

BAYER AKTIENGESELLSCHAFT

Form 20-F

March 15, 2007

As filed with the Securities and Exchange Commission on March 15, 2007

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

Form 20-F

(Mark One)

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

**OR**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**For the fiscal year ended December 31, 2006.**

**OR**

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

**OR**

**SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
Date of event requiring this shell company report....

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**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  
Bayer AG ordinary shares of no par value

New York Stock Exchange  
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, 2006, 764,341,920 ordinary shares, of no par value, of Bayer AG were outstanding.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes  No

Note: Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

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

Yes  No  Not applicable

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

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

Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

**(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)**

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes  No

\* 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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### **Defined Terms and Conventions**

Bayer AG is a corporation organized under the laws of the Federal Republic of Germany. As used in this annual report on Form 20-F, unless otherwise specified or required by the context, the term *Company*, *Bayer* or *Bayer AG* refers to Bayer AG and the terms *we*, *us* and *our* refer to Bayer AG and, as applicable, Bayer AG and its consolidated subsidiaries.

The names *Bayer Schering Pharma* or *Schering* as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. The reference to Bayer Schering Pharma AG or Schering AG also includes business conducted by affiliated entities. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.

Due to rounding, numbers presented throughout this document may not add up precisely to the totals we provide and percentages may not precisely reflect the absolute figures.

### **Forward-Looking Information**

This annual report on Form 20-F contains forward-looking statements that reflect our current plans and expectations. As these statements are based on current plans, estimates and projections, you should not place undue reliance on them. We generally identify forward-looking statements with words such as *expect*, *intend*, *anticipate*, *plan*, *believe*, *estimate* and similar expressions.

We caution you that known and unknown risks, uncertainties and other factors may cause our actual future results, performance, achievements, developments or financial position to be materially different from any results, performance, achievements, developments or financial position expressed or implied by forward-looking statements. These factors include, but are not limited to:

cyclicalities in our industries;

reduced demand for older products in response to advances in technology;

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 future results, performance, achievements, developments or financial position is contained in Item 3, *Key Information Risk Factors*, various *Strategy* sections in Item 4, *Information on the Company*, Item 5, *Operating and Financial Review and Prospects* and elsewhere in this annual report on Form 20-F.

Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update publicly any of them in light of new information or future events.

### **Enforceability of Civil Liabilities**

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 a 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, 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. 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. court 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

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 prohibit enforcement.

If you bring an original action before a German court based on the provisions of the U.S. securities laws and the German 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 German 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 German 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.



## PART I

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

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, 2006 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 (IASB), replacing the earlier International Accounting Standards, or IAS. Individual accounting standards that the IASB issued prior to this change in terminology continue to use the prefix "IAS". Note 41 to our consolidated financial statements included in Item 18 of this annual report on Form 20-F describes the reconciliation of significant differences between IFRS and U.S. GAAP.

In this annual report on Form 20-F we have translated certain euro amounts into U.S. dollar amounts at the rate of \$1.3197 = 1.00, the noon buying rate of the Federal Reserve Bank of New York on December 29, 2006, the last currency trading day in December 2006. 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.

**Consolidated Income Statement Data**

	Year Ended December 31,					
	2002	2003	2004	2005	2006	2006
	\$					
	(In millions, except per share data)					
<b>IFRS:</b>						
<b>Net sales (continuing operations)<sup>(a)</sup></b>	20,022	20,222	20,925	24,701	28,956	38,213
Operating result (continuing operations) <sup>(a)</sup>	788	526	1,657	2,514	2,762	3,645
Non-operating result <sup>(a)</sup>	(401)	(687)	(632)	(602)	(782)	(1,032)
Income before income taxes <sup>(a)</sup>	387	(161)	1,025	1,912	1,980	2,613
Income taxes <sup>(a)</sup>	3	74	(401)	(538)	(454)	(599)
Income (loss) after taxes <sup>(a)</sup>	390	(87)	624	1,374	1,526	2,014
Income (loss) after taxes from discontinued operations <sup>(a)</sup>	688	(1,204)	58	221	169	223
Income (loss) after taxes total	1,078	(1,291)	682	1,595	1,695	2,237
Minority stockholders interest	(3)	(12)	3	2	(12)	(16)
<b>Net income (loss)</b>	1,075	(1,303)	685	1,597	1,683	2,221
Adjustment for financing expenses for the mandatory convertible bond, net of tax effect <sup>(c)</sup>					72	95
<b>Adjusted net income (loss)<sup>(c)</sup></b>	1,075	(1,303)	685	1,597	1,755	2,316
Average number of shares in issue <sup>(c)</sup>	730	730	730	730	746	746
Potential ordinary shares (mandatory convertible bond) <sup>(c)</sup>					46	46
Adjusted weighted average number of shares issued and potential ordinary shares <sup>(c)</sup>	730	730	730	730	792	792
Operating result from continuing operations						
per share <sup>(a)(c)</sup>	1.08	0.72	2.27	3.44	3.49	4.60
Basic and diluted net income (loss) per share <sup>(c)</sup>	1.47	(1.78)	0.94	2.19	2.22	2.92
Dividends per share <sup>(c)</sup>	0.90	0.50	0.55	0.95	N/A <sup>(b)</sup>	N/A <sup>(b)</sup>
<b>U.S. GAAP:</b>						
Net income (loss)	1,277	(1,445)	653	1,327	269	353
Adjustment for guaranteed dividend <sup>(d)</sup>					(26)	(34)
Net income available to common stockholders <sup>(d)</sup>	1,277	(1,445)	653	1,327	243	319
Basic and diluted net income (loss) per share <sup>(d),(e)</sup>	1.75	(1.98)	0.89	1.82	0.33	0.43

(a)

Prior year data have been adjusted to reflect the fact that the Diagnostics division, the H.C. Starck business and the Wolff Walsrode business are reported as discontinued operations. For further information on these restatements, see Note 7.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

- (b) The dividend payment for 2006 has not yet been decided on. Our Supervisory Board has accepted our Board of Management's proposal to recommend at our Annual Stockholders Meeting a dividend for 2006 of 1.00 per share, for a total dividend of 764 million.
- (c) IAS 33 (Earnings per Share) provides that ordinary shares that will be issued upon the conversion of a mandatorily convertible instrument are included in the calculation of basic earnings per share from the date the convertible instrument is entered into. We therefore have added the shares to be issued upon conversion of our mandatory convertible bond to our average number of shares in issue. Because these shares are deemed already to have been converted into equity for

purposes of IAS 33, we have also adjusted our net income (loss) for purposes of the per share calculations to exclude the financing expenses (net of tax effect) we accrued on the mandatorily convertible bond.

- (d) Under U.S. GAAP, net income available to common shareholders is reduced by the guaranteed dividend payable to the minority shareholders of Bayer Schering Pharma AG under the terms of the Domination and Profit and Loss Transfer Agreement we entered into with Bayer Schering Pharma AG.
- (e) According to SFAS No. 128 (Earnings per Share), potential shares to be issued upon conversion of a mandatory convertible bond are not to be included in the calculation of basic earnings per share. The potential shares to be issued upon conversion were not included in the computation of diluted earnings per share for U.S. GAAP purposes because their effect would be antidilutive.

**Consolidated Balance Sheet Data**

	December 31,					
	2002	2003	2004	2005	2006	2006
	\$					
	(In millions)					
<b>IFRS:</b>						
Total assets	40,966	37,516	37,588	36,722	55,891	73,759
Stockholders' equity	14,666	11,290	10,943	11,157	12,851	16,959
Liabilities	26,300	26,226	26,645	25,565	43,040	56,800
<i>of which noncurrent financial obligations</i>	7,228	7,288	7,025	7,185	14,723	19,430
<b>U.S. GAAP:</b>						
Stockholders' equity	16,734	13,325	13,046	12,347	12,181	16,076
Total assets	42,668	38,012	38,496	38,133	54,756	72,261

**Dividends**

The following table indicates the dividends per share paid from 2004 to 2006. Stockholders 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*.

	2004	2005	2006
Total dividend (€ in millions)	402	694	N/A <sup>(a)</sup>
Dividend per share (€)	0.55	0.95	N/A <sup>(a)</sup>
Dividend per share (\$)	0.68	1.18	N/A <sup>(a)</sup>

- (a) The dividend payment for 2006 has not yet been decided on. Our Supervisory Board has accepted our Board of Management's proposal to recommend at our Annual Stockholders' Meeting a dividend for 2006 of € 1.00 per share, for a total dividend of € 764 million.

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

**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. Fluctuations in the exchange rate between the euro and the U.S. dollar will affect the market price of our shares and ADSs, the U.S. dollar amount received by holders of our shares and ADSs on conversion by the Depositary of any cash dividends paid in euro and the U.S. dollar translation of our results of operations and financial condition.

Year	Period End	Average	High	Low
(U.S. dollar per euro)				
2002	1.0485	0.9454	1.0485	0.8594
2003	1.2597	1.1321	1.2597	1.0361
2004	1.3538	1.2438	1.3625	1.1801
2005	1.1842	1.2449	1.3476	1.1667
2006	1.3197	1.2563	1.3327	1.1860

**Previous six months**

	High	Low
(U.S. dollar per euro)		
September 2006	1.2833	1.2648
October 2006	1.2773	1.2502
November 2006	1.3261	1.2705
December 2006	1.3327	1.3073
January 2007	1.3286	1.2904
February 2007	1.3246	1.2933

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 on February 28, 2007 was \$1.3230 = 1.00. In this annual report on Form 20-F, we have translated certain euro amounts into U.S. dollar amounts at the rate of \$1.3197 = 1.00, the noon buying rate of the Federal Reserve Bank of New York on December 29, 2006, the last currency trading day in December 2006.

**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 on Form 20-F 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.*

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

We devote substantial resources to research and development. Because of the lengthy development process, technological challenges, regulatory requirements and intense competition, any of the products we are currently developing, or may begin to develop in the future, may fail to become market-ready or fail to achieve commercial success in a timely manner or at all. For these reasons, we may be unable to meet our expectations and targets with respect to products we are currently developing, particularly in our Pharmaceuticals segment; Crop Protection and BioScience business groups. Our competitive position could be harmed, causing our results to suffer, if we are unsuccessful in developing and marketing commercially viable new products and production technologies.

The growing importance of plant biotechnology in the crop protection field could reduce market demand for some of our agrochemical products and, if our competitors rather than we supply those biotechnological products, could lead to declines in our revenues.

***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, manufacturing 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 in the United States and will continue to expand in other countries, particularly those of the European Union (EU). Each of the risks relating to regulatory matters we describe here, as well as others that we may not foresee, may lead to material adverse effects on our financial condition and results of operations.

Our life science businesses are subject to particularly strict regulatory regimes. Increasing regulatory requirements, such as those governing clinical or (eco-) toxicological trials, may raise product development costs and the time it takes to bring new products to market, thus reducing the overall financial benefits deriving from these products. Failure to achieve regulatory approval of new products in a timely manner or at all can mean that we do not recoup our research and development costs and/or commercial investment through sales of that product.

Pharmaceutical product prices in particular 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 Pharmaceuticals segment and the introduction of new products. We expect that price controls and pressures on pricing will remain or increase, which may further limit our financial benefits from the affected products.

Adverse effects of our products discovered after regulatory approval or registration can lead to a withdrawal from the market, due either to regulatory actions or our voluntary decision to stop marketing the product. This can mean that the affected product ceases to generate revenue, and related expenses can lead to material losses. In particular, and as described below, litigation resulting from negative effects of our products can materially and adversely affect our financial condition and results of operations.

EU legislation on chemicals such as the Registration, Evaluation, Authorization of Chemicals (REACH) legislation adopted in December 2006 by the European Commission, the proposed regulation implementing the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and the proposed regulation replacing directive 91/414/ EEC concerning the placing of plant protection products on the market could mandate a significant increase in the testing and assessment of all chemicals. This may lead to increased costs and reduced operating margins for these products. For more detailed information on these regulations, see Item 4, *Information on the Company Business Governmental Regulation*.

***The loss of patent protection/ineffective patent protection or patent expiration may reduce revenues***

We are involved in lawsuits to enforce our patent rights in our products. In addition, generic manufacturers and others, particularly in the United States, may seek marketing approval for pharmaceutical or agricultural products currently under patent protection by attacking the validity or enforceability of a patent. If we are unsuccessful in defending our patent, our product could be exposed to generic competition before the patent expiration date. See Item 8, *Financial Information Legal Proceedings* for a discussion of patent-related proceedings.

We may also be required to defend ourselves against charges of infringement of patent or proprietary rights of third parties. This could result in a loss of rights to develop or make certain products or require us to pay monetary damages or royalties or license proprietary rights from third parties.

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 occurred in recent years, particularly in some Asian countries. 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.

After a patent expires the producer of the formerly patented product is likely to face increased competition from generic products entering the market. See Item 4, *Information on the Company Business Intellectual Property Protection* for a discussion of the scheduled expiration dates of our significant patents.

In response to rising healthcare costs, many governments (including many U.S. states) and private health care providers, such as health maintenance organizations (HMOs) in the United States, have instituted reimbursement schemes favoring less expensive generic pharmaceuticals over brand-name pharmaceuticals, as well as other cost controls. We expect that the pressure for generic substitution will increase as a result of the implementation of the Medicare prescription drug benefit in 2006.

Reductions in the level of patent protections, and the competition posed by generic products, can materially and adversely affect our financial condition and results of operations.

***Potential liabilities due to cross-contamination***

A cross-contamination of our Crop Protection products especially with highly active herbicides, can cause damages to the targeted seeds and crops. Furthermore, even with state-of-the-art agricultural practices and grain handling processes, the possibility remains that unintended trace amounts of genetically modified organisms might appear in non-targeted crops and/or foodstuffs. Those contaminations may result in increasing regulations, product recalls and compensation claims, and could also harm our reputation.

***Cyclicalities may reduce our operating margins or cause operating losses***

The performance of our Materials and Systems segments is affected by the cyclicalities of the industries in which they operate. Low periods in the business cycles are characterized by decreasing demand and excess capacity. These factors lead to price pressure and intense competition. This may result in volatile operating margins across the business cycle and to operating losses in these businesses. Expectations of growth, especially in regions including China, Japan, Taiwan and India, among others, may lead producers to increase their production capacities. Future growth in demand may not be sufficient to absorb those capacity additions without significant downward pressure on prices, which can adversely affect our financial condition and results of operations.

The agriculture sector is particularly subject to weather conditions and fluctuations in commodity prices, which may lead to a negative impact on our business results. For example, a drought will often reduce demand for our fungicides products.

***Our operating margins may decrease if we are not able to pass increased raw material prices on to customers***

Our Materials and Systems segments use significant amounts of petrochemical based raw materials and energy for manufacturing a wide variety of our products. The prices of raw materials and energy vary with market conditions and may be highly volatile. Price increases for raw materials will lead to higher production costs. There have been in the past, and may be in the future, periods during which we are not able to pass all of those costs on to our customers. This consequently leads to decreasing profit margins and potentially to material adverse effects on our financial condition and results of operations.

***Shortages of our products due to capacity decreases may reduce sales***

Production at some of our manufacturing facilities could be adversely affected by, for example, technical failures, natural disasters, regulatory rulings, terrorist attacks or supply disruptions of key raw materials or intermediates. Production capacities at one or more of our sites or major plants could therefore decline temporarily or over the long term.

Our biological products business within the Pharmaceuticals segment, in particular, generally employs complicated production processes that are more subject to disruption than is the case with other processes and therefore pose increased risk of manufacturing problems, unplanned shutdowns and loss of products.



If in these or other cases we are unable to shift sufficient production to other plants or draw on our inventories, we may suffer declines in sales revenues and in our results, be exposed to damages claims and suffer negative effects on our corporate reputation. These may in turn have material adverse effects on our financial condition and results of operations.

***Risks from the handling of hazardous materials and environmental liabilities could negatively impact our operating results***

Bayer's operations are subject to the operating risks associated with chemical manufacturing, including the related risks associated with filling, storage and transportation of raw materials, products and wastes. These risks include, among other things, the following hazards: pipeline and storage tank leaks and ruptures; fires and explosions; malfunction and operational failure; and releases, discharges or disposal of toxic and/or hazardous substances resulting from these or other causes.

These operating risks have the potential to cause personal injury, property damage and environmental contamination, and may result in the shutdown of affected facilities, business interruptions and the imposition of civil or criminal penalties. Any of these events could negatively impact the reputation of the company and lead to material adverse effects on our financial condition and results of operations.

The environmental laws of various jurisdictions impose actual and potential obligations on Bayer to remediate contaminated sites. The costs of these environmental remediation obligations could be material. In particular, our accruals for these obligations may be insufficient if the underlying assumptions prove incorrect or if we are held responsible for additional, currently undiscovered, contamination. See Item 4, *Information on the Company - Business Governmental Regulation*.

***Disruptions in our information technology systems can lead to disruptions in our business processes***

Bayer is increasingly dependent on information technology systems to support a wide variety of key business processes as well as internal and external communication. Significant disruption of these systems due to *e.g.*, technical failures, errors or viruses can, despite all safety measures, cause a loss of data and/or disruption of business processes such as production, sales, distribution or accounting. This could lead to loss of sales and to higher costs as we seek to recover from events like this.

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

Bayer operates in highly competitive industries. Our competitors may realize significant product innovations or technical advances, or intensify price competition. Any failure by us to keep pace with these innovations or advances, or price strategies, could materially harm our operating results and financial condition.

We depend on third parties for the marketing of some of our products, most notably in our Pharmaceuticals segment. Therefore, our operating performance is influenced by the quality of our partners' marketing and sales performance.

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.

See Item 8, *Financial Information - Legal Proceedings* for a description of legal challenges to the shareholder resolution on the domination and profit and loss transfer agreement between Bayer Schering Pharma AG, Berlin, Germany and Bayer Schering GmbH, Leverkusen, Germany passed at the Extraordinary Shareholders' Meeting of Bayer Schering Pharma AG held on September 13, 2006.

The amount of goodwill and other intangible assets on our consolidated balance sheet has increased significantly in recent years, primarily as a result of our recent acquisitions. Although we do not currently have an indication of any significant additional impairments, impairment testing under IFRS 3 may lead to further

impairment charges in the future. Any significant impairment charges would have a significant adverse effect on our results of operations. For a detailed discussion of how we determine whether an impairment has occurred, what factors could result in an impairment and the increasing impact of impairment charges on our results of operations see Item 5, *Operating and Financial Review and Prospects – Critical Accounting Policies – Intangible assets and property, plant and equipment*.

***Existing insurance coverage may turn out to be inadequate***

We seek to cover losses resulting from foreseeable risks through insurance coverage. Our insurance coverage, however, may not fully cover the risks to which the company is exposed. This can be the case with respect to insurance covering legal, environmental and administrative claims, as discussed above, as well as with respect to insurance covering other risks. For certain risks, adequate insurance coverage may not be available on the market or may not be available at reasonable conditions. Any harm resulting from the materialization of these risks could result in significant capital expenditures and expenses and in liabilities, which could have material adverse effects on our results of operations and financial condition.

***Significant fluctuations in exchange rates affect our financial results***

Bayer conducts a significant portion of its operations outside the euro currency zone. Fluctuations in currencies of countries outside the euro zone, especially the U.S. dollar and the Japanese yen, 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 our competitors and we sell products in the same market, the cost of products and services we require for our operations and other euro-denominated items in our financial statements. These fluctuations can harm our results. From time to time, we may use financial instruments to hedge some of our exposure to foreign currency fluctuations. Potential losses under these instruments can be material. For further information about the instruments we use, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk*.

***Negative developments affecting the capital markets may make additional contributions to our pension funds necessary, and changes in the yield assumptions could have an impact on the valuation of liabilities***

Plan assets to cover our future pension obligations are comprised of equity, fixed-income instruments and other assets. Declining capital returns can have a negative impact on the funding status of our plans. Therefore, additional contributions to the plans could be necessary in order to cover future pension obligations. Additionally, changes in demographic assumptions (e.g., compensation increase rates, retirement rates and health care cost trends) or biometric assumptions (e.g., mortality rates) could also have a negative impact on the funding status of our plans. For further details on underfunding of pensions and other post-retirement benefit obligations, refer to Note 25 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F. Future expenses or cash contributions that become necessary under our pension or post-retirement benefit plans could have a material adverse effect on our financial condition and results of operations.

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

We are involved in a number of legal proceedings and may become involved in additional legal proceedings. These proceedings include in particular claims alleging product liability, patent infringement, breach of contract and antitrust violations. If our opponents in these lawsuits obtain judgments against us or if we determine to settle any of these lawsuits, we could be required to pay substantial damages and related costs.

In cases where we consider 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* (cerivastatin) from the market, antitrust proceedings relating to our polymers business and antitrust proceedings associated with Bayer's ciprofloxacin anti-infective product, *Cipr®*.

Since the existing insurance coverage with respect to *Lipobay/ Baycol* is exhausted, it is possible – depending on the future progress of the litigation – that Bayer could face further payments that are not covered

by the provisions already established. We will regularly review whether further accounting measures are necessary depending on the progress of the litigation. Please see also *Existing insurance coverage may turn out to be inadequate*.

Bayer expects that, in the course of the antitrust proceedings relating to our polymers business, additional charges, which are currently not quantifiable, will become necessary. Please see Item 8, *Financial Information - Legal Proceedings* for a discussion of these proceedings.

***Our transactions relating to LANXESS expose us to continuing liability***

As of July 1, 2004 Bayer formed LANXESS AG as part of its portfolio realignment by combining parts of its former Bayer Chemicals and Bayer Polymers business. LANXESS became a legally independent company on January 28, 2005.

Our liability for prior obligations of the LANXESS subgroup following its spin-off is governed by both statutory and contractual provisions. Under the German Transformation Act, all entities that are parties to a spin-off are jointly and severally liable for obligations of the transferor entity that are established prior to the spin-off date. However, the company to which the respective obligations were not assigned under the Spin-Off and Acquisition Agreement, dated September 22, 2004, between Bayer AG and LANXESS AG ceases to be liable for such obligations after a five-year period.

Under the Master Agreement between Bayer AG and LANXESS AG of the same date, each of Bayer AG and LANXESS AG agreed to release the other party from those liabilities each has assumed as principal debtor under the Spin-Off and Acquisition Agreement. The Master Agreement applies to all activities of Bayer AG and LANXESS AG units throughout the world, subject to certain conditions for the United States. For a description of these agreements, please see Item 10, *Additional Information - Material Contracts*.

**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.

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](http://www.bayer.com). Reference to our website does not incorporate the information contained on the website into this annual report on Form 20-F. The headquarters of Bayer AG's U.S. subsidiary, Bayer Corporation, are located at 100 Bayer Road, Pittsburgh, Pennsylvania 15205-9741.

The major acquisitions and divestitures of the Bayer Group during the last three years are listed below. For capital expenditures (excluding acquisitions) for these years, please refer to Item 5, *Operating and Financial Review and Prospects - Liquidity and Capital Resources 2004, 2005 and 2006 - Capital Expenditures*. For capital expenditures by individual business segment for the last three years, refer to the segment data in Note 1 to our consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

Our principal expenditures on **acquisitions** in the past three years were as follows:

In **2004**, Bayer spent a total of 0.4 billion on acquisitions. Of this amount, approximately 0.1 billion was used for the purchase of Crompton Corporation's 50 percent stake in the Gustafson joint venture (seed treatment business) based in the United States, Canada and Mexico, in which Bayer already held a 50 percent share. In connection with the acquisition of Roche's consumer health business in 2005, Bayer acquired, by the end of 2004, Roche's 50 percent interest in the Bayer-Roche joint venture that had been established in the United States in 1996. The purchase price for the 50 percent equity interest was 0.2 billion. Not included in the 2004 total acquisition amount is the initial payment of 0.2 billion we made for Roche's consumer health business outside the United States (except Japan), because, as of December 31, 2004, this business had not yet been transferred to Bayer.

In **2005**, we spent a total of 2.4 billion on acquisitions. Roche's consumer health business outside the United States (except Japan) was acquired for approximately 2.1 billion. Both this amount and the 2005 total acquisition amount include the initial payment of 0.2 billion we made in 2004 for Roche's consumer health business outside the United States (except Japan). Since January 2005, the business involving non-prescription drugs and vitamins has been part of Bayer HealthCare's Consumer Care division.

The remaining 2005 acquisition amount of approximately 0.3 billion related primarily to expenses incurred in connection with a license agreement for the active ingredient fipronil, and a co-marketing and distribution agreement with Schering-Plough for the cardiovascular drug *Zetia*<sup>®</sup>. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey are unaffiliated companies that have been totally independent of each other for many years.

In **2006**, we spent a total of 15.4 billion net of acquired cash and cash equivalents on acquisitions. With effect from June 23, 2006, we acquired a majority of the shares of Schering AG, Berlin, Germany (subsequently renamed Bayer Schering Pharma AG, Berlin, Germany), which is fully consolidated in the Bayer Group financial statements beginning on that date. The purchase price for 96.24 percent of the shares (percentage of shares outstanding as of December 31, 2006) was 16.2 billion and ancillary acquisition costs of 0.1 billion were incurred. In addition, we assumed about 1 billion in cash and cash equivalents and liabilities of 0.2 billion. The acquired business activities concentrate in the areas gynecology and andrology (major brands: *Yasmin*<sup>®</sup> and *Mirena*<sup>®</sup>), diagnostic imaging (major brand: *Magnevist*<sup>®</sup>), specialized therapeutics (major brands: *Betaferon*<sup>®</sup> and *Betaseron*<sup>®</sup>) and oncology. The EU and U.S. antitrust authorities have unconditionally approved the transaction. For details on the financing



of this transaction, refer to Item 5, *Operating and Financial Review and Prospects – Liquidity and Capital Resources 2004, 2005 and 2006 – Development of net debt.*

The domination and profit and loss transfer agreement between Bayer Schering Pharma AG and Bayer Schering GmbH, a wholly-owned subsidiary of Bayer AG was approved at the Extraordinary General Stockholders Meeting of Bayer Schering Pharma AG on September 13, 2006 and became effective with its entry in the commercial register of Bayer Schering Pharma AG on October 27, 2006. On September 30, 2006, our interest in Bayer Schering Pharma AG's voting capital amounted to 96.1 percent, thus exceeding the proportion required to effect a squeeze-out of the minority stockholders, or forced transfer of the Bayer Schering Pharma AG shares held by these shareholders to Bayer Schering GmbH, as permitted under German corporate law. A resolution approving the squeeze-out in exchange for cash compensation determined in accordance with German law was passed at an Extraordinary General Shareholders Meeting of Bayer Schering Pharma AG held in Berlin on January 17, 2007.

