liable for the costs of remediation on, under, or in its property, without regard as to whether it knew of or caused the presence of the contaminants, and regardless of whether the practices that resulted in the contamination were legal at the time they occurred. As many of our industrial sites have long histories, we cannot predict the effect these regulations will have on us. We cannot assure you that soil or groundwater contamination will not occur or be discovered.

It is our policy to comply with all environmental, health and safety requirements and to provide workplaces for employees that are safe and environmentally sound. When necessary, we incur capital expenditures to ensure this. We expect that Bayer will continue to be subject to stringent environmental regulation. Although we cannot predict future expenditures, we believe that current spending trends will continue.

We are subject to potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation, and Liability Act (commonly known as Superfund), the U.S. Resource Conservation and Recovery Act and related state laws for investigation and clean-up costs at a number of sites. At many of these sites, companies including Bayer have been notified that the EPA, the state governing body or private individuals consider such companies to be potentially responsible parties under Superfund or related laws. The proceedings relating to these sites are in various stages. The clean-up process at many sites is ongoing. We regularly review the liabilities for these sites and have accrued our best estimate of our ultimate liability for investigation or clean-up costs.

It is difficult to estimate the future costs of environmental protection and remediation because of uncertainties about the status of regulations and information related to individual sites. Taking into consideration our experience and currently known facts, we believe that capital expenditures and remedial actions to comply

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with environmental regulations will not have a material adverse effect on our financial position, results of operations or cash flows. As of December 31, 2002, we had reserved 202 million for environmental matters.

We believe that we are in substantial compliance with applicable environmental, health and safety laws and regulations. We devote considerable attention to the health and safety of our employees and the protection of public health and the environment. Although this compliance has not adversely effected our competitive position or business, we cannot predict the effect of possible future regulations. As a member of the American Chemical Council, Bayer is committed to the principles of Responsible Care, the chemical industry s health, safety and environmental performance improvement initiative.

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ORGANIZATIONAL STRUCTURE

Bayer AG is the ultimate parent company of the Bayer Group. Until December 31, 2002, the Bayer Group operated in seven segments comprised of 17 business groups.

The Bayer Group s new holding structure is based on the four operating units HealthCare, CropScience, Polymers and Chemicals, and three service areas that provide key support and administrative services. See *Business*. Bayer AG will be the strategic holding company of the Bayer Group. Bayer AG will consist of the following corporate center functions: the Corporate Office; Communications; Investor Relations; Corporate Auditing; International Human Resources & Organization; Human Resources Germany; Corporate Development; Law & Patents, Insurance; Finance; Group Accounting and Controlling; Governmental & Product Affairs; and Regional Coordination. See Item 8, *Financial Information Legal Proceedings German shareholder litigation*.

Subsidiaries

The following table lists Bayer AG s principal consolidated subsidiaries as of December 31, 2002 and its beneficial ownership interest in each.

Company Name and Place of Business	Bayer s interest (%)
Germany	
Bayer Buna GmbH, Marl	100
Bayer CropScience AG, Monheim	100
Bayer Distribution Service GmbH, Leverkusen	100
Bayer Industrieprodukte GmbH & Co. KG, Leverkusen	100
Bayer Vital GmbH, Leverkusen	100
H.C. Starck GmbH, Goslar	100
Wolff Walsrode AG, Walsrode	100
Other European Countries	
Bayer A/S, Denmark	100
Bayer Antwerpen N.V., Belgium	100
Bayer B.V., Netherlands	100
Bayer CropScience France S.A., France	100
Bayer CropScience Holding S.A., France	100
Bayer CropScience S.A., France	100
Bayer Hispania, S.A., Spain	100
Bayer International S.A., Switzerland	99.7
Bayer Pharma S.A., France	99.9
Bayer plc, U..K	100
Bayer Rubber N.V., Belgium	100
Bayer S.A.S., France	99.9
Bayer S.p.A., Italy	100
Quimica Farmaceutica Bayer, S.A., Spain	100
North America	
Bayer Corporation, United States	100
Bayer CropScience LP, United States	100
Bayer CropScience Inc., Canada	100
Bayer Inc., Canada	100
Asia/Pacific	
Bayer (India) Ltd., India	55.3
Bayer (South East Asia) Pte Ltd., Singapore	100

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Company Name and Place of Business	Bayer s interest (%)
Bayer Australia Ltd., Australia	99.9
Bayer China Co. Ltd., Hong Kong	99.3
Bayer CropScience K.K., Japan	100
Bayer Ltd., Japan	100
Bayer Polymers Co. Ltd., Hong Kong	100
Bayer Yakuhin Ltd., Japan	100
Sumika Bayer Urethane Co., Ltd., Japan	60
Latin America/ Africa/Middle East	
Bayer (Proprietary) Ltd., South Africa	100
Bayer CropScience Brasil S.A., Brazil	100
Bayer de México, S.A.de C.V., Mexico.	100
Bayer S.A., Argentina	99.9
Bayer S.A., Brazil	99.9

PROPERTY, PLANTS AND EQUIPMENT

We operate through a large number of offices, research facilities and production sites throughout the world. The principal executive offices of Bayer AG as well as a number of Bayer s key production facilities are located in Leverkusen, Germany. We also have facilities in Europe, the Americas, Asia, Oceania and Africa, of which the most important are in Germany and the United States. We also have other properties, including office buildings, laboratory and research laboratories and distribution centers.

Our policy is to acquire full ownership rights in our manufacturing facilities whenever possible. We own most of our manufacturing facilities and other properties. Where locally applicable law does not permit this or acquisition of full property rights is otherwise unfeasible, we acquire possessory interests conferring substantially the same rights of use as does ownership (for example, German-law hereditary building rights or *Erbbaurechte* and granted land-use rights in Asian countries).

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Item 5. Operating and Financial Review and Prospects

Prospective investors should read the following operating and financial review and prospects together with the consolidated financial statements and the notes to those financial statements included elsewhere in this annual report. We have prepared these financial statements in accordance with IFRS, which differs in some respects from U.S. GAAP. For a reconciliation of net income and stockholder s equity to U.S. GAAP, see note 44 to our consolidated financial statements.

The forward-looking statements in this Item 5 are not guarantees of future performance. They involve both risk and uncertainty. Several important factors could cause our actual results to differ materially from those anticipated by these statements. Many of those factors are macroeconomic in nature and are, therefore, beyond the control of our management.

We have based the presentation of our results in this section on certain significant accounting assumptions. For a more detailed description of these assumptions, see *Basis of Presentation Critical Accounting Policies*, below.

OVERVIEW

We are a global company offering a wide range of products, including high-value pharmaceuticals, diagnostics and other health-care products; agricultural products; polymers; and chemicals.

Bayer comprises the parent company, Bayer AG of Leverkusen, Germany, and over 330 consolidated subsidiaries. We are organized into seven business segments Pharmaceutical, Biological Products; Consumer Care, Diagnostics; Animal Health; CropScience; Plastics, Rubber; Polyurethanes, Coatings, Fibers; and Chemicals. Over the course of this year, we expect to complete the implementation of plans to transform Bayer AG into a strategic holding company that will hold our operating businesses through four newly-formed direct operating subsidiaries. See Item 4, *Information on the Company Business*.

Although Bayer AG was first incorporated in 1951, we trace our historical roots to Friedr. Bayer & Co., founded in 1863. Since our formation in 1951, we have pursued a program of growing both organically and through selective acquisitions. In 2000 we spent a total of 4.2 billion to acquire Lyondell Chemical Company s polyols business, Sybron Chemicals Inc., CSM Holding, Inc. and Cytec Industries Inc. s sizing and strength paper chemicals business. In the life sciences area, we also acquired the Flint line of strobilurin fungicides and the remaining outstanding shares of Misung Ltd. In 2001 we spent a total of 514 million on acquisitions. The largest acquisition in that year was the purchase by Bayer Corporation, our U.S. subsidiary, of the development, manufacturing and distribution rights for products that detect antibodies to the hepatitis C (HCV) and human immunodeficiency (HIV) viruses. Nearly equal in magnitude was our acquisition of the *Mikado*® corn herbicide, which included patents, other product rights and know-how.

In October 2001 we entered into an agreement to acquire Aventis CropScience from Aventis and Schering. We closed this transaction on June 3, 2002. In 2002 we also acquired Visible Genetics Inc. in Canada and Tectrade A/S in Denmark.

We selectively divest businesses and assets that no longer fit in our strategic plan. In 2000 we reduced our interest in the DyStar textile dyes joint venture to 35 percent when BASF became a joint venture partner. We now consider DyStar a non-core business. We continued to streamline our portfolio through 2000, divesting our animal health biologicals and solar-grade silicon businesses as well as our generic pharmaceuticals businesses in the United States and Germany, and in Myriad Genetics Inc. and Troponwerke. In May 2001 we sold our interest in the EC Erdölchemie joint venture, which we had previously classified under Discontinuing Operations. During the first half of 2001, we also sold our former acrylic fiber product lines and classified the remainder of the Fibers business group as Discontinuing Operations. In May 2002 we decided to retain our Fibers business as part of Polymers. We will include the Fibers business in our continuing operations for all periods beginning with the second quarter of 2002. As part of the streamlining of our portfolio, we sold Haarmann & Reimer effective September 30, 2002. We also sold the remaining 30 percent of our Agfa business segment, of which we had already divested 70 percent in 1999. Effective March 1, 2002 we sold our 94.9 percent interest in Bayer Wohnungen. In addition, we sold a large part of the global household insecticides business of our Consumer Care

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business group. As a further part of our drive to streamline the portfolio, we divested our French and Spanish generic pharmaceutical operations. We also sold our 50 percent interest in PolymerLatex. This transaction was closed on May 9, 2003.

OPERATING RESULTS 2002, 2001 and 2000

We derive revenue primarily from the sale of consumer and industrial products and, to a lesser extent, from the sale of services. The primary factors that affect our revenue include the introduction of new products and our ability to manage the life-cycles of existing products. Our business during 2002 was affected by widespread economic weakness in the world markets as well as, more specifically, strong downward pressure on prices. See *2002 compared with 2001 Net sales.* We recognize sales upon delivery of goods or rendering of services to third parties. We defer revenues from contracts that contain customer acceptance provisions until customer acceptance occurs or the contractual acceptance period has lapsed. Mergers and acquisition activities also affect our revenue. As a diversified global company, we often enter into numerous merger and acquisition transactions that, taken as a whole, can have a significant effect. Fluctuations of exchange rates between the euro and non-euro currencies can affect our revenue. In recent years these fluctuations (especially in the euro-U.S. dollar exchange rate) have had a significant effect on our revenue. For a description of measures that we have adopted for controlling exchange rate risk, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk.*

The single most important factor that affects our costs is the price of raw materials for our products. We seek to reduce our sensitivity to fluctuations in many raw material prices by producing at least a part of our requirements internally, within the Bayer Group. Petrochemical feedstocks are important raw materials in many of our products, especially in our Polymers and Chemicals segments. We do not produce significant volumes of petrochemicals. Effective May 1, 2001, we sold our 50 percent interest in the EC Erdölchemie joint venture, which had been our one significant venture into this area, to Deutsche BP, our former joint venture partner. We had classified EC Erdölchemie as a discontinuing operation in 1999. Because of this lack of internal petrochemicals sourcing, as well as the volatility of oil prices in recent years, our single greatest raw-materials sensitivity is to fluctuations in the price of petrochemicals. Other significant factors that affect our costs include labor as well as trigger or milestone payments under various joint ventures and cooperations. In recent years, the integration of an enterprise management system has increased our general administration expenses. We began this integration in 1998 and expect to complete it by 2004.

Acquisitions and divestitures during 2002 and 2001 had a positive effect on net sales of 1.9 billion. This activity affected the comparison between the two years sales figures as follows:

	Change in 2002 from 2001
	(euros in millions)
Acquisitions	
Aventis CropScience Holding S.A.	1,977
Tectrade A/S	12
Other	3
	1,992
Divestitures	
ChemDesign Corporation (divested in 2001)	(56)
Covexx Films (divested in 2001)	(42)
Sale of the generic business	(16)
Other	(8)
	(122)
Net effect on sales from continuing operations	1,870

We spent 427 million on restructuring in 2002, 214 million in 2001 and 200 million in 2000. The total charges in 2002 include 193 million in severance payments, a total of 166 million in accelerated amortization/

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depreciation and write-downs of intangible assets, property plant and equipment, and 68 million in other expenses. Our largest single restructuring expense in 2001, 43 million, related to the restructuring of our styrenics business in North America and Europe. 39 million related to the ongoing integration of the Lyondell polyols business. Our program to improve profitability in the Pharmaceuticals segment resulted in a restructuring charge of 26 million. In 2000, 61 million of our restructuring expenses related to the continuing integration of Chiron Diagnostics, which we acquired in 1998, and 48 million to our integration of the Lyondell polyols business, which we acquired in spring 2000. The streamlining of the styrenics activities of our Plastics business group required a further 32 million in 2000.

We recognize research and development costs in accordance with IAS 38.

Bayer Group

The following table shows sales and income for Bayer as a whole.

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales	29,624	(2.2)	30,275	(2.2)	30,971
Gross profit	11,739	(8.7)	12,851	(10.2)	14,318
as percentage of sales(%)	39.6		42.4		46.2
Operating result	1,574	(2.3)	1,611	(51.0)	3,287
as percentage of sales(%)	5.3		5.3		10.6
Income before income taxes	956	(14.3)	1,115	(62.7)	2,990
Net income	1,060	9.8	965	(46.9)	1,816
as percentage of sales(%)	3.6		3.2		5.9

The following table shows a geographical breakdown of our sales from continuing operations.

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Europe	11,970	1.5	11,794	2.1	11,557
North America	8,863	(7.0)	9,527	1.1	9,419
Asia/Pacific	4,794	2.5	4,675	(4.1)	4,873
Latin America/ Africa/Middle East	3,331	4.9	3,174	(3.0)	3,272

2002 compared with 2001

Net Sales

Net sales represents the gross inflow of economic benefits from the sales of goods and services that we receive or that are receivable by us. Net sales excludes rebates and discounts that we give our customers, as well as the amounts that we collect on behalf of third parties, such as sales taxes, goods and services taxes and value added taxes. Our 2002 net sales of 29.6 billion (2001: 30.3 billion) included 0.7 billion of our discontinuing operations (2001: 1.1 billion).

Our net sales from continuing operations were down by 0.2 billion in 2002, a decrease of 0.7 percent. Currency movements and price declines reduced sales by 5 percent and 2 percent, respectively, while portfolio changes particularly the acquisition of Aventis CropScience added 6 percent. Including discontinuing operations, our net sales decreased 2.2 percent from 2001.

Sales in our Pharmaceuticals, Biological Products segment decreased 16.8 percent in 2002 to 4.8 billion. Sales in our Consumer Care, Diagnostics segment decreased 8.5 percent to 3.8 billion. Sales in our Animal Health segment declined 0.9 percent to 850 million, while Sales in

our CropScience segment increased

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65.5 percent, to 4.7 billion. Sales in our Plastics, Rubber segment decreased 3.6 percent to 5.4 billion. Sales in the Polyurethanes, Coatings, Fibers segment decreased 0.8 percent to 5.4 billion. Sales in our Chemicals segment decreased 11.9 percent to 3.3 billion. See *Segment Data*, below, for a more detailed discussion of the results of each of our business segments.

Gross Profit

Gross profit represents net sales after cost of goods sold and services provided. Cost of goods sold and services provided include the production costs of goods sold and the cost of goods purchased for resale.

Our gross profit from continuing operations decreased 7.8 percent in 2002. The total reported gross profit decreased 8.7 percent.

Operating Result

Operating result represents gross profit after selling expenses, research and development expenses, general administration expenses and other operating income and expenses. We distinguish between our result from continuing and discontinuing operations.

The operating result from continuing operations before exceptional items decreased by 46.2 percent to 989 million. We attribute this development primarily to additional depreciation and amortization of goodwill determined and inventories remeasured in purchase accounting following the Aventis CropScience acquisition.

After exceptionals, the operating result amounted to 594 million. We incurred exceptional charges of 1.2 billion relating mainly to asset write-downs, restructuring measures and site consolidations. Also included here are provisions established in connection with an agreement reached with the U.S. federal authorities relating to an investigation into pharmaceutical product prices. These charges were partially offset by exceptional income of 817 million, generated mainly by the sale of Bayer Wohnungen GmbH and the household insecticides business.

The operating result from discontinuing operations consists of 47 million in operating profit from the Haarmann & Reimer group and the 933 million gain from its divestiture on September 30, 2002. The previous year s figure contained 333 million pertaining to EC Erdölchemie.

The total reported operating result decreased by 2.3 percent from 2001 to 1.6 billion.

In 2002 our selling expenses decreased 3.1 percent, while research and development expenses increased 1.4 percent. General administration expenses increased 22.9 percent mainly due to the reorganization of the Bayer Group.

Non-Operating Result

Non-operating result represents income and expenses from investments in affiliated companies, interest result and other non-operating result.

Our non-operating loss for 2002 increased 24.6 percent over the previous year, mainly because of the additional interest expense associated with the financing of the Aventis CropScience acquisition and also as a consequence of securities write-downs. Income from investments in affiliated companies was sharply higher due to the sale of our interest in Agfa-Gevaert N.V.

Income Before Income Taxes

Our income before taxes decreased by 14.3 percent from 2001 to 1.0 billion.

Income Taxes

The lower operating result, tax-free income and deferred tax assets resulted in net tax income of 107 million. The effective tax rate calculated on taxable income was 37.5 percent.

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Net Income

Group net income rose by 9.8 percent to 1.1 billion.

2001 compared with 2000

Net Sales

Our net sales from continuing operations increased by 49 million in 2001, a growth of 0.2 percent. The primary internal factors that contributed to sales growth were portfolio changes and price increases. In 2001, portfolio changes accounted for 0.9 billion of the increase in net sales. This effect also included sales from businesses we acquired during the previous year, which therefore generated income for us during only part of 2000. Additionally, price increases accounted for approximately 0.3 billion of the increase in net sales. These positive developments were reduced by lower volumes of 1.2 billion. However, we did increase sales despite the many negative developments during 2001. We estimate that the withdrawal of Lipobay/ Baycol reduced our sales by approximately 0.7 billion. Including discontinuing operations, our net sales decreased 2.2 percent from 2000.

