

ALTANA AKTIENGESELLSCHAFT

Form 20-F

April 07, 2005

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# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (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, 2004

OR

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

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

Commission file number:

## ALTANA Aktiengesellschaft

(Exact Name of Registrant as Specified in Its Charter)

Federal Republic of Germany

(Jurisdiction of Incorporation or Organization)

Am Pilgerrain 15  
D-61352 Bad Homburg v. d. Höhe  
Federal Republic of Germany

(Address of Principal Executive Offices)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
American Depositary Shares, each representing 1 Ordinary Share, no par value	New York Stock Exchange
Ordinary Shares, no par value*	New York Stock Exchange

\* Listed, not for trading or quotation purposes, but only in connection with the listing of American Depositary Shares, pursuant to the requirements of the New York Stock Exchange.

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

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

The number of issued and outstanding shares of each of the issuer's classes of capital or common stock as of December 31, 2004 was 135,285,154 no par value.

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

Yes      No

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

Item 17      Item 18

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### FORWARD-LOOKING STATEMENTS

This annual report contains certain forward-looking statements, *i.e.*, current expectations or estimates of future events or future results. When used in this document, the words anticipate, believe, estimate, expect, intend, plan and project, and similar expressions used by management, identify forward-looking statements. These statements are based on beliefs of our management as well as assumptions made by and information currently available to us. Such statements reflect our current views with respect to future events and are subject to various risks, uncertainties and assumptions. Many factors could cause our actual results, performance or achievements to be materially different from those which may be expressed or implied by such forward-looking statements. The accompanying information contained in this annual report, including the information under Item 3: Key Information Risk Factors, Item 4: Information on the Company and Item 5: Operating and Financial Review and Prospects identifies important factors that could cause such differences. These factors include our ability to develop, obtain regulatory approval for and launch new and innovative pharmaceutical and chemical products, price regulations for pharmaceuticals and budgeting decisions of local governments and health care providers, the level of our investment in pharmaceuticals-related R&D in any given period, the sales and marketing methods that we use to distribute our pharmaceuticals, the composition of our pharmaceuticals portfolio, our ability to maintain close ties with our chemicals customers, the business cycles experienced by our chemicals customers and the prices of the raw materials that we use in our chemicals business. Forward-looking statements speak only as of the date they are made. We do not intend, and do not assume any obligation, to update forward-looking statements to reflect facts, circumstances or events that have occurred or changed after such statements have been made.

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**PART I**

**ITEM 1: IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2: OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

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### ITEM 3: KEY INFORMATION

#### Selected Consolidated Financial Data

The selected consolidated financial data as of and for the years ended December 31, 2000, 2001, 2002, 2003 and 2004 set forth below are derived from our consolidated financial statements. Our consolidated financial statements as of and for the years ended December 31, 2000, 2001 and 2002 have been audited by KPMG Deutsche Treuhand-Gesellschaft AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany ( KPMG ); our consolidated financial statements as of and for the years ended December 31, 2003 and 2004 have been audited by PwC Deutsche Revision Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany ( PwC ).

We prepare our consolidated financial statements in accordance with International Financial Reporting Standards (IFRS). IFRS differ in certain significant respects from U.S. Generally Accepted Accounting Principles (U.S. GAAP). For a description of the significant differences between IFRS and U.S. GAAP and a reconciliation of net income and shareholders' equity to U.S. GAAP, see notes 33 and 34 to our consolidated financial statements.

All share and per share data in this annual report relating to prior periods have been restated to reflect the changes to our share capital that occurred in 2001.

You should read the information below in conjunction with our consolidated financial statements and the other financial information that we have included elsewhere in this annual report. For our consolidated financial statements as of and for each of the three years ended December 31, 2004, see the discussion beginning on page F-1.



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The following table presents selected consolidated financial information as of and for the five years ended December 31, 2004:

	As of and for the year ended December 31,(1)				
	2000	2001	2002	2003	2004
(€ in millions, except per share/ADS amounts)					
<b>Selected income statement data</b>					
<i>Amounts in accordance with IFRS</i>					
Net sales	1,928	2,308	2,609	2,735	2,963
Gross profit	1,144	1,414	1,681	1,788	1,949
Research and development expenses	(219)	(285)	(369)	(412)	(445)
Operating income	309	520(2)	538	563	617
Financial income	21	24	(12)	17	7
Income before taxes and minority interests	329	544	527	580	624
Net income	181	328	324	345	391
<b>Weighted average number of shares outstanding during period (in millions)</b>					
	138.8	137.5	136.6	136.3	135.9
Basic earnings per share/ADS(3)	1.30	2.38	2.37	2.53	2.88
Diluted earnings per share/ADS(4)	1.30	2.37	2.36	2.53	2.87
Dividends per share/ADS(5)	0.44(6)	0.60(7)	0.75	0.83	0.95(8)
<i>Amounts in accordance with U.S. GAAP</i>					
Net income	166	314	338	337	385
Basic earnings per share/ADS(3)	1.20	2.28	2.47	2.47	2.83
Diluted earnings per share/ADS(4)	1.19	2.26	2.46	2.47	2.83
<b>Selected balance sheet data</b>					
<i>Amounts in accordance with IFRS</i>					
Property, plant & equipment	478	579	610	687	763
Cash & cash equivalents and marketable securities	487	552	584	580	580
Total assets	1,812	2,127	2,269	2,532	2,699
Debt	100	127	117	96	58
Total liabilities	384	426	448	527	471
Total provisions	436	522	563	553	566
Total shareholders equity	984	1,170	1,250	1,445	1,661
Number of shares outstanding at period end (in millions)	138.1	137.2	136.5	136.3	135.3
<i>Amounts in accordance with U.S. GAAP</i>					
Total shareholders equity	973	1,159	1,261	1,470	1,683
<b>Selected cash flow statement data</b>					
<i>Amounts in accordance with IFRS</i>					
Net cash flow provided by operating					

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activities	282	309	442	425	427
Net cash flow used in investing activities	(156)	(113)	(204)	(298)	(192)
Net cash flow used in financing activities	(118)	(116)	(154)	(152)	(201)