The remaining amount spent on acquisitions in 2006 of approximately 0.1 billion was primarily related to the acquisition of the U.S. based company Metrika, a manufacturer of diabetes monitoring systems.

Our principal **divestitures** in the past three years were as follows:

In July **2004**, we sold, pursuant to contractual obligations, our 15 percent interest in the KWS Saat AG, a seed company acquired as part of Aventis CropScience in 2002.

In **2005**, we divested our LANXESS subgroup, our plasma operations and several CropScience operations.

*LANXESS:* At the end of January 2005, the LANXESS subgroup was spun off and ceased to be part of the Bayer Group. As part of its portfolio realignment, Bayer had combined its former Bayer Chemicals segment (except for Wolff Walsrode and H.C. Starck) with parts of its former Bayer Polymers business to form the LANXESS subgroup with economic effect from July 1, 2004. LANXESS is reported as discontinued operations prior to the spin-off. For further details refer to Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

*Plasma:* At the end of March 2005, Bayer divested the U.S. plasma operations of its former Biological Products division to two U.S. financial investors for approximately 0.2 billion. These operations are reported as discontinued operations. For further details refer to Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

In **2006**, we sold our 49.9 percent interest in the joint venture GE Bayer Silicones to the other partner General Electric. Furthermore, we divested manufacturing facilities formerly used by the Diagnostics and Diabetes Care businesses to the U.K.-based Kimball Electronics Wales Limited; an Animal Health vaccine factory in Cologne, Germany, to Intervet International BV; and a number of active ingredients used by the Crop Protection and the Environmental Science business groups.

In 2006, we completed the process of entering into agreements to divest our Diagnostics division and our H.C. Starck and Wolff Walsrode businesses. As discussed below, these transactions are expected to close or have already closed in 2007.

*Diagnostics:* At the end of June 2006, Bayer signed an agreement with Siemens AG to sell the Diagnostics division to Siemens for approximately 4.3 billion. The transaction closed in January 2007. The Diagnostics division is reported as discontinued operations prior to the sale. For details refer to Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

*H.C. Starck:* In November 2006, Bayer signed an agreement with two financial investors, Advent International and The Carlyle Group, concerning the sale of the H.C. Starck business to them for approximately 1.2 billion. The transaction closed in early February 2007. The H.C. Starck business is reported as discontinued operations prior to the sale. For details refer to Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

*Wolff Walsrode:* In December 2006, Bayer signed an agreement with The Dow Chemical Company concerning the sale of the Wolff Walsrode business. The sale is subject to the approval of the relevant antitrust authorities. Assuming these approvals are received, we expect the closing of the transaction to occur by the end of the first half of 2007. The Wolff Walsrode business is reported as discontinued operations prior to the sale. For details refer to Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

## BUSINESS

We are a global company offering a wide range of products, including ethical pharmaceuticals and other health care products, agricultural products and polymers. Bayer AG is headquartered in Leverkusen, Germany and is the management holding company of the Bayer Group, which includes approximately 430 consolidated subsidiaries. Our business operations are organized in three subgroups:

*Bayer HealthCare* (consisting of the Pharmaceuticals segment and the Consumer Health segment) develops, produces and markets:

prescription pharmaceuticals, including, among others, medication for the treatment of multiple sclerosis, hormonal preparations for fertility control and menopause management, biological products, products for the treatment of cancer and coronary heart disease, anti-infective products and diagnostic imaging products; and

over-the-counter medications and nutritional supplements, blood glucose monitoring systems, veterinary medicines and nutritionals and grooming products for companion animals and livestock.

*Bayer CropScience* (consisting of the Crop Protection segment and the Environmental Science, BioScience segment) develops, produces and markets:

a comprehensive portfolio of fungicides, herbicides, insecticides and seed treatment products to meet a wide range of regional requirements; and

a wide range of products for the green industry, garden care, non-agricultural pest and weed control and conventional seeds, and is active in plant biotechnology.

*Bayer MaterialScience* (comprising the Materials segment and the Systems segment) primarily develops, manufactures and markets:

high-quality plastic granules, sheets and films; and

polyurethanes for a wide variety of applications as well as coating and adhesive raw materials and basic inorganic chemicals.

The following service organizations provide support functions to the three subgroups, Bayer AG and third parties:

*Bayer Business Services*, which provides information management, accounting, consulting and administrative services.

*Bayer Technology Services*, which provides engineering functions such as process development, process and plant engineering, construction and optimization.

*Bayer Industry Services*, which operates the Bayer Chemical Park network of industrial facilities in Germany and provides site-specific services in the areas of technology, environmental protection, waste management, utility supply, infrastructure, safety, chemical analysis and vocational training to Bayer and non-Bayer companies.

Bayer Industry Services GmbH & Co. OHG is held by Bayer AG (60 percent) and by LANXESS (40 percent).

For the year ended December 31, 2006, Bayer reported total sales from continuing operations of 28,956 million, an operating result from continuing operations of 2,762 million and net income of 1,683 million. As of December 31, 2006, we employed 106,000 people worldwide. The Group's total sales in 2006 based on customer location, were as follow: 44 percent in Europe; 27 percent in North America; 16 percent in the Asia/ Pacific region; and 13 percent in the Latin America/ Africa/ Middle East region.

In 2006, due to the acquisition of the business of Schering AG, Berlin, Germany and the divestiture of the Diagnostics division, we changed our segment structure and reporting to reflect our new corporate structure in compliance with IAS 14 (Segment Reporting). We restated our segment reporting for 2004 and 2005,



accordingly. The changes in our segments are as follows: As of January 1, 2006, the former Pharmaceuticals, Biological Products segment has been renamed as the Pharmaceuticals segment. The historical Bayer pharmaceuticals and biological products businesses and the acquired Schering business form the Pharmaceuticals segment. The former Consumer Care and Animal Health segments were combined with the Diabetes Care division to form the new segment Consumer Health. Due to the divesting activities regarding the H.C. Starck and Wolff Walsrode businesses, the Materials segment comprises, beginning with the fourth quarter of 2006, the Polycarbonates and Thermoplastic Polyurethanes business units. The Diagnostics division as well as the H.C. Starck and Wolff Walsrode businesses are reported as discontinued operations.

The following table shows external sales from Bayer's continuing business activities by subgroup and reporting segment, with a reconciliation to the Bayer Group.

	2004	Percentage of total sales	2005	Percentage of total sales	2006	Percentage of total sales
<b>(Euros in millions)</b>						
<b>HealthCare</b>	<b>6,736</b>	<b>32.2</b>	<b>7,996</b>	<b>32.4</b>	<b>11,724</b>	<b>40.5</b>
Pharmaceuticals <sup>(a)</sup>	3,961	18.9	4,067	16.5	7,478	25.8
Consumer Health	2,775	13.3	3,929	15.9	4,246	14.7
<b>CropScience</b>	<b>5,946</b>	<b>28.4</b>	<b>5,896</b>	<b>23.9</b>	<b>5,700</b>	<b>19.7</b>
Crop Protection	4,957	23.7	4,874	19.7	4,644	16.0
Environmental Science, BioScience	989	4.7	1,022	4.2	1,056	3.7
<b>MaterialScience</b>	<b>7,566</b>	<b>36.2</b>	<b>9,446</b>	<b>38.2</b>	<b>10,161</b>	<b>35.1</b>
Materials	2,217	10.6	2,837	11.4	2,925	10.1
Systems	5,349	25.6	6,609	26.8	7,236	25.0
Reconciliation	677	3.2	1,363	5.5	1,371	4.7
<b>Total Sales from Continuing Operations<sup>(b)</sup></b>	<b>20,925</b>	<b>100.0</b>	<b>24,701</b>	<b>100.0</b>	<b>28,956</b>	<b>100.0</b>

(a) The segment's sales figures for 2006 include the acquired business of Schering AG as of June 23, 2006.

(b) In accordance with the accounting standard IFRS 5 and other related standards, the financial information presented in this annual report on Form 20-F only includes the continuing operations of the Bayer Group and its segments, except where specific reference is made to discontinued operations or Group total. Our revenues from discontinued operations were 2,845 million in 2006, 3,309 million in 2005 and 8,833 million in 2004.

## **BAYER HEALTHCARE**

With effect from June 30, 2006, we have changed our segment reporting to reflect the new corporate structure resulting from the acquisition of Schering and the divestiture of the Diagnostics division. The names Bayer Schering Pharma or Schering as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. The reference to Bayer Schering Pharma AG or Schering AG also includes business conducted by affiliated entities. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey are unaffiliated companies that have been totally independent of each other for many years. The Diabetes Care division is now combined with the former Consumer Care and Animal Health segment in a new segment called Consumer Health, while the acquired Schering business forms part of the Pharmaceuticals segment. The Diagnostics division is reported as discontinued operations. For details see Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 – Discontinued Operations*. Due to the divestiture of our U.S. Plasma business in 2005, we renamed our Pharmaceutical, Biological Products segment as the Pharmaceuticals segment on January 1, 2006.

## **PHARMACEUTICALS**

### **Overview**

With effect from June 23, 2006, we acquired a majority of the shares of Schering AG, Berlin, Germany (subsequently renamed Bayer Schering Pharma AG). The acquired business activities are concentrated in the areas gynecology and andrology (major brands: *Yasmin*<sup>®</sup> and *Mirena*<sup>®</sup>), diagnostic imaging (major brand: *Magnevist*<sup>®</sup>), specialized therapeutics (major brands: *Betaferon*<sup>®</sup> and *Betaseron*<sup>®</sup>) and oncology. The EU and U.S. antitrust authorities have unconditionally approved the transaction. Since the effectiveness of the domination and profit and loss transfer agreement with respect to Bayer Schering Pharma AG following its entry in the Commercial Register on October 27, 2006, the combined pharmaceuticals business is led by Bayer Schering Pharma AG, Berlin, Germany as the management company. For details see *History and Development of the Company*.

The Pharmaceuticals segment was initially comprised of the three business units Oncology, Primary Care and Hematology/ Cardiology. We added the acquired Schering businesses to it and now report the Pharmaceuticals segment as comprising the following seven business units: Primary Care (a combination of Bayer and Schering products, including the former andrology business of Schering), Women's Health (former gynecology business of Schering), Hematology/ Cardiology, Diagnostic Imaging, Specialized Therapeutics, Oncology (a combination of Bayer and Schering products) and Dermatology. The financial results of the acquired Schering businesses are reflected in our financial statements beginning on June 23, 2006.

The Pharmaceuticals segment focuses on the development and marketing of ethical pharmaceuticals, *i.e.*, medications requiring a physician's prescription and sold under a specific brand name.

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

	2004	2005	2006
	(Euros in millions except percentages)		
Total External net sales	3,961	4,067	7,478
Percentage of total sales from Group continuing operations	18.9%	16.5%	25.8%
External net sales by category of activity			
Primary Care <sup>(a)</sup>	2,950	2,831	3,091
Women's Health <sup>(b)</sup>			1,320
Hematology/ Cardiology	967	1,201	1,142
Diagnostic Imaging <sup>(c)</sup>			697
Specialized Therapeutics <sup>(c)</sup>			678
Oncology <sup>(d)</sup>	44	35	432
Dermatology <sup>(c)</sup>			118
Intersegment sales	38	58	51
Operating result	399	475	563

(a) For 2006, including the former andrology business of Schering AG.

(b) Represents the former gynecology business of Schering AG.

(c) Represents the respective acquired businesses of Schering AG.

(d) For 2006, including the acquired oncology business of Schering AG.

The segment's sales by region for the past three years are as follows.

	2004	2005	2006
	(Euros in millions)		
Europe	1,577	1,600	3,046
North America	1,172	1,129	2,226
Asia/ Pacific	851	900	1,313
Latin America/ Africa/ Middle East	361	438	893
Total	3,961	4,067	7,478

The following table shows our sales during the past three years from the products that account for the largest portion of segment sales.

Product <sup>(a)</sup>	2004		2005		2006	
	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales
	(Euros in millions)		(Euros in millions)		(Euros in millions)	
<i>Betaferon</i> <sup>®</sup> / <i>Betaseron</i> <sup>®</sup> (Specialized Therapeutics) <sup>(b)</sup>					535	7.2
<i>Yasmin</i> <sup>®</sup> / <i>YAZ</i> <sup>®</sup> / <i>Yasminelle</i> <sup>®</sup> (Women's Health)					451	6.0
<i>Kogenate</i> <sup>®</sup> (Hematology/ Cardiology)	563	14.2	663	16.3	787	10.5
<i>Adalat</i> <sup>®</sup> (Primary Care)	670	16.9	659	16.2	657	8.8
<i>Ciprobay</i> <sup>®</sup> / <i>Cipro</i> <sup>®</sup> (Primary Care)	837	21.2	525	12.9	513	6.9
<i>Avalox</i> <sup>®</sup> / <i>Avelox</i> <sup>®</sup> (Primary Care)	318	8.0	364	9.0	396	5.3
<i>Levitra</i> <sup>®</sup> (Primary Care)	193	4.9	260	6.4	314	4.2
<i>Mirena</i> <sup>®</sup> (Women's Health)					166	2.2
<i>Magnevist</i> <sup>®</sup> (Diagnostic Imaging) <sup>(b)</sup>					171	2.3
<i>Glucobay</i> <sup>®</sup> (Primary Care)	278	7.0	295	7.3	308	4.1
Other	1,102	27.8	1,301	31.9	3,180	42.5
Total	3,961		4,067		7,478	

(a) Products are ranked by the fourth quarter 2006 sales.

(b) Acquired as part of Schering's pharmaceutical business in 2006.

### Segment Strategy

Our goal is to establish the Pharmaceuticals segment as a strong specialty business, *i.e.*, a business that markets to specialists rather than general practitioners, with a focus on diseases that have a great need for improvement in diagnosis and treatment.

The acquisition of Schering AG, Berlin, Germany in 2006 and the creation of Bayer Schering Pharma was a major step in this direction and considerably strengthened our business, adding to our portfolio products in the areas of oral contraception, diagnostics imaging and multiple sclerosis with well-established market positions like *Yasmin*<sup>®</sup>, *Magnevist*<sup>®</sup> and *Betaferon*<sup>®</sup>. The Schering product portfolio complements and significantly expands our existing specialty care portfolio in the areas of hemophilia and renal cell carcinoma with our products *Kogenate*<sup>®</sup> and *Nexavar*<sup>®</sup>.

With respect to our Primary Care business we pursue a strategy of value optimization. We continued our marketing alliance with Schering-Plough in the U.S. market. (Please note that Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.) Outside the United States we have a strong presence in the primary care market with the established products *Avalox*<sup>®</sup>/*Avelox*<sup>®</sup>, *Levitra*<sup>®</sup>, *Adalat*<sup>®</sup>, *Glucobay*<sup>®</sup> and *Ciprobay*<sup>®</sup>/*Cipro*<sup>®</sup>. The acquisition of marketing rights from GlaxoSmithKline for the antihypertensive product *Pritor*<sup>®</sup> and *PritorPlus*<sup>®</sup> in certain European countries is aimed to further sustain our primary care franchise.

We believe that one of the key drivers for the growth of our Pharmaceuticals segment are its research and development activities. As part of our strategy, Bayer HealthCare allocates the largest part of its research and development budget to the Pharmaceuticals segment. See Item 5, *Operating and Financial Review and Prospects Research and Development*. Life cycle management, licensing activities and alliances continue to be

major elements of our strategy. We use these business development activities in addition to research and development to strengthen our portfolio. See sections *Research and Development* and *Collaborations*.

## Major Products

### Primary Care

*Adalat*<sup>®</sup> is the trademark for nifedipine, a 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 the heart tissues.

Ciprofloxacin, marketed under the trademark *Cipro*<sup>®</sup>, mainly in the United States, and *Ciproxin*<sup>®</sup>, *Ciproxine*<sup>®</sup>, *Ciprobay*<sup>®</sup>, *Ciproxina*<sup>®</sup>, *Baycip*<sup>®</sup>, *Ciflox*<sup>®</sup> and *Uniflox*<sup>®</sup> in other countries, is a broad-spectrum antimicrobial agent of the fluoroquinolone class. Its main uses are in the treatment of urinary tract infections and in severe hospital infections. It is also approved for the treatment of anthrax. In June 2004, market exclusivity for the active pharmaceutical ingredient in *Cipro*<sup>®</sup> expired in the United States.

Moxifloxacin, marketed under the trademark *Avelox*<sup>®</sup>, mainly in the United States, and *Avalox*<sup>®</sup>, *Izilox*<sup>®</sup>, *Actira*<sup>®</sup> and *Octegra*<sup>®</sup> in other countries, is an antibiotic used to treat common bacterial respiratory tract infections. It is indicated for the treatment of community-acquired pneumonia, acute exacerbations of chronic bronchitis, acute sinusitis and uncomplicated skin and skin structure infections.

Vardenafil, our erectile dysfunction medication marketed under the trademark *Levitra*<sup>®</sup>, is marketed in the United States in co-operation with GlaxoSmithKline and Schering-Plough. (Please note that Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.) We also jointly perform the related life cycle management with these companies.

Acarbose, marketed under the trademarks *Glucobay*<sup>®</sup> and *Glucor*<sup>®</sup> in most countries, *Precose*<sup>®</sup>, in the United States, and *Prandase*<sup>®</sup>, mainly in Canada, is an oral antidiabetic product that delays carbohydrate digestion. *Glucobay*<sup>®</sup> improves metabolic control in diabetics alone or in combination with other antidiabetic drugs.

### Women's Health

*Yasmin*<sup>®</sup> is an oral contraceptive that contains the synthetic hormone progestin drospirenone, developed by Bayer Schering Pharma AG, Berlin, Germany. *Yasmin*<sup>®</sup> is currently available in over 100 countries. In March 2006, we received marketing authorization in the United States for the oral contraceptive *YAZ*<sup>®</sup>, a low-dose version of *Yasmin*<sup>®</sup> and we started to market the product in April 2006 in the United States. In the meantime, the U.S. Food and Drug Administration (FDA) has expanded the registration for *YAZ*<sup>®</sup>, as an oral contraceptive that is also approved for the treatment of the emotional and physical symptoms of premenstrual dysphoria and for the treatment of moderate acne in women of at least 14 years of age. *Yasminelle*<sup>®</sup>, another low dose version of *Yasmin*<sup>®</sup> has been approved as an oral contraceptive in Europe in May 2006 and has been launched in several European countries since.

*Mirena*<sup>®</sup>, our progestin-based intrauterine system (IUS), is a long-term contraceptive that remains effective for five years. *Mirena*<sup>®</sup> was first launched in Europe in 1990 and is now also available in the United States, Asia and Latin America.

### Hematology/ Cardiology

*Kogenate*<sup>®</sup> FS (*Kogenate*<sup>®</sup> Bayer in the EU) is a genetically-engineered recombinant version of the protein 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 A. Because recombinant products like *Kogenate*<sup>®</sup> do not derive from human donors, their users' risk of inadvertently contracting infections, such as HIV, hepatitis or those caused by other viruses occasionally present in plasma-derived products, is greatly reduced.

### ***Diagnostic Imaging***

Our magnetic resonance imaging (MRI) contrast medium, *Magnevist*<sup>®</sup>, is an extracellular MRI contrast medium for cranial, spinal and body applications for patients of all age groups.

For *Ultravist*<sup>®</sup> 370, our X-ray contrast agent, the process of re-supplying the product into the market was started in January 2007.

### ***Specialized Therapeutics***

*Betaferon*<sup>®</sup> (marketed in the U.S. under the trademark *Betaseron*<sup>®</sup>) has received marketing authorization in the United States, Europe and Japan for the treatment of all relapsing forms of multiple sclerosis (MS), and, in the United States, Canada, Australia and Europe, also for the treatment of patients who have experienced a first clinical episode with diagnostic features consistent with MS.

### **Markets and Distribution**

The Pharmaceuticals segment's principal markets are North America, Western Europe and Asia (especially Japan).

We do not experience any significant seasonality in our markets for the segment's products.

We generally distribute our products through wholesalers, pharmacies and hospitals as well as, to a limited 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 the United States, our erectile dysfunction medication *Levitra*<sup>®</sup> (Vardenafil) is marketed and distributed jointly by GlaxoSmithKline and Schering-Plough. (Please note that Schering-Plough Corporation, New Jersey and the company acquired by Bayer in June 2006, Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, are unaffiliated companies that have been totally independent of each other for many years.) Schering-Plough also markets and distributes selected other of our primary care pharmaceutical products in the United States, including *Cipro*<sup>®</sup> and *Avelox*<sup>®</sup>. Furthermore, we are co-promoting selected Schering-Plough oncology products for a specified period of time in the United States and selected major European markets, e.g., in Germany, France and Italy. We expect to cooperate in marketing Schering-Plough's *Zetta*<sup>®</sup> in Japan if approved by the Japanese regulatory authorities. Additionally, we have a co-marketing agreement with Wyeth, Inc., for the oral contraceptive substance gestodene for Europe.

In October 2005, we entered into a strategic alliance with Ortho-McNeil Pharmaceutical Inc., a Johnson & Johnson subsidiary. In this alliance, Ortho-McNeil will contribute to the development of Rivaroxaban (BAY 59-7939) and will later market and distribute Rivaroxaban in the United States. Rivaroxaban is an oral direct Factor Xa inhibitor, being developed for the prevention and treatment of thrombotic events. In addition, Bayer is co-promoting Johnson & Johnson's *Elmiron*<sup>®</sup>, a medication for the treatment of interstitial cystitis, in the United States.

We produce active pharmaceutical ingredients for our ethical pharmaceutical products at four locations: our primary facilities in Wuppertal and Bergkamen, Germany, and two smaller facilities in Spain and Mexico.

Recombinant FVIII products are produced at our facility in Berkeley, California, under an exclusive license from Genentech. *Betaferon*<sup>®</sup> is sourced from Chiron, in Emeryville, California and Boehringer Ingelheim, Germany for defined market regions.

We obtain raw materials for our active ingredients in ethical pharmaceuticals in part from LANXESS AG and the rest from other third parties mainly in Europe and Asia. For our *Kogenate*<sup>®</sup> product, we obtain raw materials and packaging materials from diverse third-party suppliers in various countries around the world. For the production of *Kogenate*<sup>®</sup> we use human albumin sourced from Talecris for the nutrition of the cell lines.

In addition to the chemical production operations, we presently operate production facilities for the formulation and packaging of pharmaceutical and biotechnological products on three continents. Our main such pharmaceutical production facilities are in Berlin, Weimar and Leverkusen, Germany; Berkeley, California; Garbagnate, Italy; Sao Paulo, Brazil; Madrid, Spain; Turku, Finland and Seattle, Washington.

We maintain strategic reserves of many of our key products to avoid shortages upon any breaks in the supply chain. Where a required material is available from only one supplier, our policy is to amass a strategic reserve, while mounting an intensive search for potential alternative suppliers. We obtain additional ingredients and packaging materials from diverse suppliers in various countries around the world. For building blocks and intermediates used to manufacture active ingredients in ethical pharmaceuticals, we either approve several suppliers or enter into global contracts. This also helps us to reduce the effects of price volatility.

We encounter competition in all of our geographical markets from large national and international competitors, such as:

Primary Care: Pfizer, GlaxoSmithKline and Abbott Laboratories (antibacterial products); Pfizer, Novartis, AstraZeneca and Merck & Co (hypertension and coronary heart disease therapy); Takeda, GlaxoSmithKline, Sanofi-Aventis and Bristol-Myers Squibb (oral antidiabetics); Pfizer and Eli Lilly (erectile dysfunction);

Women's Health: Wyeth, Johnson & Johnson, Novartis, Barr Laboratories and Watson Pharmaceuticals;

Hematology/ Cardiology: Baxter, Wyeth and CSL Behring;

Diagnostic Imaging: Bracco, Tyco Healthcare Group and Altana (Nycomed acquired Altana's pharmaceuticals business effective December 31, 2006) (X-ray and MRI contrast media products) and Liebel-Flarsheim (contrast media application technologies products);

Specialized Therapeutics: Biogen Idec, Serono.

## **Research and Development**

The Research & Development function for the Pharmaceuticals segment has been restructured as part of our integration of Schering. (The names Bayer Schering Pharma or Schering as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. Bayer Schering Pharma AG, Berlin, Germany, and Schering-Plough Corporation, New Jersey are unaffiliated companies that have been totally independent of each other for many years.) It now encompasses the functions Global Drug Discovery and Global Development. We intend the changes in Research & Development to leverage the combined assets of Schering and Bayer to maximize both the output and effectiveness of our drug discovery and development programs. Research programs and activities will be consolidated into three major research and development sites: Berlin and Wuppertal, Germany, and Berkeley, California. The Berlin research group will take leadership for diagnostic imaging, oncology and gynecology and andrology research. Wuppertal will take leadership for the company's hematology and cardiology research. Both locations have significant capabilities and activities in target discovery, lead generation and optimization, drug metabolism and pharmacokinetics, toxicology and clinical pharmacology. Berkeley will remain an important global research and development center for protein-based biologics drug discovery and will continue to be home of the *Kogenate*<sup>®</sup> biological manufacturing facility. Bayer HealthCare's U.S. research site in West Haven, Connecticut, and that of Berlex Inc. (U.S. subsidiary of Bayer Schering Pharma AG, Berlin, Germany) in Richmond, California, will be closed.

### ***Status of Development of Selected Compounds in Clinical Trials***

#### ***Continuing Development of Compounds in Phase II/ III Clinical Trials***

In 2006 we conducted clinical trials for several of our research and development pipeline candidates. The compounds listed in the table below with their respective indications represent a snapshot of Bayer's late stage pipeline of drug candidates in Phase II and III of clinical trials, excluding drug candidates of the acquired business of Schering AG, Berlin, Germany. The full combined research and development pipeline is currently under review and will be communicated at a later date.