Sales in our Pharmaceuticals, Biological Products segment decreased 6.7 percent in 2001 to 5.7 billion. Sales in our Consumer Care, Diagnostics segment increased 5.6 percent to 4.1 billion. Sales in our Animal Health segment declined 1.7 percent to 858 million. Sales in our CropScience segment increased 9.9 percent, to 2.8 billion. Sales in our Plastics, Rubber segment decreased 4.0 percent to 5.6 billion. Sales in the Polyurethanes, Coatings, Fibers segment decreased 2.6 percent to 5.4 billion. Our Chemicals segment achieved sales of 3.7 billion, an increase of 9.9 percent. See *Segment Data,* below, for a more detailed discussion of the results of each of our business segments.

Gross Profit

Despite a sales increase of 0.2 percent, our gross profit from continuing operations decreased 9.1 percent in 2001. Cost of goods sold, which increased 8.3 percent, cut into our margins.

Operating Result

Our result from continuing operations in 2001 before exceptional items decreased by 1.4 billion, or 43.8 percent, from the previous year, to 1.8 billion. We attribute this decrease primarily to unfavorable world economic conditions generally, as well as to adverse factors affecting our Health Care businesses, primarily the withdrawal of Lipobay/ Baycol, which caused a decrease of 0.3 billion. After net exceptional charges of 0.6 billion, the decrease in operating result was 61.3 percent. We attribute two thirds of these exceptional items to our Health Care businesses, largely also to our withdrawal of Lipobay /Baycol, and spent most of the remainder on restructuring and site consolidation.

Our operating result of 0.4 billion from discontinuing operations comprised 73.0 million from Haarmann & Reimer and 333 million from EC Erdölchemie. The sale of our interest in EC Erdölchemie in April 2001 added 0.3 billion to our 17 million share of the joint venture s results prior to the sale. Combining continuing and discontinuing operations, our operating result for 2001 declined 51.0 percent to 1.6 billion.

In 2001 our selling expenses increased 4.8 percent, while research and development expenses increased 7.2 percent and general administration expenses increased 11.9 percent. The primary causes of these developments were the implementation of a strategic marketing organization at Pharma and a general increase of advertisement expenses for selling expenses; life-cycle management and increase of strategic R&D know-how in the United States for research and development expenses; and higher SAP expenses and additional expenses for new business and companies for general administration expenses. Research and development activities in our Pharmaceuticals segment contributed disproportionately to our increase in research and development expense. We allocate the largest portion of our research and development budget to Pharmaceuticals, and this segment often shows the greatest increase from year to year as well. Given the particularly strong emphasis on research, we expect that this segment will continue to be the primary driver of our overall research and development costs. Our other net operating expenses increased 12.4 percent, largely because of higher restructuring expenses and additional write-downs of receivables.

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Non-Operating Result

Our non-operating loss for 2001 increased 67.0 percent over the previous year, largely because our income (net) from investments in affiliated companies was lower. Our net interest expense rose from 311 million to 349 million. This increase reflected reduced interest income, rather than an increase in interest expense. Our net exchange gain of 49.0 million in 2001, compared with a net exchange loss of 21 million in the previous year, offset the effect of our increased net interest expense.

Income Before Income Taxes

Our income before taxes from continuing operations in 2001 decreased 74.4 percent from the previous year to 0.7 billion. Including discontinuing operations, the decrease in income was 62.7 percent.

Income Taxes

Our income tax expense decreased 86.6 percent during 2001, due to our lower earnings as well as to tax-free income. Our effective tax rate fell to 13.8 percent from the 2000 rate of 38.4 percent. With respect to our taxable income only, our effective tax rate during 2001 was 34.0 percent.

Net Income

After a net income from minority interests of 26 million in 2000, we reported a net loss of 4 million in 2001, reflecting lower earnings. After minority interests, our net income from continuing operations decreased 1.0 billion, or 63.6 percent, to 0.6 billion (0.82 per share) from 1.7 billion (2.26 per share) in 2000. Including discontinuing operations, our net income in 2001 decreased 46.9 percent.

Segment Data

Pharmaceuticals, Biological Products

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	4,767	(16.8)	5,729	(6.7)	6,140
Intersegment sales	33	(13.2)	38	(2.6)	39
Operating result before exceptional items	151	(60.6)	383	(67.1)	1,165
Operating result	(188)		51	(95.6)	1,160

2002 compared with 2001

Sales in our Pharmaceuticals, Biological Products segment declined by 16.8 percent in 2002. Sales in the Pharmaceuticals business group decreased 22.9 percent, or 1.1 billion, to 3.7 billion. We attribute this development primarily to the withdrawal of the cholesterol-lowering drug Lipobay/ Baycol and to lower sales of the antibiotic Ciprobay/ Cipro, for which demand had been particularly high in the previous year due to its indication for anthrax. Also, sales of the antihypertensive Adalat were down, due to increased competition from generic products. The drivers behind the growth in Pharmaceuticals were the respiratory antibiotic Avalox/ Avelox and the cardiovascular drug Aspirin Cardio. Sales in the Biological Products business group expanded by 14.2 percent, or 134 million, to 1.1 billion. This was due primarily to significant growth in volumes for Kogenate, our recombinant Factor VIII clotting factor. Now that the production problems have been rectified and the FDA has approved an increase in Kogenate production, the foundation is laid for further growth.

The segment s operating result before exceptional items decreased to 151 million in 2002, a change of 60.6 percent from 2001. We attribute this development primarily to lower sales of Cipro and Adalat, and the market withdrawal of Lipobay/ Baycol.

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In 2002 we incurred exceptional charges of 414 million. More than half this amount represented provisions for expected payments under an agreement being negotiated with U.S. federal authorities. This agreement, which concerned an investigation into pharmaceutical product prices, has since been finalized. Our total payments under the agreement will not materially exceed the amount of these provisions. These exceptional charges were partially offset by exceptional income of 75 million from the divestiture of our holdings in several generic pharmaceutical companies.

2001 compared with 2000

Sales in our Pharmaceuticals, Biological Products segment decreased 6.7 percent in 2001. Sales in our Pharmaceuticals business group, which makes up the bulk of the segment, decreased 3.0 percent to 4.8 billion. Our withdrawal of Lipobay/ Baycol was the most significant factor in this decline. Sales in the smaller Biological Products business group declined 21.9 percent to 0.95 billion, reflecting a 24 million decline in sales volume for plasma products. Our Kogenate production problems were the primary cause of this decline. Disregarding the effect of the Lipobay/ Baycol withdrawal and the Kogenate production problems, Pharmaceuticals sales increased 2.1 percent, reflecting strong growth of in sales of Avelox. Demand for Cipro also increased during the fourth quarter of 2001, with worldwide sales up 10.0 percent for the year as a whole. We believe that a large portion of this increased demand resulted from Cipro s approval for the treatment of anthrax, which was used in bioterrorist attacks against the United States last year. Sales of Adalat declined 16.0 percent to 975 million due to generic competition.

The segment s operating result before exceptional items decreased to 383 million in 2001, a change of 67.1 percent from 2000. We attribute this development primarily to the problems with biological products and the market withdrawal of Lipobay/ Baycol. This event, together with the other exceptional items, led to net charges amounting to 332 million.

Consumer Care, Diagnostics

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	3,755	(8.5)	4,104	5.6	3,888
Intersegment sales	2	0	2		0
Operating result before exceptional items	408	5.2	388	24.8	311
Operating result	601	76.2	341	92.7	177

2002 compared with 2001

Sales in our Consumer Care, Diagnostics segment decreased by 8.5 percent. Currency depreciation in Latin America and inventory reductions by North American drug suppliers caused sales of the Consumer Care business group to recede by 18.1 percent, or 379 million, to 1.7 billion. Sales of the Diagnostics business group rose by 1.5 percent, or 30 million, to 2.0 billion, driven mainly by growth in laboratory diagnostic systems and nucleic acid diagnostics.

The segment s operating result before exceptional items increased to 408 million in 2002, a change of 5.2 percent from 2001. This increase is a result of improved business performance of Diagnostics in North America, as well costs saved through CURE, our internal restructuring program.

The net exceptional income of 193 million was primarily related to the sale of Consumer Care s Household business.

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2001 compared with 2000

Sales in our Consumer Care, Diagnostics segment increased 5.6 percent. Of this amount, 2.1 billion reflected sales in Consumer Care, an increase of 8.9 percent. We attribute this growth to the successful launch of a reformulated Alka-Seltzer Plus in North America and the continued growth in demand for Aleve Cold & Sinus. The Diagnostics business group achieved sales of 2.0 billion, up 2.2 percent from the previous year, primarily through growth in the business group s nucleic acid diagnostics activities.

In 2001 we continued the segment s cost-cutting efforts. Because Diagnostics operates primarily in the United States while a large proportion of its sales are outside the United States, the relatively high value of the U.S. dollar requires us to contain costs effectively. The segment s operating result before exceptional items increased to 388 million in 2001, a change of 24.8 percent from 2000. We attribute this development primarily to the recovery of the Alka-Seltzer-Plus net sales after we discontinued marketing Alka-Seltzer-Plus in 2000 and after its subsequent re-launch in the United States during 2001. We completed the re-launch of our reformulated products that formerly contained phenylpropanolamine during 2002. We incurred net exceptional charges of 47 million, compared to 134 million in 2000, which were primarily for restructuring measures partly also related to Alka-Seltzer-Plus.

Animal Health

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	850	(0.9)	858	(1.7)	873
Intersegment sales	1	(75.0)	4	(33.3)	6
Operating result before exceptional items	180	11.8	161	8.8	148
Operating result	169	5.0	161	(6.9)	173

2002 compared with 2001

Animal Health s sales, at 850 million, essentially matched sales from the previous year. While business was hampered by lower demand for the antiparasitic treatment Advantage and the economic crisis in Argentina, we successfully launched the new antiparasitic treatment Advantix in December 2002 in North America.

The operating result before exceptional items increased to 180 million in 2002, a change of 11.8 percent from 2001. The primary factors driving this positive development were a change in product mix and strict cost savings.

2001 compared with 2000

Animal Health s sales declined 1.7 percent. Most of this decrease resulted from the divestiture of our U.S. biological products business. The BSE crisis in Europe and Japan and the foot and mouth disease crisis in Europe and Latin America also had a negative impact on sales. Growth in sales of our Advantage parasiticide in North America and Japan helped mitigate the effect of these negative developments.

The segment s operating result before exceptional items increased to 161 million in 2001, a change of 8.8 percent from 2000. We attribute this development primarily to higher sales for Advantage.

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CropScience

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	4,697	65.5	2,838	9.9	2,582
Intersegment sales	90	11.8	102	5.2	97
Operating result before exceptional items	(15)		464	13.2	410
Operating result	(122)		464	12.9	411

2002 compared with 2001

The acquisition of Aventis CropScience (ACS) allowed CropScience to increase sales by 65.5 percent to 4.7 billion. Disregarding the ACS business, sales decreased by 4 percent, mainly because of the weak economy in Latin America and a weather-related demand reduction in North America, Australia and Asia.

The segment s operating result before exceptional items decreased to a loss of 15 million in 2002. This is attributable to additional depreciation and amortization of determined goodwill and revalued assets in purchase accounting following the ACS acquisition. Operating Result was also reduced by integration costs. The incurred net exceptional charges were 107 million. These charges were primarily for restructuring programs.

2001 compared with 2000

In 2001 CropScience s sales increased 9.9 percent. We attribute more than half this increase to our acquisitions of the Flint line of fungicides and the corn herbicide Mikado.

The segment s operating result before exceptional items increased to 464 million in 2001, a change of 13.2 percent from 2000. We attribute this development primarily to higher sales and an additional income stemming from a patent dispute with Syngenta.

Plastics, Rubber

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	5,378	(3.6)	5,581	(4.0)	5,816
Intersegment sales	115	(0.9)	116	(4.9)	122
Operating result before exceptional items	175	(39.2)	288	(48.6)	560
Operating result	73	(69.3)	238	(53.8)	515

2002 compared with 2001

In 2002 sales of our Plastics, Rubber segment decreased by 3.6 percent. Plastics with 2002 sales of 3.2 billion, and Rubber with sales of 2.1 billion. The decline in Plastics sales is mainly a result of price pressure in Asia and the change in exchange rates. Rubber declined due to business conditions in North America.

The segment s operating result before exceptional items decreased to 175 million in 2002, a change of 39.2 percent from 2001. We attribute this development primarily to a fall in prices, a decrease in volume in the Rubber business and idle plant expenses. We incurred exceptional charges of 102 million. These charges were primarily due to restructuring of our Butyl and Polybutadiene businesses.

2001 compared with 2000

Sales of our Plastics, Rubber segment declined 4.0 percent. Plastics, with 2001 sales of 3.4 billion, and Rubber, with sales of 2.2 billion, accounted for approximately equal proportions of this decrease. Plastics sales

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declined due to lower volumes in North America and price pressure in Europe and Asia. Rubber declined due to business conditions in North America and Asia.

The segment s operating result before exceptional items decreased to 288 million in 2001, a change of 48.6 percent from 2000. We attribute this development primarily to a fall in prices, a decrease in volume and idle plant expenses. We incurred net exceptional charges of 50 million. These charges were primarily for the restructuring of our Styrenics business.

Polyurethanes, Coatings, Fibers

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	5,397	(0.8)	5,439	(2.6)	5,582
Intersegment sales	78	(43.5)	138	(70.1)	462
Operating result before exceptional items	243	88.4	129	(77.6)	577
Operating result	(205)		9	(98.3)	524

2002 compared with 2001

In 2002 sales of the segment decreased by 0.8 percent. The Polyurethanes business group contributed 3.3 billion, an increase of 2.0 percent from the previous year, while Coatings and Colorants contributed 1.9 billion, down 3.6 percent from 2001 and the Fibers business 0.2 billion, down 13.8 percent.

The segment s operating result before exceptional items increased to 243 million in 2002, a change of 88.4 percent from 2001. We attribute this development primarily to increased volumes and the success of our restructuring programs. We incurred net exceptional charges of 448 million. These charges were primarily for restructuring programs in Polyether and Powder Coatings, as well as adjustments to carrying values of our Polyether and Fibers businesses.

2001 compared with 2000

Sales of our Polyurethanes, Coatings, Fibers segment decreased by 2.6 percent. The Polyurethanes business group contributed 3.2 billion, an increase of 2.0 percent from 2000, while Coatings and Colorants contributed 2.0 billion, up 3.5 percent, and the Fibers business 0.2 billion down 54.2 percent from the previous year. The decrease in Fibers is due to the sale of the Dralon business. Our acquisition of Lyondell helped mitigate the effects of increasingly stiff polyurethanes competition. Our acquisition of Sybron Chemicals enabled us to increase Coatings and Colorant s sales despite below expectation sales performance in North America and, in the second half of the year, in Europe.

The segment s operating result before exceptional items decreased to 129 million in 2001, a change of 77.6 percent from 2000. We attribute this development primarily to price increases in raw materials and a decrease in volumes. We incurred net exceptional charges of 120 million. These charges were primarily for restructuring programs in the United States.

Chemicals

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Net sales (external)	3,304	(11.9)	3,749	9.9	3,410
Intersegment sales	409	(10.3)	456	(2.1)	466
Operating result before exceptional items	160	(41.0)	271	(26.8)	370

Operating result	134	(34.0)	203	(48.5)	394

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2002 compared with 2001

The chemicals segment is comprised of four business groups: Basic and Fine Chemicals, Specialty Products, H.C. Starck, and Wolff Walsrode.

The sales of the Basic and Fine Chemicals business group decreased 9.2 percent to 931 million. The falling prices for sodium hydroxide and lower sales in the life-science intermediates markets were the main reasons for that decline. The basic chemicals business unit took advantage of further consolidation in the market. The Specialty Products business group sustained a decline in sales to 1.4 billion, down 4.5 percent. This decline is attributable to unfavorable changes in the exchange rates and to the weak global economic situation. For the H.C. Starck business group the continuing weakness in demand in the electronics industry as well as significantly reduced prices led to a decline in sales of 25.2 percent to 607 million. Sales of the Wolff Walsrode business group decreased due to changes in the portfolio from 444 million to 363 million.

The operating result before exceptional items decreased 41 percent to 160 million. The most important factor affecting the operating result of the Chemicals segment was the weak profitability of H.C. Starck.

2001 compared with 2000

The segment s 9.9 percent increase in sales during 2001 was chiefly the result of acquisitions in the business group Specialty Products. The Basic and Fine Chemicals business group increased sales 1.9 percent to 1.0 billion. We attribute this increase largely to the strong performance of the business group s Inorganic Basic Chemicals unit, as well as to increase in products synthesized for the agrochemical and pharmaceutical markets. Specialty Products achieved an increase in sales of 12.0 percent to 1.5 billion as the result of our acquisitions of Sybron Chemicals and the paper chemicals business of Cytec Industries. Our H.C. Starck business group increased sales 22.0 percent to 811 million. This increase was due to acquisitions, which offset a decline in sales to the electronics and optics industries caused by significant consolidation in the electronics market. Wolff Walsrode achieved a sales increase of 4.0 percent to 444 million. Wolff s growth in market share in the United States, Latin America and Eastern Europe, especially in the methylcellulose business, more than offset declines in western Europe.

The segment s operating result before exceptional items decreased 26.8 percent in 2001 to 271 million. We attribute this decrease to adverse cyclical effects and to write-downs of tantalum inventory at H.C. Starck. We incurred net exceptional charges of 68 million. These charges were primarily in connection with the sale of our interest in ChemDesign Corporation.

LIQUIDITY AND CAPITAL RESOURCES 2002, 2001 and 2000

Cash Flows

In recent years, our primary source of liquidity has been cash from operations. We use cash in investing activities primarily for acquisitions as well as for additions to property, plant, equipment and investments; these activities represented our primary liquidity requirements during the years discussed below. We use cash in financing activities primarily to retire debt and pay dividends. At December 31, 2002, we had cash, cash equivalents and net working capital totaling 5.5 billion. We believe that our working capital is sufficient for our present requirements. There are no material legal or economic restrictions on the ability of member companies of the Bayer Group to transfer funds to Bayer AG.