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- (1) Columns may not add due to rounding.
- (2) Includes a one-time gain in the amount of € 110 million resulting from the sale of our interest in a joint venture and a special donation of € 15 million to a charitable endowment.
- (3) Basic earnings per share is computed by dividing net income by the weighted average number of shares outstanding during the relevant period. Starting with the year ended December 31, 2003, the weighted average number of shares includes shares issuable in connection with the legal proceedings surrounding Deutsch-Atlantische Telegraphen AG ( DAT ). See Item 4: Information on the Company Legal Proceedings for more information on these proceedings.
- (4) Diluted earnings per share is computed by dividing net income by the sum total of the weighted average number of shares outstanding during the relevant period, adjusted for shares issuable upon the exercise of options under stock option plans and, for years ended on or before December 31, 2002, shares issuable in connection with the DAT litigation.
- (5) Dividends are presented in the column of the year in respect of which they are declared. Dividends are paid in the year following the year in respect of which they are declared.
- (6) Does not include a one-time bonus dividend in the amount of € 0.17 per share.
- (7) Does not include a one-time bonus dividend in the amount of € 0.10 per share.
- (8) Management proposal to be submitted to our shareholders for approval at the annual general meeting to be held on May 4, 2005.

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### Dividends

The following table sets forth the dividends per share paid in respect of each of the five years in the period ended December 31, 2004 in euro and U.S. dollars. We declare dividends in euro. For purposes of the table below, we have converted the amounts paid as dividends into U.S. dollars using the noon buying rate on the date of the shareholders' meeting at which the relevant dividends were approved. The table does not reflect the related tax credits that were available to German taxpayers in respect of dividend payments prior to 2002. Owners of our shares who are U.S. residents should be aware that they will be subject to German withholding tax on any dividends that they receive. See Item 10: Additional Information - Taxation.

Year ended December 31,	Dividend per share	
	(€)	(\$)
2000(1)	0.44	0.39
2001(2)	0.60	0.54
2002	0.75	0.85
2003	0.83	1.00
2004	0.95(3)	

(1) Does not include a one-time bonus dividend in the amount of € 0.17 per share.

(2) Does not include a one-time bonus dividend in the amount of € 0.10 per share.

(3) Management proposal to be submitted to our shareholders for approval at the annual general meeting to be held on May 4, 2005.

Both net income distributable as dividends and net income subject to German tax are determined on the basis of the stand-alone unconsolidated financial statements of our holding company, ALTANA Aktiengesellschaft, prepared in accordance with German GAAP. German GAAP differ in a number of important respects from both IFRS and U.S. GAAP. In 2004, our holding company's net income calculated on an unconsolidated basis in accordance with German GAAP was € 164 million, compared with € 276 million in 2003. In 2002, our holding company's net income calculated on an unconsolidated basis in accordance with German GAAP was € 1,113 million. This figure reflected corporate income tax-free capital gains resulting from changes to the legal organization of our group in 2002. We transferred the gains realized in connection with these changes to our holding company pursuant to various profit transfer agreements between our holding company and our two divisions. Excluding the effect of these gains, our company's net income calculated on an unconsolidated basis in accordance with German GAAP would have been € 223 million in 2002. Because the companies that were affected by the organizational changes in 2002 are all wholly-owned subsidiaries of our holding company, the tax-free capital gains that arose in connection with these changes are not reflected in our consolidated financial statements.

### Exchange Rate Information

We publish our consolidated financial statements in euro. As used in this annual report, euro, EUR or € means the single unified currency of the European Monetary Union. U.S. dollar, USD, U.S.\$ or \$ means the lawful currency of the United States of America. As used in this report, the term noon buying rate refers to the exchange rate for euro, expressed in U.S. dollars per euro, as announced by the Federal Reserve Bank of New York for customs purposes as the rate in the city of New York for cable transfers in foreign currencies.

To enable you to ascertain how the trends in our financial results would have appeared had they been expressed in U.S. dollars, the table below shows the average noon buying rates for U.S. dollars per euro for the five years ended December 31, 2004. The averages set forth in the table below have been computed using the noon buying rate on the last business day of each month during the periods indicated.



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<u>Year ended December 31,</u>	<u>Average</u>
2000	0.9209
2001	0.8909
2002	0.9495
2003	1.1411
2004	1.2478

The following table shows the noon buying rates for U.S. dollars per euro for the six months ended March 31, 2005:

<u>Month</u>	<u>High</u>	<u>Low</u>
October 2004	1.2783	1.2271
November 2004	1.3288	1.2703
December 2004	1.3625	1.3224
January 2005	1.3476	1.2954
February 2005	1.3274	1.2773
March 2005	1.3465	1.2877

On April 4, 2005, the noon buying rate was \$ 1.2838 per € 1.00.

Since the beginning of 1999, our shares have traded on the Frankfurt Stock Exchange in euro. We expect that fluctuations in the exchange rate between the euro and the U.S. dollar will affect the U.S. dollar equivalent of the euro price of our shares on the Frankfurt Stock Exchange and as a result are likely to affect the market price of our American Depositary Shares ( ADSs ) on the New York Stock Exchange. In addition, you should note that any cash dividends that we may declare in the future will be denominated in euro. Therefore, exchange rate fluctuations between the euro and the U.S. dollar will affect the U.S. dollar amounts that the holders of our ADSs will receive upon the conversion of any cash dividends that we may pay out on the shares represented by these ADSs.

A substantial portion of our assets, liabilities, revenues and expenses are denominated in currencies other than the euro. Accordingly, fluctuations in the value of the euro relative to other currencies have had a significant effect on the translation into euro of our non-euro assets, liabilities, revenues and expenses, and may continue to do so in the future. For further information on the impact of fluctuations in exchange rates on our operations, see Risk Factors Risks Related to each of our Businesses and Item 11: Quantitative and Qualitative Disclosures About Market Risk.

### **Risk Factors**

Our business, financial condition and results of operations may suffer material adverse effects due to any of the following risks. Additional risks not known to us or that we now consider immaterial also may adversely affect our business.