The nature of drug discovery and development is such that not all compounds can be expected to meet the pre-defined project target profile. It is possible that any or all of the projects listed below may have to be discontinued due to scientific and/or commercial reasons and will not result in marketed products. It is also





possible that the requisite FDA, European Medicines Agency (EMA) or other regulatory approval will not be granted for these compounds.

Project	Indication	Status
<i>Avelox</i> <sup>®</sup> <i>Nexavar</i> <sup>®</sup>	New indications	In Phase III
	Advanced renal cell carcinoma	FDA approval
	Hepatocellular carcinoma	In Phase III
	Malignant melanoma	In Phase III
	NSCLC	In Phase III
	Other cancer types	In Phase II
Rivaroxaban (BAY 59-7939)	VTE prevention	In Phase III
	VTE treatment	In Phase III
	Stroke prevention in patients with atrial fibrillation	In Phase III
	Acute Coronary Syndrome/ Myocardial Infarction	In Phase II
	Treatment of eye diseases	In Phase II

The following is a description of the status of development of *Nexavar*<sup>®</sup> and Rivaroxaban, two major drug candidates that are in Phase III clinical trials with respect to certain indications:

*Nexavar*<sup>®</sup> (sorafenib), co-developed by Bayer HealthCare and Onyx Pharmaceuticals, Inc., is a novel multi-kinase inhibitor that targets serine/threonine and receptor tyrosine kinases in both the tumor cell and the tumor vasculature. At the end of 2005, the FDA granted U.S. approval for *Nexavar*<sup>®</sup> for the treatment of patients with advanced renal cell carcinoma (RCC). It was approved by the EMA in July 2006 for the same indication. During 2006, *Nexavar*<sup>®</sup> was approved in nearly 50 countries for the treatment of advanced RCC.

In addition to the launch of *Nexavar*<sup>®</sup> for advanced RCC, we actively pursued our Phase III clinical trial programs for the treatment of hepatocellular carcinoma (HCC), malignant melanoma and non-small cell lung cancer (NSCLC). In April 2006, the FDA and the EMA both granted orphan drug designation to *Nexavar*<sup>®</sup> for the treatment of HCC. Furthermore, *Nexavar*<sup>®</sup> received fast track status by the FDA for the treatment of HCC and malignant melanoma. In February 2007, an independent data monitoring committee (DMC) reviewed the safety and efficacy data of the Phase III clinical trial on the treatment of HCC with the conclusion that the trial met its primary endpoint. The DMC recommended stopping the trial early and Bayer and Onyx followed that recommendation. The companies will continue discussions with health authorities worldwide regarding the next steps in filing for approval for the treatment of HCC, and intend to make those filings as rapidly as possible. In December 2006, results were announced from the Phase III malignant melanoma study evaluating the combination of *Nexavar*<sup>®</sup> or placebo tablets with the chemotherapeutic agents carboplatin and paclitaxel in patients with advanced malignant melanoma. This trial did not meet its primary endpoint of improving progression-free survival (PFS). Other tumor types are under investigation in earlier stages of clinical development.

*Rivaroxaban* (BAY 59-7939) is a novel oral direct Factor Xa inhibitor, being developed to meet currently unmet clinical needs in the anticoagulation market for prevention and treatment of thrombotic events. In October 2005, Bayer HealthCare and the Johnson & Johnson subsidiary Ortho-McNeil entered into an alliance under which Ortho-McNeil is contributing to the development of Rivaroxaban, and initiated Phase III clinical trials in December 2005 for the prevention of venous thromboembolism (VTE) after major orthopedic surgery. In June 2006 we announced Phase III clinical trials in the two chronic indications stroke prevention in atrial fibrillation and treatment of VTE in a once-daily dose regimen. Also in 2006, we began Phase II clinical trials in the indication acute coronary syndrome/myocardial infarction.



The following is a description of the status of development of *ZK-EPO* and *YAZ*<sup>®</sup>, two major drug candidates of the acquired Schering business that are in Phase II and Phase III clinical trials with respect to certain indications:

***ZK-EPO*** is a novel epothilone specifically designed to overcome limitations associated with other microtubule stabilizing agents by combining high efficacy with a balanced tolerability profile. The compound exhibits efficacy across a broad spectrum of tumor models. Phase II clinical trials have started and will examine the activity of *ZK-EPO* in patients with various solid tumors, including several major cancers such as non-small-cell lung cancer (NSCLC), ovarian cancer, prostate cancer and breast cancer.

Clinical studies for *YAZ*<sup>®</sup> in the indication acne treatment have demonstrated the effectiveness of *YAZ*<sup>®</sup> in this indication. This effect is brought about by the ingredient progestin drospirenone which has anti-androgenic properties. FDA approval for *YAZ*<sup>®</sup> in the treatment of acne has been granted in January 2007. *YAZ*<sup>®</sup> is also examined in Phase III clinical trials as oral contraceptive (OC) in long-cycle administration.

*Continuing Development of Compounds prior to Phase II/ III Clinical Trials*

***Kogenate***. Key research and product development projects involving our *Kogenate*<sup>®</sup> product are *Kogenate*<sup>®</sup> *Next Generation* and *Kogenate*<sup>®</sup> *Bio-Set*, as well as gene therapy for hemophilia B. We have identified five constructs for potential development of products under the umbrella *Kogenate*<sup>®</sup> *Next Generation*. The evaluation of proteins as well as of the technology is ongoing. We expect the optimization of drug candidates to be completed by the end of 2007. Bayer has performed Phase I clinical trials in the United States for BAY 79-4980 (*Kogenate*<sup>®</sup>-FS reconstituted with pegylated liposome diluent) under an Investigational New Drug application process (IND) filed by Bayer in April 2005 and accepted by the FDA. On May 18, 2005, Bayer entered into an early stage research and collaboration agreement with Asklepios BioPharmaceutical, Inc., to develop gene therapy for the treatment of hemophilia.

*Suspended and Discontinued Development of Compounds in Phase II/ III Clinical Trials*

***Alfimeprase***. Nuvelo and Bayer HealthCare announced in December 2006 that the first Phase III clinical trial of alfimeprase, a blood clot dissolver, in patients with acute peripheral arterial occlusion (NAPA-2 trial: Novel Arterial Perfusion with Alfimeprase-2) did not meet its primary endpoint of avoidance of open vascular surgery within 30 days of treatment. The companies also announced that the Phase III clinical trial in catheter occlusion (SONOMA-2 trial: Speedy Opening of Non-functional and Occluded catheters with Mini-dose Alfimeprase-2) did not meet its primary endpoint of re-establishment of a functional central venous access device (CVAD) at 15 minutes post first infusion. In addition, the companies announced that they are temporarily suspending enrollment in the ongoing Phase III clinical trials, NAPA-3 and SONOMA-3, until further analyses and discussions with outside experts and regulatory agencies are completed.

***Trasylol***<sup>®</sup>. Bayer HealthCare has decided to end three ongoing clinical studies investigating the safety and efficacy of *Trasylol*<sup>®</sup> (aprotinin injection) on transfusion requirements and blood loss in adults undergoing: elective spinal fusion surgery, pneumonectomy or esophagectomy for cancer, and radical or total cystectomy in bladder cancer. Used prophylactically, *Trasylol*<sup>®</sup> is indicated to reduce blood loss and the need for blood transfusion in patients undergoing cardiopulmonary bypass in the course of coronary artery bypass graft surgery in patients who are at an increased risk for blood loss and blood transfusion. The *Trasylol*<sup>®</sup> labeling that was recently approved in the United States and is in the approval process in the European Union and other countries, includes a recommendation that in order to manage possible anaphylactic reactions, *Trasylol*<sup>®</sup> should be administered only in surgical settings where cardiopulmonary bypass (CPB) can be rapidly initiated. The use of CPB is not practical in non-cardiac surgical settings such as the ones for which we ended the clinical studies. See *Update on Trasylol*<sup>®</sup>-marketed product below for further information.

***Bayer HealthCare posts information on clinical trials on the internet***

Bayer HealthCare posts information on the clinical trials being conducted by its Pharmaceuticals segment and Consumer Care division on the internet. The database is intended to increase the transparency of the clinical trials for physicians, scientists and other interested parties. This measure is consistent with the recommendations

in the position paper issued by pharmaceutical associations in Europe, Japan and the United States, and the International Federation of Pharmaceutical Manufacturers and Associations.

## Collaborations

### *Research Collaborations*

To supplement our internal efforts, we collaborate with several companies in different stages of the typical pharmaceutical research cycle. Our more significant collaborations are described (in alphabetical order) in the table below.

<b>Partner</b>	<b>Objective</b>
Affimetrix	Understanding the disease mechanism and identifying new targets
ARTEMIS Pharmaceuticals GmbH	In vivo validation of targets
Avid	Radiopharmaceuticals compounds
Bausch&Lomb	SEGRA ophthalmology
ChemDiv	Synthesis of compounds
ComGenex	Synthesis of compounds
Genedata	Expressionist software
Inpharmatica	Kinase SARfari in Silico Drug Discovery
Monash University	New targets for gender health
MorphoSys AG	Antibody diagnostics and therapeutics for cancer and other life threatening diseases
Neurosciences Victoria Ltd.	Treatment of neurodegenerative disorders
Peregrine Pharmaceuticals, Inc.	Selective cancer diagnostics (vascular targeting agents)
Proteros	X-ray structure analysis
Seattle Genetics	Increasing the pool of potential drug candidates by biomolecules
University Stanford/ Gambhir	New PET tracers
Warner Chilcott	SEGRA for dermatology

### *Product Development Collaborations*

The major collaborations in the area of product development are described below:

#### *Onyx*

Bayer and Onyx are co-developing *Nexavar*<sup>®</sup>. As part of this collaboration, Onyx is funding 50 percent of the costs of development for this compound other than in Japan. In return, Onyx has a 50 percent profit share in the United States, where the companies co-promote the product. In all markets outside Japan, Bayer has the contractual right to market the product exclusively and will share profits equally with Onyx. In Japan, Bayer has the contractual right to develop and market the product exclusively and Onyx has the contractual right to receive a royalty.

#### *Johnson & Johnson*

Bayer HealthCare and Ortho-McNeil, a subsidiary of Johnson & Johnson, have concluded an agreement in October 2005 to develop and market Rivaroxaban (BAY 59-7939) for the prevention and treatment of thrombotic events.

#### *Nuvelo*

In January 2006, we entered into an agreement with Nuvelo, Inc., for the global development and commercialization of alfineprase, a novel blood clot dissolver. See *Research and Development Status of*

*Development of Selected Compounds in Clinical Trials – Suspended and Discontinued Development of Compounds in Phase II/ III Clinical Trials – Alfimeprase* above for further information on alfimeprase.

*Regeneron Pharmaceuticals*

In October 2006, we entered into a collaboration agreement with Regeneron Pharmaceuticals, Inc. for the global development and commercialization of the VEGF Trap for the treatment of eye diseases by local administration into the eye. The VEGF Trap for the treatment of eye diseases, currently in Phase I and Phase II clinical trials, is a protein that binds to or traps the vascular endothelial growth factor (VEGF) and blocks its activity. Bayer has the contractual right to market the drug outside the United States, if approved by the competent authorities.

*Astra Zeneca*

In September 2006, we agreed with AstraZeneca to co-develop and co-promote the selective estrogen receptor downregulator (SERD) for the treatment of hormonal dependent breast cancer. All development costs and all profits will be shared equally. While we will be the lead marketing partner in Europe, AstraZeneca has the right to be the lead marketing partner in the United States.

*Celera Genomic*

In June 2006, we acquired Celera Genomic's cathepsin S inhibitor drug development program. These oral cathepsin S inhibitors are small molecules with an innovative mode-of-action that have potential in the treatment of auto-immune diseases like multiple sclerosis, Crohn's, psoriasis and rheumatoid arthritis. We have exclusive rights worldwide. The technology is still in a pre-clinical stage.

*Avid Radiopharmaceuticals*

In February 2006, we signed an option agreement with Avid Radiopharmaceuticals for a positron emission tomography (PET) imaging agent, which can be used for the diagnosis of Alzheimer's disease and other neurodegenerative diseases. We can exercise this option for an exclusive license if a currently ongoing proof-of-concept study is successful.

*Genzyme Corporation*

In August 1999, we in-licensed *Campath*<sup>®</sup> from L&I Partners L.P., which later was acquired by Genzyme Corporation. Since then, we market *Campath*<sup>®</sup> worldwide in the area of chronic lymphocytic leukemia. Several studies for extension of this indication are ongoing. Additionally, both partners are jointly developing *Campath*<sup>®</sup> for the indication in multiple sclerosis.

*Novartis Pharma*

We entered into a collaboration in 1995 with Novartis Pharma AG to jointly research and develop inhibitors of angiogenesis. Such inhibitors are expected to exhibit anti-tumor activity by cutting off the tumor's blood supply. In January 2005, the original cooperation agreement was amended by a commercialization agreement that governs joint development and global co-promotion of the lead compound PTK/ZK. All costs and profits are shared equally. We are the lead marketing partner in Europe, Novartis is the lead marketing partner in the United States.

*Sonus Pharmaceuticals*

In October 2005, we in-licensed TOCOSOL<sup>®</sup> Paclitaxel from Sonus Pharmaceuticals, Inc.

*Titan Pharmaceuticals*

In January 2000, we entered into an agreement with Titan Pharmaceuticals, Inc. for the global rights to Spheramine. Under this agreement Bayer is responsible for the manufacturing, development and commercializa-

tion. Spheramine consists of dopamine-producing cells adhered to spherical microscopic carriers, which are injected into the brains of patients suffering from Parkinson disease.

### ***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. *Adalat*<sup>®</sup> is a prime example of successful life cycle management: twenty-one years after the patent protection for the active ingredient nifedipine, its key component, expired, the drug generated \$657 million in sales in 2006. Similarly, we are implementing life cycle management measures, such as improved formulations and dosage forms or identifying new indications, for other major products. *Fludara*<sup>®</sup>, an oncological product which lost patent protection in the United States in 2003, is another example of successful life cycle management measures. The product generated \$120 million in sales in 2006, compared to \$103 million in the first year after loss of patent protection.

### ***In-licensing activities***

We supplement our portfolio of products emerging from our own research and development with in-licensed products, both on a global and a national level. Recent examples are the purchase of the European business for Boehringer Ingelheim's blood pressure treatment telmisartan (*Pritor*<sup>®</sup> and *PritorPlus*<sup>®</sup>) from GlaxoSmithKline in January 2006. Also in January 2006, we entered into an agreement with Nuvelo, Inc. for the global development and commercialization of alfineprase, a novel clot dissolver. See *Research and Development Status of Development of Selected Compounds in Clinical Trials Suspended and Discontinued Development of Compounds in Phase II/ III Clinical Trials Alfineprase* above for further information on alfineprase. Bayer will have the contractual right to market the drug outside the United States, if approved by the competent authorities. In October 2006, we entered into a collaboration agreement with Regeneron Pharmaceuticals, Inc. for the global development, and commercialization of the VEGF Trap for the treatment of eye disease by local administration into the eye, currently in Phase I and Phase II clinical trials. Bayer will have the contractual right to market the drug outside the United States, if approved by the competent authorities. See *Product Development Collaborations*.

### **Update on *Trasylol*<sup>®</sup> -marketed product**

*Trasylol*<sup>®</sup> Aprotinin, marketed under the trademark *Trasylol*<sup>®</sup>, is a natural proteinase inhibitor obtained from bovine lung tissue. Used prophylactically, it is indicated to reduce perioperative blood loss and the need for blood transfusion in patients undergoing cardiopulmonary bypass in the course of coronary artery bypass graft surgery who are at an increased risk for blood loss and blood transfusion.

In January 2006, two papers were published in the medical literature concerning *Trasylol*<sup>®</sup> (aprotinin). The New England Journal of Medicine (NEJM) published an observational study in which Mangano et al. proposed that aprotinin use was associated with an increased incidence of cardiovascular events (myocardial infarction and/or congestive heart failure), cerebrovascular events (stroke, encephalopathy and/or coma), and renal events (renal dysfunction and/or renal failure requiring dialysis) in patients undergoing elective coronary-artery revascularization with no history of cardiac surgery, vascular surgery or angioplasty, and with an increased incidence of renal events in patients undergoing complex coronary-artery surgery.

The journal *Transfusion* published an observational study comparing the use of aprotinin and tranexamic acid in high transfusion risk patients undergoing cardiac surgery with cardiopulmonary bypass which reported that "Our results suggest that aprotinin use may be associated with worsening renal function in patients with existing renal dysfunction." Karkouti et al. did not find an increased rate of cardiovascular or cerebrovascular events in *Trasylol*<sup>®</sup>-treated patients and reported comparable mortality rates between patients who received *Trasylol*<sup>®</sup> and those who received tranexamic acid.

At the Advisory Committee meeting held by the Cardiovascular and Renal Drugs Division of the FDA on September 21, 2006, the data from Bayer's internal databases and from the observational study by Karkouti et al. (Mangano et al. had not provided the FDA with unrestricted access to the underlying data from their observational study) were reviewed and the complex scientific issues surrounding the risk/benefit profile of

*Trasylol*<sup>®</sup> (aprotinin injection) were discussed in detail. At the end of the session, the Advisory Committee affirmed (18-0 with 1 abstention) that the totality of clinical data presented at the meeting supported acceptable safety and efficacy for *Trasylol*<sup>®</sup> among coronary artery bypass graft (CABG) surgery patients.

On September 27, 2006, Bayer submitted a copy of a preliminary report of an observational study concerning the effects of aprotinin, aminocaproic acid and tranexamic acid in patients undergoing coronary artery bypass graft (CABG) surgery commissioned by the company and performed by i3 Drug Safety to the FDA, along with a copy of i3 Drug Safety's March 3, 2006 study proposal. Bayer also notified other regulatory authorities of the preliminary report. Bayer acknowledged that it mistakenly did not inform the FDA about this study prior to the Advisory Committee meeting. Data was not shared immediately with the agency because it was preliminary in nature and raised significant questions on the study population, outcomes and methodology. Although the preliminary report noted that, as compared with patients receiving lysine analogues, aprotinin-treated patients had a higher relative risk of death, serious kidney damage, congestive heart failure and strokes, the authors concluded only that their findings support the hypothesis that there is a higher risk of death and acute renal failure in aprotinin recipients, when compared with those receiving the lysine analogues. The company is now working with the FDA, i3 Drug Safety and other experts to analyze the preliminary report, to examine the underlying source data and to fully understand the results. Bayer is committed to patient safety. The company will continue to work closely with the FDA to address questions regarding this study and the overall safety and efficacy of *Trasylol*<sup>®</sup> (aprotinin injection).

Bayer had committed to making changes to the label regarding hypersensitivity and renal events prior to the Advisory Committee meeting in September 2006. On December 15, 2006, the FDA approved Bayer's label supplement reflecting new safety information and prescribing information regarding *Trasylol*<sup>®</sup>. The label changes were related to limiting *Trasylol*<sup>®</sup> use to patients who are at an increased risk for blood loss and blood transfusion in the setting of coronary bypass graft surgery with cardiopulmonary bypass, contraindicating the administration of *Trasylol*<sup>®</sup> to any patients with a known or suspected prior exposure to *Trasylol*<sup>®</sup> or other aprotinin-containing products within the previous 12 months, providing additional information on the management and prevention of anaphylactic reactions, including the administration of *Trasylol*<sup>®</sup> only in an operative setting where cardiopulmonary bypass (CPB) may be rapidly initiated and highlighting the risk for kidney dysfunction. In light thereof, Bayer decided to end three ongoing clinical studies of the safety and efficacy of *Trasylol*<sup>®</sup> in additional indications in non-cardiac surgical settings in which CPB is not practical. See *Research and Development Status of Development of Selected Compounds in Clinical Trials - Suspended and Discontinued Development of Compounds in Phase II/ III Clinical Trials - Trasylol*<sup>®</sup>. Bayer has been working and will continue to work closely with regulatory authorities worldwide to address questions of product safety.

In February 2007, another paper was published in the medical literature concerning *Trasylol*<sup>®</sup> (aprotinin). The Journal of the American Medical Association published an observational study in which Mangano et al. posit that aprotinin may increase the risk of mortality during the five-year period following coronary artery bypass graft surgery.

Results of additional review and analysis of data or the negative publicity associated with the studies or the regulatory review process could lead to a material reduction in the volume of *Trasylol*<sup>®</sup> sales and also potentially in liability claims, and this could have a material adverse affect on revenues or results of operations, at least at the Pharmaceuticals segment level.



**CONSUMER HEALTH****Overview**

As further explained in the introduction to *Business*, we have changed our segment reporting with effect from June 30, 2006 to reflect the new corporate structure resulting from the acquisition of the business of Schering AG, Berlin, Germany and the divestiture of the Diagnostics division. The Diabetes Care division is now combined with the former Consumer Care and Animal Health segment in a new segment called Consumer Health. The previous years segment data has been adjusted accordingly.

The following table shows the Consumer Health segment's performance in the last three years.

	<b>2004</b>	<b>2005</b>	<b>2006</b>
	<b>(Euros in millions, except percentages)</b>		
Total external net sales	2,775	3,929	4,246
Percentage of total sales from Group continuing operations	13.3%	15.9%	14.7%
External net sales by category of activity			
Consumer Care	1,336	2,355	2,531
Diabetes Care	653	718	810
Animal Health	786	856	905
Intersegment sales	18	21	7
Operating result	448	448	750

The segment's sales by region for the past three years are as follows. Segment data for 2004 and 2005 have been restated to reflect the changed segment presentation described above.

	<b>2004</b>	<b>2005</b>	<b>2006</b>
	<b>(Euros in millions)</b>		
Europe	927	1,592	1,691
North America	1,235	1,321	1,463
Asia/ Pacific	187	301	336
Latin America/ Africa/ Middle East	426	715	756
Total	2,775	3,929	4,246

The following table shows our sales during the past three years from the products that account for the largest portion of segment sales, restated as described above.

Product	2004		2005		2006	
	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales
	(Euros in millions)		(Euros in millions)		(Euros in millions)	
<i>Ascensia</i> <sup>®</sup> (Diabetes Care)	627	22.6	701	17.8	788	18.6
<i>Aspirin</i> <sup>®</sup> (Consumer Care) <sup>(a)</sup>	454	16.4	453	11.5	465	11.0
<i>Advantage</i> <sup>®</sup> / <i>Advantix</i> <sup>®</sup> (Animal Health)	206	7.4	249	6.3	275	6.5
<i>Aleve</i> <sup>®</sup> / <i>Naproxen</i> (Consumer Care) <sup>(b)</sup>	90	3.2	178	4.5	227	5.3
<i>Canesten</i> <sup>®</sup> (Consumer Care)	140	5.0	145	3.7	162	3.8
<i>Baytril</i> <sup>®</sup> (Animal Health)	160	5.8	163	4.1	162	3.8
<i>Bepanthen</i> <sup>®</sup> / <i>Bepanthol</i> <sup>®</sup> (Consumer Care) <sup>(c)</sup>			114	2.9	131	3.1
<i>Supradyn</i> <sup>®</sup> (Consumer Care) <sup>(c)</sup>			125	3.2	130	3.1
<i>One-A-Day</i> <sup>®</sup> (Consumer Care)	127	4.6	118	3.0	124	2.9
<i>Alka-Seltzer</i> <sup>®</sup> (Consumer Care)	94	3.4	95	2.4	101	2.4
Other	877	31.6	1,588	40.6	1,681	39.5
Total	2,775		3,929		4,246	

(a) *CardioAspirin* of our *Aspirin*<sup>®</sup> product family is also distributed by our Pharmaceuticals segment. These figures do not include sales by the Pharmaceuticals segment. The sales for *Aspirin*<sup>®</sup> and *CardioAspirin*, including the ones made by the Pharmaceuticals segment, amount to 674 million in 2006, 630 million in 2005 and 601 million in 2004.

(b) As the product *Aleve*<sup>®</sup> was part of the former U.S. joint venture with Roche, sales figures for 2004 only represent the Bayer portion of the joint venture's sales. 2005 sales figures represent total sales of the product after our acquisition of the remaining 50 percent of the U.S. joint venture from Roche. *Naproxen* is the active ingredient included in products marketed in the United States under the brand *Aleve*<sup>®</sup> and in other countries using different local brands, the latter having been acquired as part of Roche's consumer health business in 2005.

(c) Acquired as part of Roche's consumer health business in 2005.

### Segment Strategy

The Consumer Health segment represents our three divisions Consumer Care, Diabetes Care and Animal Health.

The objective of our Consumer Care division is to further consolidate our strong global position in the consumer health market for medicinal products that consumers may generally purchase without a prescription (over-the-counter/OTC products). The key element of our strategy in our Consumer Care division is to exploit organic growth potential

within our significant Consumer Care categories by leveraging the strength of our well-known brands (including *Aleve*<sup>®</sup>, *Aspirin*<sup>®</sup>, *Bepanthen*<sup>®</sup>, *Canesten*<sup>®</sup>, *One-A-Day*<sup>®</sup> and *Supradyn*<sup>®</sup>). We intend to drive expansion in high growth regions of the world (such as Eastern Europe and Asia/ Pacific) and develop business in new and emerging growth areas. We also intend to pursue external growth opportunities through acquisitions and licensing where the appropriate strategic fit can be found. In this context we agreed in October 2006 to acquire the Western medicines over-the-counter cough and cold portfolio business (including the transfer of personnel and a manufacturing facility) of the Topsun Group in China. We expect the transaction to close in 2007.

The Diabetes Care division's objective is to create a sustainable competitive advantage in the diabetes monitoring and management market while allowing Diabetes Care to profitably grow market share and expand its business. To achieve our overall goal in the Diabetes Care division, we are expanding our product offering by developing second and third generations of meters and strips that are more intuitive and easier to use, resulting in glucose testing with minimal pain for diabetic patients, and broadening our portfolio through investments into ancillary business opportunities. We intend to target our marketing efforts in order to direct customers to improved versions of our meters and to increase our competitiveness through continuous improvement of our products, reductions in our costs and operational efficiencies. We also plan to realign our research and development activities and investments. To support our objectives, we intend to continue to develop our strategic partnerships in desired areas of expertise to complement our in-house strengths.