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The following table summarizes our cash flows in each of the last three years:

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
			(euros in millions)		
Gross operating cash flow	3,012	3.0	2,923	(29.8)	4,164
Thereof discontinuing operations	77	(27.4)	106	(56.6)	244
Changes in working capital	1,408	50.4	936		(1,073)
Net cash provided by operating activities	4,420	14.5	3,859	24.8	3,091
Thereof discontinuing operations	87	(33.6)	131	(30.3)	188
Net cash provided by (used in) investing activities	(6,570)	208.2	(2,132)	(65.6)	(6,189)
Thereof discontinuing operations	1,286	314.8	310		(268)
Net cash provided by (used in) financing activities	2,209		(1,549)		772
Thereof discontinuing operations	1	(98.7)	77		11
Change in cash and cash equivalents	59	(66.9)	178		(2,326)
Cash and cash equivalents at beginning of period	719	46.4	491	(82.5)	2,812
Change in scope of consolidation	4	(90.5)	42		(3)
Exchange rate movements	(15)		8		8
Cash and cash equivalents at end of year	767	6.7	719	46.4	491
Marketable securities and other instruments	29	(44.2)	52	(75.6)	213
Liquid assets as per balance sheets	796	3.2	771	9.5	704

Cash from Operating Activities

Cash from operating activities was 3.0 billion in 2002, 2.9 billion in 2001 and 4.2 billion in 2000. Gross cash decreased 3.0 percent. In 2000 the gross cash provided by operating activities decreased 29.8 percent from 2000, mainly due to lower operating results.

Due to a 1.4 billion reduction in working capital, net operating cash flow in 2002 increased to 4.4 billion or 14.5 percent. We achieved this improvement primarily through our project, begun in 2001, to reduce inventories and improve the collection of receivables.

Investing activities

Net cash used in investing activities amounted to 6.6 billion. Additions to property, plant and equipment and intangible assets in 2002 resulted in a cash outflow of 2.2 billion. Cash outflows for acquisitions, primarily that of Aventis CropScience, amounted to 7.8 billion. Sales of property, plant and equipment led to cash inflow of 2.2 billion, while the cash inflow from the sale of investments and from interest and dividend receipts, including marketable securities, amounted to 1.3 billion. The net cash outflow for investing activities amounted to 2.1 billion in 2001. Additions to property, plant and equipment and intangible assets resulted in a cash outflow of 2.6 billion. Cash outflow for acquisitions amounted to 0.5 billion. Sales of property, plant and equipment led to a cash inflow of 0.5 billion, while that from interest and dividend receipts and from marketable securities amounted to 0.5 billion. In 2000, we had a net cash outflow for investing activities of 6.2 billion. We had cash receipts of 0.6 billion from sales of property, plant and equipment and from inflows from interest and dividend receipts and from marketable securities. This figure only slightly offset our 4.1 billion for acquisitions and 2.6 billion for additions to property, plant, equipment and investments during 2000.

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Financing Activities

Net cash provided by financing activities came to 2.2 billion, with net borrowings amounting to 3.5 billion. Dividend and interest payments totaled 1.4 billion.

Financing activities led to a net cash outflow of 1.5 billion in 2001, which comprises mainly the 1.0 billion dividend payment for 2000 and 0.5 billion in interest payments. Financing activities in 2000 provided us with a net cash inflow of 0.8 billion, with net borrowings of 2.1 billion and dividend and interest payments of 1.3 billion.

See *Borrowings*, below, for a discussion of the times our existing debt will mature and of our potential plans for obtaining future financing by issuing new debt.

We believe that we have sufficient borrowing capacity to meet our foreseeable needs. To provide flexible short- to medium-term funding, we established a $5 billion global commercial paper program and a 2 billion European Medium-Term Note program in 2000, which we increased to 8 billion in 2001. At December 31, 2002, we had approximately 6.2 billion of total lines of credit, of which 1.0 billion was used and 5.2 billion was unused and available for borrowing on an unsecured basis.

Capital Expenditures

We generally fund our capital expenditures with cash flow from operations and, if such funds are not sufficient, through other cash on hand and from the sale of liquid investments, including cash equivalents and marketable securities. We fund any further capital expenditures with borrowings. Capital expenditures amounted to 2.4 billion in 2002 and to 2.6 billion in each of 2001 and 2000.

Our major capital expenditures since 2000 included:

Year	Segment	Description
2002	Pharmaceuticals, Biological Products	Construction of a sterile filling facility for Factor VIII, Berkeley, California
	Consumer Care, Diagnostics	Construction of a small volume facility with pilot plant for Aspirin production, Greppin, Germany
	CropScience	Completion of a multi-purpose facility for crop protection products, Dormagen, Germany
	Plastics, Rubber	Modification of butyl rubber production, Zwijndrecht, Belgium and Sarnia, Canada
		Expansion of capacity for ABS plastics, Tarragona, Spain and Map Ta Phut, Thailand
		Expansion of polycarbonate capacity including precursors, Uerdingen, Germany
	Polyurethanes, Coatings, Fibers	Expansion of isocyanate capacity including precursors, Brunsbüttel, Dormagen and Uerdingen, Germany and Niihama, Japan
	Chemicals	Expansion/ modification of electrolysis plants, Leverkusen, Germany
		Efficiency improvement in the integrated aromatics production network, Leverkusen, Germany
		Expansion of nitrocellulose production, Bomlitz, Germany
2001	Pharmaceuticals, Biological Products	Construction of a facility for packaging and storage of biological products, Berkeley, California
		Construction of research facility in West Haven, Connecticut, and Kyoto, Japan (completed 2001)
	Consumer Care, Diagnostics	Expansion of solids plants, Bitterfeld, Germany and Lerma, Mexico

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Year	Segment	Description
	CropScience	Construction of a multi-purpose facility for crop protection products, Dormagen, Germany
		Protection products, Dormagen, Germany
		Insecticides production facility, Dormagen, Germany
	Plastics, Rubber	Expansion of polycarbonate capacities (production of bisphenol A and Makrolon), Map Ta Phut, Thailand and Uerdingen, Germany
		Expansion of films capacity, Dormagen, Germany
		Construction of a melt polycarbonate facility, Antwerp, Belgium (completed 2001)
		Construction of a rubber chemicals facility, Brunsbüttel, Germany (completed 2001)
	Polyurethanes, Coatings, Fibers	Expansion of isocyanate capacities including precursors, Uerdingen and Brunsbüttel, Germany
		Expansion of coating raw materials production, Leverkusen, Germany
		Expansion of capacity for aqueous dispersions, Dormagen/ Germany (brought on stream 2001)
		Expansion of dyestuff production for transparent Plastics, Leverkusen, Germany
		Construction of a coating raw materials facility, Caojing, China
	Chemicals	Construction of a sulfuric acid facility, Leverkusen, Germany
		Expansion/ modification of the electrolysis plant, Leverkusen, Germany
		Construction of a polyaspartic acid facility, Leverkusen, Germany
		Expansion of tantalum production, Goslar, Germany and Mito, Japan
		Process technology center, Goslar, Germany (completed 2001)
		Modernization and expansion of the nitrocellulose facility, Bomlitz, Germany
		Expansion of the molybdenum facility, Laufenburg, Germany
2000	Pharmaceuticals, Biological Products	Construction of process development pilot plant, Wuppertal, Germany (completed 2000)
	Consumer Care, Diagnostics	Expansion of solids plant, Bitterfeld, Germany
	CropScience	Fungicides production facility, Dormagen, Germany (completed 2000)
		Expansion of solids formulation plant (parasiticides, insecticides, rodenticides), Belford Roxo, Brazil
	Plastics, Rubber	Expansion of polycarbonate capacities (Makrolon) and Bisphenol A), Map Ta Phut, Thailand
		Construction of Therban facility, Leverkusen, Germany (completed 2000)
	Polyurethanes, Coatings, Fibers	Facility for continuous production of long chain polyethers by our pro- prietary IMPACT process, Channelview, Texas
		Expansion of coating raw materials production, Leverkusen, Germany
	Chemicals	Construction of sulfuric acid facility, Leverkusen, Germany
		Expansion/ modification of electrolysis plant, Leverkusen, Germany
		Construction of polyaspartic acid facility, Leverkusen, Germany
		Expansion of tantalum production at H.C. Starck, Germany and Japan

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Commitments

Off Balance Sheet Arrangements

Our unconsolidated entities are not considered special-purpose entities and do not constitute other off-balance sheet arrangements. However, under current US GAAP, we are evaluating unconsolidated entities in which we may have a variable interest. If consolidation should turn out to be necessary, it will take place in 2003.

Contractual Obligations and Commercial Commitments

The tables below summarize all of the Group s contractual and commercial obligations. The timing of payments for collaborative agreements assumes that milestones or other conditions are met.

Contractual Obligations	Total	1 year	2 years	3 years	4 years	5 years	After 5 years
Long-term Debt, including Capital Leases	10,159	2,841	186	427	82	3,231	3,392
Operating Leases	619	191	140	85	61	49	93
Capital Expenditures	286	286					
Total Contractual Obligations	11,064	3,318	326	512	143	3,280	3,485

Other Commercial Commitments	Total	1 year	2 years	3 years	4 years	5 years	After 5 years
Collaborative Agreements	570	208	153	89	74	36	10

Payments for guarantees and endorsements of bills and of warranties of 245 million have been excluded from the other commercial commitments table above, as we do not expect to make any payments under these commercial commitments.

Investments

We spent a total of 2.4 billion for intangible assets, property, plant and equipment in 2002. As in recent years, the main focus of our capital spending was in our Polymers business.

Other Commitments

In 2002 our minimum non-discounted future lease payments relating to long-term lease and rental arrangements totaled 1.5 billion, compared with 1.7 billion in the previous year. Of this amount, 899 million represented future payments under financial leases (1.2 billion in 2001).

Our financial commitment for orders placed under purchase agreements relating to planned or ongoing capital expenditure projects totaled 286 million in 2002. We expect to pay the majority of this amount in 2003. In 2001 this figure was 354 million, and in 2001 446 million.

Under collective agreements on part-time work arrangements for certain older employees, we have to accept applications for such arrangements from a certain quota of the work force. Other financial obligations that may arise from such work arrangements in the future cannot be quantified, since the quota has already been exceeded.

In addition, we have entered into research agreements with a number of third parties. Under these agreements, we have agreed to fund various research projects or to assume other commitments. Our payments under these agreements are typically based on the achievement of certain milestones or the fulfillment of other specific conditions by our research partners. In 2002 the total amount of these commitments was

570 million. For 2001 the figure had been 732 million.

Borrowings

Our consolidated financial statements reflect borrowings as financial obligations , which include debentures, liabilities to banks, liabilities under lease agreements, liabilities from the issuance of promissory notes,

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commercial paper and other financial obligations. See the tables under *Contractual Obligations and Commercial Commitments*, above, for a summary of our current financial obligations. See also Note 30 to our consolidated financial statements.

Funding and Treasury Policies

We are exposed to interest rate risk. We are also exposed to currency-related risks such as exchange rate and translation risk. To hedge our risks, we use primarily over-the-counter derivative instruments, particularly forward foreign exchange contracts, option contracts, interest rate swaps, and interest and principal currency swaps. We do not use derivative instruments for speculative purposes.

Interest rate risk applies mainly to receivables and payables with maturities of over one year. Items with these long maturities are not material to our operations but are relevant to our investments and financial obligations. Here, derivative financial instruments are our main method of interest rate hedging. We primarily use interest rate swaps to convert a portion of our fixed rate borrowings into, in effect, floating rate borrowings. Short-term interest rate hedging contracts (including interest and principal currency swaps) totaled a nominal amount of 0.5 billion in 2002, 2.0 billion in 2001 and 0.3 billion in 2000. In 2002 hedges maturing in more than one year represented a nominal amount 5.3 billion, in 2001 2.5 billion and in 2000 3.2 billion.

Because a substantial portion of Bayer s assets, liabilities, sales and earnings are denominated in currencies other than the euro-zone currencies, we have translation exposure to fluctuations in the values of these currencies relative to the euro. These currency fluctuations, especially the fluctuation of the value of the U.S. dollar relative to the euro, can have a material impact on our results of operations. For example, an increase in the value of the U.S. dollar relative to the euro will increase the euro value of Bayer s sales and earnings made in the dollar zone and increase the competitiveness of its products produced in Europe against products exported from the United States. The effects of currency fluctuations have been negative in 2002, decreasing our sales by 1.4 billion compared to the positive effects of 0.1 billion in 2001 and 2.2 billion in 2000. This effect was mainly due to a decrease of the value of the U.S. dollar compared to the euro (the average relative value of one euro in 2002 was $0.95, compared with average values of $0.90 in 2001 and $0.93 in 2000).

We hedge a portion of our risk through the use of derivative financial instruments, particularly forward foreign exchange contracts and currency options. Our Corporate Treasury department has the central responsibility for managing our currency exposures and using currency derivatives. We establish the maturity dates of hedging contracts according to the anticipated cash flows of the Bayer Group. Our policy is to use a mixture of instruments depending upon our view of market conditions based on fundamental and technical analysis. As of December 31, 2002, we had entered into forward foreign exchange contracts and currency swaps with a nominal value of 2.98 billion, compared to 2.75 billion in 2001 and 3.42 billion in 2000.

Our aggregate direct transaction risk from sales and purchases in foreign currencies before hedging was approximately 2.7 billion at December 31, 2002, consisting primarily of dollars ($1.7 billion), Japanese yen (¥53 billion) and Brazilian real (R1.3 billion). Since the introduction of the euro on January 1, 1999, we no longer face transaction risk in member currencies of the euro zone.

For more information, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk*.

Inflation, Seasonality and Cyclicality

Inflation has not had a material effect on our operating results in recent years. Seasonality does not materially affect our business as a whole. However, several of our individual business lines are subject to seasonal effects. In addition, a number of our business groups are subject to cyclicality, either directly or because of the effect of cyclicality on their customers businesses. See the descriptions of our various business segments in Item 4, *Information on the Company* for a discussion of those businesses subject to seasonal or cyclical effects.

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RESEARCH AND DEVELOPMENT

The following table sets forth our total research and development expenditures during the last three full years.

	2002	Change from Previous Year (%)	2001	Change from Previous Year (%)	2000
Research and development expenditure:					
Amount (in millions of euros)	2,577	0.7	2,559	6.9	2,393
As a percentage of sales	8.7		8.5		7.7

We typically allocate the largest portion of our research and development expenses to our Health Care businesses, primarily in the Pharmaceuticals, Biological Products segment. In 2002, Pharmaceuticals, Biological Products accounted for 41.6 percent of our total research and development spending (2001: 48.5 percent; 2000: 45.8 percent).

For a more detailed discussion of our research and development activities and policies, see Item 4, *Information on the Company Research and Development* as well as the descriptions of each business group s research and development activities in Item 4, *Information on the Company Business*. We discuss our patents and other intellectual property protection in Item 4, *Information on the Company Intellectual Property Protection*.

BASIS OF PRESENTATION

We prepared the consolidated financial statements that appear elsewhere in this annual report in accordance with IFRS. See Note 44 to our consolidated financial statements for a reconciliation of the significant differences between IFRS and U.S. GAAP.

New Accounting Standards

IFRS

The following new or revised accounting standards and interpretations were implemented in 2002:

SIC-27	Evaluating the Substance of Transactions Involving the Legal Form of a Lease
SIC-28	Business Combinations Date of Exchange and Fair Value of Equity Instruments
SIC-29	Disclosure Service Concession Agreements
SIC-30	Reporting Currency Translation from Measurement Currency to Presentation Currency
SIC-31	Revenue Barter Transactions Involving Advertising Services
SIC-32	Intangible Assets Web Site Costs
SIC-33	Consolidation and Equity Method Potential Voting Rights and Allocation of Ownership Interests

The adoption of these new interpretations did not have a material impact on our financial position or results of operation in 2002 or on the comparability of our 2002, 2001 and 2000 consolidated financial statements.

In 2003 a new International Accounting Standard, IAS 41 Agriculture, will be implemented. IAS 41 Agriculture prescribes the accounting treatment, financial statement presentation and disclosures related to agricultural activity. This standard stipulates, among other things, the accounting treatment for biological assets during the period of growth, degeneration, production and procreation, and for the initial measurement of agricultural produce at the point of harvest. It prescribes that biological assets be included at fair value less estimated point-of-sale costs, provided that fair value can be measured reliably. Agricultural produce harvested from such biological assets is also recognized at fair value at the point of harvest less estimated point-of-sale costs.

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U.S. GAAP

In June 2001 the Financial Accounting Standards Board (FASB) approved Statement of Financial Accounting Standards (SFAS) 143, Accounting for Obligations Associated with the Retirement of Long-Lived Assets (SFAS 143), which requires that the fair values of an obligation associated with the retirement of long-lived assets be recognized in the period in which such obligation is incurred if a reasonable estimate of fair value can be made. When the liability is recorded, we must capitalize the costs of the liability by increasing the carrying amount of the long-lived asset. Over the estimated life of the asset, the liability is accreted to its present value and the related capitalized charge is depreciated over the useful life of the asset. We are required to implement SFAS 143 with effect from January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

SFAS 145, Rescission of FASB Statements no. 4, 44 and 64, Amendment of FASB Statement no. 13 and Technical Corrections was issued in April 2002. The statement updates, clarifies and simplifies existing accounting standards related to the presentation of gains and losses from certain extinguishments of debt, the accounting for certain intangible assets and the accounting for certain sale-leaseback transactions. Significant provisions of this statement applicable to Bayer are effective for our 2003 fiscal year. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

SFAS 146, Accounting for Costs Associated with Exit or Disposal Activities was issued in June 2002. SFAS 146, which rescinds Emerging Issues Task Force (EITF) Issue 94-3, Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring), requires a liability for costs associated with exit or disposal activities to be recognized and measured initially at fair value only when they are incurred rather than at the date of a commitment to an exit or disposal plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. We will adopt this standard effective January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In November 2002 the FASB published FASB Interpretation no. 45, Guarantor s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others (FIN 45). FIN 45 expands on the accounting guidance of other SFASs by extending the disclosures to be made by a guarantor in its financial statements about its obligations under certain guarantees, and it requires the guarantor to recognize a liability for the fair value of an obligation assumed under a guarantee. The disclosure requirements are effective for financial years ending after December 15, 2002, and require disclosure of the nature of the guarantee, the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, and the current amount of the liability, if any, for the guarantor s obligations under the guarantee. FIN 45 s provisions for initial recognition and measurement should be applied prospectively to guarantees issued or modified after December 31, 2002. We will apply this standard beginning on January 1, 2003. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In January 2003 the FASB published FASB Interpretation no. 46, Consolidation of Variable Interest Entities (FIN 46). FIN 46 addresses the consolidation of entities for which control is achieved through means other than through voting rights (such entities are designated variable interest entities or VIE) by clarifying the application of ARB No. 51, Consolidated Financial Statements to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The primary objective of this interpretation is to provide guidance on how to identify a VIE and to determine when a VIE s assets, liabilities, noncontrolling interests and result of operations need to be included in a company s consolidated financial statements. The measurement principles will apply to our 2003 financial statements, while the disclosure principles are effective immediately. While we are currently in the process of assessing the impact of the adoption of FIN 46, we do not believe it will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB published SFAS 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity. SFAS 150 establishes standards for how an issuer classifies and

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measures certain financial instruments with characteristics of both liabilities and equity. This statement is effective for our 2003 fiscal year reporting. We do not believe the adoption of this standard will have a material impact on our financial position, results of operations or cash flows.