#### **Risks Related to each of our Businesses**

*Because the industries in which we operate are characterized by constant innovation and technological change, our success depends upon our continued ability to develop and market innovative products on a cost-effective basis. If we fail to do so, we may be unable to capture additional market share or may lose market share.*

We operate in the pharmaceuticals and the specialty chemicals industries, both of which are highly competitive and are characterized by intensive research and development efforts and rapid technological change. Our success is highly dependent on our ability to discover, develop and manufacture new and innovative products on a cost-effective basis and to market them successfully. In doing so, we face and will continue to face intense competition from a variety of competitors, ranging from small niche companies to large national and international conglomerates.

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Based on total assets and annual revenues, we are significantly smaller than many of our competitors, which often have substantially greater financial, R&D and sales and marketing resources than we do. As a result,

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our competitors may succeed in developing and manufacturing products that are superior to our own products or that the market perceives to be more attractive. If this happens, our products may become uncompetitive and we may be unable to capture additional market share or may lose market share. In light of the ongoing consolidation of the industries in which we operate, we expect that the competitive pressures to which we are subject will increase in the future.

***We operate in many different countries around the world. As a result, fluctuations in the exchange rates between the euro and other currencies could adversely affect our results of operations and reduce our ability to price our products competitively.***

Due to the international scope of our operations, our net sales and net income may be affected by fluctuations in exchange rates, particularly between the euro and the U.S. dollar. An increasing portion of our sales is made in markets outside the euro zone by our local subsidiaries or through distribution arrangements. As a result, fluctuations between the euro and the currencies in these markets may cause our reported revenues to vary significantly from period to period. For example, the devaluation of the U.S. dollar against the euro that started in 2002 has had a negative impact on our net sales, especially our reported sales of Pantoprazole, which is currently our most important product, in the United States. Any further devaluation of the U.S. dollar against the euro would intensify this effect. At the same time, a substantial proportion of our operating costs continues to be linked to the euro. Accordingly, exchange rate fluctuations have affected our profitability, and they may continue to do so in the future.

You should note that in the past each of our subsidiaries was responsible for managing its own foreign exchange rate exposure. In 2003, we introduced a uniform hedging strategy for our main currency exposures, especially our exposure to the U.S. dollar and currencies linked to the U.S. dollar, by expanding the time frame for our hedging transactions and the range of instruments that we use in structuring them. We believe that this revised strategy has assisted us in better forecasting our operating results and in limiting our exposure to volatile exchange rates. Nevertheless, future fluctuations in the exchange rates between the euro and other currencies, particularly the U.S. dollar, may significantly influence our revenues and profitability.

In addition to influencing our reported net sales and net income, exchange rate fluctuations may also impact our competitive position in countries whose currencies fluctuate against the euro. The continuous and significant strengthening of the euro relative to the U.S. dollar since 2002 has benefited our U.S.-based competitors, including in respect of their activities in the euro zone, and has also reduced our own pricing flexibility and adversely affected the reported revenues and profitability of each of our segments.

***Because we depend on key management, scientific and technical personnel, our ability to compete would suffer if we were unable to hire and retain qualified employees.***

Our success depends upon the continued contributions of our key management, scientific and technical personnel, many of whom have substantial experience with our company and would be difficult to replace. Competition for qualified personnel is intense in the industries in which we operate, and we may be unable to attract the highly qualified employees that our business requires. If we lose the services of our key management or scientific and technical personnel or do not succeed in attracting highly qualified personnel in the future, our business may be hurt by a reduced ability to compete in the rapidly evolving markets in which we operate.

***Our business will suffer if we are unable to obtain and defend intellectual property rights or if we do not gain access to, or are accused of infringing, the intellectual property rights of others.***

Our ability to remain competitive and to capture additional market share, particularly with respect to our pharmaceutical segment, depends in part on our ability to obtain and defend patents, trademarks and other forms of intellectual property protection for our products, and on our development and manufacturing processes and our know-how. While we intend to prosecute patents aggressively, the process of obtaining patents is lengthy and expensive. There can be no assurance that patents will be granted in connection with any of our currently pending or future applications or that such patents will be valid and of sufficient scope and strength to provide us with meaningful legal protection or any commercial advantage. In 2004, we received notices of applications filed by generic drug companies with the U.S. Food and Drug Administration ( FDA ) in the United States

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challenging our Pantoprazole patents with a view to manufacturing and distributing a generic version of Pantoprazole. In response to one of these patent challenges, we filed a patent infringement suit in April 2004 against TEVA Pharmaceutical USA, Inc. ( "TEVA" ) and its parent company TEVA Pharmaceutical Industries, Ltd. before the U.S. District Court for the District of New Jersey. In 2004, we also received two Abbreviated New Drug Applications ( "ANDAs" ) challenging our Pantoprazole formulation patents. Because the earliest that any patent infringement with respect to our formulation patents for Pantoprazole could pose a threat to our business is 2010 (until which date we believe we will continue to enjoy protection under our substance patents), we have decided not to take any immediate action with regard to these two ANDAs. At the beginning of March 2005, we received a notification from Sun Pharmaceuticals Advanced Research Centre (Limited) ( "Sun" ), one of the challengers of our Pantoprazole formulation patent, informing us that Sun has amended its ANDA to include a paragraph IV certification relating to our Pantoprazole substance patent. We have not yet decided which steps should be taken with regard to this amendment of Sun's ANDA. While we believe that our U.S. patents relating to Pantoprazole are valid and enforceable and of sufficient scope and strength to prevent the entities that have made the filings and any other third party from manufacturing and distributing Pantoprazole-based generics at this time, there can be no assurance that we will be successful in defending our patents. For more information, see Item 4: Information on the Company Pharmaceuticals Intellectual Property and Item 4: Information on the Company Legal Proceedings .

In addition, intellectual property protection may be unavailable or limited in some of the countries in which we do business. Furthermore, a substantial portion of our know-how is not eligible for patent or comparable forms of intellectual property protection. To protect this type of information against access by competitors, we rely on trade secret law and frequently enter into confidentiality agreements with our employees, customers and partners. These agreements may be unenforceable, however, and the remedies available to us for breaches may be inadequate. Likewise, our competitors may gain access to our know-how by lawful means, for example, by reverse engineering or by independently developing the same know-how, which would destroy any advantage that our know-how may afford us.