Animal Health aims to be one of the leading suppliers in the food animal and companion animal market and strives to be the preferred partner for and provider of veterinary solutions. It is part of our business strategy for Animal Health to sustain its current profile by focusing on attractive countries and markets. Furthermore, Animal Health pursues a policy of organic growth by exploiting existing core brands through life cycle management activities supported by new business development activities. To complete the existing product portfolio, Animal Health periodically evaluates the possibility of acquisitions or strategic alliances. The Animal Health division collaborates closely with our Pharmaceuticals segment and the Bayer CropScience subgroup 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.

## Consumer Care

### *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 consumer health products face competition from prescription drugs, for example cyclooxygenase (COX-II) inhibitor pain relievers and prescription non-steroidal anti-inflammatory drugs (NSAIDs).

*Aspirin*<sup>®</sup> (Bayer<sup>®</sup> Aspirin brand in the United States) is a non-steroidal anti-inflammatory drug (NSAID). It is used for pain relief and, in countries where so indicated, for the prevention of heart attacks. *Aleve*<sup>®</sup> (also known as *Flanax*<sup>®</sup> and *Apronax*<sup>®</sup> in some Latin American countries) is a nonprescription strength version of the analgesic naproxen sodium. *Aleve*<sup>®</sup> is a long-lasting pain reliever and can be used for fever reduction. Our *Midol*<sup>®</sup> product family competes in the menstrual pain relief category.

CardioAspirin (e.g., *Aspirin*<sup>®</sup> *Protect* in Germany and Bayer<sup>®</sup> *Low Dose Aspirin Regimen* in the United States) refers to Bayer's collective group of products (distributed by both our Consumer Care division and our Pharmaceuticals segment depending on whether local regulations require a prescription for these products) that are professionally indicated for the prevention of an myocardial infarction (MI), or heart attack in either those individuals who have already had an initial MI (secondary prevention) or in individuals deemed at risk for a first MI by their physician (primary prevention).

#### *Cough/Cold*

Within the total cough and cold market, we concentrate on the cold/flu remedy segment. This consumer health category faces competition from non-medicinal remedies (for example, nutritional or herbal products), as well as from preventive medicines available by prescription or under development.

*Alka-Seltzer Plus*<sup>®</sup>, marketed in the United States, is a product to relieve symptoms accompanying the common cold. *Tabcin*<sup>®</sup>, primarily marketed in Latin America, is a product line similar to *Alka-Seltzer Plus*<sup>®</sup>. *Aleve*<sup>®</sup> *Cold & Sinus* is a long-lasting combination of the analgesic naproxen sodium and nasal decongestant.

### *Dermatologicals*

*The dermatological category of our Consumer Care division is not related to the Dermatology business unit of our Pharmaceuticals segment.*

The dermatological category includes a broad range of skin treatments. Within this market, we focus on the antifungal, wound healing and skin protection categories. Competition in topical dermatologicals ranges from prescription antifungal products to cosmetic emollients and locally marketed generic products and low priced brands.

*Canesten*<sup>®</sup> is a treatment for vaginal yeast infections, athlete's foot and other dermatological fungal problems. *Ritid*<sup>®</sup> is a topical head lice treatment marketed only in the United States. *Bepanthen*<sup>®</sup> is a topical wound healing brand with a sister brand *Bepanthen*<sup>®</sup> which is a skin protectant and emollient.

### *Gastrointestinals*

The gastrointestinal (GI) category includes antacids, anti-gas products, digestives, laxatives and anti-diarrheals.

*Alka-Seltzer*<sup>®</sup> is used for speedy relief of acid indigestion, sour stomach or heartburn with headache, or body aches and pains. *Phillips*<sup>®</sup> *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. *Rennie*<sup>®</sup> relieves symptoms of indigestion and is typically marketed directly to the consumer. *Talcid*<sup>®</sup> 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 consumer health products. Bayer's primary interests in the nutritionals field are in the vitamin and mineral (especially multi-vitamins/minerals) areas.

*One-A-Day*<sup>®</sup> multivitamins offer a variety of special formulations, such as Men's, Women's, 50 Plus, Maximum, Essential and *WeightSmart*<sup>®</sup> formulas. *Flintstones*<sup>®</sup> are multivitamin dietary supplements containing (depending on type) 10-19 essential nutrients for children ages 2-12. *Supradyn*<sup>®</sup> is a multi vitamin/mineral brand, *Redoxon*<sup>®</sup>, a vitamin C brand, and *Berocca*<sup>®</sup>, a higher potency vitamin/mineral supplement.

In 2006, we launched various line extensions to our existing brands.

### **Markets and Distribution**

Our Consumer Care division focuses on the consumer health market for medicinal products that consumers may generally purchase without a prescription.

The division experiences moderate seasonality, primarily due to the cough/cold market.

The typical sales and marketing channels of the division outside Europe are supermarket chains, drugstores and other mass marketers. In Europe, however, pharmacies are the usual distribution channel. Our principal markets are North America, Europe, Asia and Latin American countries.

Consumer Care procures some high-volume raw materials internally from within Bayer HealthCare. Our major externally procured high-volume raw materials are: Naproxen (the active ingredient of *Aleve*<sup>®</sup>, *Flanax*<sup>®</sup> and *Apranax*<sup>®</sup>), ascorbic acid, citric acid, paracetamol and phenylephrine. Most of these are readily available and are usually not subject to significant price fluctuations. The supply of strategic materials like Naproxen is secured by long term contracts. Changes in crude oil and energy prices can affect a few key items, such as phenol and acetic anhydride, basic materials for our major ingredient acetylsalicylic acid, and aluminum foil. We diversify

our raw materials sources internationally to help balance business risk and generally seek long-term contracts with manufacturers.

We regard Johnson & Johnson (including Johnson & Johnson's recently acquired Pfizer OTC business), Novartis and GlaxoSmithKline as our main competitors. In certain areas we also encounter competition from other companies such as Sanofi-Aventis, Procter & Gamble as well as Schering-Plough and Wyeth.

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

Consumer Care focuses its development activities on identifying, developing and launching products and initiatives that can contribute to achieving business growth through:

efficient development of new products and indications to support current brands; and

product development, clinical and regulatory strategies, which provide opportunity to capitalize on new technologies, expanded label indications and reclassifications of products from those for which a prescription is required to those dispensed over-the-counter.

The division's primary research and development facilities are located in Morristown, New Jersey and Gaillard, France.

### **Diabetes Care**

#### ***Overview***

The Diabetes Care division is headquartered in Tarrytown, New York. We support customers by delivering innovative products and services that empower people with diabetes to improve their quality of life.

#### ***Major Products***

In the Diabetes Care division, we continue to expand the *Ascensia*<sup>®</sup> brand by introducing several new blood glucose monitoring products. Our key products include two platforms, the multi test platform and the single test strip platform. Our family of multi test products include *Ascensia*<sup>®</sup> *Breeze*<sup>®</sup>, *Ascensia*<sup>®</sup> *Confirm*, *Ascensia*<sup>®</sup> *Dex*<sup>®</sup> and *Ascensia*<sup>®</sup> *Esprit*. These products incorporate a 10-test disc to provide greater convenience to patients who test their blood sugar levels several times per day. Our family of single strip products includes the *Ascensia Elite*<sup>®</sup>, *Ascensia Brio*<sup>®</sup>, *Ascensia Entrust* and *Ascensia Contour*<sup>®</sup> with its no coding feature for greater convenience and accuracy. This platform serves a wide spectrum of patient needs.

#### ***Markets and Distribution***

Outside Europe we channel our Diabetes Care products to the consumer market through supermarket chains, drugstores and other mass marketers. In Europe, however, pharmacies are the usual distribution channel. Our principal markets are North America, Western Europe and Japan.

On a worldwide basis, the activities of the Diabetes Care division are not subject to any significant seasonal effects.

We manufacture and/or assemble approximately one quarter (by units) of our own products, with the balance coming from Original Equipment Manufacturer (OEM) suppliers. We rely on a supplier management process to supply raw materials, sub-assemblies and finished goods, most of which are contractually controlled and are not subject to significant price fluctuations or changes in availability.

We do require some direct or OEM materials, the unavailability of which would adversely impact our results of operations. These materials include, for in-house manufacturing, customized integrated circuits and sensors for the *Ascensia*<sup>®</sup> strips. In these instances, we maintain strategic reserves of selected direct materials or finished products to avoid interruptions in our customers' continuous and reliable supply. We maintain a global supplier base with the majority of materials and products being sourced from South-East Asia.

Our primary competitors in the diabetes care market are: Roche Diagnostics, Lifescan (a Johnson & Johnson company) and Abbott Diagnostics.

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

Our Diabetes Care division 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. We achieve this through internal development and collaborations with suppliers of mass market, user-friendly whole blood glucose monitoring systems. In addition, we are actively researching a minimally invasive system that requires only a small blood sample and has a short testing time. Beyond these research and development projects we are investing in technologies that will allow glucose monitoring without painful invasive sampling of body fluids.

During 2006 the division's headquarters as well as the research and development facility were consolidated in Tarrytown, New York.

Our research and development department continued to launch several newer blood glucose monitoring systems during 2006, including the *Ascensia*<sup>®</sup> system, and has been developing next generation systems that we intend to introduce in 2007 and thereafter.

In July 2006 our Diabetes Care division acquired Metrika Inc., located in Sunnyvale, California. Metrika manufactures and markets a new type of handheld diabetes monitoring system, capable of measuring the long-term diabetes parameter HbA1c, also known as glycated hemoglobin. Through this acquisition we expanded our offerings in diabetes management.

### **Animal Health**

#### ***Overview***

Our Animal Health division researches, develops and markets new products for the health care of animals. These products are divided between the two business units Food Animal Products and Companion Animal Products. This range of products is supplemented by a line of farm hygiene products as well as cosmetic care products for animals.

#### ***Major Products***

Bayer Animal Health provides parasiticides such as *K9 Advantix*<sup>®</sup>, *Advantage*<sup>®</sup>, *Droncit*<sup>®</sup>, *Bayticol*<sup>®</sup> and *Baycox*<sup>®</sup>, which are most commonly used for flea, tick, mosquito, tapeworm, roundworm and coccidiosis control in cats, dogs, poultry, pigs and other major livestock animals. We provide antimicrobials such as *Baytril*<sup>®</sup>, which is used for the treatment of severe bacterial infections in animals. Included in our global portfolio are biological vaccines which prevent foot-and-mouth disease in livestock animals and nutritionals, or feed additives, such as vitamins, minerals and others which improve animal health and farm productivity. Our farm hygiene products assist in farm biosecurity management processes and include insecticides for fly control, rodenticides against rats and disinfectants against bacteria.

#### ***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 business areas: marketing for food animals, and marketing for companion animals, including horses.

On a worldwide basis, the activities of the Animal Health division are not subject to any significant seasonal effects.

Depending on national legislation, Animal Health products may be available to end users on a prescription or non-prescription basis. Consumers (pet owners) may purchase prescription products directly from veterinarians or from pharmacies with a written prescription issued from a licensed practicing veterinarian. Also, based on national legislation, non-prescription products may be available through retailers, drugstores and other specialized marketers.

We currently obtain the active pharmaceutical ingredients for our veterinary pharmaceutical products either within the Bayer Group or from third parties worldwide. We obtain additional ingredients and packaging materials from diverse suppliers on a worldwide basis. As a rule, we approve our suppliers for each required material. We take measures in order to assure continuous product supply and to reduce the effects of price volatility. This includes entering into long-term contracts or building strategic reserves of the material in question.

Our main pharmaceutical production facilities devoted to formulation and packaging of our products for shipment are Kiel, Germany and Shawnee, Kansas.

Merial, Pfizer and Intervet are our main competitors, with Merial and Pfizer being active in both companion animal and food animal products and Intervet concentrating mainly on food animal products.

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

The Animal Health division focuses its research and development activities on antimicrobials, parasiticides and active ingredients useful for the treatment of non-infectious diseases in animals such as renal failure, pain management, oncology and congestive heart failure. A particular goal of our research and development efforts is to provide the market with innovative and patent-protected products (new active ingredients, formulations and application technologies).

The division'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 or awaiting regulatory approval. Major products are:

<b>Projects/Products</b>	<b>Indication</b>	<b>Status</b>
Imidacloprid Combinations	Control of fleas, ticks, heartworm and gastrointestinal worms in cats and dogs	Clinical development; one combination in launch in the United States
Emodepside	Gastrointestinal worms in cats and dogs	Clinical Development; one indication in registration in the United States
Red mite control remedy <i>Baycox</i> <sup>®</sup> calves	Red mite control in Poultry	Submitted
<i>Baytril</i> <sup>®</sup> swine (North America)	Coccidiosis control in calves	In registration
<i>Veraflox</i> <sup>®</sup> (pradofloxacin)	Antimicrobial infections in pigs	In registration
	Antimicrobial for dogs and cats	In development in the United States; resubmission after initial rejection in EU under evaluation
Projects on non-infectious diseases	Renal failure and congestive heart failure in dog and cats	Clinical development started



**BAYER CROPSCIENCE**

The Bayer CropScience subgroup is presented in the reportable segments Crop Protection and Environmental Science, BioScience.

**CROP PROTECTION****Overview**

Our Crop Protection segment markets chemical crop protection products for the control of insects, weeds and plant diseases and develops products for enhanced effectiveness against these target pests.

The following table shows Crop Protection's performance for the last three years.

	2004	2005	2006
	<b>(Euros in millions, except percentages)</b>		
Total External net sales	4,957	4,874	4,644
Percentage of total sales from Group continuing operations	23.7%	19.7%	16.0%
External net sales by category of activity			
Insecticides	1,378	1,311	1,219
Fungicides	1,277	1,248	1,200
Herbicides	1,855	1,840	1,758
Seed Treatment	447	475	467
Intersegment sales	71	70	59
Operating result	386	532	384

Crop Protection's sales by region and totals for the past three years are as follows.

	2004	2005	2006
	<b>(Euros in millions)</b>		
Europe	1,898	1,901	1,909
North America	979	1,076	996
Asia/ Pacific	820	811	772
Latin America/ Africa/ Middle East	1,260	1,086	967
Total	4,957	4,874	4,644

The following table shows the segment's sales by major product<sup>(a)</sup> during the past three years.

Product	2004		2005		2006	
	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales	Sales	Percentage of Segment Sales
	(Euros in millions)		(Euros in millions)		(Euros in millions)	
<i>Confidor</i> <sup>®</sup> / <i>Gaucho</i> <sup>®</sup> / <i>Admire</i> <sup>®(b)(c)</sup> (Insecticides/ Seed Treatment)	455	9.2	444	9.1	416	9.0
<i>Folicur</i> <sup>®</sup> / <i>Raxil</i> <sup>®(b)</sup> (Fungicides/ Seed Treatment)	401	8.1	327	6.7	261	5.6
<i>Basta</i> <sup>®</sup> / <i>Liberty</i> <sup>®(b)</sup> (Herbicides)	189	3.8	212	4.3	223	4.8
<i>Puma</i> <sup>®(b)</sup> (Herbicides)	226	4.6	202	4.1	193	4.2
<i>Flint</i> <sup>®</sup> / <i>Stratego</i> <sup>®</sup> / <i>Sphere</i> <sup>®(b)</sup> (Fungicides)	235	4.7	188	3.9	172	3.7
<i>Atlantis</i> <sup>®</sup> (Herbicides)	97	2.0	142	2.9	169	3.6
<i>Proline</i> <sup>®</sup> (Fungicides)	23	0.4	91	1.9	144	3.1
<i>Poncho</i> <sup>®</sup> (Seed Treatment)	57	1.1	110	2.3	127	2.7
<i>Betanal</i> <sup>®(b)</sup> (Herbicides)	143	2.9	127	2.6	119	2.6
<i>Temik</i> <sup>®</sup> (Insecticides)	109	2.2	104	2.1	106	2.3
Other	3,022	61.0	2,927	60.1	2,714	58.4
Total	4,957		4,874		4,644	

(a) The amounts shown represent sales by main active ingredient group; for the sake of clarity, however, only the principal brands and categories of activity are listed.

(b) The main active ingredients contained in these products are also used in products sold by the Environmental Science business group. These figures do not include sales by the Environmental Science business group.

(c) The active ingredient imidacloprid contained in these products is also used in the Animal Health segment's *Advantage*<sup>®</sup> product. These figures do not include sales by the Animal Health segment.

### Segment Strategy

Crop Protection aspires, together with Bayer CropScience's Environmental Science, BioScience segment, to be a leading partner in providing products and combined solutions for the production of quality food, feed and fiber. We strive to build long-term, consistent, predictable and mutually beneficial partnerships with our customers and stakeholders. We aim to fulfill our commitment to sustainable development and to achieve long-term profitable growth.

Key factors in achieving our profitability targets are new product launches, further portfolio optimization, fostering marketing excellence and focus on cost management. In addition to our ongoing performance programs, our newly launched cost structure initiative is intended to further enhance efficiency in all areas of Bayer CropScience. We expect this new initiative for the most part to become effective in 2009.

With its Crop Protection business, Bayer CropScience strives to maintain its leading position in the crop protection industry<sup>1</sup> by utilizing its broad regional representation and a well-balanced portfolio comprising innovative, high-performance insecticides, fungicides, herbicides and seed treatment products.

<sup>(1)</sup> This statement is based on 2005 sales data published in *AgriFutura, The newsletter of Phillips MCDougall-Agriservices, No. 77 (March 2006)* and the moving annual total sales data 2005/2006 published in *Cropnosis Agrochemical Monitor 182 (December 2006)*; the respective publications with data for the full year 2006 have not yet been published as of March 12, 2007.

We attempt to achieve these strategic objectives through the continuous introduction of new products from our research and development pipeline, our life cycle management and the complementary activities of our Environmental Science and BioScience businesses.

## Major Products

### ***Insecticides***

Imidacloprid (major brands: *Confidor*<sup>®</sup> and *Admire*<sup>®</sup>) is an active ingredient in the chemical class of neonicotinoids. It controls a broad range of pests, including sucking pests (*e.g.*, aphids and whiteflies) and biting pests (*e.g.*, leafminers and beetles), and is suitable for a wide variety of application methods, including foliar spray, soil drench, seed treatment and drip irrigation. Imidacloprid is now marketed in more than 100 countries for use on a large variety of crops such as vegetables, fruits, rice, corn, soybeans and cereals.

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

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

### ***Fungicides***

Tebuconazole (major brand: *Folicur*<sup>®</sup>) is a broad-spectrum fungicide registered and sold in about 100 countries for use on numerous crops including cereals, vegetables, fruits, rice, soybeans and peanuts. *Folicur*<sup>®</sup> is especially effective against *Fusarium* and rusts (in particular, Asian soybean rust) as well as many other fungal diseases in cereals and is available in many liquid or solid formulations adapted to our customers' needs.

Trifloxystrobin (major brand: *Flint*<sup>®</sup>), the active ingredient of the *Flint*<sup>®</sup> product family, is sold in more than 80 countries for broad-spectrum disease control in cereals, grapes, rice, soybeans and a wide range of fruit and vegetable crops. The product range consists of solo products and several co-formulations (*e.g.*, *Sphere*<sup>®</sup>, *Stratego*<sup>®</sup> and *Nativo*<sup>®</sup>), all formulated to meet the specific requirements of highly diverse crop production systems under various climatic conditions. In addition to efficient disease control these products offer crop safety and beneficial physiological effects on yield, quality and shelf life of fruit and grain.

Prothioconazole (major brand: *Proline*<sup>®</sup>) is a broad-spectrum fungicide for use on cereals, canola (oilseed rape), peanuts, soybeans and field vegetables. It provides long-term protection by means of a uniform and stable distribution in the leaves. Products containing prothioconazole are effective against stem-based diseases, leaf diseases, especially *Septoria tritici*, as well as ear diseases (*Fusarium* spp) in cereals.

### ***Herbicides***

Glufosinate-ammonium (major brand: *Basta*<sup>®</sup>), Crop Protection's best selling herbicide, 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 and non-crop areas and as a harvest aid. The product is also applied as *Liberty*<sup>®</sup> on herbicide-tolerant canola in Canada, in particular on varieties such as BioScience's *InVigor*<sup>®</sup>, and as *Ignite*<sup>®</sup> on herbicide-tolerant cotton in the United States, such as BioScience's *FiberMax*<sup>®</sup> cotton seeds.

Fenoxaprop-P-ethyl (major brand: *Puma*<sup>®</sup>) is used in more than 75 countries and is one of the leading products used worldwide against grass weeds in cereals. It is also used in rice, soybeans and canola and controls grass weed problems under a wide range of climatic and soil conditions.

Mesosulfuron-methyl (major brand: *Atlantis*<sup>®</sup>) belongs to the latest generation of safened cereal herbicide sulfonylureas. These products offer a broad and consistent grass control performance in global wheat production. Our ongoing development of new mesosulfuron-methyl combinations (major brands: *Alister*<sup>®</sup> and *Olympus*<sup>®</sup> *Flex*) is expected to continue to position Crop Protection as one of the leaders in cereal herbicides.

### ***Seed Treatment***

The insecticidal active ingredient imidacloprid (major brand: *Gaucho*<sup>®</sup>) is Crop Protection's best selling seed treatment product. It is marketed in over 70 countries for the treatment of early season pests and soil and leaf pests in key crops such as corn, cereals, cotton, sugar beet and soybeans.

Clothianidin (major brand: *Poncho*<sup>®</sup>) is an insecticidal active ingredient from the chemical class of neonicotinoids, jointly developed by Sumitomo Chemical Takeda Agro Co. Ltd. and Bayer CropScience AG. This active ingredient was developed primarily for the control of the major soil and early season pests in corn, sugar beet, cereals, canola and sunflower.

Tebuconazole (major brand: *Raxil*<sup>®</sup>) is a fungicide registered in many countries including France, Germany, the United Kingdom, the United States, Canada, Argentina and Australia as a seed treatment to control seed and soil-borne diseases in cereals.

### **Markets and Distribution**

Europe has traditionally been our strongest market in Crop Protection, accounting for about 40 percent of our sales in this segment in 2006. Due to the fact that the major part of our business is realized in the northern hemisphere, the business is affected by the seasonality of the various crop and distribution cycles.

Crop Protection obtains a significant part of its raw materials from LANXESS, as well as from other non-Bayer companies, but also obtains part of its raw materials from within the Bayer Group. Some raw materials can be subject to price volatility caused by fluctuations in the price of crude oil, energy or transport costs.

Generally, we market our 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.

Our main competitors in the Crop Protection business are Syngenta, BASF, Dow AgroSciences, Monsanto and DuPont.

### **Research and Development**

Crop Protection operates major research and development facilities on three continents: Monheim (headquarters) and Frankfurt, Germany; Lyon and Sophia Antipolis, France; Stilwell, Kansas and Raleigh, North Carolina; and Yuki City, Japan.

While research is concentrated in specialized sites, development activities range from central facilities to field testing stations across the globe, enabling product testing in the relevant geographical areas.

Crop Protection research and development is responsible for the identification and development of innovative, safe and economically sustainable solutions in crop protection. Research covers activities to identify new active ingredients that can be developed as insecticides, fungicides or herbicides and/or other areas in modern crop protection. In addition to classical chemistry, biology and biochemistry, modern technologies such as combinatorial chemistry, ultra-high-throughput-screening, genomics and bioinformatics play an important role in the identification of new lead structures. Collaborations with third parties supplement our internal research activities.

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

We actively support our products through continuous life cycle management. This includes the development of new formulations for existing active ingredients and products, *e.g.*, expanding their applicability to additional crops or improving handling and facilitating application of the product.

The following new active ingredients were launched in 2006 or are expected to be launched by Crop Protection in 2007, subject to regulatory approval.

New active ingredients	Product Family	Status
Fluopicolide	Fungicides	Launched in 2006
Flubendiamide	Insecticides	Launch expected in 2007
Tembotrione	Herbicides	Launch expected in 2007

Fluopicolide (major brand: *Infinito*<sup>®</sup>) belongs to a new chemical class named acylpicolides. Products containing this novel chemical compound have been developed for use to control oomycete diseases in potatoes, vegetables and ornamentals. The new mode of action is intended to enable farmers to control oomycete diseases that are resistant to standard fungicides.

Flubendiamide (major brand: *Belt*<sup>®</sup>) represents a novel chemical family of substituted phthalic acid diamides with potent insecticidal activity. *Belt*<sup>®</sup> is a new insecticide for foliar application in annual and perennial crops, offering protection primarily against all major Lepidoptera species. *Belt*<sup>®</sup> is being co-developed by Nihon Nohyaku Company and Bayer CropScience for worldwide use on vegetables, fruits, cotton, corn, beans, tea and a number of other crops.

Tembotrione (major brand: *Laudis*<sup>®</sup>) from the triketone chemical family is a new herbicide for foliar application in corn plants. *Laudis*<sup>®</sup> is a leaf-active substance that eliminates the protection of chlorophyll against UV light in weeds. Tembotrione is applied together with a safener component which enables the corn plants to metabolize the active substance and maintain the carotenoid layer protecting the corn plant against UV light, thereby offering a broad-spectrum weed control.

## ENVIRONMENTAL SCIENCE, BIOSCIENCE

### Overview

The two business groups Environmental Science and BioScience together form the Environmental Science, BioScience segment.

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

	2004	2005	2006
	<b>(Euros in millions, except percentages)</b>		
Total External net sales	989	1,022	1,056
Percentage of total sales from Group continuing operations	4.7%	4.2%	3.7%
External net sales by category of activity			
Environmental Science	678	694	714
BioScience	311	328	342
Intersegment sales	7	13	6
Operating result	106	158	200

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

	2004	2005	2006
	<b>(Euros in millions)</b>		
Europe	340	340	342
North America	433	452	461
Asia/ Pacific	107	122	135
Latin America/ Africa/ Middle East	109	108	118

Total	989	1,022	1,056
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2006 sales of the segments' material products were 148 million for *Merit*<sup>®</sup>/*Premise*<sup>®</sup> (representing 14.0 percent of total segment sales; compared to 143 million, or 14.0 percent, in 2005 and 148 million, or 15.0 percent, in 2004) and 86 million for *K-Othrine*<sup>®</sup>/*Deltagard*<sup>®</sup> (representing 8.1 percent of total segment sales; compared to 68 million, or 6.7 percent, in 2005 and 66 million, or 6.7 percent, in 2004). The foregoing amounts represent sales by main active ingredient group, however we only listed the principal brands. Apart from these two products, no product of this segment accounted for more than 5 percent of total segment sales in 2006, 2005 or 2004.