In May 2003 the FASB Emerging Issues Task Force published Issue 00-21, Revenue Arrangements with Multiple Deliverables (EITF 00-21). EITF 00-21 addresses certain aspects of the accounting by a vendor for revenue arrangements entered into for fiscal periods beginning after June 15, 2002. We do not believe the adoption of EITF 00-21 will have a material impact on our financial position, results of operations or cash flows.

In April 2003 the FASB issued SFAS No. 149 Amendment of Statement 133 on Derivative Instruments and Hedging Activities . This Statement amends and clarifies financial accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities under SFAS no. 133, Accounting for Derivative Instruments and Hedging Activities . The Group is currently evaluating the impact of this change.

Currency of Presentation

On January 1, 1999 the euro became the common currency of the 11 member states of the European Union (including Germany) participating in the European Monetary Union. The conversion rates between the euro and the national legacy currencies were irrevocably fixed; the official German mark/euro rate was DM 1.95583 per 1.00. Legacy currency banknotes and coins remained in circulation during an initial transition period. On January 1, 2002, new euro-denominated notes and coins entered circulation, and the legacy currencies were withdrawn from circulation. Euro notes and coins are now the sole legal tender in these countries.

Critical Accounting Policies

Critical accounting policies are those that are both most important to the portrayal of the Group s financial position and results, and that require application of management s most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. We are not aware of any reasonably possible events or circumstances that would result in different amounts being reported that would have a material effect on our results of operations or financial position.

Our significant accounting policies are outlined in the notes to the financial statements. While not all of these significant accounting policies require the Group to make difficult, subjective, or complex judgments, we believe that the following accounting policies could be considered critical.

Intangible Assets and Property, Plant and Equipment

Intangible assets, including goodwill, and property, plant and equipment, are amortized over their estimated useful lives. Useful lives are based on our estimates of the period that the assets will generate revenue.

Intangible assets and property, plant and equipment are tested for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment testing requires management to compare the carrying value of the assets to the expected discounted future cash flows from the related assets. Determining the expected discounted future cash flows involves significant estimations, including future sales prices and sales volumes, costs, and risk-adjusted discount rates.

Although we believe that our estimates of useful lives and estimations of discounted future cash flows are appropriate, changes in assumptions or circumstances could impact our future reported results.

Environmental Provisions

Our compliance with environmental laws and regulations may require us to remove or mitigate the effects of the disposal or release of chemical substances in jurisdictions where we do business or maintain properties. The cost of such compliance is provided for when it is probable and can be reasonably estimated. Provision amounts

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are estimated based on currently available facts, remediation strategies, regulations, our relative share of the total remediation costs, and discount rate. Changes in these assumptions could impact our future reported results.

Litigation Provisions

As more fully described in Note 44 to the financial statements, we are involved in a number of legal proceedings. As a global company active in a wide range of life sciences and chemical activities, we may, in the normal course of our business become involved in proceedings relating to such matters as:

product liability,

patent validity and infringement disputes,

tax assessments,

competition and antitrust, and

past waste disposal practices and release of chemicals into the environment.

We cannot predict with certainty the outcome of any proceedings in which we are or may become involved. An adverse decision in a lawsuit seeking damages from us could result in a monetary award to the plaintiff and, to the extent not covered by our insurance policies, could significantly harm our business or the results of our operations. If we lose a case in which we seek to enforce our patent rights, we could sustain a loss of future revenue as other manufacturers begin to market products we developed.

Litigation cases and claims raise difficult and complex legal issues and are subject to many uncertainties and complexities, including, but not limited to, the facts and circumstances of each particular case and claim, the jurisdiction in which each suit is brought, and differences in applicable law. Upon resolution of any pending legal matters, we may incur charges in excess of presently established provisions and related insurance coverage. It is possible that our results of operations and cash flows could be materially affected by an ultimate unfavorable outcome of certain pending litigation.

Income Taxes

We are required to make estimates in determining our provision for income taxes and our deferred tax assets and liabilities. Additional estimates are made to determine whether valuation allowances are required against deferred tax assets. Such valuation allowances are recognized when it is not sufficiently certain that the assets will be realized. Uncertainties exist in respect of interpretation of complex tax regulations and the amount and timing of future taxable income. Differences between actual results and our assumptions, or changes in our assumptions in future periods, could result in adjustments to tax expense in future periods.

Use of Estimates

The preparation of all financial statements includes the use of estimates and assumptions that affect a number of amounts included in our financial statements, including employee benefit costs and related disclosures, inventory valuations, sales allowances, income taxes and contingencies. We base our estimates on historical experience and other assumptions that we believe are reasonable. If actual amounts are ultimately different from estimates, revisions are included in our results of operations for the period in which the actual amounts become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a significant impact on our consolidated financial statements.

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Item 6. Directors, Senior Management and Employees

Directors and Senior Management

In accordance with the German Stock Corporation Act (*Aktiengesetz*), Bayer AG has both a Board of Management (*Vorstand*) and a Supervisory Board (*Aufsichtsrat*). The Board of Management is responsible for the management of our business; the Supervisory Board appoints and supervises the members of the Board of Management. The two boards are separate, and no individual may simultaneously be a member of both boards.

Members of both the Board of Management and the Supervisory Board owe a duty of loyalty and care to Bayer AG. In exercising their duties, the applicable standard of care is that of a diligent and prudent businessperson. Members of both boards must take into account a broad range of considerations when making decisions, including the interests of Bayer AG and its shareholders as well as of employees and creditors.

The members of the Board of Management and the Supervisory Board may be held personally liable to Bayer AG for breaches of their duties of loyalty and care. Bayer AG must bring an action for breach of duty against the Board of Management or Supervisory Board upon a resolution of the shareholders meeting passed by a simple majority of votes cast, or upon the request of shareholders holding, as a group, at least 10 percent of the outstanding share capital. With the exception of shareholders of companies that (unlike Bayer AG) are under the control of another company, individual shareholders of German companies cannot sue directors on behalf of the company in a manner analogous to a shareholder s derivative action under U.S. law. Under German law, directors may be liable for breach of duty to shareholders (as opposed to a duty to the company itself) only where a breach of duty to the company also constitutes a breach of a statutory provision enacted specifically for the protection of shareholders. As a practical matter, shareholders are able to assert liability against directors for breaches of this sort only in unusual circumstances.

Board of Management

The Board of Management is responsible for managing the business of Bayer AG in accordance with the German Stock Corporation Act and Bayer AG s Articles of Association. It also represents Bayer AG in its dealings with third parties and in court. According to the Articles of Association, the Board of Management consists of a minimum of two members. The Supervisory Board determines the number of and appoints the members of the Board of Management. Members of the Board of Management are appointed for a maximum term of five years and are eligible for reappointment after the completion of their term in office.

Bayer AG is legally represented by two members of the Board of Management acting together, or by one member of the Board of Management together with a person possessing a special power of attorney (*Prokura*).

The Board of Management must report regularly to the Supervisory Board, particularly on proposed business policy and strategy, on profitability and on the current business of Bayer AG, as well as on any exceptional matters that may arise from time to time. If not otherwise required by law, the Board of Management decides with a simple majority of the votes cast. In case of deadlock, the vote of the chairman is the relevant vote.

Under certain circumstances, such as a serious breach of duty or a vote of no confidence by the shareholders in an annual meeting, a member of the Board of Management may be removed by the Supervisory Board prior to the expiration of his term. A member of the Board of Management may not deal with, or vote on, matters relating to proposals, arrangements or contracts between him/herself and Bayer.

Individual Board members serve as representatives with primary responsibility for our various corporate segments and as representatives for the various geographic regions in which we operate.

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The following table shows the members of our current Board of Management, their ages, positions and the years in which their current terms expire.

Name and Age[1]	Position	Current term expires
Werner Wenning (56)	Chairman	2007
Dr. Udo Oels (59)	Member	2006
Klaus Kühn (51)	Member	2007
Dr. Richard Pott (49)	Member	2007

(1) Attila Molnar and Frank Morich left the Board of Management on June 30, 2002. Werner Spinner resigned from the Board of Management effective February 28, 2003.

Werner Wenning became chairman of our Board of Management in April 2002. He has served on the Board since 1997. Prior to becoming chairman, he served as chief financial officer and was a member of the Corporate Coordination and Human Resources Committees. From 1996 until he joined the Board in 1997, Mr. Wenning was head of Corporate Planning and Controlling. In addition to his responsibilities on the Board, he is a member of the supervisory boards of Gerling-Konzern Versicherungs-Beteiligungs AG and Henkel KGaA.

Dr. Udo Oels joined the Board of Management in 1996 and currently is responsible for the corporate functions innovation, technology and environment. He is the representative for the Asia region.

Klaus Kühn is Bayer s chief financial officer. Prior to joining the Board in May 2002, Mr. Kühn was head of Bayer s Finance Division. Prior to that appointment, he oversaw the spin-off of Bayer s former Agfa division. Before joining Bayer in 1998, Mr. Kühn worked with Schering AG, most recently as head of finance. He is also the vice president of the Deutsches Aktieninstitut e.V.

Dr. Richard Pott joined the Board in May 2002. He had previously served as General Manager of our Specialty Products business group. Before assuming responsibility for Specialty Products, he served Bayer in a number of positions, most recently as head of the Strategic Planning Department and then as head of Corporate Planning and Controlling. Dr. Pott oversees strategy and human resources and serves as *Arbeitsdirektor*.

Supervisory Board

Under the German Stock Corporation law, the German Co-Determination Act (*Mitbestimmungsgesetz*) of 1976 and our Articles of Association, the Supervisory Board consists of 20 members. The principal function of the Supervisory Board is to appoint and supervise the Board of Management. The Supervisory Board oversees our business policy, corporate planning and strategy. It also approves the annual budget and the financial statements of Bayer AG and of the Bayer Group. The Supervisory Board may not make management decisions, but the Board of Management s standard operating procedures (*Geschäftsordnung*) may require the prior consent of the Supervisory Board for specified transactions above a specified threshold, including:

the acquisition or disposition of investments;

the acquisition, disposition or encumbrance of real property;

the creation of new business units or the disposition of existing units;

the issuance of bonds, entering into of credit agreements, or grant of guaranties, sureties (*Bürgschaften*) and loans, except to subsidiaries; and

the establishment of branch offices (*Zweigniederlassungen*).

Our shareholders elect ten members of the Supervisory Board at the annual meeting of shareholders. Pursuant to the Co-Determination Act of 1976, our employees elect the remaining ten members. The term of a Supervisory Board member expires at the end of the annual meeting of shareholders in which the shareholders discharge Supervisory Board members for the fourth fiscal year following the year in which the member was elected. There is no compulsory retirement age for members of the Supervisory Board. However, in accordance

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with the German Corporate Governance Codex, Board members are encouraged to retire at the Annual Shareholders Meeting during the year in which they reach the age of 72.

Any member elected by the shareholders at the annual meeting of shareholders may be removed by a majority of three quarters of the votes cast by the shareholders in such meeting. Any member elected by the employees may be removed by a majority of three quarters of the votes cast by the employees. Unless otherwise required by law or by the Articles of Association of Bayer AG, resolutions of the Supervisory Board are passed by simple majority of the votes cast. According to the Articles of Association, in the case of a deadlock, a second vote is held in which the chairman of the Supervisory Board is entitled to one additional vote. In order to constitute a quorum, at least half of the total members of the Supervisory Board must be present in the meeting or participate in the voting.

All of the current shareholder representatives on the Supervisory Board were elected by the shareholders at the annual meeting of shareholders held on April 26, 2002, with the exception of Dr. Jürgen Weber, who was elected on April 25, 2003.

The following table shows the current members of our Supervisory Board, their principal occupations and the year in which they were first elected or appointed. Employee representatives are identified by an asterisk.

Name[1]	Position	Principal occupation	First elected
Dr. Manfred Schneider	Chairman	Former chairman of the management board, Bayer AG	2002
*Erhard Gipperich	Vice Chairman	Lathe operator	1998
Dr. Paul Achleitner	Member	Member of the management board, Allianz AG	2002
Dr. Josef Ackermann	Member	Chairman of the management board, Deutsche Bank AG	2002
*Karl-Josef Ellrich	Member	Chairman of the Works Council, Dormagen Site	2000
Prof. Dr. Hans-Olaf Henkel	Member	President of the Leibniz Association	2002
*Thomas Hellmuth	Member	Agricultural Engineer	2002
Dr. h.c. Martin Kohlhaussen	Member	Chairman of the supervisory board, Commerzbank AG	1992
John Christian Kornblum	Member	Chairman of Lazard & Co.	2002
*Petra Kronen	Member	Chairman of the Works Council	2000
Dr. Heinrich von Pierer	Member	President and Chief Executive Officer of Siemens AG	1993
*Wolfgang Schenk	Member	Engineer	2002
*Hubertus Schmoldt	Member	Chairman of German Mine, Chemical and Power Workers Union	1995
*Dieter Schulte	Member	Former Chairman of German Unions Federation	1997
*Dr. h.c. Jürgen Weber	Member	Chairman of the Supervisory Board Deutsche Lufthansa AG	2003
*Siegfried Wendlandt	Member	North Rhine District Secretary of German Mine, Chemical and Power Workers Union	2001
*Reinhard Wendt	Member	Printer	2002
*Thomas de Win	Member	Commercial Clerk	2002
Prof. Dr. Ernst-L. Winnacker	Member	University Professor, Bonn	1997
Dr. Hermann Wunderlich	Member	Former Vice Chairman of management board	1996

(1) Petra Brayer, Hilmar Kopper, Dr. Ing, Manfred Lennings, Dr. h.c. Andre Leysen, Dr. h.c. Helmul Oswald Maucher, Rolf Nietzard, Waltrud Schlaelke, Hermann Josef Strenger and Dr. Eugen Velker left the

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Supervisory Board on April 26, 2002. Karl-Heinz Huchthausen left the Supervisory Board on October 1, 2002. Dr. Wolfgang Reitzle resigned from the Supervisory Board effective April 25, 2003.

Supervisory Board Committees

Currently, the Supervisory Board has the following committees:

The Presidium was established pursuant to § 27 (3) of the Co-Determination Act and consists of the chairman and vice chairman of the Supervisory Board, as well as of one shareholder representative and one employee representative. It serves as our nomination committee (*Vermittlungsausschuss*). The purpose of this committee is to nominate members of the Board of Management for election by a simple majority of the votes of the Supervisory Board in the event that the Supervisory Board is unable to appoint members of the Board of Management with the votes of at least a two thirds majority of the Supervisory Board. Pursuant to § 9 (2) of the Standard Operating Procedures (*Geschäftsordnung*) of the Supervisory Board, the Presidium also prepares the general meetings of the full Supervisory Board. The current members of the nomination committee are Mr. Schneider (chairman), Mr. Gipperich, Mr. von Pierer and Mr. Schmoldt.

The personnel committee (*Personalausschuss*) was established pursuant to § 10 of the Standard Operating Procedures of the Supervisory Board. The personnel committee consists of four members of the Supervisory Board. The chairman of the Supervisory Board acts as chairman of the personnel committee. The main responsibility of the personnel committee is the determination of the salary and further conditions of the employment of Board of Management members, the legal representation of the Company in affairs with Board of Management members pursuant to § 112 of the German Stock Corporation Act, the approval of agreements with Supervisory Board members pursuant to § 114 of the German Stock Corporation Act and the approval of loans granted to Supervisory Board and Board of Management members and other persons pursuant to § 89 and § 115 of the German Stock Corporation Act. The current members of the personnel committee are Mr. Schneider (chairman), Mr. Kohlhaussen, Mr. Ellrich and Ms. Kronen.

The audit committee (*Prüfungsausschuss*) was established pursuant to § 11 of the Standard Operating Procedures of the Supervisory Board. The audit committee consists of six members of the Supervisory Board. The chairman of the Supervisory Board acts as chairman of the audit committee. The main responsibilities of the audit committee are oversight of financial accounting, risk management, the preparation of the resolutions of the Supervisory Board with respect to the annual financial statements, the review of all non-audit services to be performed by the independent auditor, oversight over the independent auditors including scope of services, fees and schedules, the direct receipt of the audit reports, and the direct receipt of reports of accounting irregularities. The current members of the audit committee are Mr. Schneider (chairman), Mr. Henkel, Mr. Kohlhaussen, Mr. Schenk, Mr. Wendlandt and Mr. de Win.

Share Ownership

Because the shares of Bayer AG are in bearer form, we cannot obtain precise information as to their holders. To the best of our knowledge, however, no member of the Supervisory Board or the Board of Management beneficially owns shares of Bayer AG totaling one percent or more of all outstanding shares.

Compensation

The members of our Board of Management receive a fixed salary and a variable bonus. The variable bonus for a given year is tied to the amount of Bayer AG s dividend for that year. In addition, the members of our Board of Management may participate in a cash-settlement-based stock option program, provided that they place shares of their own into a special deposit account. In 2002 we paid salary and bonus compensation totaling 5,700,737 (2001: 8,153,562) to the members of our Board of Management. Of this amount, 4,426,757 was paid to members who were active on the Board as of December 31, 2002. With respect to their periods of active membership an additional 1,273,980 was paid to members of the Board who resigned or whose terms expired

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during 2002. Of the amount paid to members who were active on the Board as of December 31, 2002, 1,988,291 represented base salary and fixed bonus and 2,324,111 represented variable bonus. The Board members who were active as of December 31, 2002 also received remuneration in kind totaling 114,355 and consisting mainly of amounts such as the value assigned to the use of a company car for taxation purposes.