Our competitive position may also suffer if competitors come up with products, development or manufacturing processes or know-how that is protected by patents, trademarks, licenses or other forms of intellectual property protection. Technologies over which our competitors hold intellectual property rights may either be unavailable to us or be available to us only on unfavorable terms. To gain access to such technologies, we sometimes enter into licensing arrangements with third parties. If our licensing partners were to terminate the licenses that we have obtained from them or if we are unable to obtain licenses on commercially favorable terms in the future, our ability to develop, manufacture and market our present and future products may be impaired.

While we seek to protect our trademarks, which include the names of many of our key products, by filing for trademark protection in most of the countries where we sell these products, you should note that trademark protection consists primarily of a right to sue against infringing uses of a mark and, in order to be effective, requires extensive policing. If we fail to detect instances of infringement or if we do not succeed in defending our trademarks in court, our reputation with our customers and our ability to protect our trademarks in the future may be harmed.

It may become necessary for us to seek to enforce our patents, trademarks, licenses and other forms of intellectual property protection and to protect our trade secrets by taking legal action or to engage in litigation in order to defend ourselves against claims of alleged infringement of someone else's intellectual property brought against us by third parties. There can be no assurance that we will be able to successfully settle or otherwise resolve claims that may be brought against us by third parties in the future. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage in costly and time-consuming litigation and may be prevented from, or experience substantial delays in, marketing our existing pharmaceuticals and launching new ones. Any of these events could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business.



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***Because our operations are subject to numerous environmental laws and regulations, we could become exposed to liability and be required to spend substantial amounts in connection with environmental compliance or remediation proceedings.***

Our operations are subject to numerous environmental laws and regulations in the jurisdictions in which we operate. These laws and regulations govern, among other things, air emissions, wastewater discharges, the use and handling of hazardous substances, waste disposal and the investigation and remediation of soil and groundwater contamination. As with other companies engaged in activities similar to ours, we face a risk of environmental liability inherent in our current and historical manufacturing activities. While we do not believe that any currently anticipated environmental compliance and remediation requirements are likely to have a material adverse effect on our business, financial condition or results of operations, we may be forced to incur substantial expenses in connection with future environmental compliance or remediation proceedings, in which case our results of operations and financial condition may be materially adversely affected.

***We may be faced with product liability claims, which could impair our reputation in the marketplace and hurt our profitability.***

Although we maintain a comprehensive quality assurance program, there remains a risk that defects may occur in any of our products. The occurrence of such defects could give rise to liability for damages, including consequential and punitive damages, and could, by impairing our reputation, reduce the market's acceptance of our products. This risk exists in each of our segments.

To reduce our exposure to the aforementioned risks, we maintain an insurance policy covering product liability claims. There can be no assurance, however, that our insurance policy will be adequate and sufficient to cover all product liability claims that may be brought against us or that we will be able to obtain adequate insurance coverage on commercially reasonable terms in the future. A successful product liability claim in excess of our coverage could require us to pay substantial amounts in damages. In addition, our insurance policy does not protect us against reputational harm that we may suffer if the market perceives our products as unsafe or ineffective.

***Our business may suffer as a result of volatility in different parts of the world.***

We operate on a global basis. Our business is therefore subject to a variety of risks inherent in conducting international operations, each of which could adversely affect our business and results of operations. These risks include:

Wars, terrorist attacks and other hostilities;

Instability of foreign governments;

Changes in domestic or foreign laws or policies affecting international trade and foreign investment; and

Varying practices of the regulatory, tax, judicial and administrative bodies in the jurisdictions in which we operate.

*Fluctuations in stock prices and interest rate volatility could impair the value of our investments and adversely affect our financial position.*

We invest a considerable amount of our cash balances in marketable securities, particularly fixed-income securities. At December 31, 2004, our portfolio of marketable securities represented approximately 10% of our total assets. Fluctuations in stock prices and interest rate volatility may affect the value of our portfolio of marketable securities and thus have an adverse impact on our financial position.

## **Risks Related to our Pharmaceuticals Business**

***Because we depend on the sale of a limited number of key products to generate a substantial proportion of our revenues, factors adversely affecting the sale of these products could materially harm our revenues and results of operations.***

As with other companies in the pharmaceuticals industry, our pharmaceuticals division depends on sales of certain key products that account for a substantial portion of its revenues. For example, in 2004, our net sales of Pantoprazole, a proton pump inhibitor ( PPI ) that we offer for the

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treatment of ulcers and reflux disease, accounted for 57.6% of the net sales of our pharmaceuticals division, or 41.0% of our overall revenues. Pantoprazole has been a key revenue driver of our pharmaceuticals division for several years, and we expect that it will continue to account for a substantial proportion of our revenues in future periods. Despite our recent launch of the metered dose inhaler ( MDI ) application of Ciclesonide under the brand name Alvesco® and our intention to launch Roflumilast under the brand name Daxas® (provided we manage to obtain regulatory approval for this drug candidate), we expect to continue to depend on a limited number of key products, including Pantoprazole, for the foreseeable future.

As a result of our dependence on key products, particularly Pantoprazole, factors adversely affecting the sale of any of these products could materially adversely affect our revenues and results of operations. These factors include:

Competition from other branded pharmaceuticals that may be equivalent or superior to our own products or that the market perceives to be more attractive;

Competition from generic versions of branded pharmaceuticals, irrespective of the way they are marketed, once the term of patent protection for the original branded pharmaceuticals has expired;

Technological advances;

The marketing strategies of our competitors;

Supply chain interruptions;

Work stoppages;

Changes in prescription practices;

Changes in the reimbursement policies of third-party payers; and

Product liability claims.

Pantoprazole in particular faces competition from various other branded PPIs. Most notably, these competitors include AstraZeneca's Esomeprazole and Takeda's Lansoprazole. If our competitors continue to invest heavily in marketing these products, the ability of Pantoprazole to capture market share or maintain its current market share could be adversely affected.