### **Segment Strategy**

The segment Environmental Science, BioScience complements Bayer CropScience by addressing specific market needs. Environmental Science capitalizes on Crop Protection's development and production facilities and its pipeline of new active ingredients. BioScience leverages on Crop Protection's customer base and biological competence in bringing seeds and plant biotechnology products to the market.

Environmental Science is among the leading suppliers for non-agricultural pest control solutions worldwide in terms of sales. Our strategy is to strengthen our market position by developing and marketing quality products and providing solutions with health or hygiene benefits or that will allow growth of healthier plants and lawns. Our objectives also include the development of strong partnerships with our customers and the focus on proximity innovations, the ability to offer customized brand-connected solutions.

BioScience is internationally active in the research, development and marketing of seeds and solutions derived from plant biotechnology and breeding. Our strategic approach comprises three business fields: In Agricultural Seeds, we focus on delivering conventional and plant biotechnology seeds with improved performance and quality, particularly in respect of our three core crops cotton, canola (oilseed rape) and rice. In New Business Ventures, we are developing plant-derived materials for applications in fields such as nutrition, health and biomaterials. In the Vegetables field, we believe that the Nunhems unit of BioScience is among the leading developers and suppliers of high-quality vegetable seed varieties. Within all three business fields, we intend to pursue growth opportunities.

### **Environmental Science**

#### ***Overview***

Environmental Science serves non-crop professional and consumer markets worldwide, by developing and marketing products for the green industry (including the treatment of golf courses and industrial vegetation management), lawn, garden and household care, professional pest control, termite and vector control and rural hygiene. Our product portfolio includes a wide range of insecticides, fungicides and herbicides.

#### ***Major Products***

*Merit*<sup>®</sup> and *Premise*<sup>®</sup> are our major imidacloprid-based insecticides. *Merit*<sup>®</sup> is used in the green industry, in particular in turf and ornamentals. It controls a large spectrum of insects such as grubs and cutworms. *Premise*<sup>®</sup> is a product for termite control.

*K-Othrine*<sup>®</sup> and *Deltagard*<sup>®</sup> (our major deltamethrin-based brands) control a large spectrum of flying and crawling insects. Deltamethrin has been used for many years to control insect-borne diseases such as malaria and is recommended by the World Health Organization for that purpose.

*Maxforce*<sup>®</sup> is an insecticide used in passive treatment applications such as gels and baits. *Maxforce*<sup>®</sup>'s range of products includes the active ingredients fipronil, hydramethylnone or imidacloprid and controls a large number of crawling insects.

Our consumer-branded products intended for sale to non-professional users and leisure gardeners are marketed under the umbrella brands *Bayer Advanced*<sup>®</sup> in the United States and *Bayer Garden*<sup>®</sup> in Europe.



### ***Markets and Distribution***

Environmental Science's business is subject to seasonality. This seasonality is particularly pronounced for the consumer branded lawn and garden business.

Environmental Science obtains a significant part of its raw materials from within the Bayer Group, but also enters into agreements with non-Bayer companies. Some raw materials may be subject to price volatility caused by fluctuations in the price of crude oil, energy or transport costs.

Our products are sold in the non-crop professional and consumer markets. For professional markets, products are sold to the green industry, the pest control industry and the public health and rural hygiene sectors. In the consumer business, lawn and garden products are sold to consumers through specialized distribution channels. Active ingredients are sold to marketers of household products.

Dow AgroSciences, Syngenta, BASF and Scotts are our main competitors in the overall Environmental Science business.

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

The molecules discovered by Crop Protection research are also tested and evaluated in Environmental Science for potential development. Molecules from other companies may be tested and purchased if suitable. Development projects include passive treatments (gels, baits) and formulations to control insects, as well as new herbicide products and new mixtures of fungicides for the turf and ornamental market segments.

In 2006, our key launches were the fungicide *Tartan*<sup>tm</sup> (based on trifloxystrobin and triadimefon) and the insecticide *Forbid*<sup>tm</sup> (spiromesifen-based) in the green industry and the sprayable *Quickbayt*<sup>®</sup> (imidacloprid-based) for fly control in professional pest control applications. In 2007 we expect to launch, among others, *Termite Killer Granules* (imidacloprid-based) and *All-In-One Lawn Weed & Crabgrass Killer* (based on 2,4-D and dicamba) for the pest and weed consumer market in the United States, and the insecticide *Exemptor*<sup>®</sup> (thiacloprid-based) in the green industry in Europe.

## **BioScience**

### ***Overview***

BioScience focuses on the research, development and marketing of conventional and genetically enhanced seeds and other plant biotechnology products.

### ***Major Products***

With Nunhems (*Nunhems*<sup>®</sup>), BioScience is one of the leading developers and suppliers of high-quality vegetable seed varieties that are marketed to professional growers, plant propagators, seed dealers and the fresh produce and food processing industries. The main crop seeds are carrots, onions, melons, leeks and tomatoes.

*FiberMax*<sup>®</sup> cotton seed brand is marketed in the United States, Greece, Spain and Turkey as well as Brazil and Mexico. *FiberMax*<sup>®</sup> varieties offer cotton growers high performance in lint yield and fiber quality as well as advanced technologies for insect control and herbicide resistance.

*InVigor*<sup>®</sup> hybrid canola varieties are available to farmers in Canada and the United States. *InVigor*<sup>®</sup> hybrid canola varieties provide high yield and require less cultivation, due to their tolerance to glufosinate-ammonium. BioScience promotes the application of *Liberty*<sup>®</sup> herbicides, developed and marketed by our Crop Protection segment, for use on *InVigor*<sup>®</sup> varieties.

*Arize*<sup>®</sup> is the trademark for our hybrid rice seed offering a high-yield, high quality solution requiring less seeds per hectare than conventional rice. It has been introduced in India, the Philippines, Indonesia, Brazil and Vietnam.

### ***Markets and Distribution***

BioScience markets its seeds to growers, distributors and processing industries. We distribute plant biotechnology traits either through out-licensing to seed companies for incorporation in their own commercial seeds or through our own seed companies, mainly under either the *InVigor*<sup>®</sup> or *FiberMax*<sup>®</sup> brands. In some cases, traits are provided to other companies that utilize the technology in their own research.

Due to the fact that the major part of our business is realized in the northern hemisphere, the business is affected by the seasonality of the crop and distribution cycles.

In the bio science business, Monsanto, DuPont/ Pioneer and Syngenta are the market leaders.

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

The primary BioScience research facilities are located in Lyon, France; Haelen, The Netherlands; Gent, Belgium; and Potsdam, Germany. Our main development sites are in the United States, Canada, Brazil, India and Australia.

Plant biotechnology research and development is predominantly directed towards agronomic and quality improvement. The technologies used include all relevant tools from identifying the gene of interest to developing it necessary to improve key crops (cotton, canola and rice) for growers and industrial partners. Research activities range from the exploration of novel agronomic traits to the discovery of new plant-based specialty products for the nutrition, health and biomaterials markets. This includes plants with improved stress tolerance (*e.g.*, drought resistance), health-promoting canola oils and the manufacture of materials based on renewable sources.

Our growth is supported by continuous new product introduction. We launched eight new varieties of cotton and four rice varieties in 2006. In 2007, we expect to launch several new varieties of cotton and one of canola.

## **BAYER MATERIALSCIENCE**

The Bayer MaterialScience subgroup is presented in the reportable segments Materials and Systems.

### **MATERIALS**

#### **Overview**

As described under *History and Development of the Company*, we have divested our H.C. Starck business and are in the process of divesting our Wolff Walsrode business. Both businesses are reported as discontinued operations. For details see Item 5, *Operating and Financial Review and Prospects – Operating Results 2004, 2005 and 2006 Discontinued Operations*. As the divestiture of Wolff Walsrode has not yet been completed as of the date of this annual report on Form 20-F, details on this business also appear in this section under *WOLFF WALSRÖDE (Discontinued Operation)*.

As a result of the divestiture of H.C. Starck and the pending divestiture of Wolff Walsrode, our Materials segment now comprises the business units Polycarbonates and Thermoplastic Polyurethanes. The segment data appearing in the following tables for 2004 and 2005 have been restated to reflect the removal of H.C. Starck and Wolff Walsrode from the Materials segment.

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

	2004	2005	2006
	(Euros in millions, except percentages)		
Total External net sales	2,217	2,837	2,925
Percentage of total sales from Group continuing operations	10.6%	11.4%	10.1%
External net sales by category of activity			
Polycarbonates	2,035	2,645	2,720
Thermoplastic Polyurethanes	182	192	205
Intersegment sales	13	14	25
Operating result	184	514	289

The segment's external sales, by region and in total, for the past three years are as follows.

	2004	2005	2006
	(Euros in millions)		
Europe	863	1,063	1,100
North America	481	609	599
Asia/ Pacific	716	908	947
Latin America/ Africa/ Middle East	157	257	279
Total	2,217	2,837	2,925

Sales of the segment's material products in 2006 were 1,443 million for the *Makrolon* product family (representing 49.3 percent of total segment sales, compared to 1,513 million, or 53.3 percent, in 2005 and 1,088 million, or 49.1 percent, in 2004) and 563 million for *Bayblend* (representing 19.3 percent of total segment sales, compared to 485 million, or 17.1 percent, in 2005 and 360 million, or 16.2 percent, in 2004). Apart from these two products, no product of this segment accounted for more than 5 percent of total segment sales in 2006, 2005 or 2004.

### Segment Strategy

Our goal is to continue expanding our global market positions by exploiting the growth potential of our portfolio. The completion of initial investment projects in Asia supports our strong commitment to this fast growing region. We continue to look for opportunities to further strengthen our position in the Materials segment. We intend to enhance the segment's overall performance by making its research and development, marketing and administration structures more efficient and continuously improving its cost position.

We have recently started production in the first phase of our new world-scale polycarbonate production plant in Asia, which shares an integrated production site with the production of diphenylmethane diisocyanate (MDI) discussed under *Bayer MaterialScience Systems* below. We believe that this plant will help Polycarbonates (PCS) to improve its cost competitiveness and its access to state-of-the-art technology in this growth region. We plan further capacity expansions to meet growing demand for polycarbonates. We plan to monitor the product life cycles of current applications and to allocate sufficient resources for product and application development in growth segments. In addition to our current expansion in China, we intend to evaluate potential business opportunities in other regions on an ongoing basis in an effort to extend our market coverage. In our Compounding business, we intend to strengthen our business by increasing our geographic coverage. For our semifinished products in Polycarbonate Films and Sheets, we continue to strive for profitability with a focus on products with strong growth prospects.

Thermoplastic Polyurethanes (TPU) continues to shift its business focus towards high margin growth products. With this new focus, TPU intends to reach and maintain higher levels of profitability. With our acquisition of the Ure-Tech Group in Taiwan, expected to be completed in the second quarter of 2007, we intend to increase TPU's market share in Asia.

## Polycarbonates

### *Overview*

With its broad product portfolio, our business unit Polycarbonates (Polycarbonates, Polycarbonate Blends, Polycarbonate Films and Sheets) includes some of the leading global suppliers and manufacturers of engineering polycarbonates (based on capacity). Our Bayer Sheet Europe GmbH (formerly Makroform GmbH) has a strong position as a supplier of polycarbonate sheets. Our products have chemical and physical properties that enable them to resist low or high operating temperatures as well as corrosive chemicals and solvents.

### *Major Products*

#### *Polycarbonates (Makrolon®/APEC®)*

Polycarbonates are plastics that are transparent and highly stable across a wide temperature range. Because of their light weight, impact stability and design flexibility, polycarbonates are used in the electrical/electronic industry in general and in the field of optical data storage media (such as pre-recorded and recordable CDs and DVDs), in particular and for injection molding purposes. The construction industry is also a major user of polycarbonates, for example, for polycarbonate sheet applications. *Makrolon®* is our leading polycarbonate product range. Our other polycarbonates include the *APEC®* product range for high temperature uses, for example as components for automobile headlights.

#### *Polycarbonate Blends (Bayblend®/Makroblend®)*

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. Polycarbonate blends are widely used in the automotive, electrical/electronic and business machine industries. The *Bayblend®* product lines of amorphous, thermoplastic polymer blends based on polycarbonate and ABS (acrylonitrile/butadiene/styrene) are our leading blends for a broad range of applications. *Makroblend®* is our brand name for engineering thermoplastics blends based on Polybutylene Terephthalate (PBT) or Polyethylene Terephthalate (PET).

#### *Polycarbonate Films*

Polycarbonate films, *Makrofol®*, are made of our polycarbonate *Makrolon®* and are characterized by product attributes such as high heat resistance, good printability and graphic quality. The polycarbonate films of our *Makrofol®* range are used for applications such as instrument dials, automotive heater control panels, nameplates and a variety of film insert molding parts (a combination of a back printed and formed foil with *Makrolon®* and *Bayblend®*) as well as for security identification cards.

*Bayfol®* is the trade name of our films made of polycarbonate blends and other polymers. *Bayfol®* CR films are noted for their strong chemical resistance and enhanced flexibility compared with pure polycarbonate film. They are both thermo formable and cold formable, with good electrical insulating and dielectric properties, and are easily printable with standard inks. Their main application areas are keypads or housings in the information technology industry. Further applications are in the area of IMD (In Mold Decoration) technology and automotive interior applications.

#### *Polycarbonate Sheets (Fabricated Products)*

We also produce solid and multiwall sheets with a broad range of characteristics for a wide variety of applications. These materials consist of polycarbonates, polycarbonate blends or thermoplastic polyesters. We market our sheets as *Makrolon®*, *Bayloy®*, *Vivak®* and *Axpet®*. *Makrolon®*, which accounts for the largest share of our revenues from sheets, is a material with high impact resistance and can be exposed to a wide range of temperatures.

**Markets and Distribution**

We sell the products of our Polycarbonates business entities to numerous customers worldwide. These customers include injection-molding operators and a large number of plastic-component manufacturers, whose products are predominantly used in the automotive, electrical, electrical engineering, construction, data technology, medical and leisure industries. We have recently commenced polycarbonate production at our new unit at the Bayer integrated polymers production site in Caojing, China. The unit's initial capacity is 100,000 tons per year. The new plant represents the first time that Bayer has installed a melt polycarbonate process on such a large scale.

Depending on the region and the general economic situation, sales of polycarbonates may show moderate seasonality. Generally, sales are lower in the first quarter in all regions.

Bayer does not produce basic petrochemicals. The principal petrochemical raw materials consumed by our Polycarbonates business unit are acetone and phenol, supplied exclusively by third parties. We do produce Bisphenol-A, which is a major precursor of polycarbonate based on phenol and acetone. Our costs are affected by fluctuations in raw material prices, mainly driven by the price volatility of crude oil and benzene. We typically procure third-party raw materials under long-term contracts that contain cost-based and market price formulas, which partially reduce raw material price fluctuation.

We market substantially all of our plastic products through regional distribution channels, supported by regional competence centers and by our head office. In addition, we also use trading houses and local distributors to work with small volume customers.

Our major global competitors are GE Plastics and Dow Chemical. In the Asia/Pacific region we also compete with a number of local competitors.

**Research and Development**

Our Polycarbonates business unit allocates resources for research and development both to process and product development, with the aim of constantly improving our manufacturing processes and of developing new formulations and applications of our products. The primary research and development facilities are located in Krefeld-Uerdingen, Leverkusen and Dormagen, Germany and Pittsburgh, Pennsylvania. The Polycarbonates business unit is also part of the new polymers research and development center (PRDC), at Pudong, China (near Shanghai) together with the other Bayer MaterialScience (BMS) business units.

We are currently working further on the optimization of our new polycarbonate melt manufacturing process. Other current projects relate to the analysis of our existing manufacturing processes to improve both product quality and cost performance.

In product development, we focus our activities on developing new blends, refining material for optical data storage, developing modified base materials for polycarbonate sheets and modifying the surface of polycarbonates using various coating technologies. Examples of our development areas are set forth in the following table:

<b>Product/ Brand Name</b>	<b>Application</b>
Surface-modified <i>Makrolon</i> <sup>®</sup>	Automotive, extrusion, architecture, electrical
Improved <i>Makrolon</i> <sup>®</sup> ODS grade	New ODS formats, such as Blue Laser based disks and HD-DVD
Extension of <i>Bayblend</i> <sup>®</sup> FR series	Business machines/ information technology
<i>Makrolon</i> <sup>®</sup> with improved flame retardant	Electrical, automotive
Diffusor sheets for LCD Screens	Electrical/electronic

In the area of polycarbonate films, we are developing value added films (comprising new resins as well as surface-modified films) to enter new market segments such as soft touch coated *Makrofol*<sup>®</sup> films interior parts used in the automotive industry and mobile phone housings.

## Thermoplastic Polyurethanes

### *Overview*

Our Thermoplastic Polyurethanes business unit develops and markets a wide variety of granules that serve as raw materials for extrusion, blow molding, calendering and injection molding processed products. Additionally, our subsidiaries Epurex Films (Germany) and Deerfield Urethane (Massachusetts) manufacture different grades of thermoplastic polyurethane films (TPU films).

### *Major Products*

Thermoplastic polyurethanes, or TPUs (TPU Resins and Films), belong to the family of high-performance thermoplastic elastomers and possess a combination of properties such as high resilience, abrasion resistance and flexibility. We market our thermoplastic polyurethanes granulates under the trademarks *Desmopan*<sup>®</sup>, *Texin*<sup>®</sup> and *Desmomelt*<sup>®</sup>. TPU-containing elastomer compounds are also developed and marketed cooperatively by BMS and PTS (Plastic Technologie Service Marketing & Vertriebs GmbH) under the trademark *Desmoflex*<sup>®</sup>. Our TPU films are marketed under the trademarks *Walotex*<sup>®</sup>, *Walopur*<sup>®</sup>, and *Platilon*<sup>®</sup> (Epurex Films) and *Dureflex*<sup>®</sup> (Deerfield Urethane). The acquisition of the Ure-Tech Group in Taiwan, expected to be completed in the second quarter of 2007, will add products under the trademark *Utechllan*<sup>®</sup> to our portfolio.

### *Markets and Distribution*

Our Thermoplastic Polyurethanes business entities (TPU Resins and TPU Films) primarily serve customers in the sports and leisure, automotive and engineering industries; other users include the textile, cable and agricultural industries (e.g., animal ear tags).

Temporary fluctuations in prices for raw materials and energy can have an impact on the cost of our products. We secure our most important chemical raw materials through long-term contracts.

Our head office in Leverkusen, Germany, has global responsibility for the business. We coordinate and carry out our sales and marketing from Leverkusen, Germany, for the regions Europe, Middle East, Africa and Latin America, from our regional hubs in North America (Pittsburgh) and the Asia/ Pacific region (Hong Kong), and through our various national subsidiaries.

We regard the following companies as the main competitors of our TPU business entities:

*TPU Resins:* BASF/ Elastogran, Lubrizol/ Noveon, Huntsman, Dow Chemical;

*TPU Films:* Stevens Urethane, Fait Plast, Ding Zing.

### *Research and Development*

The bulk of research and development activities conducted by the Thermoplastic Polyurethanes business entities consists of developing high performance thermoplastic polyurethanes resins and films, such as highly UV-stable and transparent grades for foils in solar modules.

TPU Resins primary development facilities are located in Dormagen, Germany and Pittsburgh, Pennsylvania. The development facilities of TPU Films are located in Bomlitz, Germany (Epurex Films) and in Whately, Massachusetts (Deerfield Urethane).

## SYSTEMS

### *Overview*

Our segment Systems comprises the business units Polyurethanes; Coatings, Adhesives, Sealants; and Inorganic Basic Chemicals.

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

	2004	2005	2006
	(Euros in millions, except percentages)		
Total External net sales	5,349	6,609	7,236
Percentage of total sales from Group continuing operations	25.6%	26.8%	25.0%
External net sales by category of activity			
Polyurethanes	3,872	4,792	5,182
Coatings Adhesives Sealants	1,237	1,330	1,488
Inorganic Basic Chemicals	218	380	403
Others	22	107	163
Intersegment sales	116	142	138
Operating result	348	736	703

The segment's external sales, by region and in total, for the past three years are as follows.

	2004	2005	2006
	(Euros in millions)		
Europe	2,494	3,035	3,302
North America	1,483	1,891	2,023
Asia/ Pacific	822	979	1,060
Latin America/ Africa/ Middle East	550	704	851
Total	5,349	6,609	7,236

2006 sales of the segment's material products were 3,004 million for *Desmodur*®/ *Mondur*® products (representing 41.5 percent of total segment sales, compared to 2,613 million, or 39.5 percent, in 2005 and 2,242 million, or 41.9 percent, in 2004) and 741 million for *Arcol* (representing 10.2 percent of total segment sales, compared to 724 million, or 11.0 percent, in 2005 and 536 million, or 10.0 percent, in 2004). Apart from these two products, no other product of the segment accounted for more than 5 percent of segment sales in 2006, 2005 and 2004.

#### Segment Strategy

Our goal is to continue expanding our global market positions by exploiting the growth potential of our portfolio. The completion of initial investment projects in Asia supports our strong commitment to this fast growing region. We continue to look for opportunities to further strengthen our position in the Systems segment. We intend to enhance the segment's overall performance by making its research and development, marketing and administration structures more efficient and continuously improving its cost position.

We believe that the completion of the first phase of our world scale diphenylmethane diisocyanate (MDI) production facility in Asia will help Polyurethanes to improve its cost competitiveness and its access to state-of-the-art technology in this growth region. We intend our focus on quality, as well as on product and process innovation, to enhance our penetration of the strong growing Asia markets. With further increase of our MDI capacity, we intend to help meet the increasing global demand for these products. Portfolio management activities are planned in selected segments to improve profitability by shifting the focus towards high value products. Furthermore, we are planning to build a world-scale production facility for toluene diisocyanate (TDI) in Asia.

The business unit Coatings, Adhesives and Sealants intends to focus its activities on defending its market position in the field of Base Modified Isocyanates. We intend to meet increasing demand in growth regions by extension



and/or adaptation of our production facilities. In the field of Resins we intend to strive for profitability improvement by focusing on modern technologies and portfolio optimization. A stronger focus on high margin products is expected to further contribute to this goal.

Inorganic Basic Chemicals provides basic raw materials such as chlorine and caustic soda to the business units Polyurethanes; Coatings, Adhesives, Sealants; and Polycarbonates, as well as to third parties, using its modern technology. In an effort to ensure the best possible cost position and uninterrupted supply, various strategic options to produce such basic raw materials or to buy them from third parties are being pursued depending on the specific characteristics of our production sites.

The entity *New Business* within BMS identifies and evaluates market and technology trends across all of BMS business units and devolves business ideas into projects to develop new products and applications that extend beyond our existing core business of the company.

## **Polyurethanes**

### ***Overview***

Our Polyurethanes business entities (MDI, TDI, Polyether) focus on the development, production and marketing of isocyanates and polyol materials for polyurethane formulations and systems used in producing a wide variety of polyurethane polymers for a broad range of industrial and consumer applications.

### ***Major 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*<sup>®</sup> and *Desmophen*<sup>®</sup>. The characteristics of a given polyurethane depend on both the material components used as well as the precise proportion of each in the mix.

Our customers use our isocyanates or polyether polyols, or both, to create their own specific polyurethane formulations. In addition, we design and evaluate custom blends to meet specific customer requirements. 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 materials include furniture, mattresses, shoes, automotive components, appliances, sport and leisure equipment and construction.

### ***Markets and Distribution***

Europe and the NAFTA nations remain the primary markets for our Polyurethanes business entities, with the Asian market showing the strongest prospects for future growth.

The predominant cushioning material for upholstered furniture manufactured today is flexible polyurethane foam. For our customers' applications, we are currently aware of no man-made or natural substitute materials that could replace significant amounts of flexible polyurethane foams in substantial quantity. Rigid polyurethane foam is used for thermal insulation purposes in competition with other insulating materials such as mineral fibers and polystyrene foam. 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 due to the required physical properties, costs, design or functional requirements.

On a worldwide level, the Polyurethanes business entities' sales are not subject to significant seasonality. On the regional level, business can display 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 petrochemical raw materials. We typically purchase these on the open market mostly under long-term contracts, as Bayer generally does not produce petrochemicals. However, through a global joint venture with Lyondell, we have acquired a source for propylene oxide, one of our key raw materials. These petrochemical raw materials are subject to price fluctuation driven by supply and demand factors and price volatility in the crude oil and derivatives markets.

The Polyurethanes business entities coordinate and carry out their sales and marketing from the head office in Leverkusen, Germany, and through our various national subsidiaries. Our key account managers serve our globally active major customers directly. To a much smaller degree we sell our products through systems houses and traders. Systems houses are focused regionally and typically serve smaller-volume customers.

To further increase efficiency along the supply chain, we have established regional service centers. They act as a central point of contact for customers on all issues concerning order processing, logistics and billing.

Our main competitors for the Polyurethanes business entities are BASF, Dow Chemical and Huntsman.

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

The business entities' primary research and technical development facilities are located in Dormagen and Leverkusen, Germany; Pittsburgh, Pennsylvania, South Charleston, West Virginia; Amagasaki, Japan; and Shanghai, China.

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 Polyurethanes business entities concentrate their research and development efforts with respect to aromatic isocyanates on improving existing products and technologies for their manufacture. Our TDI facility in Caojing, China, that is planned to come on stream in 2009, will use such improved manufacturing processes. High-throughput experiments are used for the development of new formulations and are intended to help to reduce time-to-market for new products.

In product development, we focus our activities on extending the applications for new composite materials. We also work to improve flame resistance and thermal insulation properties. We develop other materials for durability aspects using various technologies as summarized in the following table:

<b>Product/Brand Name</b>	<b>Application</b>
<i>Baypreg</i> <sup>®</sup> F	Automotive door trim carrier
<i>Multitec</i> <sup>®</sup>	Bathtubs, hood/fender for agricultural vehicles
<i>Baydur</i> <sup>®</sup>	Combinations with wood

### **Coatings, Adhesives, Sealants**

#### ***Overview***

Our Coatings, Adhesives, Sealants business entities (Resins, RES; Base and Modified Isocyanates, BMI) develop and market a wide variety of products that serve as raw materials for lacquers, coatings, sealants and adhesives.