Emoluments to retired members of the Board of Management and their surviving dependents amounted to 14,383,353 (2001: 8,355,270). We pay former and retired members of the Board of Management a monthly pension equal to 80 percent of the last monthly base salary received while in service. These amounts are in addition to any amounts they receive as a result of their participation in the Bayer pension plan described below. See *Employee Pension Plan*. If we increase the base salary of current members of the Board of Management, we adjust the pension payments to retired members accordingly.

In 2000 we implemented our Stock Option Program, under which we may grant option rights to members of the Board of Management. The number of shares that these option rights entitle holders to receive will vary substantially depending on certain performance benchmarks; if minimum benchmarks are not reached, the holder is not entitled to exercise the option rights. From the 2002 tranche of the Stock Option Program, the members of the Board of Management received a total of 476 option rights on the basis of their own investments. These rights are initially blocked for three years. During the subsequent two-year exercise period, the option rights entitle the participants to receive a maximum of 47,600 shares in total. See below, *Employee Option Plans Stock Option Program*.

The following table shows the remuneration paid to those individual members of our Board of Management who were active on the Board as of December 31, 2002.

Remuneration of the Members of the Board of Management

	Period	Fixed Salary	Variable bonus	Total	Stock option rights (2002 tranche)
Klaus Kühn	May-Dec. 2002	271,550	320,332	591,882	119
Dr. Udo Oels	Jan.-Dec. 2002	414,079	480,498	894,577	119
Dr. Richard Pott	May-Dec. 2002	271,832	320,332	592,164	0
Werner Spinner	Jan.-Dec. 2002	408,513	480,498	889,011	119
Werner Wenning	Jan.-Dec. 2002	622,317	722,451	1,344,768	119

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The following table shows the remuneration paid to individual members of the Supervisory Board who were active on the Board as of December 31, 2002.

Remuneration of the Members of the Supervisory Board

	Basic remuneration	Variable remuneration	Totals
Dr. Paul Achleitner	3,389	35,583	38,972
Dr. Josef Ackermann	3,389	35,583	38,972
Karl-Josef Ellrich	5,000	52,500	57,500
Erhard Gipperich	7,500	78,750	86,250
Thomas Hellmuth	1,236	12,979	14,215
Prof. Dr.-Ing. e.h. Hans-Olaf Henkel	3,389	35,583	38,972
Dr. h.c. Martin Kohlhaussen	5,000	52,500	57,500
John Christian Kornblum	3,389	35,583	38,972
Petra Kronen	5,000	52,500	57,500
Dr. Heinrich von Pierer	5,000	52,500	57,500
Dr. Wolfgang Reitzle	3,389	35,583	38,972
Wolfgang Schenk	3,389	35,583	38,972
Hubertus Schmoldt	5,000	52,500	57,500
Dr. Manfred Schneider	10,167	106,750	116,917
Dieter Schulte	5,000	52,500	57,500
Siegfried Wendlandt	5,000	52,500	57,500
Reinhard Wendt	3,389	35,583	38,972
Thomas de Win	3,389	35,583	38,972
Prof. Dr. Enrst-Ludwig Winnacker	5,000	52,500	57,500
Dr. Hermann Wunderlich	5,000	52,500	57,500

There were no loans to members of the Board of Management or to members of the Supervisory Board outstanding as of December 31, 2002.

Board of Management severance plan

Beginning in 2001 we established a severance plan for the members of Bayer AG s Board of Management. This plan provides for payments for Board members if their relationship with Bayer AG is terminated following a change of control. Change of control , for the purposes of this plan, is defined as the acquisition by a third party of 25 percent or more of Bayer AG s outstanding shares or transactions that would have a similar effect. A Board member is generally eligible for payment under the plan if his or her relationship with Bayer AG ends within 12 months of the change of control, other than in the case of termination for cause or termination of a Board member aged 62 or more at the time of termination.

Under the plan, former Board members are entitled to receive the present value of the compensation they would have received through the normal expiration date of their employment contracts, discounted by 25 percent for a duration of more than three years. In addition, they would receive a severance payment equal to the sum of two to four years annual compensation. The basic amount of these severance payments is equal to two years compensation. If the former Board member is 50 or older at the time of termination, the payment increases by one year s compensation or by two years compensation if, in addition, the former Board member s length of service with the company was at least 30 years or his or her tenure on the Board was at least ten years. Total payments under the plan are, however, capped at an amount equal to five times the former Board member s annual compensation. In addition, the former Board member retains full pension rights.

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Employee option plans

In May 2000 we implemented a three-tier program to provide employees and management with an opportunity to earn Bayer AG shares. We offer the *stock option program* for members of the Board of Management and senior executives, the *stock incentive program* for middle management and equivalent employees and the *stock participation program* for junior management and other employees.

To be eligible for the stock option and stock incentive programs and for Module 1 of the stock participation program, participants must place Bayer AG shares of their own into a special deposit account. Participants do not pay an exercise price for the shares they receive under these programs. Rather, they receive the shares as bonus shares or, in the case of Module 2 of the stock participation program, have the opportunity to purchase shares at a discounted price.

We may implement our employee option programs in annual tranches. Each tranche has separate terms, holding periods and other key parameters as described below, in each case keyed to the starting date of that tranche.

Stock Option Program

Members of the Board of Management and senior executives who wish to participate in the stock option program must place Bayer AG shares of their own in a special deposit account. We determine on an individual basis the maximum number of shares each participant may deposit; the participant receives one option right for each 20 shares deposited. These deposited shares are locked up ; the participant may not sell them during the following three-year holding period. After the end of these three years, a two-year exercise period begins. During this period, the participant may exercise the option rights if he or she has fulfilled the performance criteria. Any unexercised option rights expire at the end of this two-year period.

We apply three criteria to determine whether the participant is eligible to exercise option rights granted in any given tranche and, if so, the number of shares received upon exercise. Two of these criteria measure the absolute and relative performance of the Bayer AG share; the third measures the individual contribution of the participant.

If the Bayer AG share s total return has been at least 30 percent from the starting date of the tranche, each option right entitles the participant to one share for each three percentage points of total return, up to a maximum of 50 shares. This number may be modified by the application of the third, individual performance-based criterion.

If the Bayer AG share s total return exceeds the total return of the Dow Jones Euro Stoxx 50(SM) performance index since the starting date of the tranche, each option right entitles the participant to one share for each percentage point by which the Bayer AG share has outperformed the index, up to a maximum of 50 shares. Again, this number is subject to modification by the third criterion.

We calculate the cash value the participant has added to the business operations for which he or she is responsible. We do this by comparing the average growth in cash value for these operations over that tranche s holding period with the average growth in cash value for the Bayer Group as a whole during the three years prior to the starting date of the tranche. The result of this calculation is a factor between zero and two. This factor was set to one for the tranche of the program issued in 2002 because of the implementation and impact of the new holding structure.

We multiply the number of the participant s option rights by the number of shares to which he is or she is entitled under each the first two criteria. We then multiply the result by the factor produced by the third criterion. If the participant is not entitled to any shares under the first and second criteria, or if the factor produced by the third criterion is 0, the participant receives no shares under the program.

In 2002 participants in our stock option program received a total of 1,211 option rights. The number of shares that these participants may receive upon exercise of their option rights would vary between a minimum of zero shares and, assuming maximum results for all participants on the three performance criteria described above, a maximum of 121,100 shares.

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German law generally requires specific shareholder approval for the issuance of shares to members of a corporation s board of management. To the extent that we are unable to issue shares under the stock option program to participating members of our Board of Management at the time they are entitled to exercise their option rights, therefore, the option rights would function as share appreciation rights. Instead of shares, the participant would receive the cash value of the shares to which the option rights would otherwise entitle him or her, based on the trading price of the Bayer AG share at the time of exercise.

Stock Incentive Program

Like the stock option program, our stock incentive program for middle management requires participants to deposit Bayer AG shares in a special deposit account. In any given annual tranche, a participant may deposit Shares with a maximum aggregate value of half of his or her performance-related bonus for the preceding fiscal year. The number of incentive shares the participant receives depends on the number of Bayer AG shares deposited at the start of the tranche as well as on the total return of the Bayer AG share. Unlike the stock option program, the stock incentive program does not lock up deposited shares. Participants may sell their deposited shares during the term of the tranche, but any deposited shares they sell are no longer counted in calculating the number of incentive shares for subsequent distribution dates. In the 2002 fiscal year, participants were allowed to deposit shares in a maximum aggregate value equal to their performance-related bonus for the 2000 fiscal year, if the bonus for 2000 was higher than that for 2001.

Each tranche of the stock incentive program has a ten-year term. There are three incentive share distribution dates during this period. On these dates, the participant receives incentive shares as follows:

Distribution date at end of	Incentive shares received (per 10 deposited shares)
Second year	2
Sixth year	4
Tenth year	4

Participants receive incentive shares only if the total return of the Bayer AG share has outperformed the Dow Jones Euro Stoxx 50$^{(SM)}$ performance index on the relevant distribution date, as calculated from the starting date of the tranche.

Based on the number of Bayer AG shares that participants in the stock incentive program deposited in the tranche for 2002, participants are eligible to receive a total of 71,310 shares on the tranche s future distribution dates, assuming satisfaction of the performance criterion on each such date and assuming that these participants do not remove any shares from deposit during the term of the tranche.

Stock Participation Program

Our stock participation program has two components, Module 1 and Module 2. Employees not covered by the stock option program or stock incentive program may generally participate in both Module 1 and Module 2.

The Module 1 program, like the stock incentive program, requires participants to deposit Bayer AG shares in a special account. As with the stock incentive program, participants in the stock participation program may sell their deposited Bayer AG shares during the term of the tranche; any shares they sell are no longer counted in calculating the number of bonus shares on subsequent distribution dates for that tranche. Participants may deposit shares in a total value equal to half their performance-related bonus for the previous year. In the 2002 fiscal year, junior management participants were allowed to deposit shares in a maximum aggregate value equal to their performance-related bonus for the 2000 fiscal year, if the bonus for 2000 was higher than that for 2001.

Each tranche of Module 1 has a term of ten years and entitles the participant to receive incentive shares on three distribution dates based on the number of shares he or she has deposited. Unlike the stock incentive

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program, Module 1 does not impose a share performance criterion. The participant receives incentive shares as follows on the distribution dates:

Distribution date at end of	Incentive shares received (per 10 deposited shares)
Second year	1
Sixth year	2
Tenth year	2

Based on the number of Bayer AG shares that participants in Module 1 of the stock participation program have deposited in the tranche for 2002, participants are eligible to receive a total of 258,760 shares on the future distribution dates, assuming that these participants do not remove any shares from deposit during the term of the tranche.

In addition, under Module 2 each participant may purchase 10 Bayer AG shares per year at a tax-free discount of 15.40 per share under the then market price. Participants may not include shares that they purchase under Module 2 among the shares they deposit under Module 1.

Employees

The following tables set forth the average number of employees in continuing operations during 2002, 2001 and 2000 by area of primary activity and an approximate breakdown of employees as of December 31, 2002, 2001 and 2000 by geographical region:

Employees by Activity	Average for		
	2002	2001	2000
Technology	66,051	61,055	59,356
Marketing	35,985	33,875	33,186
Administration	10,035	9,091	9,567
Research	12,521	11,206	11,520
Total	124,592	115,227	113,629

Breakdown by Region	As of December 31,		
	2002	2001	2000
Europe	70,100	65,400	65,800
North America	24,600	23,400	23,100
Asia/Pacific	15,400	12,600	11,100
Latin America/ Africa/Middle East	12,000	11,000	11,500
Corporate	500	600	600

Labor Relations

The union-organized employees at our German facilities belong to several unions, the most important of which is IG BCE, the German Mining, Chemical and Energy Industrial Union. We do not negotiate collective bargaining agreements with these unions to cover our employees. Instead, in accordance with German practice, unions negotiate agreements with industry-wide employers associations, in our case the German Chemical Industry Association.

In Germany employers and unions generally negotiate collective bargaining agreements annually. The current agreement that covers our employees has a term of 13 months, beginning April 2003. It grants employees a lump-sum payment of 40 in the first month of the agreement and a subsequent 2.6 percent pay increase over the life of the agreement. A German collective bargaining agreement governs the employment of all employees of the categories organized in the relevant union. At Bayer, we do not differentiate between individual employees who are union members and those who are not.

There are 13 pay grades, based on job description, for our employees in positions governed by collective bargaining agreements. Our management employees, who have individual employment contracts, are organized in six contract levels.

Each Bayer facility in Germany has a works council (*Betriebsrat*), elected by all non-management employees. Members serve a four-year term; the last elections took place in March 2002. The works councils

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facilitate communications between us and our staff at the facility level. A joint works council (*Gesamtbetriebsrat*) serves a similar purpose at the company-wide level. The rights and responsibilities of works councils are set forth in the German Works Council Constitution Act (*Betriebsverfassungsgesetz*). Members of our works councils share responsibility with us for managing staff-related issues as well as such working conditions as:

working hours (namely, beginning and end of daily working hours);

vacation guidelines;

social services (e.g., subsidized cafeterias); and

distribution guidelines for performance-related bonuses.

A works council has no authority, however, to negotiate with an employer on wage and salary compensation or other issues covered by the collective bargaining agreements between employers associations and labor unions. Under German labor law, employees may legally strike only in an effort to obtain more favorable terms in the collective bargaining process. Accordingly, works councils have no legal authority to call a work stoppage.

With effect from January 1, 2001 we entered into an agreement (*Standortsicherungsvereinbarung*) with our joint works council to further job stability at several of our most important German sites. Under the agreement, the joint works council agreed to the reduction or elimination of certain social benefits that we previously provided. These included additional vacation days, additional payments and paid breaks. The council also granted us increased flexibility in setting working hours. In exchange, we agreed that we would not, except in exceptional circumstances, lay off employees at our Leverkusen, Dormagen, Uerdingen, Elberfeld and Brunsbüttel sites for operational reasons before December 31, 2004. If exceptional circumstances arise that are beyond our control and lead to employee over-capacity, we have agreed to negotiate with the joint works council to create a solution that will serve the interests of company and employees to the greatest possible extent.

Employee Pension Plan

All employees who have not reached the age of 55 before entering into employment with Bayer AG must join Bayer AG s pension fund (*Bayer-Pensionskasse*). As a member of the *Pensionskasse,* an employee makes a monthly contribution (up to the threshold for the statutory pension insurance, which for 2002 is 4,500 per month or 54,000 per year) to the pension fund. These contributions are withheld from the member s salary. Bayer AG also contributes to the *Pensionskasse*. Upon retirement, the employee is entitled to receive a monthly basic pension payment (*Grundrente*) from the *Pensionskasse* if the employee was employed by Bayer AG, or was a member of the *Pensionskasse,* for at least five years. Employees whose annual salary exceeds the annual salary threshold for statutory pension insurance (*gesetzliche Rentenversicherung*) by up to 44,500 are entitled to receive an additional monthly pension payment from an additional pension plan (*Zusatzrente*), which is financed by book reserves in the balance sheet. Employees whose annual earnings exceed the total of 54,000 plus 44,500 may become eligible for an individual pension promise. Bayer AG finances these individual pension entitlements also through book reserves.

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Item 7. Major Shareholders and Related Party Transactions

Major Shareholders

Under our Articles of Association, each of our ordinary shares represents one vote. Major shareholders do not have different voting rights.

Under the German Securities Trading Act (*Wertpapierhandelsgesetz*), holders of voting securities of a listed German company must notify that company of the level of their holding whenever it reaches, exceeds or falls below specified thresholds. These thresholds are 5, 10, 25, 50 and 75 percent of the company s outstanding voting securities. One shareholder, Allianz AG, has informed the SEC that it holds 6.18 percent of Bayer AG s outstanding shares. No other shareholder has notified us that it has crossed any of the Securities Trading Act s thresholds.

Because the shares of Bayer AG are in bearer form, we cannot obtain precise information as to the identity of shareholders or the distribution of the shares among them. From time to time, however, we conduct surveys, using the assistance of banks, to form estimates as to Bayer AG s shareholder base. Our last such survey measured our shareholder structure as of June 1, 2001. The survey recorded responses with respect to 95.6 percent of our approximately 500,000 shareholders. Of this number, 94 percent were individuals, who together owned 24 percent of the shares. Approximately 55,000, or 12 percent, of the individual shareholders were Bayer employees, who together held approximately 2 percent of Bayer AG s outstanding shares. Institutional investors (e.g., banks, insurance companies and investment funds) held another 67 percent of the shares. Shareholders in Germany numbered approximately 437,000 and owned 61 percent of the shares. Approximately 59,000 shareholders in 135 other countries held 39 percent of the shares. Of this group, British shareholders held approximately 10 percent, and U.S. shareholders about 8 percent, of the shares.

To our knowledge, we are not directly or indirectly owned or controlled by another corporation or by any government, and there are no arrangements which may result in a change of control.

See also Share Ownership in Item 6, *Directors, Senior Management and Employees.*

Related Party Transactions

In the ordinary course of business, we purchase materials, supplies and services from numerous companies throughout the world. Members of Bayer AG s Supervisory Board are affiliated with some of these companies. We conduct our transactions with such companies on an arm s length basis. We do not consider the amounts involved in such transactions to be material to our business and believe that these amounts are not material to the business of the companies involved.

During our three most recent complete financial years and through the date of this annual report, we have not been involved in, and we do not currently anticipate becoming involved in, any transactions that are material to us or any of our related parties and that are unusual in their nature or conditions. We have not made any outstanding loans to or for the benefit of:

- enterprises that, directly or indirectly, control or are controlled by, or are under common control with us (except at arm s length conditions in the ordinary course of business);
- enterprises in which we have significant influence or which have significant influence over us (except at arm s length conditions in the ordinary course of business);
- shareholders beneficially owning a 10 percent or greater interest in our voting power;
- key management personnel; or
- enterprises in which persons described above own, directly or indirectly, a substantial interest in the voting power.

Interests of Experts and Counsel

Not applicable.

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Item 8. Financial Information

Consolidated Financial Statements and Other Financial Information

See Item 18.

Legal Proceedings

Bayer is involved in a number of legal proceedings. As a global company active in a wide range of life sciences and chemical activities, we may in the normal course of our business become involved in proceedings relating to such matters as:

product liability;

patent validity and infringement disputes;

tax assessments;

competition and antitrust; and

past waste disposal practices and release of chemicals into the environment.