In addition, Pantoprazole and other branded PPIs face competition from generic PPIs, in particular generic PPIs based on a substance called Omeprazole. A variety of companies are marketing Omeprazole-based generics in Europe and the United States at prices that tend to be significantly lower than the price of Pantoprazole and other branded PPIs. Further competition may result from the launch of generic PPIs based on substances other than Omeprazole once the relevant patents have expired. Pantoprazole also competes with over-the-counter ( OTC ) PPIs. Unlike Pantoprazole, these PPIs are available to patients without a prescription. Various Omeprazole-based OTC PPIs have been launched in the United States and several European countries and are being marketed with increasing success. While generic and OTC PPIs have so far had a limited impact on the market for branded PPIs, including Pantoprazole, in Europe, we have started to experience stronger pricing pressure in the U.S. market with respect to Pantoprazole.

From Pantoprazole's introduction in 2000 until the fall of 2004, the drug's market share in the United States grew, with temporary interruptions. However, as a result of the factors described above, Pantoprazole's share of new PPI prescriptions has recently stabilized. Given the increasing competition from generic and OTC PPIs, there can be no assurance that Pantoprazole's market share, prescription rates and net sales contribution will remain at their current levels in future periods.

***We depend on Wyeth, Inc. ( Wyeth ) for the marketing and distribution of Pantoprazole in the United States. If Wyeth were to devote insufficient resources to the marketing of Pantoprazole or if we were to lose Wyeth as a partner, our sales of Pantoprazole would be adversely affected.***

Until June 2003, we marketed Pantoprazole in the United States exclusively through Wyeth Pharmaceuticals, the pharmaceuticals division of Wyeth, Inc. Since July 2003, our own dedicated sales force for the U.S. market has been co-promoting Pantoprazole alongside Wyeth. While this arrangement has afforded us greater influence with respect to the marketing of Pantoprazole in the United States, the revenues that we derive

from this drug in the U.S. market continue to materially

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depend on the resources that Wyeth devotes to the marketing of this therapeutic. While our distribution arrangement with Wyeth requires Wyeth to use commercially reasonable efforts to sell Pantoprazole, there can be no assurance that Wyeth's marketing efforts will be successful. In addition, Wyeth is entitled to terminate its distribution agreement with us under certain circumstances, including when a third party commences legal action against Wyeth alleging patent infringement, as well as without cause upon one year's prior written notice. If Wyeth terminates the contract for reasons other than because we become insolvent or commit a material breach of the agreement, it is required to transfer all of its rights pertaining to Pantoprazole and to products based on this substance, including any regulatory approvals that it has obtained, to us. See Item 10: Additional Information - Material Contracts for a summary of the terms of our agreement with Wyeth. If we were to lose Wyeth as a distribution partner, we would be forced to find a suitable replacement. If we experience delays in finding such a replacement, our ability to sell Pantoprazole in the United States, which accounts for a substantial and increasing proportion of our Pantoprazole sales worldwide, would suffer, and, accordingly, our results of operations would be adversely affected.

***Due to the inherent unpredictability of the process underlying the development of new pharmaceuticals, there can be no assurance that we will be able to successfully and timely launch new drugs and other pharmaceutical products.***

A critical element of our future success is the successful and timely commercial launch of new products. To this end, we devote substantial resources to research and development and have a number of promising candidates for new therapeutics in our pipeline, including a potential next-generation drug for indications similar to those of Pantoprazole and several candidates for the treatment of asthma and chronic obstructive pulmonary diseases ( COPD ). Because of the complexities and uncertainties associated with pharmaceutical research, however, we cannot be certain that any of these drug candidates will survive the development process and ultimately obtain the regulatory approvals needed in order to be launched commercially. While some of them are in advanced stages of clinical testing and appear to have desirable therapeutic profiles, adverse clinical and toxicological results remain possible at any time.

***We may be unable to continue our expansion into the U.S. market, or our expansion may be delayed, each of which would limit our growth opportunities.***

A key element of the growth strategy of our pharmaceuticals division is our plan to expand into the United States. The United States is the biggest pharmaceuticals market in the world and offers the greatest growth opportunities for our business. We plan to continue our expansion into the U.S. market with the assistance of experienced co-promotion partners and by exploiting the launch of certain of our drugs and drug candidates, including Ciclesonide and Roflumilast, which are aimed at the treatment of respiratory indications, to gradually expand our own sales and marketing organization for innovative therapeutics in the United States. This sales and marketing organization supplements our existing U.S. operations for facial topics and certain other types of pharmaceuticals. While we made significant progress in this area in 2004, if either or both of Ciclesonide or Roflumilast fail to make it to the U.S. market or to generate sufficient demand in the United States, or if we were to lose our co-promotion partners for these drugs and be unable to find suitable replacements or experience delays in finding replacements, we may be unable to continue our expansion in the U.S. market or may experience delays in doing so. If we do not succeed in securing a strategic position in this or other international markets, the growth of our business may be adversely affected. In addition, we may be unable to recover investments that we have already made in these markets.

***Because our business is subject to extensive governmental regulation, including price controls, our ability to market our products is subject to administrative constraints over which we have only limited influence.***

The development, manufacture and marketing of pharmaceuticals are subject to extensive governmental regulation. Regulatory approval is required in each jurisdiction in which we operate before any dosage form of any new pharmaceutical, including an off-patent equivalent of a previously approved pharmaceutical, may be marketed in that jurisdiction. The process for obtaining governmental approval to market pharmaceuticals is rigorous, time-consuming and costly, and it is impossible to predict the extent to which this process may be affected by legislative and regulatory developments. We currently have several projects in various stages of the approval process in the

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United States, the European Union and Japan. If we fail to obtain, or experience delays in obtaining, regulatory clearance to market new pharmaceuticals or existing pharmaceuticals for new indications or if we experience any other regulatory impediments, our results of operations may be adversely affected. Even after a pharmaceutical has been approved, it may be subject to regulatory action based on newly discovered facts concerning its safety or efficacy. Any such regulatory action may adversely affect the marketing of our pharmaceutical products, require changes to their labeling and even force us to withdraw them from the market altogether.