#### ***Major Products***

##### ***Resins and Hardeners***

Polyurethane lacquers are formed through the combination of an isocyanates component with a polyol-like polyester, polyacrylate-polyether- or polycarbonate-polyols. We offer a variety of polyol components branded as *Desmophen*<sup>®</sup>, *Rucote*<sup>®</sup> and *Bayhydro*<sup>®</sup> (RES) and polyisocyanates such as *Desmodur*<sup>®</sup>, *Desmodur*<sup>®</sup> BL, *Crelan*<sup>®</sup> and *Bayhydur*<sup>®</sup> (BMI). This variety enables us to provide custom-tailored solutions for a number of different applications.

##### ***Special raw materials***

Our special material unit produces such specialty products as *Pergut*<sup>®</sup> (RES) for coatings and adhesives, *Impranil*<sup>®</sup>, our polyurethane coating systems for textiles, and *Baybond*<sup>®</sup> for glass fiber sizing.

*Adhesive raw materials*

*Dispercoll*<sup>®</sup>, *Desmocoll*<sup>®</sup> and *Baypren*<sup>®</sup> (RES) are our raw materials for adhesives. Their primary users are shoe manufacturers, although we also have customers from the automotive, furniture and building industries.

**Markets and Distribution**

Our Coatings, Adhesives, Sealants business entities are a major producer of raw materials for coatings and adhesives. The primary ultimate end users of our products are the automotive, furniture, plastics, construction and adhesives industries; other users include the textile, shoe and building industries.

Generally, our revenue is not subject to significant seasonality. 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.

Temporary fluctuations in prices, such as the price of crude oil or energy, can have a significant effect on the cost of our raw materials. We secure our most important chemical raw materials primarily through long-term contracts.

We coordinate and carry out our sales and marketing from our head office in Leverkusen, Germany, and through our various national subsidiaries. Our key account managers serve our globally active major customers directly.

We regard the following companies as the chief competitors of our Coatings, Adhesives, Sealants business entities.

*Resin components (RES):* Cytec, Cray Valley, DIC (Dainippon Ink and Chemicals), DSM, Eternal, BASF;

*Aliphatic isocyanates (BMI):* Rhodia, Degussa, BASF, Asahi Kasei, NPU (Nippon Polyurethane Industry);

*Aromatic isocyanates (BMI):* Dow Chemical, Mitsui Chemicals, SAPICI.

**Research and Development**

The Coatings, Adhesives, Sealants business entities focus their research and development activities on developing products that we can formulate into high performance coatings, adhesives and sealants, such as aliphatic and aromatic polyisocyanates and resin components. We are also exploring ways of reducing the amount of solvent needed by technologies such as high solids and waterborne and powder coatings systems.

We are working, together with the U.S. company InPhase Technologies on the development of new photoactive polymers for holographic data-storage applications. InPhase's first generation product will be a read-only memory storage medium holding 300 GB of data.

In collaboration with the British coatings manufacturer E. Wood, we are developing a polyurea system based on a special aliphatic polyisocyanate. This new formulation is used for the rehabilitation of drinking water pipes.

The business entities' primary research and development facilities are located in Leverkusen, Germany and Pittsburgh, Pennsylvania and Shanghai, China.

**Inorganic Basic Chemicals**

**Overview**

The business unit Inorganic Basic Chemicals (IBC) produces inorganic basic chemicals such as chlorine, caustic soda, hydrogen and hydrochloric acid. Its focus is on the safe and cost-efficient supply of chlorine to internal and external customers.

**Major Products**

Inorganic basic chemicals are of major importance for Bayer MaterialScience (BMS): about 70 percent of BMS sales are dependent on chlorine. Chlorine is used for the production of intermediates that are subsequently processed into a variety of products, such as polyurethanes and polycarbonates. The four IBC production sites in Leverkusen, Dormagen and Krefeld-Uerdingen, Germany and Baytown, Texas have a total chlorine capacity of around 1.4 million metric tons per year. At sites where Bayer does not produce any chlorine, IBC supports external chlorine procurement.

In addition to chlorine, sodium chloride electrolysis generates caustic soda and hydrogen. These by-products, as far as they are not used internally, are sold in external markets.

During the processing of chlorine into intermediate products, hydrochloric acid may be produced. If it is not sold or used internally, it is recycled in the hydrochloric acid electrolysis units of IBC in Leverkusen and Dormagen, Germany and Baytown, Texas.

**Markets and Distribution**

In general, chlorine is supplied by pipeline to internal and external customers located at Bayer sites where chlorine is produced. IBC markets the caustic soda and hydrochloric acid that is not used internally to customers from various industries worldwide.

The main raw materials for chlorine production are sodium chloride and electrical power. Sodium chloride is purchased on the open market under long term contractual agreements and therefore generally not subject to price volatility. Power is purchased via Bayer Industry Services in Germany. In 2006, our costs for electrical power increased by about 20 percent due to increased market prices.

Our main competitors are Dow Chemical, Solvay, Akzo Nobel, BASF, Vestolit, Ineos, Olin, PPG and Formosa Plastics.

**Research and Development**

Processes and plants are continuously enhanced and optimized within IBC while keeping in mind environmental compatibility. The main area of innovation in chlorine production is currently the development of the Oxygen Depolarized Cathode (ODC) in sodium chloride alkali (sodium chloride) and hydrochloric acid membrane electrolysis to significantly reduce power consumption. We intend to use this technology to supply the isocyanate production in Caojing, China, with chlorine beginning in 2008.

**WOLFF WALSRODE (Discontinued Operation)****Overview**

In December 2006, Bayer signed an agreement with Dow Chemical Company concerning the sale of Bayer's Wolff Walsrode business. The sale is subject to the approval of the relevant antitrust authorities. Assuming these approvals are received, we expect the closing of the transaction to occur by the end of the first half of 2007. The Wolff Walsrode business is reported as discontinued operations prior to the sale. For details refer to Item 5, *Operating and Financial Review and Prospects - Operating Results 2004, 2005 and 2006 - Discontinued Operations* and Note 7.2 to the consolidated financial statements contained elsewhere in this annual report on Form 20-F.

The following table shows Wolff Walsrode's performance in the last three years.

	2004	2005	2006
	(Euros in millions)		
External net sales	328	329	334
Operating result	40	36	40

### **Overview**

We operate the Wolff Walsrode business primarily through Wolff Walsrode AG, our wholly-owned subsidiary, assisted by other companies of the Bayer Group. The Wolff Walsrode business develops, produces and markets cellulose derivatives as well as various sausage casings.

### **Major Products**

#### **Cellulose Derivatives**

*Walocel*<sup>®M</sup> 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*<sup>® NC</sup> 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*<sup>®C</sup> 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.

#### **Other**

Under the brand name *Walsroder*<sup>®</sup>, we offer a wide range of sausage skins for industrial or handcraft usage.

### **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 trademark 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 pharmaceutical 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*<sup>®</sup>, *Avelox*<sup>®</sup>, *Betaferon*<sup>®</sup>, *Campath*<sup>®</sup>, *Cipro*<sup>®</sup>, *Leukine*<sup>®</sup>, *Levitra*<sup>®</sup>, *Magnevist*<sup>®</sup>, *Mirena*<sup>®</sup>, *Ultravist*<sup>®</sup> and *Yasmin*<sup>®</sup> 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.

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:

subsequently 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*<sup>®</sup>, *Avelox*<sup>®</sup>, ciprofloxacin, imidacloprid, vardenafil, sorafenib, *Betaseron*<sup>®</sup>, *Yasmin*<sup>®</sup>, *Magnevist*<sup>®</sup>, *Ultravist*<sup>®</sup>, *Mirena*<sup>®</sup>, *Campath*<sup>®</sup> and *Leukine*<sup>®</sup>:

Product	Market							
	Germany	France	U.K.	Italy	Spain	Japan	U.S.A.	Canada
<i>Adalat</i> <sup>®</sup>								
Crystal patent (Retard)							2010	
<i>Adalat</i> <sup>®</sup> CC (Coat Core)	2008	2008	2008	2008	2008	2008	2008	2009
<i>Avelox</i> <sup>®</sup>								
Compound	2014	2014	2014	2014	2014	2009	2014	2015
Hydrochloride-Monohydrate	2016	2016	2016	2016	2016	2016	2016	2016
Tablet formulation	2019	2019	2019	2019	2019	2019	2019	2019
Ciprofloxacin								
Active ingredient				2007 <sup>(a)</sup>				
IV formulation	2006	2006	2006	2006	2006	2011	2007	2008
Tablet formulation	2007	2007	2007	2007	2007	2007	2011	2009
Imidacloprid	2006	2006	2006	2006	2007		2006	2007
Vardenafil compound	2018	2018	2018	2018	2018	2018	2018	2018
Sorafenib compound	2020	2020	2020	2020	2020	2020	2022	2020
<i>Betaseron</i> <sup>®</sup> product	2008	2008	2008	2008	2008	2008	2007	2016
<i>Yasmin</i> <sup>®</sup> formulation	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>	2020 <sup>(b)</sup>
<i>Magnevist</i> <sup>®</sup>								
Product				2007			2011	
Formulation	2007	2007	2007	2007	2007	2007	2009	2010
Method of use							2013	
<i>Ultravist</i> <sup>®</sup> product				2009				
<i>Mirena</i> <sup>®</sup>								
Device (inserter)	2015	2015	2015	2015	2015		2015	2015
Process	2013	2013	2013	2013	2013	2013	2013	2013
<i>Campath</i> <sup>®</sup> product	2014	2014	2014	2014	2014	2014	2015	2014
<i>Leukine</i> <sup>®</sup> product							2012	2017

<sup>(a)</sup> Including extension of the original patent term which was scheduled to expire in 2001 by national supplementary protection certificate until 2009 and later reduction of said extension until 2007 under Italian Law No. 112/2002. The final reduced term remains uncertain and falls within the jurisdiction of an ordinary court. The law and its application by the Italian Patent and Trademark office has been legally challenged and may be subject to further legal challenges.

<sup>(b)</sup> Composition comprising micronized drospirenone together with ethinylestradiol.

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 *Adalat*<sup>®</sup>, *Aleve*<sup>®</sup>, *Ascensia*<sup>®</sup>, *Aspirin*<sup>®</sup>, *Avalox*<sup>®</sup>/*Avelox*<sup>®</sup>, *Basta*<sup>®</sup>/*Liberty*<sup>®</sup>, *Betaferon*<sup>®</sup>/*Betaseron*<sup>®</sup>, *Ciprobay*<sup>®</sup>/*Cipro*<sup>®</sup>, *Confidor*<sup>®</sup>/*Gaicho*<sup>®</sup>/*Admire*<sup>®</sup>/*Merit*<sup>®</sup>, *Flint*<sup>®</sup>/*Stratego*<sup>®</sup>/*Sphere*<sup>®</sup>,



*Kogenate*<sup>®</sup>, *Levitra*<sup>®</sup>, *Magnevist*<sup>®</sup>, *Makrolon*<sup>®</sup> and *Yasmin*<sup>®</sup>, as well as the Bayer name itself and our distinctive Bayer cross ; and the corporate names Schering and Medrad . (Please note that the rights to the name Schering in the United States and Canada do not belong to us but to Schering-Plough Corporation, New Jersey. Schering-Plough Corporation and the company acquired by Bayer in June 2006, Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, are unaffiliated companies that have been totally independent of each other for many years.) 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.

### **GOVERNMENTAL REGULATION**

Our business is subject to significant governmental 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. Relevant regulations are typically of a national scope, although within the European Union (EU), a considerable degree of harmonization exists. The EU institutions have created a common regulatory framework that applies in all of the EU Member States (and that sometimes allows EU Member States to adopt more detailed and more stringent regulations), and has indirect harmonizing effects in certain other European countries.

#### **Product Regulation**

The primary emphasis of product regulation is to assure the safety and effectiveness of our products. In the United States, the Food and Drug Administration (FDA) regulates many of our products, primarily in our HealthCare business. In addition, our pharmaceutical facilities typically require regulatory approval and are subject to periodic re-inspection. Comparable regulatory frameworks are in place in other regions as well, such as the EU, Japan, China and in most other industrialized countries.

The Toxic Substance Control Act (TSCA) administered under the U.S. Environmental Protection Agency (EPA) regulates product registrations, called premanufacture notices (PMNs), for new industrial chemicals and polymers and can also regulate existing chemicals under test rules. In addition, the 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 antimicrobial 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 Occupational Safety and Health Administration (OSHA). The OSHA Hazard Communication Standard requires information concerning the hazards of chemicals to be transmitted to our workers and customers through material safety data sheets and precautionary product labels for potential hazards from exposure to chemicals.

Similarly, in the EU as well as in other regions, there are restrictive rules applicable to areas including the production, marketing, processing, use and disposal of dangerous substances and preparations, food and feeding stuffs and the use of biocides.

#### ***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. For more information on how regulatory requirements may impact our business, refer to Item 3, *Key Information Risk Factors Regulatory controls and changes in public policy may reduce the profitability of new or current products.*

The various regulatory authorities administer and execute requirements covering the testing, safety, efficacy, labeling, approval, manufacturing, marketing and post-marketing surveillance 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 can take approximately ten years but this period varies considerably for different products and countries. For marketed products, the pharmaceutical company is required to monitor adverse reactions and submit periodic reports on these reactions, if any, to the appropriate authorities.

Within the EU three registration procedures with different regional coverage are available: Centralized Procedure, Mutual Recognition Procedure and National Procedure. In the Centralized Procedure, after the dossier is submitted to the EMEA, the Committee for Medicinal Products for Human Use (CHMP) carries out a scientific evaluation. The CHMP opinion is then transmitted to the European Commission for its opinion, which, if also favorable, results in a binding decision for marketing authorization in all EU Member States. A company is obliged to use the Mutual Recognition Procedure if it intends to sell a medicinal product in more than one Member State, but not necessarily throughout the entire EU. After a Marketing Authorization has been granted for a product in one Member State selected by the company (a so-called Reference Member State, or RMS), this RMS has to produce an Assessment Report. The Authorities in the other Member States where the product is to be approved receive a copy of the original dossier and a copy of the Assessment Report. They then mutually recognize the decision of the RMS. A National Procedure can be used if a company wishes to license a product in just one Member State.

In recent years, the EMEA in the EU, the FDA in the United States and the Ministry of Health, Labor and Welfare (MHLW) in Japan have sought to shorten development and registration times for pharmaceutical products by harmonizing the individual requirements of the three regions. This initiative is called the International Conference on Harmonization. For the foreseeable future, however, we will need to obtain a separate approval in each market.

Our Hematology/ Cardiology business unit markets, among others, substances known as biologicals. Biologicals are derived 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 under specific sets of regulations that contain unique requirements specifically for biologicals. 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 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 such as water supply and climate control.

Prices for pharmaceuticals may be subject to governmental interventions. Direct price controls as well as budgets or patient contribution requirements affect the prices and may result in price and profit differentials between markets.

### ***Consumer Care Products***

Most Consumer Care products are subject to regulations similar to those in the Pharmaceuticals segment. In the United States, for example, the FDA and, in part, the Federal Trade Commission, oversee the marketing, manufacturing and labeling of Consumer Care products.

### ***Diabetes Care Products***

The products of the Diabetes Care division are in vitro diagnostic (IVD) and medical device 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 (CDRH). 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, where possible we seek to obtain it on the grounds that the new product is substantially equivalent to a product the FDA has already cleared. For truly new IVD products, we must submit extensive data to the FDA based on actual clinical trials. FDA clearance usually takes between two and eighteen months, depending on the degree of novelty involved. After obtaining FDA clearance, we must report all adverse incidents in which a product was allegedly involved.

In the United States the FDA and, in part, the Federal Trade Commission, oversee the marketing, manufacturing and labeling of Diabetes Care products, while in the EU and in Japan, they are regulated by the Conformité Européenne (CE) and the MHLW, respectively. In the EU, 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 (PAL) regulates Diagnostic Care products. The Japanese Ministry of Health is currently implementing significant PAL reforms with which all IVD manufacturers and their Japanese representatives must comply. 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.

#### ***Animal Health Products***

Veterinary products must be examined and approved by regulatory agencies for quality, safety and efficacy before marketing in all countries. In the United States, the FDA's Center for Veterinary Medicine is responsible for ensuring that animal drugs 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 EPA.

In the EU, animal health products are subject to regulations similar to those governing the pharmaceutical sector. The Centralized Procedure is also governed by the EMEA, but the committee responsible for animal health products is the Committee for Medicinal Products for Veterinary Use. For details on the registration procedure within the EU, refer to *Pharmaceutical Products*.

#### ***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 operator and the environment. Strict standards are applied in the United States, Japan and in the EU. 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 relatively long evaluation period, which may include new requirements imposed on a company after it has submitted a dossier for approval, shortens a company's utilizable patent protection time. In some jurisdictions, part of the patent period lost due to the long regulatory process can be regained through the granting of a supplemental protection certificate.

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

authorities (*e.g.*, on the proposed replacing of the European Directive 91/414/ EEC concerning the placing of crop protection products on the market).

### ***Environmental Science Products***

In both the professional and the consumer pest control business, as in crop protection, our products must obtain 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 has been an increase of regulatory requirements for environmental science products, in particular in the United States, Europe and Japan. To some extent, the regulatory dossiers developed for crop protection products with the same active ingredients can also be used for regulatory purposes in the environmental science area.

In the EU, certain products sold in the professional pest control area, as well as pest control products available to consumers, fall under the Biocidal Products Directive (BPD), which requires that complete regulatory dossiers be developed before placing these products or active substances for use in such products on the EU market. Certain green industry products and consumer lawn and garden products are governed by the Plant Protection Directive, which requires authorization before products can be placed on the market.

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. Certain food-related regulatory requirements applicable to environmental science products exist in other regions, notably in the EU.

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. These regulatory procedures may lead to an increase in the time period required for and costs involved in developing new environmental science products.

### ***BioScience Products***

Plant biotechnology products, marketed by our BioScience business group, 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. The number of countries that have regulatory frameworks concerning plant technology is increasing each year and, in countries that already have such regulations, the requirements are also increasing or changing. The most important countries, based on their importance to us as an agricultural center and/or trading partner, include the United States, Canada, the EU, Japan, Brazil, Argentina, Australia and China. In the United States, the main regulatory authorities are the USDA, the FDA and the EPA. The EU has implemented a set of new regulations including the creation of a new EU Food Safety Authority. Similar regulations have been implemented in Japan. Many Asian countries have developed regulatory frameworks over the last few years, most recently China, Taiwan, Korea and the Philippines. With the Cartagena Protocol on BioSafety, which came into force in September 2003, it is expected that more countries will establish relevant regulatory frameworks over the next few years.

The timeframe for approvals varies substantially around the world. The development of the regulatory dossier generally takes two to three years. In the United States, Canada and Japan, the review of a regulatory dossier will typically take another one to two years. After over five years of moratoria and regulation changes, the EU is now operating under its new procedures with dossiers advancing slowly. To date the only significant progress has been on importation uses. Approvals of biotechnology-derived products for agricultural growing in the EU are not expected for some time yet.

### **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. We are monitoring further developments and participate in relevant stakeholder processes such as internet consultations of the

European Commission, projects (*e.g.*, EU research projects, European Partnership for Alternative Approaches to Animal Testing) and conferences.

Within the European Union a new regulation on chemicals (Registration, Evaluation, Authorization of Chemicals, REACH) has been adopted and will be enforced by June 2007. By this legislation new regulatory requirements will be imposed on the testing and assessment of chemicals. This may lead to increased costs and reduced margins for some products, and may affect the availability of certain chemicals. A strict project management has been established to meet the regulatory requirements of the REACH legislation.

In addition, the EU directive on emissions trading may affect our business opportunities, especially in Europe. The directive requires EU member states to meet the carbon dioxide emissions targets set for each member state under EU legislation and based on the Kyoto Protocol. Emissions levels have to be reduced by 21 percent in Germany and 7.5 percent in Belgium, in each case based on 1990 carbon dioxide emissions levels. Compliance and increasing prices for electricity may require material capital expenditures in the future depending on developments in the markets for emissions trading and energy.

A communication entitled *European Environment and Health Strategy* was published by the European Commission in June 2003 (SCALE). The strategy is intended to reduce the burden of disease caused by environmental factors in the EU by identifying and preventing new health threats caused by environmental factors. In furtherance of this strategy, the European Commission adopted the European Environment and Health Action Plan for 2004-2010 on June 9, 2004. Currently, specific consequences of SCALE on our business cannot be estimated, but we are monitoring further developments and participate in relevant stakeholder processes (*e.g.*, the Consultative Forum organized by the European Commission in this context).

#### **Health, Safety and Environmental Regulations**

The production and distribution of Bayer products involves the use, storage, transportation, handling 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;

incidental and other releases into the environment;

generation, handling, storage, transportation, treatment and disposal of hazardous and non-hazardous materials; and

construction and operation of facilities.

It is our policy to comply with all health, safety and environmental requirements and to provide workplaces for employees that are safe. We track, check and evaluate all environmental legal initiatives and laws regarding their potential impact on our current and past activities in order to develop appropriate measures in a timely and effective manner. 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 regulations that may require us to remove or mitigate the effects of the disposal or release of chemical substances into the environment. 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 the property, without regard as to whether it knew of or caused the presence of the contaminants, regardless of whether the contaminations resulted from common or best practices or practices of third parties and regardless of whether the practices were legal at the time they occurred. As many of our industrial sites have long histories, we cannot predict the full impact of these regulations on us. We cannot assure that all soil or groundwater contamination will be discovered.

In the United States, we are subject to potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, commonly known as *Superfund* ), the U.S. Resource

Conservation and Recovery Act and related state laws for investigation and clean-up costs at a

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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 those currently quantifiable costs.

It is difficult to estimate the future costs of environmental protection and remediation because of uncertainties about the status of regulations and their future developments. Taking into consideration our experience and currently known facts, we believe that capital expenditures and remedial actions to comply with environmental regulations will not have a material adverse effect on our financial position, results of operations or cash flows. As of December 31, 2006, we had reserved 262 million for environmental matters.

We believe that we are in substantial compliance with applicable health, safety and environmental laws and regulations. We devote considerable attention to the health and safety of our employees and the protection of public health and the environment. As a member of the International Council of Chemical Associations (ICCA) and the American Chemistry Council, Bayer is committed to the principles of the *Responsible Care Global Charter*, the chemical industry's health, safety and environmental performance improvement initiative.

While our compliance has not adversely affected our competitive position or business, we cannot predict the impact of possible future regulations. 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, stricter regulatory regimes could delay product development or restrict marketing and sales.

#### **ORGANIZATIONAL STRUCTURE**

As the management holding company of the Bayer Group, Bayer AG determines the long-term strategy for the Group and its subgroups and prescribes guidelines and principles for the corporate policy derived therefrom. Bayer AG holds equity interests in the subgroup management companies and the service companies (described below) and also in other domestic and foreign entities. The Bayer Group is managed by the four-member Board of Management of Bayer AG, which is supported by the Corporate Center. The Board of Management is responsible for the supervision of management and for the Group's financial management.

The Corporate Center, which provides services to the Board of Management and to the subgroup management companies, consists of the following corporate center functions: the Corporate Office; Communications; Investor Relations; Corporate Auditing; Corporate Human Resources & Organization; Corporate Development; Law & Patents, Insurance; Finance; Group Accounting & Controlling; Governmental & Product Affairs; and Regional Coordination.

The Bayer Group conducts its business operations in the three subgroups Bayer HealthCare, Bayer CropScience and Bayer MaterialScience. The subgroup management companies Bayer HealthCare AG, Bayer CropScience AG and Bayer MaterialScience AG, heading up the three subgroups, manage the business activities of the domestic and foreign affiliates assigned to them. Each subgroup is, within the framework of strategies, goals and guidelines determined by the Bayer AG Board of Management, an independent operating area with worldwide business accountability and its own management. Each of the subgroup management companies has entered into a domination and profit and loss transfer agreement with Bayer AG.

Three service companies, Bayer Technology Services GmbH, Bayer Business Services GmbH and Bayer Industry Services GmbH & Co. OHG (in which Bayer AG owns a 60 percent stake and LANXESS owns a 40 percent stake), provide support functions to the three subgroups as well as to Bayer AG.

For more information on our current organizational structure, see the introduction to *Business*.



**Subsidiaries**

The financial statements of the Bayer Group as of December 31, 2006 included 432 fully or proportionally consolidated companies, compared to 283 companies in 2005. The increase of 148 companies is largely due to the first-time inclusion of Schering AG's group companies in the second quarter of 2006.

The following table lists Bayer AG's principal consolidated subsidiaries for our continuing business as of December 31, 2006 and its beneficial ownership interest in each.