We cannot predict with certainty the outcome of any proceedings in which we are or may become involved. An adverse decision in a lawsuit seeking damages from us could result in a monetary award to the plaintiff and, to the extent not covered by our insurance policies, could significantly harm our business or the result of our operations. If we lose a case in which we seek to enforce our patent rights, we could sustain a loss of future revenue as other manufacturers begin to market products we developed.

In the remainder of this subsection, we describe what we believe to be the most significant of the proceedings in which Bayer AG or its subsidiaries are currently involved.

Patent validity challenges and infringement proceedings; patent-related antitrust actions

In the United States, Bayer AG and its U.S. subsidiary Bayer Corporation are and have been plaintiffs or co-plaintiffs in a number of patent infringement actions against generic drug manufacturers. The lawsuits arose because these manufacturers filed applications in the United States for regulatory approval of generic versions of products containing the active ingredients ciprofloxacin or nifedipine marketed by Bayer or its licensees. Some of these actions have, in turn, given rise to lawsuits alleging that Bayer AG, Bayer Corporation and other parties violated federal and state antitrust and similar statutes.

Generic drug manufacturers may receive approval to market formerly patented products after all applicable patent protections have expired. A generic drug manufacturer may, however, attempt to avoid a patent prior to its scheduled expiry by attacking its validity or enforceability. In the United States, the Federal Food, Drug, and Cosmetics Act enables generic manufacturers wishing to market a bio-equivalent version of another manufacturer s product to seek regulatory approval by filing an Abbreviated New Drug Application (ANDA). In its ANDA the applicant must state the basis on which it seeks to avoid any applicable patents.

One basis for seeking approval is a claim that the applicant s product does not infringe existing patent rights or that the patent is invalid or unenforceable. This claim is commonly known as a paragraph IV certification or ANDA (IV). Under the act, the filing of a paragraph IV certification is deemed an infringement of patent rights. The act permits the holder of the patent rights to file an infringement action against the ANDA applicant within 45 days of receiving notice of the paragraph IV certification. If the holder of the patent rights chooses not to file suit within this period, the FDA may approve the ANDA immediately. The filing of a suit, however, stays final FDA approval of the ANDA for a period of 30 months. The court may shorten or extend this period. If the court rules that the applicant s product will not infringe the patent or that the patent is invalid or unenforceable, the FDA may grant approval immediately. If, on the other hand, the court rules that the product will infringe the patent, the FDA may not grant final approval until the original patent has expired.

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Ciprofloxacin-related actions

Patent-related actions. In January 1997 Bayer AG and Bayer Corporation settled a patent infringement suit against Barr Laboratories, Inc. This suit arose when Barr filed an ANDA (IV) seeking regulatory approval of a generic form of Bayer s ciprofloxacin anti-infective product, which we sell in the United States under the trademark Cipro. Under the settlement agreement, Barr and Rugby Laboratories Inc., another generic manufacturer that supported Barr during the infringement suit, agreed to dismiss the litigation, acknowledging the validity and enforceability of Bayer s patent rights, and we agreed to pay each company $24.5 million. The agreement gave us the option, until our patent expires in 2003, to supply Barr and Rugby s then parent company Hoechst Marion Roussel Inc. with ciprofloxacin products, which they could then market under a license from Bayer using a single trade name, or else to make quarterly cash payments. Since concluding the settlement agreement, we have opted to make payments. In addition, as of June 9, 2003, Barr began selling ciprofloxacin hydrochloride tablets in the United States using licensed product purchased from Bayer. These purchases are being made pursuant to a separate obligation of Bayer under the settlement agreement to supply such product to Barr during the six month period immediately proceeding the December 2003 expiration of the patent protecting the sale of Cipro in the United States. Bayer further intends to seek pediatric exclusivity for Cipro, which, if granted by the FDA, could delay the introduction of generic versions of ciprofloxacin for six months beyond expiration of the patent. If Bayer is successful, we expect that the agreement term will be extended to include the additional six-month pediatric exclusivity period. Shortly after settling this suit, we applied to the U.S. Patent and Trademark Office for a re-examination of our patent. The Patent and Trademark Office reissued the patent in February 1999. See below, *Antitrust actions.*

After the settlement with Barr, a series of generics manufacturers filed ANDA (IV)s seeking regulatory approval of generic versions of ciprofloxacin. We filed patent infringement suits against these manufacturers, all of whom challenged the validity of our patent covering the sales of Cipro. During 2002 all patent infringement actions then still pending were concluded by final judgments in our favor.

Antitrust actions. Since July 2000 Bayer Corporation has been named as a defendant in 39 putative class action lawsuits, one individual lawsuit and one consumer protection group lawsuit filed in a number of state and federal courts in the United States. Bayer AG has also been named as a defendant in 20 of those cases, including the individual lawsuit and the consumer protection group lawsuit; however, to date it has only been served with process in the individual lawsuit and twelve of the putative class action lawsuits. In addition, Barr Laboratories, Aventis S.A., Hoechst Marion Roussel, Inc., Rugby Laboratories, Inc., and Watson Pharmaceuticals, Inc. have each been named as a defendant in one or more of these lawsuits. The plaintiffs in these suits allege that they are direct or indirect purchasers of Cipro who were damaged because Bayer s settlement of the Barr ANDA (IV) litigation prevented generic manufacturers from selling a generic version of Cipro. The plaintiffs allege that the settlement violates various federal antitrust and state business, antitrust, unfair trade practices, and consumer protection statutes, and seek treble damages and injunctive relief.

None of the relevant courts in any of the putative class action lawsuits have certified a class. The Judicial Panel for Multidistrict Litigation (or MDL Panel) transferred 35 of these cases to the U.S. District Court for the Eastern District of New York for coordinated pre-trial proceedings. The district court later remanded nine of those cases to various state courts.

On January 25, 2002, Bayer filed a motion to dismiss all of the cases pending in the District Court for the Eastern District of New York, and the plaintiffs filed motions for partial summary judgment that the conduct alleged in the complaints constitutes an agreement that is unlawful on its face. On May 20, 2003, the district court denied the plaintiffs motions for partial summary judgment, concluding that the alleged conduct was not per se anticompetitive under U.S. antitrust laws. The district court also denied Bayer s motion to dismiss, except as to the consumer protection group lawsuit, which the court held to be time-barred under the applicable statute of limitations.

Nine cases have been consolidated and are currently pending in a California state court. The California state court denied Bayer s demurrer, and Bayer answered plaintiffs claims on December 23, 2002. Bayer is also involved in state court proceedings in Florida, New York, Kansas, Tennessee and Wisconsin. Bayer has answered plaintiffs claims in the Florida case and filed motions to dismiss in the other four jurisdictions.

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The Barr settlement is also the subject of an ongoing antitrust investigation by the U.S. Federal Trade Commission and a number of state attorneys general.

Because these cases, which may involve joint and several liability among the defendants, in the aggregate allege substantial unquantified damages and also seek treble and punitive damages and penalties, it is possible that the ultimate liability could be materially adverse to our results of operations and cash flows. Although we cannot predict the outcome of these cases with certainty, we believe that we have meritorious defenses to the antitrust allegations and intend to defend them vigorously. Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

Nifedipine-related actions

Patent-related actions. Since 1997 Bayer AG and Bayer Corporation have been involved in a number of patent infringement actions arising from ANDA (IV)s filed by generic manufacturers seeking regulatory marketing approval for allegedly bio-equivalent versions of our brand-name product Adalat CC and Pfizer, Inc. s brand-name product Procardia XL. The active ingredient of these products is nifedipine. We own patent rights related to nifedipine drug product formulations. In addition, because Pfizer markets Procardia XL under a license from Bayer, Bayer AG and Bayer Corporation became Pfizer s co-plaintiffs in the infringement actions relating to that product. We have concluded these cases related to nifedipine with all of the defendants, with the exception of the Biovail and Teva cases described in the following two paragraphs.

Bayer AG and Bayer Corporation filed four ANDA (IV) patent infringement suits against Biovail Laboratories and Biovail Corporation in the U.S. District Court for the District of Puerto Rico. Two of these suits relate to Biovail ANDAs directed to 30mg and 60mg dosage strengths of nifedipine extended release tablets assertedly bioequivalent to Pfizer s 30mg and 60mg Procardia XL. The other two ANDA lawsuits relate to Biovail s 30mg and 60mg dosage strength tablets assertedly bioequivalent to Bayer s 30mg and 60mg Adalat CC drug products.

In addition, Bayer and Pfizer filed a suit against Biovail and Teva Pharmaceuticals U.S.A., Inc. asserting that Teva s commercial sales of Biovail s 60mg tablet asserted to be bioequivalent to Pfizer s 60mg Procardia XL drug product infringed Bayer s related U.S. patent. Bayer also filed suit against Biovail and Teva asserting that Teva s commercial sales of Biovail s 60mg tablet asserted to be bioequivalent to Bayer s 60mg Adalat CC drug product infringed Bayer s patent. All of these lawsuits are currently proceeding on the limited question of claim construction.

Antitrust actions. Biovail filed an antitrust lawsuit against Bayer AG, Bayer Corporation and Pfizer in the U.S. District Court for the District of Western Pennsylvania in April 1998. Biovail was seeking a declaratory judgment that Bayer s nifedipine patents are invalid. Biovail was also seeking damages under federal and state antitrust statutes alleging, among other things, that Bayer illegally asserted its patent rights. The district court stayed this litigation pending resolution of the nifedepine-related patent infringement actions against Biovail.

Vardenafil-related actions

In October 2002 Pfizer, Inc. filed a declaratory judgment action against Bayer AG and Bayer Corporation in the U. S. District Court for the District of Delaware claiming that the expected sale of Levitra, Bayer s product for the treatment of erectile dysfunction, will infringe upon Pfizer s U.S. patent relating to products for the treatment of erectile dysfunction. Levitra has not yet been approved in the United States by the Food and Drug Administration. The action seeks a permanent injunction to prevent Bayer AG and Bayer Corporation from selling Levitra in the United States. If Levitra is approved and launched in the United States, Pfizer may make a motion for a preliminary injunction to prevent sales of Levitra. Bayer AG and Bayer Corporation are coordinating their defense with SmithKline Beecham Corporation (a GlaxoSmithKline company), Bayer s co-promotion partner in the United States and other countries and a co-defendant in this suit. In some other countries, the local Pfizer affiliate has initiated similar proceedings to prevent the marketing of Levitra. We believe that we have meritorious defenses in these actions and intend to defend them vigorously.

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Aventis Behring action

Nattermann & Cie GmbH and Aventis Behring LLC filed a suit on April 11, 2003 against Bayer Corporation and Bayer Healthcare LLC in the U. S. District Court for the Eastern District of Pennsylvania alleging that Bayer s Kogenate FS composition containing recombinant Factor VIII, which is used to treat hemophilia, infringes upon the U.S. patent owned by either Nattermann & Cie or Aventis Behring. Bayer counterclaimed, seeking *inter alia* a declaration of patent invalidity and non-infringement, and asserting that Bayer s use of the patented process is pursuant to an implied license. The proceedings are at an early stage. We believe that we have meritorious defenses in these actions and intend to defend them vigorously.

Product liability proceedings

HIV-related actions. During the past decade, our U.S. subsidiary Bayer Corporation, as well as other fractionators of plasma products, have been involved in lawsuits alleging that hemophiliacs became infected with the human immunodeficiency virus (HIV), or ultimately developed AIDS, by using clotting factor concentrates derived from human plasma. Plaintiffs have brought actions on these grounds in the United States, Ireland, Italy, Taiwan, Argentina, Canada, Japan and Germany.

In the United States, a class action against Bayer Corporation and three other defendants consolidated the HIV-related claims of more than 6,000 claimants and claimant groups. The parties resolved this class action through a $600 million settlement. Bayer Corporation s share of this settlement was approximately $290 million. Bayer Corporation has also satisfactorily settled nearly 400 lawsuits by plaintiffs who opted out of the class action. Seven suits remain pending in the United States. Although Bayer Corporation has prevailed in the majority of cases that have proceeded to trial, plaintiffs were successful in three cases. The juries in each of these cases awarded damages not exceeding $2 million. In addition, in 1999, a Louisiana jury awarded a plaintiff damages of $35 million. However, the trial court set this award aside, and an appellate court upheld this decision. Bayer Corporation has since settled this matter in the context of a group settlement of nearly 100 Louisiana cases, of which Bayer Corporation s share was less than $50 million. Bayer Corporation intends to defend aggressively the remaining HIV-related lawsuits in various countries. We have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs.

In June 2003 a U.S. law firm filed a putative class action against Bayer Corporation and other manufacturers on behalf of non-U.S. residents claiming compensation for HIV/HCV infections allegedly acquired through blood plasma products manufactured in the U.S. This case is at an early stage. Although we have not yet responded to the complaint in this action, we believe that we have meritorious defenses to this action and intend to defend it vigorously.

Cerivastatin-related actions. In August 2001 we voluntarily ceased marketing our cerivastatin anticholesterol products in response to reports of serious side effects in some patients. In the United States, we co-promoted this product with SmithKline Beecham Corporation pursuant to an agreement dated July 21, 1997. As of June 26, 2003, approximately 9,400 lawsuits are pending in both federal and state courts, including 158 putative class actions. The actions in the United States have been based primarily on theories of product liability, consumer fraud, medical monitoring, predatory pricing and unjust enrichment. These lawsuits seek remedies including compensatory and punitive damages, disgorgement of funds received from the marketing and sale of cerivastatin and the establishment of a trust fund to finance the medical monitoring of former cerivastatin users. The federal cases are being transferred to the U.S. District Court for the District of Minnesota for coordinated discovery and other pre-trial proceedings. A motion for certification of nationwide personal injury, medical monitoring and economic refund classes is awaiting decision by this court. On June 16, 2002, the Oklahoma District Court of Pottawatomie County certified a class of all Oklahoma residents who took cerivastatin and sustained muscular/skeletal injuries as a result. Bayer appealed this ruling to the Oklahoma Court of Appeals, which affirmed the lower court s class certification ruling on June 20, 2003. We believe that we have meritorious defenses against class certification and intend to seek further appellate review of this ruling. The certification of a class, if such a decision is upheld, is unrelated to a determination of our liability. In addition, several actions have been initiated against other companies of the Bayer Group in other countries, including class actions in Canada. We expect additional lawsuits to be filed in the United States and elsewhere. On March 18, 2003, a jury in an action brought

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against us in state court in Corpus Christi, Texas delivered a verdict in our favor. On April 3, 2003, a jury in an action brought against us in a state court in Hinds County, Mississippi also delivered a verdict in our favor.

In the event that plaintiffs substantially prevail, despite existing defense arguments, it is possible that Bayer could incur charges in excess of our insurance coverage. Due to the considerable uncertainty associated with these proceedings, it is currently not possible to more accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results. Without acknowledging any liability, we have settled over 1,000 cases as of June 26, 2003, resulting in settlement payments of approximately $343 million. Bayer will continue to offer fair compensation to people who experienced serious side effects while taking cerivastatin on a voluntary basis and without concession of liability. In cases where an examination of the facts indicates that Baycol played no part in the patient s medical situation, or where a settlement is not achieved, Bayer will continue to defend itself vigorously. We believe we have meritorious defenses in these actions. In some countries, criminal proceedings have been initiated by the relevant authorities. SmithKline Beecham Corporation and Bayer Corporation have signed an allocation agreement under which SmithKline Beecham has agreed to pay 5 percent of all settlements and compensatory damages judgments arising out of actions based on the sale or distribution of cerivastatin in the United States, with each party responsible for paying its own attorneys fees.

Phenylpropanolamine (PPA) actions. In late 2000 Bayer Corporation discontinued marketing Alka-Seltzer Plus effervescent medicines containing PPA in the United States, Canada and various Latin American countries in response to a recommendation from the U.S. Food and Drug Administration to all manufacturers of drugs and medicines containing PPA. The FDA issued this recommendation after one epidemiological study of a small number of patients suggested a possible association between PPA and hemorrhagic stroke in women of certain ages. As of May 30, 2003, approximately 1,100 lawsuits have been initiated in the United States against Bayer Corporation, including 14 putative class actions of which 11 have been denied. Three putative class actions are pending, and appeals are possible. Bayer AG has also been recently named as a defendant. The MDL Panel has assigned management of the federal court cases to the U.S. District Court for the Western District of Washington. The claims primarily relate to compensation for alleged damage to health, entitlement to subsequent monitoring and reimbursement of the purchase price. Claims for punitive damages have also been filed. It is probable that additional actions will be initiated in the United States or in other jurisdictions where products containing PPA were marketed. Bayer Corporation believes it has meritorious defenses to these actions and intends to defend them vigorously. We may, on a case-by-case basis, settle cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. In the event that plaintiffs in these PPA actions substantially prevail, Bayer could be subject to monetary judgments in excess of our insurance coverage, which could materially affect our business, results of operations, cash flows and financial position. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

Medicaid Rebate Program allegations

Our U.S. subsidiary Bayer Corporation was under investigation by the U.S. Attorney s Office for the District of Massachusetts. The investigation, which was assisted by the Department of Health & Human Services, focused primarily on allegations that Bayer Corporation improperly underpaid rebates under the Medicaid Rebate Program during a period from 1995 to 2000. The investigation and the directly related civil and criminal claims were settled in April 2003. Under the settlement agreement, we will make payments of approximately $260 million to cover the claims. We established a reserve for these payments in 2002. In addition, Bayer Corporation pleaded guilty to a single felony count for failing to list private label Cipro® with the U.S. Food and Drug Administration during the second half of 1995.

Average wholesale price manipulation proceedings

Fourteen pending lawsuits allege that a number of pharmaceutical companies, including Bayer Corporation, manipulated the average wholesale price of their products. The suits allege that this manipulation resulted in overcharges to Medicare beneficiaries, Medicaid recipients, state governmental health programs, and private health plans. These suits generally seek damages, treble damages, disgorgement of profits, restitution and

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attorney s fees. All of the state court actions have been removed to federal court, subject to potential remand. Nine cases filed in federal court were transferred to the U.S. District Court for the District of Massachusetts for coordinated pretrial proceedings. All but two actions are private class actions alleging injury to patients or payors. Two cases are brought by governmental entities, one by the State of Nevada and one by Suffolk County, New York, claiming recovery of their portion of Medicaid cost sharing. On May 13, 2003, the District Court of Massachusetts granted Bayer s motion to dismiss the master consolidated complaint governing some, but not all of the private party class actions pending against Bayer. Plaintiffs are expected to seek leave to file an amended complaint. Still pending before the court are motions to remand to state court the Nevada action and several of the private party class actions that were not included in the master consolidated complaint. Plaintiff in the Suffolk County action has advised Bayer that it intends to file an amended complaint.