In addition to the need for obtaining regulatory approval to market new products, we are subject to price controls imposed by local governments and health care providers and in some markets need to obtain special approval before patients are entitled to be reimbursed for purchasing our products. The existence of price controls can limit the revenues that we earn from our products and thus could also have an adverse effect on results of operations. The way in which price controls operate varies by country and can cause substantial disparities in the price levels prevailing in different markets. Many governments and private medical care providers, such as Health Maintenance Organizations (HMOs) and social security organizations, have introduced or are currently in the process of introducing reimbursement schemes that favor the replacement of branded pharmaceuticals by cheaper generic pharmaceuticals. Since January 1, 2003, the pharmaceutical industry in Germany has been required to grant the German public health care insurance companies (which are the main purchasers of drugs in the German health care market) fixed mandatory rebates (*Kassenrabatte*) for most ethical therapeutics. These rebates, which were increased from 6% in 2003 to 16% in 2004, have had a negative impact on our pharmaceuticals sales in Germany. In addition, in 2004, new legislation took effect which provides for the possibility to include patent-protected drugs in the system of statutory fixed reference prices for generic drugs containing certain classes of active ingredients. Drugs included in the statutory fixed reference price system are not subject to the fixed mandatory rebates. On January 1, 2005, the inclusion of Pantoprazole in the statutory fixed reference price system took effect. The association of the German health care insurance providers has included Pantoprazole in a reference price group along with other branded PPIs and cheaper Omeprazole-based generics. In our view, this classification ignores the substantial therapeutic improvements offered by Pantoprazole compared with Omeprazole (for example, the fact that Pantoprazole has less clinically relevant potential for metabolic interaction with other drugs). While we have lowered our prices for Pantoprazole in Germany to match the statutory fixed reference price for this drug so that German patients insured under the statutory health care insurance scheme and wishing to purchase Pantoprazole do not have to pay more than the amount covered by their respective health insurance policies, we have also filed suit against the association's decision before the Social Court in Berlin, Germany. However, there can be no assurance that we will prevail in this lawsuit.

As a result of these developments, we anticipate that German regulations will continue to have a negative impact on our business in Germany. We are also subject to further price regulations in various other countries, particularly in Europe. In the United States, generic substitution statutes, which aim to promote the substitution of original ethical drugs by less expensive generic drugs, have been adopted in virtually all states. In addition, the reform of the Medicare system, which was put in place at the end of 2003, has introduced pharmaceutical coverage for eligible beneficiaries. While demand for pharmaceuticals in the U.S. market could therefore increase significantly, the U.S. government could use its purchasing power to demand discounts from pharmaceutical companies, thereby creating de facto price controls on prescription drugs. As a result, we expect that we will continue to experience pricing pressures, which could adversely affect our turnover and operating results.

***As part of our plans to expand our pharmaceuticals business, we expect to make substantial investments in therapeutic areas in which we have limited experience, such as oncology. If we are unable to develop new drugs in these areas, we may be unable to recoup our investments.***

Our medium- to long-term goal is to expand our pharmaceuticals business by entering markets in which we are currently not active. One such market that we may enter is the oncology market, which we expect will grow substantially in the future. We have commenced basic oncological research and entered into R&D collaborations with third parties, and we intend to make further investments related to oncology over the next several years. In addition, we may decide to enter other

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therapeutics markets, which may require us to make similar investments. Investments of this sort frequently involve significant cash expenditures, for example in connection with hiring qualified scientists, conducting R&D projects and making desirable acquisitions. In addition, you should note that we have limited experience with respect to therapeutics that we do not currently offer. As a result, there can be no assurance that we will be successful in developing, manufacturing and marketing therapeutics for new markets or integrating them with our existing portfolio at all or within a time frame that will enable us to recoup our initial investments. Any of these risks may ultimately have an adverse impact on our business, financial condition and results of operations.

*Our R&D strategy involves creating and maintaining alliances and other collaborative arrangements with third parties, and any inability to find or retain suitable collaborators may adversely affect our ability to develop new pharmaceuticals.*

Our continued success will in part depend on our ability to establish new and to maintain existing collaborations, alliances and licensing arrangements with third parties, especially with biotech companies. Collaborations with companies and other entities that have expertise in biotechnology and genetic research are of particular importance to our plans to supplement the existing franchises of our pharmaceuticals business with therapeutics for oncological indications. We may not be able, however, to establish such collaborations on terms that are acceptable to us or at all. Moreover, in view of the ongoing consolidation of the biotech industry, we may experience greater difficulty finding suitable partners in the future, as a number of smaller companies, which would be candidates for collaborations, become part of larger conglomerates that compete with us and that may be unwilling to grant us access to attractive technologies on commercially favorable terms or at all. In addition, we have no control over the amount and timing of resources that our partners devote to our programs. If we are unable to form or maintain alliances or our partners fail to assist us with our R&D efforts, our business may be harmed and our results of operations may be adversely affected.

#### **Risks Related to our Chemicals Business**

*Demand for our products could suffer as result of periodic downturns.*

Because the specialty chemicals that we offer are used in a wide variety of downstream industries served directly or indirectly by us, including the automotive, construction, electrical appliances and packaging industries, our results are affected by the business cycles experienced by these industries. While we seek to reduce our exposure to these cycles by focusing on complementary geographic and product markets, there is no assurance that we will be successful in insulating our chemicals business from downturns experienced by the industries that it serves. In addition, we are not immune to negative economic developments affecting more than one of these industries. Economic downturns can lead to overcapacity, oversupply, price pressure, reduced growth and lower margins, each of which could adversely affect our business and results of operations.

*Our results may suffer if we are unable to offset increases in raw material prices or pass them on to our customers.*

Raw material costs account for a significant portion of the cost of sales of our chemicals business. The prices and availability of the raw materials that we use in our chemicals business vary with market conditions and can be highly volatile. If we are unable to compensate for increasing raw material prices by achieving cost savings in other areas or to pass such increases on to our customers, or if the prices for our products decrease faster than raw material prices, our profitability may be hurt. In 2004, we continued to experience high raw material prices, especially for oil and oil-related products. We continue to attempt to protect ourselves against these developments by seeking to streamline our production processes, centralizing our procurement efforts and substituting more expensive raw materials for cheaper ones. Nevertheless, we have historically not always been successful in offsetting the impact of rising raw material prices, and there can be no assurance that we will be in the future. Therefore, you should be aware that any movements in the level of the raw material prices that we use in our chemicals business may have a material impact on our business, results of operations and financial condition.