<b>Company Name and Place of Business</b>	<b>Bayer's Interest</b>
	(%)
<b><i>Germany</i></b>	
Bayer Business Services GmbH, Leverkusen	100
Bayer CropScience AG, Monheim	100
Bayer CropScience Deutschland GmbH, Langenfeld	100
Bayer CropScience GmbH, Frankfurt	100
Bayer HealthCare AG, Leverkusen	100
Bayer Industry Services GmbH & Co. OHG, Leverkusen	60
Bayer MaterialScience AG, Leverkusen	100
Bayer Schering GmbH, Leverkusen	100
Bayer Schering Pharma AG, Berlin	96.2
Bayer Technology Services GmbH, Leverkusen	100
Bayer Vital GmbH, Leverkusen	100
Schering Deutschland GmbH, Berlin	100
<b><i>Other European Countries</i></b>	
Bayer Antwerpen Comm.V, Belgium	100
Bayer Biologicals S.r.l., Italy	100
Bayer Consumer Care AG, Switzerland	100
Bayer CropScience France S.A.S., France	100
Bayer CropScience Limited, U.K.	100
Bayer CropScience S.A., France	99.9
Bayer CropScience S.r.l., Italy	100
Bayer International S.A., Switzerland	99.7
Bayer Pharma SAS, France	99.9
Bayer Polyols S.N.C., France	100
Bayer Polyurethanes B.V., The Netherlands	100
Bayer Public Limited Company, U.K.	100
Bayer S.p.A., Italy	100
Bayer SP.Z.O.O., Poland	100
Quimica Farmaceutica Bayer, S.A., Spain	100

Company Name and Place of Business	Bayer's Interest (%)
<b>North America</b>	
Bayer Corporate and Business Services LLC, USA	100
Bayer CropScience Inc., Canada	100
Bayer CropScience LP, USA	100
Bayer HealthCare LLC, USA	100
Bayer Inc., Canada	100
Bayer MaterialScience LLC, USA	100
Bayer Pharmaceuticals Corporation, USA	100
BAYPO Limited Partnership, USA	100
Berlex Inc., USA	100
Medrad, Inc., USA	100
<b>Asia/Pacific</b>	
Bayer Australia Limited, Australia	99.9
Bayer CropScience K.K., Japan	100
Bayer HealthCare Co. Ltd., China	100
Bayer Korea Ltd., Republic of Korea	100
Bayer MaterialScience Limited, Hong Kong	100
Bayer MaterialScience Trading (Shanghai) Company Limited, China	100
Bayer Thai Company Limited, Thailand	99.9
Bayer Yakuhin, Ltd., Japan	100
Nihon Schering K.K., Japan	100
Sumika Bayer Urethane Co., Ltd., Japan	60
<b>Latin America/Africa/Middle East</b>	
Bayer (Proprietary) Limited, South Africa	100
Bayer de Mexico, S.A. de C.V., Mexico	100
Bayer S.A., Argentina	99.9
Bayer S.A., Brazil	99.9
Bayer Türk Kimya Sanayi Limited Sirketi, Turkey	100

Also included in the consolidated financial statements are the following material associated companies:

Company Name and Place of Business	Bayer's Interest (%)
Lyondell Bayer Manufacturing Maasvlakte VOF, The Netherlands	50.0
Palthrough Industries (1998) Ltd., Israel	25.0
PO JV, LP, USA	43.4
Polygal Plastics Industries Ltd., Israel	25.8

#### PROPERTY, PLANTS AND EQUIPMENT

We operate through a large number of offices, research and development facilities and production sites throughout the world. The principal executive offices of Bayer AG are located in Leverkusen, Germany. Our key production facilities are located in Germany and the United States. We also have other properties, including office buildings, laboratories and distribution centers throughout the world. For the major research and development

facilities by segment please refer to *Markets and Distribution* and *Research and Development* for each of the segments.

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 possessor interests conferring substantially the same rights of use as ownership (for example, German-law hereditary building rights or *Erbbaurechte* and granted land-use rights in Asian countries).

We believe that our production plants and manufacturing facilities have capacities adequate for our current and projected needs. In 2006, liabilities of 3 million (2005: 7 million) were secured by mortgages.

The acquisition of the business of Schering AG, Berlin, Germany includes major production sites in Germany, Finland and the United States. For further details on the acquisition, refer to *History and Development of the Company*.

As part of the divestiture of the Diagnostics division, eight sites with offices and production facilities located in five countries ceased to be part of the Bayer Group. For further details on the divestiture, refer to *History and Development of the Company* and to Item 5, *Operating and Financial Review and Prospects - Operating Results 2004, 2005 and 2006 - Discontinued Operations - Diagnostics*.

The following table summarizes our major facilities by subgroup:

<b>Location</b>	<b>Size of developed property in thousand square meters</b>	<b>Major use</b>
<i>Bayer HealthCare</i>		
Leverkusen, Germany	125	Formulation and packaging of pharmaceutical products
Wuppertal, Germany	448	Production of active ingredients for ethical pharmaceutical products, research and development
Berkeley, California	112	Production of recombinant FVIII
Myerstown, Pennsylvania	44	Formulation and packaging of Consumer Care products
Mishawaka, Indiana	32	Production of instruments for Diabetes Care division
Bergkamen, Germany	505	Production of active pharmaceutical ingredients, administration
Berlin-Wedding, Germany	173	Production and packaging of contrast media; packaging of solids; research and development, offices
Turku, Finland	98	Production of gynecological and andrological products, and solids (Oncology); research and development, offices
<i>Bayer CropScience</i>		
Monheim, Germany	650	Research and development of insecticidal and fungicidal active ingredients, global Bayer CropScience headquarters
Frankfurt, Germany	90	

Dormagen, Germany	140	Research and development of herbicidal active ingredients, manufacturing for Crop Protection and Environmental Science
Kansas City, Missouri	340	Manufacturing for Crop Protection and Environmental Science, industrialization of new active ingredients
Haelen, The Netherlands	560	Manufacturing for Crop Protection and Environmental Science
		Research and development as well as production of seeds for BioScience

<b>Location</b>	<b>Size of developed property in thousand square meters</b>	<b>Major use</b>
<i>Bayer MaterialScience</i>		
Krefeld-Uerdingen, Germany	208	Production of polycarbonates, diphenylmethane diisocyanates, chlorine, caustic soda, hydrochloric acid and hydrogen
Baytown, Texas	1,628	Production of base- and modified isocyanates, polycarbonates, diphenylmethane diisocyanates, toluene diisocyanates, chlorine, caustic soda, hydrochloric acid and hydrogen
Dormagen, Germany	264	Production of modified isocyanates, resins, polycarbonate films, toluene diisocyanates, polyether, thermoplastic polyurethanes, chlorine, caustic soda, hydrochloric acid and hydrogen
Antwerp, Belgium	639	Production of polycarbonates, aniline, nitrobenzene and polyether
Brunsbüttel, Germany	137	Production of diphenylmethane diisocyanates, toluene diisocyanates, chlorine, hydrochloric acid and hydrogen

Since the end of 2003, Bayer MaterialScience has been expanding capacities and establishing large-scale facilities at its integrated production site in Caojing, China (near Shanghai), as presented in the following table:

	<b>Plant Capacity (in kt)</b>	<b>Start-Up</b>	<b>Status</b>
Coatings, Adhesives, Sealants ( <i>Desmodur</i> <sup>®</sup> N)	12	April 2003	In operation
Coatings, Adhesives, Sealants ( <i>Desmodur</i> <sup>®</sup> L)	11	January 2005	In operation
Polycarbonates (Compounding)	40	July 2005	In operation
Polycarbonates (PCS Phase I)	100	September 2006	In operation
Polyurethanes (MDI Phase I, MMDI-Splitter),	80	September 2006	In operation
Coatings, Adhesives, Sealants (HDI-4)	30	February 2007	In operation
Polyurethanes (MDI Phase II)	350	2008	Under construction
Polycarbonates (PCS Phase II)	100	2008	Under construction
Polyurethanes (TDI)	300	2009	Planning phase

For information on environmental issues relating to Bayer's properties see *Business – Governmental Regulation Health, Safety and Environmental Regulations*. Additional information regarding Bayer's property, plant and equipment is contained in Item 5, *Operating and Financial Review and Prospects – Liquidity and Capital Resources*

2004, 2005 and 2006 *Capital Expenditures* and in Note 18 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

**Item 4A. *Unresolved Staff Comments***

None.

### **Item 5. *Operating and Financial Review and Prospects***

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 on Form 20-F. 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 stockholders' equity to U.S. GAAP, see Note 41 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. See *Forward-Looking Information*.

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 *Critical Accounting Policies*, below.

In connection with IFRS 5, as well as the application of related IFRS standards, the financial information presented in this annual report on Form 20-F for 2004, 2005 and 2006 only reflects continuing operations of the Bayer Group and its segments, except where specific reference is made to discontinued operations. The 2004 and 2005 figures for operating result, non-operating result, operating expenses and related key figures have been restated to give effect to this form of presentation. For more details, refer to Note 2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

#### **OVERVIEW**

We are a global company focusing on our strengths in the fields of health care, nutrition and innovative materials. Our goal is to strengthen the competitiveness of our businesses in the HealthCare, CropScience and MaterialScience subgroups by concentrating on the special needs of these businesses.

Bayer comprises the parent company, Bayer AG of Leverkusen, Germany, and approximately 430 consolidated subsidiaries. We are organized into three subgroups and, for reporting purposes, structured into six reportable segments: Pharmaceuticals; Consumer Health; Crop Protection; Environmental Science, BioScience; Materials and Systems. For further information on our organizational structure, see Item 4, *Information on the Company - Business and Organizational Structure*.

With effect from June 23, 2006, we acquired a majority of the shares of Schering AG, Berlin, Germany (subsequently renamed Bayer Schering Pharma AG), which is fully consolidated in the Bayer Group financial statements beginning on that date. (The names Bayer Schering Pharma or Schering as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. The reference to Bayer Schering Pharma AG or Schering AG also includes business conducted by affiliated entities. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.) In 2006, we completed the process of entering into agreements to divest our Diagnostics division and our H.C. Starck and Wolff Walsrode businesses. These transactions are expected to close or have already closed in 2007. For our principal acquisitions and divestitures during the last three years, refer to Item 4, *Information on the Company - History and Development of the Company* and Note 7.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

#### **CRITICAL ACCOUNTING POLICIES**

The preparation of the financial statements for the Bayer Group requires the use of estimates and assumptions. These affect the classification and valuation of assets, liabilities, income, expenses and contingent liabilities. Estimates and assumptions mainly relate to the useful life of noncurrent assets, the discounted cash flows used in impairment testing and the establishment of provisions for litigation, pensions and other benefits, taxes, environmental protection, inventory valuations, sales allowances, product liability and guarantees.



Estimates are based on historical experience and other assumptions that are considered reasonable under the circumstances. Actual values may vary from the estimates. The estimates and the assumptions are continually reviewed.

To enhance the information content of the estimates, certain provisions that could have a material effect on the financial position and results of operations of the Group are selected and tested for their sensitivity to changes in the underlying parameters. To reflect uncertainty about the likelihood of the assumed events actually occurring, the impact of a 5 percent change in the probability of occurrence is examined in each case. For long-term interest-bearing provisions, the impact of a 1 percent change in the interest rate used is analyzed. Analysis has not shown other provisions to be materially sensitive. The interest sensitivity of pension obligations is discussed in Note 25 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

Critical accounting and valuation policies and methods are those that are both most important to the portrayal of the Bayer Group's financial position, results of operations and cash flows, and that require the application of difficult, subjective and complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain and may change in subsequent periods. The critical accounting policies that we disclose will not necessarily result in material changes to our financial statements in any given period but rather contain a potential for material change. The main accounting and valuation policies used by the Bayer Group are outlined in Note 4.3 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F. While not all of the significant accounting policies require difficult, subjective or complex judgments, the Company considers that the following accounting policies should be considered critical accounting policies.

#### **Intangible assets and property, plant and equipment**

As discussed in Notes 17 and 18 appearing elsewhere in this annual report on Form 20-F, at December 31, 2006 the Bayer Group had intangible assets with a net carrying amount of \$24,034 million including goodwill of \$8,227 million, and property, plant and equipment with a net carrying amount of \$8,867 million. Intangible assets with finite useful lives and property, plant and equipment are amortized over their estimated useful lives. The estimated useful lives are based on estimates of the period during which the assets will generate revenue.

Intangible assets with finite useful lives and property, plant and equipment are tested for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may no longer be recoverable. Goodwill and intangible assets with indefinite useful lives must be tested annually for impairment. In compliance with IAS 36 (Impairment of Assets), impairment losses are measured by comparing the carrying amounts to the discounted cash flows expected to be generated by the respective assets. Where it is not possible to estimate the impairment loss for an individual asset, the loss is assessed on the basis of the discounted cash flow for the cash-generating unit to which the asset belongs. Estimating the discounted future cash flows involves significant assumptions, especially regarding future sales prices, sales volumes and costs. The discounting process is also based on assumptions and estimations relating to business-specific costs of capital, which in turn are based on country risks, credit risks as well as additional risks resulting from the volatility of the respective line of business. The present value of future cash flows measures an asset's value based on our continuing use of the asset and its retirement at the end of its useful life. Further information on the procedure for impairment testing and the residual carrying amounts of goodwill at the balance sheet date is presented in Note 4.5 and Note 17 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F, respectively.

To illustrate the Bayer Group's impairment loss measurement on a segment level, if the actual present value of future cash flows were 10 percent lower than the anticipated present value, the net carrying amount of goodwill in the Crop Protection segment as of December 31, 2006 would have to be impaired by \$146 million. In the Systems segment, the net carrying amounts of goodwill and intangible assets as of December 31, 2006 would have to be impaired by \$42 million. We have focused our analysis on the Crop Protection and Systems segments because we believe that these are the only of our segments where impairments of goodwill and other intangibles under the assumptions described above are reasonably likely to have a material adverse effect on the results of operations of the respective segments. If the weighted average cost of capital used for the impairment test were



increased by 10 percent, assets of the Crop Protection and Systems segment would have to be impaired by 85 million or 34 million, respectively. In quantifying our sensitivity analysis, we modeled a 10 percent decline as a negative change up to this magnitude is in our view reasonably likely. We do not now believe that greater changes are reasonably likely given our experiences in the Crop Protection and System segments.

Applying these policies, we recognized impairment charges in each of the years 2006, 2005 and 2004. The following table sets forth these charges based on their allocation to our continuing businesses and our discontinued operations.

	2004	2005	2006
	(Euros in millions)		
Impairment charges (continuing operations)	26	77	172
Impairment charges (discontinued operations)	63	0	18
<b>Total impairment charges</b>	<b>89</b>	<b>77</b>	<b>190</b>

In 2004 and 2005, we recognized impairment charges largely as a result of our decisions to close or relocate several facilities and sites within our continuing businesses as part of our strategic reorientation and focus on our core businesses.

The impairment charges within discontinued operations 2004 related to the sale of our plasma business ( 24 million in 2004) and the spin-off of the former LANXESS segment ( 39 million in 2004). We recorded an additional 24 million impairment charge related to this business in 2004 based on price negotiations with the purchaser. We updated our cash flow assumptions for the LANXESS businesses as a result of sustained pressure on its margins resulting from adverse foreign exchange rates, ongoing consolidation in customers in the industries LANXESS served, overcapacities in certain market segments and an increase in competition, particularly from Asian suppliers. We recognized an additional 39 million in impairment charges for the spun off LANXESS businesses in 2004 due to further revisions of the economic assumptions within the strategic business entities Performance Chemicals, Engineering Plastics and Chemical Intermediates.

Impairment charges and write-downs on tangible assets in 2005 originated especially from our decision to shut down or to relocate different production facilities and sites in the United States in our continuing operations ( 33 million). Also, in 2005 capitalized marketing rights for our product, *Viadrin*<sup>®</sup>, were impaired by 15 million because of unfavorable market conditions related to the product (*e.g.*, additional competition from other manufacturers). We revised this estimate in 2006 and wrote off the remaining intangible asset of 19 million.

Impairment charges and write-downs in 2006 were predominantly due to further restructurings of our sites in the United States ( 14 million) partly related to acquisitions as well as changes in plans for the expansion of our chlorine alkali facilities in Baytown, Texas ( 31 million). In addition, restructuring efforts pursued in the year 2006 within the Bayer CropScience subgroup and the Bayer Industry Services GmbH & Co. OHG resulted in impairment charges and write-downs on tangible assets of 19 million and 30 million, respectively. In 2006 the capitalized costs of an acquired development project for the product alfineprase within the Bayer HealthCare subgroup were impaired by 41 million. Within discontinued operations an impairment charge was recognized within the H.C. Starck group for its battery business in Canada ( 17 million).

Although we believe that our estimates of the relevant expected useful lives, our assumptions concerning the macroeconomic environment and developments in the industries in which the Bayer Group operates, and our estimations of the discounted future cash flows, are appropriate, changes in assumptions or circumstances could require changes in the analysis. This could lead to additional impairment charges in the future or to valuation write-backs should the trends we expect reverse.

### **Research and development**

In addition to the in-house research and development activities, various research and development collaborations and alliances are maintained with third parties. These collaborations and alliances involve provision of funding and/or payments for the achievement of performance milestones. All research costs are expensed as incurred. Since development projects are subject to regulatory approval procedures and other

uncertainties, the conditions for the capitalization of development costs incurred with respect to in-house research and development activities before receipt of regulatory approvals are not satisfied, and these costs are also expensed as incurred. With respect to costs incurred in collaborations and alliances with third parties, under IAS 38 (revised), which entered into effect on January 1, 2005, milestone payments relating to acquired assets in development must be capitalized to the extent that they are related to the acquisition of the related technology rights, even if uncertainties exist as to whether the research and development will ultimately be successful in producing a saleable product. If research and development collaborations are embedded in contracts for a strategic alliance, considerable judgment is involved in determining whether milestone-based payments reflect the funding of research and development or if they are related to the acquisition of an underlying compound or other rights. Factors considered in reaching this determination are (a) the nature of the payment, for example whether it is related to regulatory approval, a sales target or outsourced research and development activities, and (b) the relative fair values of the planned research and development activities compared to the total value of the payment.

#### **Net sales**

We recognize revenue for product sales and the rendering of services when:

the significant risks and rewards of ownership of the goods are transferred to the customer,

the company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold,

the amount of revenue and costs incurred or to be incurred can be measured reliably, and

it is probable that the economic benefits associated with the transaction will flow to the company.

At the time revenue is recognized, we also record estimates for revenue deductions including cash discounts, rebates and product returns. Also, we record revenues net of items we collect on behalf of third parties, such as sales taxes and goods and service taxes. We report our net sales after deducting all sales deductions from our gross revenue.

The majority of our sales deductions are subject to formula-based determination using factors such as a fixed percentage of the sales volume or gross sales proceeds. Accordingly, estimates related to sales deductions are predominantly based on historical experience, specific contractual terms and future expectations of our sales development in each of our business segments. We believe that assumptions other than those that we discuss are not reasonably likely to occur or not applicable to our business. We estimate the potential for future variability in provisions for anticipated sales deductions to be insignificant with respect to our reported operating results. We have not made adjustments to our provisions for rebates, cash discounts or returns for sales made in prior periods that were material in relation to our income before income taxes in any of the periods covered by the financial statements included in this annual report on Form 20-F.

Provisions for rebates were 1.6 percent of our total net sales in 2006 (2005: 1.4 percent; 2004: 1.5 percent). In addition to rebates, we offer cash discounts for prompt payment in some countries. Our provisions for cash discounts were less than 0.1 percent of total net sales as of December 31, 2006, 2005 and 2004.

We deduct provisions for returned defective goods or related to contractual arrangements to return saleable products on the date of sale or at the time when the amount of future returns can be reasonably estimated. If future product returns cannot be reasonably estimated and are significant to the sale transaction, both the recognition of revenues and of the related cost of sales are deferred until an estimate may reasonably be made or when the right to return the goods has expired. Provisions for product returns were 0.1 percent of total net sales in 2006 (2005: 0.3 percent; 2004: 0.3 percent).

Some of the Bayer Group's revenues are generated from licensing agreements under which third parties are granted rights to certain of our products and technologies. Upfront payments and similar non-refundable payments received under these agreements are recorded as other liabilities and recognized in income over the estimated performance period stipulated in the agreement. Milestone payments linked to the achievement of a significant and substantive technical/regulatory hurdle in the research and development process, pursuant to collaborative agreements, are

recognized as revenue upon the achievement of the specified milestone. Revenues

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are also derived from research and development collaborations and co-promotion agreements. Such agreements may consist of multiple elements and provide for varying consideration terms, such as upfront, milestone and similar payments, which may be complex and require significant analysis by management in order to separate individual revenue components and recognize them on the most appropriate dates. This may have to be done partially on the basis of assumptions.

#### **Pensions and other post-employment benefits**

Group companies provide retirement benefits for most of their employees, either directly or by contributing to independently-administered funds. The way these benefits are provided varies according to the legal, fiscal and economic conditions of each country, the benefits generally being based on the employees' remuneration and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees. Group companies provide retirement benefits under defined contribution and/or defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. All other retirement benefit systems are defined benefit plans, which may be either unfunded, *i.e.*, financed by provisions (accruals), or funded, *i.e.*, financed through pension funds. Statistical and actuarial methods are used to anticipate future events in calculating the expenses and liabilities related to the plans. These calculations include assumptions about the discount rate, expected return on plan assets and rate of future compensation increases.

The interest rate used to discount post-employment benefit obligations to present value is derived from the yields of senior, high-quality corporate bonds in the respective country at the balance sheet date. These generally include AA-rated securities. The discount rate is based on the yield of a portfolio of bonds whose weighted residual maturities approximately correspond to the duration necessary to cover the entire benefit obligation. If AA-rated corporate bonds of equal duration are not available, a discount rate equivalent to the effective interest rate for government bonds at the balance sheet date is used instead but increased by about 0.5 to 1.0 percentage point since corporate bonds generally provide higher yields by virtue of their risk structure.

Determination of the discount rate is also based on a bond portfolio corresponding to the expected cash outflows from the pension plans. The average return of this bond portfolio serves as our benchmark when determining the discount rate.

The assumption for the expected return-on-assets reflects a long-term global capital market return that corresponds to the duration of the pension obligation, and a diversified investment strategy. The investment policy of Bayer Pensionskasse is geared toward regulatory compliance and toward maintaining the risk structure corresponding to the benefit obligations. To this end, Bayer Pensionskasse has developed a strategic target portfolio commensurate with the risk profile. This investment strategy focuses principally on stringent management of downside risks rather than on maximizing absolute returns. In other countries, too, the key criteria for the funds' investment strategies are the structure of the benefit obligations and the risk profile. Other determinants are risk diversification, portfolio efficiency and a country-specific and global risk/return profile capable of ensuring payment of all future benefits. The expected return is applied to the fair market value of plan assets at each year end.

Statistical information such as withdrawal and mortality rates is also used in estimating the expenses and liabilities under the plans. Because of changing market and economic conditions, the expenses and liabilities actually arising under the plans in the future may differ materially from the estimates made on the basis of these actuarial assumptions. The plan assets are partially comprised of equity and fixed-income instruments. Therefore, declining returns on equity markets and markets for fixed-income instruments could necessitate additional contributions to the plans in order to cover future pension obligations. Also, higher or lower withdrawal rates or longer or shorter life of participants may have an impact on the amount of pension income or expense recorded in the future.

On December 31, 2006, the present value of our defined benefit obligations for pensions and other post-employment benefits payable under defined benefit plans was 16,708 million. Note 25 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F contains an analysis of the





sensitivities of our defined benefit obligation to a 0.5 percent increase or decrease in any of our discount rate, projected remuneration increases and projected future benefit increases and the effects on our results of operations in which these changes would result. It also sets forth the changes in our accumulated actuarial losses related to changes in these actuarial parameters.

### **Environmental provisions**

The business of the Bayer Group is subject to a variety of laws and regulations in the jurisdictions in which it operates or maintains properties. Provisions for expenses that may be incurred in complying with such laws and regulations are set aside if environmental inquiries or remediation measures are probable, the costs can be reliably estimated and no future benefits are expected from such measures. Our provisions for environmental protection measures amounted to 262 million on December 31, 2006 and 279 million on December 31, 2005.

It is difficult to estimate the future costs of environmental protection and remediation because of many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions we obtain regarding our environmental programs, current costs and new developments affecting costs, management's interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods which are likely to be deployed. Changes in these assumptions could impact future reported results. Subject to these factors, but taking into consideration experience gained to date regarding environmental matters of a similar nature, we believe our provisions to be adequate based upon currently available information. There were no significant changes in our assumptions or estimates that impacted our statements of income in 2004, 2005 or 2006.

However, given the inherent difficulties in estimating liabilities in the businesses in which we operate, especially those for which the risk of environmental damage is relatively greater (CropScience and MaterialScience), it remains possible that material additional costs will be incurred beyond the amounts accrued. It is possible that final resolution of these matters may require expenditures to be made in excess of established provisions, over an extended period of time and in a range of amounts that cannot be reasonably estimated. Management nevertheless believes that such additional amounts, if any, would not have a material adverse effect on the Group's financial position or results of operations. Further information on environmental provisions can be found in Note 26.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

### **Litigation provisions**

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, patent disputes, tax assessments, competition and antitrust law, and environmental matters. The outcome of the currently pending and future proceedings cannot be predicted with certainty. Thus, an adverse decision in a lawsuit could result in additional costs that are not covered, either wholly or partially, under insurance policies and that could significantly impact the business and results of operations of the Bayer Group. If the Bayer Group loses a case in which it seeks to enforce its patent rights, a decrease in future earnings could result as other manufacturers could be permitted to begin to market products that the Bayer Group or its predecessors had developed.

Litigation and other judicial proceedings as a rule 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, issues regarding the jurisdiction in which each suit is brought and differences in applicable law. Upon resolution of any pending legal matter, the Bayer Group may be forced to incur charges in excess of the presently established provisions and related insurance coverage. It is possible that the financial position, results of operations or cash flows of the Bayer Group could be materially affected by the unfavorable outcome of litigation. Litigation and administrative proceedings are evaluated on a case-by-case basis considering the available information, including that from legal counsel, to assess potential outcomes. Where it is considered probable that a future obligation will result in an outflow of resources, a provision is recorded in the amount of



the present value of the expected cash outflows if these are deemed to be reliably measurable. These provisions cover the estimated payments to plaintiffs, court fees, attorney costs and the cost of potential settlements. We have in the past adjusted existing provisions as proceedings have continued, been settled or otherwise provided further information on which we could review the likelihood of outflows of resources and their measurability, and we expect to continue to do so in future periods.

During 2004, we recorded the following litigation related charges: 83 million in respect of fines paid in antitrust proceedings for rubber and urethane products, 47 million with respect to the *Lipobay/ Baycol* proceedings and 16 million with respect to the *Phenylpropanolamine* (PPA) proceedings.

During 2005, we had operating charges based on our expected payments totaling 336 million related to our rubber-and urethane-related antitrust proceedings, as well as charges in respect of our *Lipobay/ Baycol* proceedings ( 43 million) and our PPA proceedings ( 62 million).

Provisions for litigation-related expenses totaled 434 million on December 31, 2006. During 2006, we recorded 135 million other operating expenses on the basis of expected payments, which mainly relate to proceedings in connection with *Lipobay/ Baycol* ( 35 million), to a patent infringement proceeding ( 24 million) and to proceedings in connection with former rubber product lines ( 51 million). We refer to the antitrust proceedings in connection with urethane products and rubber products collectively as antitrust proceedings related to polymer products elsewhere in this annual report on Form 20-F.