Due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

Rubber-related actions

Bayer AG and certain of its U.S. and Canadian subsidiaries are the subjects of criminal and civil investigations being conducted by the Antitrust Division of the U.S. Department of Justice (DOJ), the Directorate General for Competition of the European Commission (EC), and the Canadian Competition Bureau (CCB). The investigations are based on allegations of cartel-related activities involving certain of Bayer s rubber-related lines of business in violation of antitrust or competition laws.

Since September 2002, the DOJ has undertaken criminal grand jury investigations of alleged cartel activities involving Bayer s rubber chemicals, ethylene propylene diene monomer (EPDM), and acrylonitrile butadiene rubber (NBR) lines of business. The EC is conducting civil investigations of similar allegations involving Bayer s rubber chemicals, EPDM and NBR lines of business. The CCB is conducting criminal investigations of allegations of cartel activities involving Bayer s rubber chemicals, EPDM and NBR lines of business.

Bayer AG and certain of its direct and indirect subsidiaries have been named as defendants in more than 20 putative class action lawsuits that have been filed in state and federal courts in the United States based on allegations related to these governmental investigations. Twenty cases have been filed in the state courts of 18 states on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals indirectly from one or more of the named defendants by purchasing a product containing or manufactured using such chemicals. Bayer AG and certain of its direct and indirect subsidiaries have also been named as defendants in private civil lawsuits that have been filed in U.S. federal courts on behalf of putative classes of plaintiffs who allegedly purchased rubber chemicals in the United States directly from one or more of the named defendants. Crompton Corporation, Uniroyal Chemical Company, Inc., Uniroyal Chemical Company Ltd., Flexsys NV, Flexsys America LP, Akzo Nobel NV, Akzo Nobel, Inc., and Solutia, Inc. have also been named as defendants in one or more of these state and federal lawsuits. The plaintiffs in these lawsuits are seeking from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for rubber chemicals sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy.

All of these lawsuits are in preliminary stages. Bayer Corporation and Rhein Chemie Corporation have been served and have filed responsive pleadings in each of the state court cases. The complaint filed in state court in North Dakota was dismissed as to Rhein Chemie Corporation for lack of jurisdiction, and the plaintiffs voluntarily dismissed without prejudice the complaint filed in Nebraska. Bayer AG and Rhein Chemie Rheinau GmbH have been served in three of the state court cases. Bayer AG has not yet filed responsive pleadings in any of these three cases, but Rhein Chemie Rheinau GmbH has filed responsive pleadings in each of them. As of June 12, 2003, Bayer Corporation has been served in two and Rhein Chemie Corporation in one of the federal cases, but neither has yet filed responsive pleadings. As of June 16, 2003 neither Bayer AG nor any of its direct or indirect subsidiaries except Bayer Corporation and Rhein Chemie Corporation had been served in the federal cases.

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Bayer is also aware that a number of private civil lawsuits have been filed in state and federal courts in the United States asserting claims based on alleged cartel-related activities involving EPDM. Bayer AG has been named as a defendant in two cases, and Bayer Corporation has been named and served in one case, all of which were filed in the U.S. District Court for the Northern District of California on behalf of a putative class of plaintiffs who allegedly purchased EPDM in the United States directly from one or more of the named defendants. Crompton Corporation, DuPont Dow Elastomers LLC, DSM N.V., and Exxon Mobil Chemical Co. are also named in one or more of these complaints. The plaintiffs are seeking from Bayer and each of the other defendants damages equal to three times any proven negative effect on commerce caused by their alleged conspiracy to fix prices for EPDM sold in the United States, as well as injunctive relief against each defendant to prevent its future participation in such a conspiracy. Neither Bayer AG nor any of its direct or indirect subsidiaries except Bayer Corporation has been served with complaints in any of these actions.

We are aware that our competitors are subject to investigations by governmental authorities based on their alleged participation in cartel-related activities involving additional rubber-related products in violation of relevant antitrust or competition laws. It is possible that additional governmental investigations may be commenced in the United States or other jurisdictions and that private civil lawsuits may arise out of these investigations, which may involve both Bayer and our competitors.

Because these cases, which may involve joint and several liability among the defendants, in the aggregate allege substantial, unquantified damages and also seek treble and punitive damages and penalties, it is possible that the ultimate liability could be materially adverse to our results of operations and cash flows in one or more periods. Additionally, due to the considerable uncertainty associated with these proceedings, it is currently not possible to accurately estimate potential liability. Depending on the progress of the litigation, we will continue to reconsider the need to establish provisions, which may have a negative effect on our financial results.

Securities litigation

Since March 6, 2003 Bayer AG, along with certain of its current and former officers and members of the Bayer AG Board of Management, has been named as a defendant in seven purported class action lawsuits filed in the U.S. District Court for the Southern District of New York. Each class action alleges violations of the U.S. securities laws and asserts that the defendants made false and misleading statements and omissions with respect to the commercial prospects, safety and efficacy of our cerivastatin anticholesterol products and with respect to the extent of the potential product liability exposure following our voluntary decision to cease marketing and withdraw these products in August 2001. Each case seeks damages on behalf of class members who allegedly purchased Bayer securities at inflated prices. There are differences between the seven complaints, both with respect to the length of the purported class period, with the longest alleging claims on behalf of persons who purchased securities from June 27, 1997 to February 21, 2003, as well as with respect to the purported class definition, with several seeking certification of a class consisting of persons who purchased American Depository Shares and others seeking certification of a class consisting of persons who purchased Bayer AG s publicly traded securities.

The cases are at an early stage. We expect that all seven cases will be consolidated before a single judge, and that a single consolidated amended class action complaint will be filed. Although Bayer AG has not yet responded to the complaints in these actions, we believe that we have meritorious defenses to these actions and intend to defend them vigorously.

German shareholder lawsuit

In June 2003 a shareholder of Bayer AG filed a lawsuit in the regional court of Cologne, Germany (*Landgericht Köln*). This plaintiff is challenging certain resolutions approved by the Shareholder s Meeting of April 25, 2003, including the financial statements of Bayer AG (not the consolidated financial statements) and consequently the distribution of profits. In effect, the plaintiff seeks to prevent the implementation of our planned new corporate structure. See Item 4, *Information on the Company Business*. While this case is pending, the asset transfers within the Bayer Group to our new operating and support subsidiaries cannot be recorded in the commercial register.

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We believe that the plaintiff s lawsuit is without merit and intend to defend ourselves vigorously. Furthermore, in cases of this type German law permits the defendant to seek dismissal in an accelerated proceeding (*Eilverfahren*). We intend to make use of this accelerated proceeding.

We do not believe that this lawsuit will affect our day-to-day business. On an operational level, we began to put our new structure into place in July 2002 and expect to continue to be able to do so. If we cannot resolve this matter satisfactorily within a reasonable period of time, however, or if the plaintiff prevails, it could be more difficult for us to implement some elements of our long-term strategic plans.

Asbestos litigation

We are currently involved in asbestos litigation in the United States, primarily as a premises defendant, predominantly in the states in which Bayer has industrial sites. The overwhelming majority of cases involving Bayer have been filed in West Virginia and Texas and involve allegations of exposure at Bayer s sites. Texas law and West Virginia law permit consolidated asbestos actions in which multiple plaintiffs can sue multiple defendants for asbestos-related conditions without specifying which plaintiff has a claim against which defendant. While Bayer may be named as a defendant, each plaintiff does not have to assert a claim against Bayer. In West Virginia, Bayer is a defendant in approximately 26 cases involving 2,424 plaintiffs. Bayer has been identified by less than 10 percent of the named plaintiffs in these actions, i.e. of the 2,424 plaintiffs, approximately 240 have claimed to work at a Bayer site. In addition, after past settlements in principle are finalized, we will be involved in only seven West Virginia cases involving 353 plaintiffs, as well as one medical monitoring class action that is currently inactive. Bayer is involved in 56 cases in Texas involving 6,329 plaintiffs, and, as in West Virginia, is typically identified by a small percentage of plaintiffs (less than 5 percent). Bayer also has cases pending in Indiana and California.

The allegations as to Bayer and numerous other premises defendants are that Bayer employed many contractors on our industrial sites, yet failed to warn them or protect them from the known hazards of asbestos exposures throughout the 1960 s, 1970 s and 1980 s. Since premises owners now form a new group of targeted corporate defendants in these litigations, these types of actions may become material to our business in the future.

One of our U.S. subsidiaries, Bayer CropScience, Inc., is the legal successor to entities that sold asbestos-containing products from the 1940 s until 1976 and is named as a defendant in asbestos-related litigation. Bayer CropScience is and has been fully indemnified for its costs and exposure in relation to this litigation by Union Carbide. Union Carbide continues to accept Bayer CropScience s tender of these cases, and it defends and settles them in Bayer CropScience s name, in its own name and in the name of the several predecessor companies to Bayer CropScience.

We believe that we have meritorious defenses in these actions and are defending them vigorously. Without acknowledging any liability, we have settled a number of these cases in the past. We may, on a case-by-case basis, settle additional cases for reasonable amounts when, in our judgment, settlement is economically feasible given the risks and costs inherent in the litigation. We have made what we believe to be appropriate provisions should these suits result in judgments in favor of the plaintiffs.

Plant Genetic Systems litigation

Former shareholders of Plant Genetic Systems NV (PGS) have initiated arbitration proceedings in the Netherlands against AgrEvo, now Bayer CropScience GmbH. Claimants seeks damages of up to $400 million based on alleged violations of a confidentiality agreement in connection with the acquisition of PGS by AgrEvo in 1996, which allegedly prevented claimants from obtaining a higher purchase price. Bayer CropScience believes that claimants allegations are without merit and will continue to contest these allegations vigorously. The stock purchase agreement between Aventis and Bayer for Aventis CropScience provides that, in case of a decision against Bayer CropScience, Bayer CropScience will be fully indemnified by Hoechst AG and/or Aventis Nutrition S.A.

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Dividend Policy and Liquidation Proceeds

Our shareholders may declare dividends at an ordinary general shareholders meeting, which must be held within the first eight months of each fiscal year.

Under German law, Bayer AG may pay dividends only from balance sheet profits reflected in its unconsolidated financial statements (as opposed to the consolidated financial statements of the Bayer Group), as adopted and approved by the Board of Management and the Supervisory Board. In determining the balance sheet profits that may be distributed as dividends, the Board of Management may under German law allocate to retained earnings (*Gewinnrücklagen*) up to 50 percent of the net income of Bayer AG for the fiscal year that remains after deducting amounts to be allocated to legal and statutory reserves and losses carried forward. More than 10 percent of the net income may be allocated to retained earnings only if such retained earnings would then not exceed 50 percent of our capital stock. The Board of Management may also increase balance sheet profits when preparing the financial statements with funds withdrawn from retained earnings.

Our shareholders, in their resolution on the appropriation of balance sheet profits, may carry forward balance sheet profits in part or in full and may allocate additional amounts to retained earnings. Profits carried forward will be automatically incorporated in the balance sheet profits of the next fiscal year and may be used in their entirety to pay dividends in the next fiscal year. Amounts allocated to the retained earnings are available for dividends only if and to the extent the retained earnings have been dissolved by the Board of Management when preparing the financial statements, thereby increasing the balance sheet profits.

Dividends approved at an ordinary general shareholders meeting are payable promptly after the meeting, unless otherwise decided at the meeting. Because all of Bayer AG s shares are in book-entry form represented by a global certificate deposited with Clearstream Banking AG in Frankfurt am Main, Germany, shareholders receive dividends through Clearstream for credit to their deposit accounts. Additionally, the ordinary general stockholders meeting may decide to distribute the balance sheet profit partly or in total to the stockholders by way of distribution in kind.

We expect to continue to pay dividends, although we can give no assurance as to the payment of a dividend for any particular year or as to the particular amounts that we may pay from year to year.

Apart from liquidation as a result of insolvency proceedings, Bayer AG may be liquidated only with a combined majority of the votes cast and three-quarters of the share capital present or represented at a shareholders meeting at which the vote is taken. In accordance with the German Stock Corporation Act, upon a liquidation of Bayer AG, any liquidation proceeds remaining after paying off all of Bayer AG s liabilities would be distributed among the shareholders in proportion to the total number of shares held by each shareholder.

See also Item 3, *Key Information Dividends*.

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Item 9. The Listing

Listing Details

Bayer AG s shares trade on the New York Stock Exchange under the symbol BAY in the form of American Depositary Shares, or ADSs. Each ADS represents one share. The ADSs are evidenced by American Depositary Receipts (ADRs) issued by The Bank of New York, as Depositary, under a Deposit Agreement dated as of January 16, 2002, among us, the Depositary and the registered holders of ADRs from time to time.

The primary market for trading in Bayer AG shares is the Frankfurt Stock Exchange. The shares are also listed on the other seven German stock exchanges as well as most European stock exchanges and the Tokyo Stock Exchange.

The table below sets forth, for the periods indicated, the reported high and low quoted prices per Bayer AG share on the Frankfurt Stock Exchange and on the New York Stock Exchange.

	Frankfurt Stock Exchange		New York Stock Exchange	
	High	Low	High	Low
	(in euros)		(in dollars)	
1998	49.80	29.40		
1999	47.65	29.74		
2000	56.50	38.52		
2001:				
First quarter	58.00	44.79		
Second quarter	50.15	42.42		
Third quarter	47.25	23.90		
Fourth quarter	39.00	29.41		
2002:				
First quarter(1)	40.80	33.30	36.00	28.91
Second quarter	40.10	30.90	33.45	30.20
Third quarter	33.27	17.45	32.25	17.60
Fourth quarter	23.66	17.59	23.74	17.30
2003:				
First quarter	22.42	10.28	23.38	11.24
Previous six months:				
December 2002	23.55	19.55	23.74	20.57
January 2003	22.42	16.28	23.38	17.29
February 2003	16.66	11.65	17.74	12.58
March 2003	14.20	10.28	15.40	11.24
April 2003	16.95	12.35	18.36	13.60
May 2003	18.34	16.31	21.30	18.30

(1) From January 24, 2002 for New York Stock Exchange.

The average daily volume of Bayer shares traded on the Frankfurt Stock Exchange for the years 2002, 2001 and 2000 was 3,807,568, 3,495,113 and 2,549,929, respectively. The average daily trading volume in 2002 was 64,907 on the New York Stock Exchange (from January 24).

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Item 10. Additional Information

Description of Share Capital

For a description of material provisions of Bayer AG s articles of association (*Satzung*), including a discussion of the voting, dividend and other rights of shareholders, see Exhibit 1.1.

The Board of Management is authorized to repurchase shares for such purposes as distribution to members of the management who are not Board members and to employees of Bayer Group companies in connection with share option programs. This authorization has been extended to October 24, 2004. See *Employee option plans* in Item 6, *Directors, Senior Management and Employees Compensation*.

Material contracts

In connection with our acquisition of Aventis CropScience, we entered into two Stock Purchase Agreements, each dated October 2, 2001, with the former shareholders of Aventis CropScience. The first agreement was with Aventis S.A. and Hoechst AG. The second was with Schering AG and SCIC Holdings LLC. Exhibits 4.1 and 4.2 to this Annual Report incorporate by reference these agreements as previously filed with the Commission.

We are not otherwise party to any contracts that we regard as material to our business or financial position.

Exchange controls

There are currently no German foreign exchange control restrictions on the payment of dividends on the shares or the conduct of our operations.

Taxation

The following is a discussion of the material U.S. federal income and German tax consequences to you as a Qualified Holder of Bayer AG shares. This discussion is based upon existing U.S. federal income and German tax law, including legislation, regulations, administrative rulings and court decisions, as in effect on the date of this annual report, all of which are subject to change, possibly with retroactive effect.

For the purposes of this discussion, you are a Qualified Holder if you are the beneficial owner of ordinary Bayer AG shares and (1) are a resident of the United States for purposes of the Convention Between the United States of America and the Federal Republic of Germany for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital, as amended (the Income Tax Treaty), which generally includes an individual U.S. resident, a corporation created or organized under the laws of the United States, any state thereof or the District of Columbia and a partnership, estate or trust, to the extent its income is subject to taxation in the United States as the income of a U.S. resident, either in its hands or in the hands of its partners or beneficiaries, (2) do not hold Bayer AG shares as part of the business property of a permanent establishment located in Germany or as part of a fixed base located in Germany and used for the performance of independent personal services and (3) if you are not an individual, are not subject to the limitation on benefits restrictions in the Income Tax Treaty. This discussion assumes that you hold Bayer AG shares as a capital asset. This discussion does not address all aspects of U.S. federal income and German taxation that may be relevant to you in light of your particular circumstances. For example, this discussion does not apply to Qualified Holders whose shares were acquired pursuant to the exercise of an employee share option or otherwise as compensation or who are subject to special treatment under U.S. federal income tax laws such as financial institutions, insurance companies, tax-exempt organizations, holders of 10 percent or more of Bayer AG shares, broker-dealers in securities or/currencies, persons that hold Bayer AG shares as part of a hedging or a conversion transaction or as a position in a straddle , and persons whose functional currency is other than the U.S. dollar. This discussion also does not address any aspects of state, local or non-U.S. (other than certain German) tax law. If a partnership holds Bayer AG shares, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. If a Qualified Holder is a partner in a partnership that holds Bayer AG shares, the Holder is urged to consult its own tax advisor regarding the specific tax consequences of the purchase, ownership and disposition of the Bayer AG shares.

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In general, for U.S. federal income tax purposes, if you are a Qualified Holder of ADRs evidencing ADSs, you will be treated as the owner of the Bayer AG shares represented by such ADSs. Unless the context requires otherwise, all references in this section to Bayer shares are deemed to refer likewise to ADSs evidencing an ownership interest in Bayer AG shares.

We urge you to consult your tax advisor as to the U.S. federal income and German tax consequences of holding Bayer AG shares, including the particular facts and circumstances that may be unique to you, and as to any other tax consequences of holding Bayer AG shares.