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***Our growth depends in part on our ability to acquire and successfully integrate companies into our existing organization.***

A key element of the growth strategy of our chemicals division is to supplement our internal growth with strategic acquisitions of businesses and technologies that we consider capable of complementing or enhancing our existing products or of providing us with access to new markets. As a result, if we are unable to identify suitable acquisition targets, our growth prospects may suffer. In addition, in pursuing acquisitions, we may face competition from other companies operating in the specialty chemicals and related industries. Our ability to make acquisitions may be limited also by applicable antitrust, anti-takeover and other regulations in the United States, the European Union and any of the other jurisdictions in which we do business. If any of these risks materialize, we may be unable to make desirable acquisitions or to complete them on terms attractive to us. If that occurs, our ability to grow in certain of our business areas may be adversely affected.

To the extent that we are successful in making acquisitions, we may have to expend substantial amounts of cash, incur debt, assume loss-making business units and incur other types of expenses. We may also face difficulties in successfully integrating targets into our existing organization. Each of these risks may have an adverse effect on our business, financial condition and results of operations.

#### **Risks Related to Investments in our Company**

***Because we and our directors and officers are located in Germany, it may be difficult for you to sue these persons in the United States or to enforce judgments by U.S. courts against them.***

We are a corporation organized under the laws of the Federal Republic of Germany, and certain of our directors and executive officers are residents of Germany. In addition, a substantial portion of the assets owned by us and the aforesaid individuals is located outside the United States. As a result, it may be difficult or impossible for you to effect service of process upon us or any of the aforesaid persons within the United States with respect to matters arising under the U.S. federal securities laws or to enforce against us or any of such persons judgments of U.S. courts predicated upon the civil liability provisions of the U.S. federal securities laws. We have been advised by counsel that it is doubtful as to whether original actions of liabilities predicated on the U.S. federal securities laws may be enforced in Germany and that in Germany both recognition and enforcement of court judgments with respect to the civil liability provisions of the U.S. federal securities laws are solely governed by the provisions of the German Civil Procedure Code (*Zivilprozessordnung* or *ZPO*). In some cases, especially when the relevant statutory provisions of German law do not recognize the international jurisdiction of a U.S. court or the judgment conflicts with certain basic principles of German law (e.g., the prohibition of punitive damages and limited pre-trial discovery), a U.S. judgment might not be recognized by a German court. Service of process in U.S. proceedings on persons in Germany, however, is regulated by a multilateral treaty guaranteeing service of writs and other legal documents in civil cases if the current address of the defendant is known.

[Back to Contents](#)**ITEM 4: INFORMATION ON THE COMPANY****Introduction**

We are a globally operating company that develops, manufactures and markets innovative pharmaceutical and chemical products for a range of targeted, highly specialized applications. In 2004, we reported net sales of € 2,963 million, 83% of which were generated outside of our home market Germany, and operating income of € 617 million.

In each of the last five years, we were able to significantly increase our revenues and operating income, although the growth rate has flattened in recent years. Much of this development has been driven by Pantoprazole, our main therapeutic, which we offer for the treatment of reflux disease as well as gastric and duodenal ulcers, but increasingly also from growth of our chemicals business. Given the market position that Pantoprazole has achieved to date, we expect the growth of Pantoprazole to slow in the coming years. The following table provides a breakdown of our net sales and shows our operating income for the three years ended December 31, 2004:

	<b>Results of Operations</b>			
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>CAGR(1)</b>
	<b>(€ in millions, except %)</b>			<b>(%)</b>
<b>Net sales</b>				
Pharmaceuticals	1,861	1,980	2,109	9.9
Chemicals	748	755	854	6.0
<b>Total</b>	<b>2,609</b>	<b>2,735</b>	<b>2,963</b>	<b>8.7</b>
<b>Operating income</b>	<b>538</b>	<b>563</b>	<b>617</b>	<b>5.9</b>
<b>As % of net sales</b>	<b>20.6</b>	<b>20.6</b>	<b>20.8</b>	

(1) The Compound Annual Growth Rate ( CAGR ) measures the average annual growth of a line item over the period for which data is shown in the table.

For a description of our principal capital expenditures over the last three years, see Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources .

Our pharmaceuticals division is committed to developing innovative therapeutics for the global pharmaceuticals markets with a strategic focus on unmet medical needs in the gastrointestinal and respiratory areas. Our pharmaceuticals business is currently mainly driven by Pantoprazole. We market Pantoprazole in virtually all regions of the world with the exception of Japan. The main markets for the drug are the United States and Europe. Pantoprazole has been chiefly responsible for the growth of our pharmaceuticals division in recent periods, and we expect that it will continue to be a key revenue driver in the coming year.

In addition, after successfully completing the Mutual Recognition Procedure ( MRP ) in most European countries, we recently started marketing Ciclesonide, an innovative product for the treatment of asthma, as a metered dose inhaler ( MDI ) device under the brand name Alvesco® in two European markets, Germany and the United Kingdom. As of the end of February 2005, we had received regulatory approval for Ciclesonide in 18 countries, and in October 2004, our collaborative partner in the United States, Sanofi-Aventis, received an approvable letter for Ciclesonide from the FDA. For more information on the approvable letter , see Products Therapeutics Respiratory franchise .

We are also co-developing Roflumilast, a promising drug candidate for the treatment of asthma and chronic obstructive pulmonary diseases ( COPD ), for which we filed an application for regulatory approval in the European Union with the European Medicines Agency ( EMEA ) in February 2004. We intend to market Roflumilast under the brand name Daxas®.



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In addition to our portfolio of prescription therapeutics, we offer imaging reagents and an assortment of over-the-counter ( OTC ) drugs, which are drugs that are available to patients without prescription.