Further details on legal risks and the related effects on our results of operations are contained in Item 8 as well as in Notes 32 and 41 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

#### **Income taxes**

To compute provisions for taxes, estimates have to be made. Estimates are also necessary to determine whether valuation allowances are required against deferred tax assets. These involve assessing the probabilities that deferred tax assets resulting from deductible temporary differences and tax losses can be utilized to offset taxable income.

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate adjustments to tax income and expense in future periods. The Group establishes what it believes to be reasonable provisions for possible consequences of audits by the tax authorities of the respective countries. The amount of such provisions is based on various factors, such as experience with previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective Group company's domicile. On December 31, 2006, net liabilities for current tax payments amounted to 908 million, and net deferred tax liabilities amounted to 3,141 million. We reversed provisions in our U.S. subsidiary totaling 104 million in 2005 that related to tax positions taken in periods that were closed with the Internal Revenue Service.

Further information on income taxes is provided in Note 14 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

#### **Acquisition accounting**

We account for the acquired businesses using the purchase method of accounting which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The application of the purchase method requires certain estimates and assumptions especially concerning the determination of the fair values of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed at the date of the acquisition. Moreover the useful lives of the acquired tangible and intangible assets have to be determined. The judgments made in the context of the purchase price allocation can materially impact our future results of operations. Accordingly, for significant acquisitions, we obtain assistance from third

party valuation specialists. The valuations are based on information available at the acquisition date. Significant judgments and assumptions made regarding the purchase price allocation in the course of the acquisition of Schering AG, Berlin, Germany included the following:

For intangible assets associated with products, product related technology, and qualified in-process research and development (IPR&D) we base our valuation on the expected future cash flows using the Multi-Period Excess Earnings approach. This method employs a discounted cash flow analysis using the present value of the estimated after-tax cash flows expected to be generated from the purchased intangible asset using risk adjusted discount rates and revenue forecasts as appropriate. The period of expected cash flows was based on the individual patent protection, taking into account the term of the product's main patent protection and essential extension of patent protection, as well as market entry of generics, considering sales, volume, prices, potential defense strategies and market development at patent expiry.

For the valuation of brands the relief-from-royalty method was applied which includes estimating the cost savings that result from the company's ownership of trademarks and licenses on which it does not have to pay royalties to a licensor. The intangible asset is then recognized at the present value of these savings. The brand-specific royalty rates were calculated using a product-specific scoring model. The corporate brands Schering and Medrad were assumed to have an unlimited life. (Please note that the rights to the name Schering in the United States and Canada do not belong to us but to Schering-Plough Corporation, New Jersey. Schering-Plough Corporation and the company acquired by Bayer in June 2006, *i.e.*, Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, are unaffiliated companies that have been totally independent of each other for many years.) Product brands, however, were assumed to have limited lives depending on the respective products' life cycles. The expected amortization of these assets is determined on the basis of expected product-specific revenues.

The net carrying amount of acquired intangible assets after a step-up of 11,745 million resulting from the purchase price allocation was 12,042 million, as of June 23, 2006. This figure includes 1,191 million for IPR&D which relates to new compounds development as well as new versions of existing drugs. The valuation of acquired intangible assets is to a great extent based on anticipated cash flows. Nevertheless it is not impossible that actual outcomes vary significantly from such estimated future cash flows. In particular, the estimation of discounted cash flows of intangible assets under development and developed technologies is subject to highly sensitive assumptions, which are closely related to the nature of our pharmaceutical activities and whose changes may have material consequences such as:

Outcome of research and development activities regarding compound efficacy, results of clinical trials, etc.;

Probability of obtaining regulatory approval in several countries;

Long-term sales forecast;

Anticipation of selling price erosion rates after the end of patent protection due to generic competition in the market;

Behavior of competitors (launch of competing products, marketing initiatives, etc.).

Measures pursued in the course of restructuring efforts such as the closing of facilities or changes in the planned use of buildings, machinery or equipment may result in shortened useful lives or impairments.

For land acquired in general the comparison approach was based on the fair market values of properties situated in locations similar to those of the acquired properties and utilized for similar purposes. Unitary land values were derived from public or official sources and expert appraisals such as those made by advisory committees, contained in market reports or produced by local real estate agents. For buildings that could be leased, the income approach was predominantly applied, discounting projected rental charges.

For technical equipment and machinery as well as for other equipment the indirect cost approach was applied, utilizing replacement costs. These costs are depreciated on a straight-line basis over the assets' economic



useful life according to an age analysis. Utilization and condition of the related technical equipment and machinery were reflected by adjustments and deduction for obsolescence.

The valuation of the patented finished goods on stock at date of acquisition and work in process was based on the corresponding selling price less estimated costs of completion or estimated costs to make the sale.

The excess of the purchase price for Schering AG over the estimated fair values of the net assets acquired is recorded as goodwill amounting to 5,771 million as of June 23, 2006. The step-ups have led to a corresponding deferred tax liability of 4,546 million as of June 23, 2006, which will be amortized analogously to the respective assets.

## **OPERATING RESULTS 2004, 2005 AND 2006**

### **Introduction**

#### ***Most significant drivers of our sales, results of operations and cash flows in 2006***

The most significant drivers of our sales, results of operations and cash flows in 2006 were:

Acquisition and divestiture activities particularly our acquisition of Schering (The names Bayer Schering Pharma or Schering as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. The reference to Bayer Schering Pharma AG or Schering AG also includes business conducted by affiliated entities. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.);

The general economic situation and the continued positive business climates in the industries of some of our customers in the course of 2006; and

Raw materials, pricing *i.e.*, the effects on our results of operations of the increased prices of petrochemical raw materials, other precursors and energy.

In addition, we present charges and expenses in connection with the transactions and other measures we have been taking as part of the strategic reorientation of our business and the related reorganization of our remaining businesses in order to assist readers in understanding the effects of these measures on our results of operations. Moreover, we separately disclose charges relating to several major legal matters that we distinguish from our ongoing operations. For details refer to *Expenses and gains relating to the reorientation of our business and to other material unusual effects*.

**Acquisition and divestiture activities***Effects on net sales from acquisitions and divestitures*

Acquisitions and divestitures during 2006 and 2005 had a positive effect on net sales in 2006 of 3,025 million, and acquisitions and divestitures during 2005 and 2004 had a positive effect on net sales in 2005 of 2,070 million. These portfolio changes affected the comparison between the three years' sales figures as shown in the following two tables:

	<b>Change in 2006 from 2005</b>
	<b>(Euros in millions)</b>
<i>Acquisitions</i>	
Schering AG, Germany	3,082
Other	24
	3,106
<i>Divestitures</i>	
Termination of distribution activities for Plasma in Canada (divested in 2005)	(100)
<i>Net sales to LANXESS</i> (until spin-off on January 31, 2005, sales to LANXESS were classified as internal sales)	69
Disposition of several active ingredients, CropScience in 2005	(50)
	(81)
Net effects on sales	3,025

	<b>Change in 2005 from 2004</b>
	<b>(Euros in millions)</b>
<i>Acquisitions</i>	
Roche consumer health business	1,061
<i>Divestitures</i>	
<i>Net sales to LANXESS</i> after the spin-off on January 31, 2005 (in 2004, sales to LANXESS were classified as internal sales)	981
Other (net effect)	28
Net effects on sales	2,070

*Effect on operating result from the purchase price allocation in connection with the acquisition of Schering AG, Berlin, Germany*

When we consolidated the acquired Schering businesses, we allocated the purchase price for those businesses among the assets and liabilities we acquired, in accordance with IFRS 3 (Business Combinations). Further details concerning these allocations are set forth in Note 7.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F and in *Critical Accounting Policies Acquisition accounting*.

The purchase price allocation as of December 31, 2006 remains preliminary with respect to the restructuring plans under consideration, the ongoing negotiations with Novartis regarding *Betaferon*<sup>®</sup>/*Betaseron*<sup>®</sup> and other events occurring after the balance sheet date that will improve our understanding of the fair values. One of the effects of the purchase price allocation is an upward revaluation or step-up of the acquired inventories and non-current assets. Most of the non-current assets subject to the step-up are intangible assets related to production (*e.g.*, patents, production know-how, etc.). Our annual amortization charges will be materially increased by



approximately 1 billion per annum as a result of the step-up for a weighted average period of 14 years. This in turn will result in a long-term increase in the cost of production of goods manufactured after the acquisition date.

The step-up in value of the acquired inventory of 848 million, by contrast, will materially affect our results of operations in the short term, as we will recognize the difference between the sales prices of the affected inventory we sell and its stepped-up values as charges to our earnings in the periods in which the inventory is sold. About 50 percent of the charges relating to the inventory step-up have been recognized in 2006 and the remaining ones are expected to be recognized until 2008. See also *Critical Accounting Policies Acquisition accounting*.

*Effect on operating result from Schering AG integration*

In 2006, we incurred expenses totaling 179 million in connection with the integration of Schering AG, Berlin, Germany. This amount includes an offsetting gain of 74 million from the related sale of a building. The expenses mainly relate to severance and retention payments, restructuring activities and accelerated asset depreciation, and external advisors.

*Effect on cash flows from Schering AG acquisition*

The cash outflow in connection with the acquisition of Schering, AG, Berlin, Germany totaled 15.2 billion, including the purchase price for 96.24 percent of the outstanding shares of Bayer Schering Pharma AG (as of December 31, 2006), less the assumed cash and cash equivalents of approximately 1 billion. In addition, we assumed financial liabilities of 0.2 billion. For further details refer to *Liquidity and Capital Resources 2004, 2005 and 2006 Cash Flows Financing Activities*.

**General Economic Situation**

The dynamic pace of global economic growth established in 2005 continued into 2006, although the upswing slowed down somewhat during the course of the year. Due to brisk demand for raw materials, especially in Asia and the United States, coupled with political instability in some oil-producing countries, the price of oil rose significantly in the first half of 2006, clouding the general economic picture. Economic expansion nonetheless remained remarkably robust and became much more broadly based as the year progressed, buoyed in the second half by still favorable monetary conditions and relenting pressure from oil prices. The positive economic trend spurred the employment markets in the major industrialized countries, with private consumption being strengthened as a result. Slackening growth in the United States was partially offset by more rapid expansion in Europe. Growth in the emerging economies remained basically robust throughout the year.

**Raw Materials, Pricing**

The single most important factor that affects our costs is the price of raw materials especially for our Materials and Systems products. Petrochemical feedstocks are important raw materials in many of our products, especially in our Materials and Systems segments. We do not produce petrochemical raw materials. For this reason and due to the volatility of oil and petroleum commodity and futures markets in recent years, our single greatest raw materials sensitivity is to fluctuations in the price of petrochemicals and related derivative products. In 2006, these prices were approximately 9 percent above the average prices in 2005. During the same period, the average annual crude oil price (IPE Brent) increased by approximately 20 percent.

**Expenses and gains relating to the reorientation of our business and to other material unusual effects**

We have recorded a number of charges and expenses in recent years in connection with the transactions and other measures we have been taking as part of the strategic reorientation of our business and the related reorganization of our remaining businesses to concentrate on and refocus our core businesses. These charges and expenses include selective divestitures of businesses and assets that no longer fit our strategic plan, such as the spin-off of LANXESS and the related reorganization of portions of our remaining polymers activities, the divestiture of our plasma business and the divestitures of a number of operations within CropScience and related restructuring and consolidation of CropScience's activities in different countries. The reorganization also includes

the reorientation of our Pharmaceuticals segment, including the restructuring of the research and development and other pharmaceutical activities and ultimately the acquisition of Schering AG, Berlin, Germany. Moreover, these charges also include charges relating to several major legal matters that we believe are sufficiently distinguishable from our normal operating business that an understanding of their magnitudes may enhance the comparability of our results of operations among financial periods.

The following table sets forth charges and expenses relating to these activities. We have presented them individually and in the aggregate to assist readers in understanding their effects on our results of operations in prior periods. Consistent with our consolidated income statement presentation and in accordance with IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations), the figures presented below are for our continuing business only.

Description	2004	2005	2006
<b>Impairment charges and write-downs</b>	<b>0</b>	<b>(18)</b>	<b>(66)</b>
<b>Restructuring Charges and unscheduled amortization</b>			
Relating to HealthCare activities	(69)	(41)	(24)
Relating to CropSciences activities	(13)	(35)	(79)
Relating to MaterialScience activities	0	(33)	(60)
Relating to Others activities	0	0	(37)
	<b>(82)</b>	<b>(109)</b>	<b>(200)</b>
<b>Portfolio changes</b>			
Expenses relating to the integration of Schering AG, Germany <sup>(a)</sup>	0	0	(179)
Expenses relating to the integration of the Roche consumer health business	(14)	(71)	(24)
Miscellaneous	(26)	(1)	41
	<b>(40)</b>	<b>(72)</b>	<b>(162)</b>
<b>Litigation related and other charges</b>			
Arbitration proceedings in the United States relating to the production of propylene oxide	0	0	(109)
Provisions in connection with antitrust litigation related to polymer products	(27)	(336)	(37)
Charges in connection with the termination of the co-promotion agreement with GlaxoSmithKline for <i>Levitra</i> <sup>®</sup>	0	(106)	0
One-time non-cash gain due to changes to our pension plans in the United States and Germany	0	238	0
Litigation-related expenses in connection with HealthCare products	(63)	(105)	(59)
Miscellaneous	(30)	(25)	0
	<b>(120)</b>	<b>(334)</b>	<b>(205)</b>
<b>Total</b>	<b>(242)</b>	<b>(533)</b>	<b>(633)</b>

<sup>(a)</sup> For details on charges relating to the Schering AG acquisition refer to *Acquisition and divestiture activities. Impairment charges and write-downs*

In 2006, the charge of 66 million resulted from the write-downs relating to our cancer drug *Viadur*<sup>®</sup> and an in-process research and development asset. In 2005, impairment charges and write-downs related to *Viadur*<sup>®</sup>. In 2004, we did not incur material impairment charges or write-downs.



*Restructuring charges*

In 2006, the restructuring charges resulted mainly from the restructuring project in our CropScience business ( 74 million), restructuring activities at our MaterialScience sites in New Martinsville, West Virginia and Baytown, Texas ( 55 million); and from restructuring measures regarding the reorganization of the business activities by Bayer Industry Services ( 30 million).

In 2005, the restructuring charges related mainly to the reorganization of our polyurethane business ( 33 million), restructuring measures for our CropScience activities in France ( 23 million) and for our pharmaceutical activities in Germany and the United States ( 22 million). In 2004, the major charges related to restructuring of our pharmaceutical research and development activities ( 24 million) and personnel reductions in connection with the Schering-Plough alliance ( 45 million). (Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been totally independent of each other for many years.)

*Portfolio changes*

Acquisition and disposition activities also affect our results of operations, and are responsible for substantial fluctuations in our results from year to year. In connection with our strategic reorientation of our business and the related reorganization of our remaining businesses to concentrate on and refocus our core businesses, we have been disposing of numerous businesses, investments and participations. Our most recent transactions are described in Item 4, *Information on the Company History and Development of the Company*. Regarding the changes resulting from the acquisition of Schering AG, Berlin, Germany refer to *Acquisition and divestiture activities*.

In 2006, gains under Miscellaneous of 41 million related to the divestment of a family of mature herbicide products of our Crop Protection segment and the sale of an in-process research and development asset of our Pharmaceuticals segment. In 2004, the net negative effect under Miscellaneous of 26 million included 77 million in charges for the stock exchange listing of LANXESS and 51 million in gains from sales of licenses.

*Litigation related and other charges*

Our litigation related charges are described in Item 8, *Financial Information Legal Proceedings*.

***Changes in Exchange Rates***

Our net sales and our operating result are generally affected by changes in exchange rates. Because a substantial portion of our assets, liabilities, sales and earnings are denominated in currencies other than the euro zone currency, we have 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, but also fluctuations in the currencies of the countries in which we have significant operations and/or sales, can have a material impact on our results of operations. We face both transaction risk, where our businesses generate sales in one currency but incur costs relating to that revenue in a different currency, and translation risk, which arises when we translate the income statements of our subsidiaries into euro for inclusion in our financial statements. We do not quantify the effects on our financial statements of transaction risks. Translation risks, which we do quantify and against which we do not hedge, do not affect our local currency cash flows or results of operations, but do affect our consolidated financial statements. For further information on transaction and translation risk, see Item 11, *Quantitative and Qualitative Disclosures about Market Risk Currency Risk*.

Changes in exchange rates were a significant driver of our results of operations in recent years. In 2005 and 2006, these changes were insignificant. The translation effects of exchange rate changes on our sales in 2006 were immaterial (compared to an increase of 0.3 billion in 2005 and to a decrease of 0.9 billion in 2004). The discussion of our operating results in *Bayer Group and Segment Data* includes sales figures adjusted for these translation effects. These adjusted sales figures represent the sales that we would have generated had the average exchange rates we used to translate our non-euro denominated revenues into euros remained constant in

the year under review as compared with the previous year. See Note 4.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F for the exchange rates for the euro to other currencies important for our results of operations.

## Discontinued Operations

### *Reporting of Discontinued Operations*

In the financial statements and other financial information included in this annual report on Form 20-F, certain business activities, that were divested or are in the process of being divested, are reported under discontinued operations in accordance with IFRS 5 and other applicable standards. Therefore, the Group's financial reporting is based primarily on continuing operations.

In 2006, the Diagnostics division as well as the H.C. Starck and Wolff Walsrode businesses are presented in the balance sheet line items "Assets held for sale and discontinued operations" and "Liabilities directly related to assets held for sale and discontinued operations". In accordance with IFRS 5, the previous year's balance sheet has not been adjusted for any of these businesses.

The income statement and net cash provided by (used in) operating activities have been adjusted for the comparative periods 2005 and 2004 to reflect all discontinued operations. The individual items of the income statement such as sales, functional costs and non-operating result reflect only continuing operations of the Bayer Group for all years presented.

### *Diagnostics*

At the end of June 2006, Bayer signed an agreement to sell the Diagnostics division to Siemens for approximately 4.3 billion. The transaction was closed in January 2007. The Diagnostics division is reported as discontinued operations prior to the sale.

The Diagnostics division offered a wide portfolio of in-vitro diagnostics products for evaluating and monitoring the therapy of numerous diseases. In the field of laboratory testing, the *Advia*<sup>®</sup> product family included medium- and high-throughput systems for immuno-diagnostics (the measurement of such substances as proteins, steroids, drugs and antibodies in patients' blood), clinical chemistry, hematology and other diagnostic disciplines. In the area of near patient testing, products for use in the hospital and in physicians' office laboratories included trademarks such as the *Rapid*<sup>™</sup> family, *Multistix*<sup>®</sup> and the *Clinitek*<sup>®</sup> line of instruments. In the area of molecular testing, the product portfolio for virology infectious diseases included quantitative analysis, genotyping and resistance testing.

The Diagnostics division had net sales of 1,526 million in 2006, 1,433 million in 2005 and 1,322 million in 2004. Operating results of the Diagnostics division were 203 million in 2006, 179 million in 2005 and 109 million in 2004. The income from discontinued operations after taxes attributable to the Diagnostics division was 117 million in 2006, 118 million in 2005 and 71 million in 2004.

### *H.C. Starck*

In November 2006, Bayer signed an agreement with two financial investors, Advent International and The Carlyle Group, concerning the sale of the H.C. Starck business to them for approximately 1.2 billion. The transaction closed in early February 2007.

The H.C. Starck business comprised a broad portfolio of products ranging from ceramic materials to metals such as tungsten, molybdenum, tantalum and niobium and their alloys and compounds for industrial customers in the aircraft, medical, chemical, electronic, lighting, tooling and optical components industries.

The H.C. Starck business had net sales of 985 million in 2006, 920 million in 2005 and 703 million in 2004. Operating results of the H.C. Starck business were 55 million in 2006, 83 million in 2005 and 69 million in 2004. The income from discontinued operations after taxes attributable to the H.C. Starck business was 32 million in 2006, 46 million in 2005 and 34 million in 2004.

**Wolff Walsrode**

In December 2006, Bayer signed an agreement with The Dow Chemical Company concerning the sale of the Wolff Walsrode business. The sale is subject to the approval of the relevant antitrust authorities. Assuming these approvals are received, we expect the closing of the transaction to occur by the end of the first half of 2007.

The Wolff Walsrode business develops, produces and markets cellulose derivatives for use in building materials, industrial coatings, flexible packaging ink and life sciences markets, as well as in specialized industrial fields. See Item 4, *Information on the Company Business WOLFF WALSRÖDE (Discontinued Operation)*.

The Wolff Walsrode business had net sales of 334 million in 2006, 329 million in 2005 and 328 million in 2004. Operating results of the Wolff Walsrode business were 40 million in 2006, 36 million in 2005 and 40 million in 2004. The income from discontinued operations after taxes attributable to the Wolff Walsrode business was 20 million in 2006, 20 million in 2005 and 20 million in 2004.

**LANXESS**

At the end of January 2005, we spun off the LANXESS subgroup to our stockholders, LANXESS thereupon ceased to be part of the Bayer Group. The shares of LANXESS AG have been listed on the Frankfurt Stock Exchange since January 31, 2005.

The LANXESS subgroup was deconsolidated from the Bayer Group effective January 31, 2005 and is no longer included in the balance sheet as of December 31, 2005. Net earnings of the LANXESS group for the month of January 2005 are recognized in Bayer Group net income for 2005. In the income and cash flow statements for 2005, as well as for the comparative period of 2004, LANXESS is reported under discontinued operations. Since February 1, 2005, sales from Bayer companies to LANXESS are reported as external net sales.

LANXESS had net sales of 503 million in 2005 (for January only) and 6,053 million in 2004. Operating results of LANXESS were 62 million in 2005 (for January only) and 78 million in 2004. The income from discontinued operations after taxes attributable to LANXESS was 38 million in 2005 (for January only) and minus 4 million in 2004.

For a discussion of the risks and uncertainties that continue to face us in connection with the LANXESS spin-off, please see Item 3, *Key Information Risk Factors Our transactions relating to LANXESS expose us to continuing liability* and Item 10, *Additional Information Material contracts*.

**Plasma activities**

At the end of March 2005, Bayer divested the U.S. plasma operations of its Biological Products division to two U.S. financial investors, Cerberus Capital Management, L.P., New York, New York and Ampersand Ventures, Wellesley, Massachusetts by transferring those activities to Talecris BioTherapeutics, Inc., a corporation formed by those two investors. The agreement covers the products, facilities and employees representing the plasma portion of the division. The remaining portion, consisting of our *Kogenate*<sup>®</sup> business, is not affected by this agreement and, effective January 1, 2006, forms part of our Pharmaceuticals segment.

2005 net earnings of minus 1 million from the discontinued U.S. plasma operations as well as purchase price adjustments are included in Bayer Group net income through March 31, 2005. We reduced our purchase price by 15 million as a result of purchase price adjustments that occurred after we divested our U.S. Plasma operations on March 31, 2005. The purchase price adjustments determined pursuant to the final sales agreement with the purchaser consisted of unfavorable working capital adjustments of 42 million, offset in part by contingent consideration received of 27 million. To account for the final agreement signed at the end of March 2005, we show the continued non-U.S. distribution as part of our continuing operations. In our financial statements for 2005 only the U.S. plasma business is reflected in discontinued operations. Revenues from our marketing activities for plasma products outside the United States are reflected in sales from continuing operations of our Pharmaceuticals segment.

The U.S. plasma operations had net sales of 124 million in 2005 (through March 31 only) and 427 million in 2004. Operating result of the U.S. plasma activities was minus 2 million in 2005 (through March 31 only) and

minus 97 million in 2004. The loss from discontinued operations after taxes attributable to the U.S. plasma operations was 1 million in 2005 (through March 31 only) and 63 million in 2004.

The following table sets forth net sales, operating result and income (loss) from discontinued operations after tax attributable to Diagnostics, H.C. Starck, Wolff Walsrode, LANXESS and the U.S. activities of our former plasma business for the three years under review. For further information, refer also to Note 7.2 to the consolidated financial statements appearing elsewhere in this annual report on Form 20-F.

	<b>Diagnostics</b>			<b>H.C. Starck</b>			<b>Wolff Walsrode</b>		
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
	<b>(Euros in millions)</b>			<b>(Euros in millions)</b>			<b>(Euros in millions)</b>		
Net sales	1,322	1,433	1,526	703	920	985	328	329	334
Operating result	109	179	203	69	83	55	40	36	40
Net income (loss)	71	118	117	34	46	32	20	20	20
Affected segments	(Former Diagnostics, Diabetes Care)			Materials			Materials		
	<b>LANXESS</b>			<b>Plasma</b>			<b>Total Discontinued Operations</b>		
	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
	<b>(Euros in millions)</b>			<b>(Euros in millions)</b>			<b>(Euros in millions)</b>		
Net sales	6,053	503		427	124		8,833	3,309	2,845
Operating result	78	62		(97)	(2)		199	358	298
Net income (loss)	(4)	38		(63)	(1)		58	221	169
Affected segments	(LANXESS)			Pharmaceuticals					

**Bayer Group**

The financial information presented for 2004, 2005 and 2006 reflects the continuing operations of the Bayer Group and its segments, except where specific reference is made to discontinued operations or Group total. In 2006, due to the Schering acquisition and the discontinued Diagnostics division, we changed our segment structure and reporting to reflect our new corporate structure. We restated our segment reporting for 2004 and 2005 accordingly. The Diagnostics division and the H.C. Starck and Wolff Walsrode businesses are reported as discontinued operations. (The names Bayer Schering Pharma or Schering as used in this annual report on Form 20-F always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively. Bayer Schering Pharma AG also includes business conducted by affiliated entities. Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey are unaffiliated companies that have been totally independent of each other for many years.)

The following table shows the operating and financial results for Bayer.

	2004 <sup>(a)</sup>	Change from Previous Year  (%)	2005 <sup>(a),(b)</sup>	Change from Previous Year  (%)	2006 <sup>(c)</sup>
(Euros in millions)					
Net sales	20,925	18.0	24,701	17.2	28,956
Gross profit	9,839	14.7	11,289	21.2	13,681
as percentage of sales (%)	47.0		45.7		47.2
Selling expenses	(4,783)	(9.7)	(5,247)	(24.5)	(6,534)
Research and development expenses	(1,772)	2.4	(1,729)	(32.9)	(2,297)
General administration expenses	(1,285)	(1.7)	(1,307)	(22.3)	(1,599)
Other operating income	802	(3.4)			