Taxation of Dividends

We are required to withhold tax on dividends in respect of the 2002 fiscal year in an amount equal to 20 percent of the gross amount paid to resident and non-resident shareholders. As a Qualified Holder, you are eligible to receive a partial refund of this withholding tax under the Income Tax Treaty (subject to certain limitations), effectively reducing the withholding tax to 15 percent of the gross amount of the dividend. Thus, for each $100 of gross dividend paid by Bayer AG to you, the dividend will be subject to a German withholding tax of $15 under the Income Tax Treaty. The cash received per $100 of gross dividend will thus be $85. For U.S. federal income tax purposes, the gross amount of the dividend, including German withholding tax, will be includible in your gross income. You will not be entitled to the dividends received deduction with respect to any dividends we pay.

A surtax on the German withholding tax is currently levied on dividend distributions paid by a German resident company. The rate of this surtax is 5.5 percent on the withholding tax due. The surtax will equal 1.1 percent (5.5 percent x 20 percent) of the gross dividend. Under the Income Tax Treaty, you will be entitled to a full refund of this surtax.

Dividends paid to you in euros will be included in income in a U.S. dollar amount, calculated by reference to the exchange rate in effect on the date the dividends are received or treated as received by you. If you convert dividends paid in euros into U.S. dollars on the date received or treated as received, you generally should not be required to recognize foreign currency gain or loss in respect of such dividend.

Under Section 904(g) of the U.S. Internal Revenue Code of 1986, as amended (the Code), dividends paid by a foreign corporation that is treated as more than 50 percent owned by U.S. persons may be treated as U.S. source income (rather than foreign source income). Such treatment may adversely affect Qualified Holders ability to use foreign tax credits. It is possible that we may be treated as more than 50 percent owned by United States persons for the purposes of Section 904(g) of the Code.

The United States Treasury has expressed concerns that parties to whom ADSs are released may be taking actions that are inconsistent with the claiming of foreign tax credits for Qualified Holders of ADSs. Accordingly, the creditability of German withholding tax on dividends could be affected by future actions that may be taken by the United States Treasury.

Refund Procedures

To claim the refund reflecting the reduction of the German withholding tax from 20 percent to 15 percent and the refund of the 5.5 percent German surtax, when applicable, you must submit (either directly, or, as described below, through our U.S. transfer agent or the Depository Trust Company) a claim for refund to the German tax authorities, with the original bank voucher (or a certified copy thereof) issued by the paying entity documenting the tax withheld within four years from the end of the calendar year in which the dividend is received. Claims for refunds are made on a special form, which must be filed with the German tax authorities at the following address: Bundesamt für Finanzen, 53221 Bonn-Beuel, Germany. A refund claim form may be obtained from the German tax authorities at the same address as where applications are filed, from the Embassy of the Federal Republic of Germany, 4645 Reservoir Road, N.W., Washington, D.C. 20007-1998 or from the Office of International Operations, Internal Revenue Service, 1325 K Street, N.W., Washington, D.C. 20225, Attention: Taxpayer Service Division, Room 900. It can also be downloaded from the following web site: http://www.bff-online.de/Steuer_Vordrucke/KSt_KapSt/ClaimRefundWithholdingTaxesDividends_Interests.pdf.

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You must also submit to the German tax authorities certification of your last filed U.S. federal income tax return (IRS Form 6166). You can obtain this certification from the office of the Director of the Internal Revenue Service Center by filing a request for certification with the Internal Revenue Service Center in Philadelphia, Pennsylvania, Foreign Certificate Request, P.O. Box 16347, Philadelphia, PA 19114-0447. Requests for certification must be made in writing and must include your name, social security number or employer identification number, tax return form number and tax period for which you are requesting certification. The Internal Revenue Service will, upon request, send the certification directly to the German tax authorities. This certification is valid for three years and need only be resubmitted in a fourth year in the event of a subsequent application for refund. IRS Publication 686 describes the certification procedure in more detail.

Our U.S. transfer agent will perform administrative functions necessary to claim the refund reflecting the reduction in German withholding tax from 20 percent to 15 percent and the refund of the 5.5 percent German surtax, when applicable, for you. However, these arrangements may be amended or revoked at any time in the future. Under the current procedure, the U.S. transfer agent will prepare the German claim for refund forms on your behalf and file them with the German tax authorities. In order for the U.S. transfer agent to file the claim for refund forms, the U.S. transfer agent will prepare and mail to you, and will ask that you sign and return to the U.S. transfer agent, (1) a statement authorizing the U.S. transfer agent to perform these procedures and agreeing that the German tax authorities may inform the Internal Revenue Service of any refunds of German taxes and (2) a written authorization to remit the refund of withholding to an account other than yours. The U.S. transfer agent will also require certification of your last filed United States federal income tax return (IRS Form 6166). The U.S. transfer agent will attach the signed statement, the IRS Form 6166 and the documentation issued by the paying agency documenting the dividend paid and the tax withheld to the claim for refund form and file them with the German tax authorities.

A simplified refund procedure will be available to you if your Bayer AG shares are registered with brokers participating in the Depository Trust Company. Under this simplified refund procedure, the Depository Trust Company will provide the German tax authorities with electronic certification of your U.S. taxpayer status based on information it receives from its broker participants, and will claim a refund on your behalf. If approved by the German tax authorities, a similar simplified refund procedure may also be implemented by the U.S. transfer agent in the future. Under such a simplified refund procedure, following each dividend payment, the U.S. transfer agent would file a claim for refund automatically on your behalf if you have instructed the U.S. transfer agent in writing to file on your behalf.

The German tax authorities will issue refunds denominated in euro. The refunds will be issued in the name of the U.S. transfer agent or the Depository Trust Company, as the case may be, which will then convert the refunds to dollars and make corresponding refund payments to you or your broker. This broker, in turn, will remit corresponding refund amounts to you.

If you receive a refund attributable to reduced withholding taxes under the Income Tax Treaty, you may be required to recognize foreign currency gain or loss, which will be treated as ordinary income or loss to the extent that the dollar value of the refund received or treated as received by you differs from the U.S. dollar equivalent of the refund on the date the dividend on which such withholding taxes were imposed was received or treated as received by you.

Taxation of Capital Gains

Under the Income Tax Treaty, you will not be liable for German tax on capital gains realized or accrued on the sale or other disposition of Bayer AG shares.

Upon a sale or other disposition of Bayer AG shares, you will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference between the amount realized and your adjusted tax basis in the Bayer AG shares. This gain or loss generally will be U.S. source gain or loss, and will be treated as long-term capital gain or loss if your holding period in the Bayer AG shares exceeds one year. The deductibility of capital losses is subject to significant limitations. If you are an individual Qualified Holder of Bayer AG shares, capital gains generally will be subject to tax at preferential rates, provided certain holding periods are met.

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Passive Foreign Investment Company Status

We believe that we will not be classified as a passive foreign investment company (a PFIC) for U.S. federal income tax purposes for our current taxable year or any future taxable year. However, as this is a factual matter that must be determined annually at the close of each taxable year, there can be no certainty as to our actual PFIC status in any particular year until the close of the taxable year in question.

German Gift and Inheritance Taxes

The Convention between the United States of America and the Federal Republic of Germany for the Avoidance of Double Taxation with Respect to Taxes on Estates, Inheritances and Gifts, as amended (the Estate Tax Treaty), provides that an individual whose domicile is determined to be in the United States for purposes of such treaty will not be subject to German inheritance and gift tax (the equivalent of the U.S. federal estate and gift tax) on the individual s death or making of a gift unless the Bayer AG shares (1) are part of the business property of a permanent establishment located in Germany or (2) are part of the assets of a fixed base of an individual located in Germany and used for the performance of independent personal services. An individual s domicile in the United States, however, does not prevent imposition of German inheritance and gift tax with respect to an heir, donee or other beneficiary who is domiciled in Germany at the time the individual died or the gift was made.

The Estate Tax Treaty also provides a credit against U.S. federal estate and gift tax liability for the amount of inheritance and gift tax paid in Germany, subject to certain limitations, in a case where the shares are subject both to German inheritance or gift tax and U.S. federal estate or gift tax.

German Capital Tax (Vermögensteuer)

The Income Tax Treaty provides that you will not be subject to German capital tax (*Vermögensteuer*) with respect to the Bayer AG shares. As a result of a judicial decision, the German capital tax (*Vermögensteuer*) presently is not imposed.

Other German Taxes

There are no German transfer, stamp or other similar taxes that would apply to you upon receipt, purchase, holding or sale of Bayer AG shares.

U.S. Information Reporting and Backup Withholding

Dividends on Bayer AG shares and payments of the proceeds of a sale of Bayer AG shares paid within the United States or through certain U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding at a current rate of up to 28 percent unless you (1) are a corporation or other exempt recipient or (2) provide a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. U.S. persons who are required to establish their exempt status generally must file IRS Form W-9 (Request for Taxpayer Identification Number and Certification). Non-U.S. holders generally will not be subject to U.S. information reporting or backup withholding. However, these holders may be required to provide certification of non-U.S. status (generally on IRS Form W-8BEN) in connection with payments received in the United States or through certain U.S.-related financial intermediaries.

Backup withholdings is not an additional tax. Amounts withheld as backup withholding may be credited against your U.S. federal income tax liability. You may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the Internal Revenue Service and furnishing any required information.

Recent U.S. Tax Law Changes Applicable to Individuals

Recent U.S. tax legislation generally has reduced the rates of tax payable by individuals (as well as certain trusts and estates) on many items of income. Under the Jobs and Growth Tax Relief Reconciliation Act of 2003 (the 2003 Act), the marginal tax rates applicable to ordinary income generally have been lowered effective January 1, 2003. Furthermore, for capital assets held for over one year and sold or exchanged on or after May 6,

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2003 but in taxable years beginning before January 1, 2009, the maximum rate of tax generally will be 15% (rather than the higher rates of tax generally applicable to items of ordinary income). Finally, qualified dividend income received in taxable years beginning after December 31, 2002 and beginning before January 1, 2009, generally will be taxed at the rates applicable to these capital gains (*i.e.*, a maximum rate of 15%) rather than the rates applicable to other items of ordinary income. For this purpose, qualified dividend income generally includes dividends received from U.S. corporations as well as from certain non-U.S. corporations. The exact extent to which dividends paid by non-U.S. corporations will constitute qualified dividend income and the effect of such status on the ability of a taxpayer to utilize associated foreign tax credits is not entirely clear at present, but it is anticipated that a number of uncertainties will be clarified through administrative pronouncements throughout the remainder of 2003. In the meantime, you are urged to consult your own tax advisor regarding the impact on your particular situation of the provisions of the 2003 Act.

Documents on display

You can inspect the documents concerning Bayer AG mentioned in this annual report during normal business hours at Bayer AG s headquarters at the Bayerwerk, 51368 Leverkusen, Germany, as well as at the headquarters of Bayer AG s U.S. subsidiary, Bayer Corporation, 100 Bayer Road, Pittsburgh, PA 15205-9741.

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Item 11. Quantitative and Qualitative Disclosures about Market Risk

Market Risk

The global nature of our business exposes our operations, financial results and cash flows to a number of risks, including those listed below.

Currency exchange rate fluctuations. We are exposed to fluctuations between major world currencies. The majority of our currency fluctuation risk is between the euro and the U.S. dollar. In addition, we are exposed to fluctuations between the euro and the Japanese Yen and fluctuations between the U.S. dollar and the Brazilian real.

Interest rate fluctuations. We are exposed to changes in interest rates. Our primary interest rate exposure is to fluctuations in short-and long-term European and U.S. interest rates. Our exposure to European interest-rate fluctuation decreased in 2002 compared with the previous year, primarily as a result of our issuance of 5 billion in fixed-rate debt to finance our acquisition of Aventis CropScience.

Credit risk. We are exposed to credit risk with respect to the counterparties in our transactions, and

Raw material price fluctuations. We are exposed to possible increases in raw material prices. We may not be able to pass any such increases on to our customers.

Any of these risks could harm our operating results and financial condition. These risks are similar to the risks to which we were exposed in the prior year.

From time to time, we enter into hedging arrangements to mitigate our exposure to currency and interest risks. Because we believe that the limited liquidity of hedges against changes in raw materials prices makes these hedges unreasonably expensive, we have used them in the past only to a limited extent. If increasing liquidity and lower fees render these hedging arrangements less costly, we would consider using them more often.

Our primary tools for hedging risks are over-the-counter derivative instruments, particularly forward foreign exchange contracts, option contracts, interest rate swaps, and interest and principal currency swaps. As a matter of policy, we enter into these transactions only with counterparties of high credit standing. We have established uniform guidelines and internal controls for the use of derivatives. We use these instruments only to hedge risks arising from our business operations and from related investments and financing transactions. We do not use derivatives for trading or other speculative purposes. In 2000 we began to manage foreign currency risks on anticipated or pending transactions.

Sensitivity Analysis

The sensitivity analyses included in the risk sections below present the hypothetical loss in cash flows of the financial instruments and derivative financial instruments that we held as of December 31, 2002 and 2001. These instruments were subject to changes in foreign exchange rates and interest rates. The range of sensitivities that we chose for these analyses reflects our view of changes reasonably possible over a one-year period.

Interest Rate Risk

Interest rate risk is the possibility that the total return (all changes in fair value and interest rate performance) of a financial instrument will change due to movements in market rates of interest. This risk primarily affects debt with maturities of more than one year. Items with these long maturities are not of material significance to our operations, but are relevant to our financial obligations.

We sometimes make loans to employees. Although a small proportion of these loans are interest-free, they generally bear interest at market-oriented, fixed rates. More than three quarters of our loans to employees have terms of over five years. Because their rates are fixed, these loans are exposed to interest rate fluctuation risk. We do not make these loans for financial purposes, however, and therefore do not hedge their interest rate risk.

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Derivative financial instruments

Derivative financial instruments are our main method of interest rate hedging. We use interest rate swaps to convert a portion of our fixed rate borrowings into, in effect, floating rate debt. The derivatives we use to hedge interest rate risk are primarily over-the-counter instruments, particularly forward rate agreements, option and future contracts, interest rate swaps, and interest and principal currency swaps.

The notional amount of these derivatives is the total nominal value of the underlying transactions. The fair value of these derivatives is their repurchase value, based on quoted prices or determined by standard methods, as of a given closing date. The table below shows the notional amount and fair value of the interest rate derivatives we held as of December 31, 2002 and 2001; the fair values quoted disregard any opposite movements in the values of the underlying transactions.

	Notional amount		Fair value	
	December 31,			
	2002	2001	2002	2001
	(euros in millions)			
Interest rate hedging contracts	5,799	4,485	365	(60)

At December 31, 2002, the notional amount of our short-term interest rate hedging contracts (including interest and principal currency swaps) totaled 0.5 billion (2001: 2.0 billion); those maturing after more than one year totaled 5.3 billion (2001: 2.5 billion).

Sensitivity Analysis

Based on our variable interest rate debt position at year-end 2002, a hypothetical increase of 100 basis points, or one percent per year, of interest rates in all currencies would result in a growth of interest expense as at December 31, 2002 of 39 million (2001: 45 million).

Currency Risk

Because we conduct our operations in many currencies, we face a variety of risks associated with fluctuations in the relative values of these currencies. Upon the introduction of the euro on January 1, 1999, however, the relative values between the legacy currencies of the EU member states participating in the third stage of European Monetary Union were irrevocably fixed, and we no longer face currency-related risks in relation to member currencies of the Euro Zone.

Transaction Risk

We face transaction risk when our businesses generate revenue in one currency but incur costs relating to that revenue in a different currency. Because we enter into foreign exchange transactions for a significant portion of our contracted and forecasted operational foreign exchange exposures, we believe that a significant increase or decrease in the exchange rate of the euro relative to other major world currencies would not, in the short term, materially affect our cash flows. Over time, however, to the extent that we cannot reflect these exchange rate movements in the pricing of our products in local currency, they could harm our cash flows. In general, appreciation of the euro in relation to another currency has an adverse effect on our reported revenues and results, and depreciation of the euro has a positive effect.

Translation Risk

Many of the companies of the Bayer Group are located outside the euro zone. Because the euro is our financial reporting currency, we translate the income statements of these subsidiaries into euro for inclusion in our consolidated financial statements. Period-to-period changes in the average exchange rate for a particular country s currency can significantly affect the translation into euro of both revenues and operating income denominated in that currency. Unlike the effect of exchange rate fluctuations on transaction exposure, the effect

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of exchange rate translation exposure does not affect our local currency cash flows. See Note 38 to the consolidated financial statements.

Outside the euro zone, we hold significant assets, liabilities and operations denominated in local currencies, most importantly the U.S. dollar, the Japanese yen and the Brazilian real. Although we regularly assess and evaluate the long-term currency risk inherent in these investments, we generally undertake foreign exchange transactions addressing this type of risk only when we are considering withdrawal from a specific venture and repatriating the funds that our withdrawal generates. However, we reflect effects from currency fluctuations on the translation of net asset amounts into euro in our equity position.

Derivative financial instruments

To mitigate the impact of currency exchange fluctuations, we regularly assess our transaction exposure to currency risks and hedge a portion of those risks with derivative financial instruments. Our Corporate Treasury department has central responsibility for managing our currency exposures and using currency derivatives.

We relate the maturity dates of hedging contracts to the anticipated cash flows of the Bayer Group. Our policy is to use a mixture of instruments, basing the specific mix at any time on our technical and fundamental analysis of market conditions.

The table below shows the notional amounts and fair values of the currency derivatives we held as of December 31, 2002 and 2001:

	Notional amount		Fair value	
	December 31,			
	2002	2001	2002	2001
	(euros in millions)			
Forward exchange contracts and currency swaps	2,979	2,749	105	(28)
Currency options	239	279	9	*

*Less than 1 million

At December 31, 2002, we estimated that our aggregate annual direct net transaction risk from sales and purchases in foreign currencies was approximately 2.7 billion, which consisted primarily of U.S. dollars ($1.7 billion), Japanese yen (¥53 billion) and Brazilian real (R1.3 billion). We do not anticipate a significant change in these levels of risk with respect to our current business operations during 2003.

The following table shows the effective exchange rates (including hedging cost and premium) between the euro and the major world currencies with respect to which we contracted hedging transactions, compared with the market average rates for these currencies for 2002 and 2001:

	2002				2001	
Currency vs. euro	Effective	% Change vs. 2001	Market Average	% Change vs. 2001	Effective	Market Average
U.S. dollar	0.9433	4.6	0.9452	5.5	0.9014	0.8956
Japanese yen	117.39	8.4	118.06	8.6	108.34	108.68
British pound sterling	0.6301	2.0	0.6287	1.1	0.6177	0.6219

Currency vs. $