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Our chemicals division offers a portfolio of innovative high quality specialty chemicals, including additives and measuring instruments, coatings and sealing compounds, and electrical insulation coatings for use in a wide range of downstream applications. In light of the highly application-specific nature of the specialty chemicals that we offer, we maintain close contact with our customers and constantly aim to develop, manufacture and market products that respond to their specific requirements. We believe that our customer-oriented approach has enabled us to achieve leading positions in the selected markets that we serve as well as revenue growth and margins above the average of our peers.

At December 31, 2004, we had operating subsidiaries in over 25 countries, which marketed our products on a worldwide basis. At that date we employed almost 10,800 people, of whom 19.7% worked in research and development. We believe that our commitment to the international expansion of our business and to R&D will enable us to capture future growth opportunities in the pharmaceuticals and specialty chemicals industries in our various targeted markets.

We are incorporated as a stock corporation under the laws of the Federal Republic of Germany and began operations as a separate legal entity in 1977 following our spin-off by VARTA AG. The legal name of our company is ALTANA Aktiengesellschaft. Our principal executive offices are located at Am Pilgerrain 15, D-61352 Bad Homburg v. d. Höhe, Germany, and our telephone number is ++49 (0) 6172-1712-0.

### Strategy

Our group mission, which serves as a guiding principle for both our divisions, is to increase our value through sustained profitable growth by developing, manufacturing and marketing innovative products in selected high-margin areas and expanding our operations internationally. We are committed to fully exploiting the opportunities of emerging technologies by investing a substantial amount of our annual earnings in R&D and to enlarging our presence in all important international markets, particularly the United States and Asia.

We measure our success in creating value by reference to sustained levels of growth in earnings, annual dividends and market capitalization. To focus our efforts on these criteria, we have sought to align the interests of our management and employees with those of our shareholders by implementing stock-based compensation programs. Accordingly, we operate annual stock option plans that are open to our management board, senior executives and other key and high-potential employees. We also offer an annual share ownership plan for those of our employees who are not eligible to participate in our stock option plans. For more information on these plans, see [Item 6: Directors, Senior Management and Employees Share Ownership](#) [ALTANA Investment Program](#).

In addition to our overall group strategy, we have also formulated more detailed strategies for each of our two divisions.

In our pharmaceuticals division, our strategy is to:

*Develop innovative therapeutics in high-growth areas.* To capitalize on opportunities in the worldwide pharmaceuticals markets, we concentrate our efforts on the discovery and development of innovative therapeutics in those areas that we believe offer the highest growth potential. Our current focus is on expanding our successful gastrointestinal franchise by exploiting the expertise that we have gained through the development of Pantoprazole, while strengthening our respiratory franchise. To this end, we are actively developing next-generation therapeutics for the treatment of ulcers and acid reflux disease, including Soraprazan, which is an acid pump antagonist ( [APA](#) ) in Phase II clinical development. Recently we launched the MDI application of Ciclesonide, an innovative drug for the treatment of asthma, under the brand name Alvesco® in two major European markets, and we are in the process of applying for regulatory approval of an additional innovative drug for the treatment of asthma and COPD, Roflumilast, which we intend to market under the brand name Daxas®. Our medium- to long-term goal is to supplement our existing franchises by entering the oncology market, which we expect will grow

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substantially in the future. Consistent with our strategy to concentrate on those segments of the pharmaceuticals markets that offer the greatest growth potential, we have disposed of most of our diagnostics business in 2002.

*Expand our business internationally, particularly in the United States, to capture growth opportunities in the global pharmaceuticals markets.* International markets already account for more than 80% of the net sales of our pharmaceuticals division. We consider the further internationalization of our business a key element of our growth strategy. The strong market position of Pantoprazole in the United States has enabled us to achieve substantial sales increases over the past years. In 2004, our U.S. pharmaceutical sales amounted to € 647 million, representing 30.7% of the total net sales of our pharmaceutical division in this period. To solidify and expand our position in this and other important international markets, we aim to increase our visibility by entering into co-promotion arrangements with partners that have established marketing and sales organizations and by exploiting the launch of our pipeline drugs to gradually expand our own sales and marketing organizations for innovative pharmaceuticals in the U.S. and other overseas markets. In addition, we plan to create and expand our own research, clinical development and regulatory affairs facilities in overseas locations, especially in the United States and Japan.

*Focus on R&D.* We believe that the foundation of our long-term growth strategy is our continued emphasis on R&D with a special focus on therapeutics, the strategic core of our pharmaceuticals business. In addition, we intend to expand the depth and scope of our R&D activities by entering into strategic collaborations with third parties active in biotechnology and molecular science with a view to enhancing our R&D efforts in the areas of genomics and proteomics. To fully exploit the fruits of our research, we complement our own efforts by entering into co-development arrangements with third parties. We also develop drugs on the basis of technologies licensed from third parties. See [Pharmaceuticals Research and Development R&D strategy](#) for more information on our R&D strategy.

In our chemicals division, we seek to:

*Market comprehensive customer-oriented solutions.* In our chemicals business, we provide our customers with comprehensive solutions that combine specialized chemical products with technical advice and assistance regarding their adaptation and integration into our customers' manufacturing processes. To this end, we typically market our products on a decentralized basis and maintain customer service facilities in proximity to our customers' premises. We believe that this strategy enables us to add substantial value to our customers' products and their manufacturing efforts. Our customer-driven philosophy has enabled us to achieve leading positions in terms of innovation, quality and service in a number of selected markets. In addition, because our customers pay us primarily for the performance of our products, rather than the chemical substances of which they consist, we believe that our ability to offer comprehensive solutions has allowed us to attain higher profit margins than many of our peers.

*Maintain an innovative portfolio of technologically superior products.* We believe that our focus on developing innovative products has earned us an industry-wide reputation as a supplier of technologically advanced specialty chemicals. We intend to build upon this reputation by continuing to spend substantial resources on R&D. To ensure that our R&D efforts are at all times geared towards improving the performance of our products, all our R&D projects are carried out in close cooperation with our sales and service organization. This approach, which we believe distinguishes us from our competitors, enables us to collaborate with our customers and to constantly adapt the focus of our efforts in response to their needs.

*Focus on selected markets.* We seek to achieve a leading position in each of our targeted markets through innovation, quality and service. A key element of our strategy is to focus on markets that are too small to form a core business of our larger competitors and yet too complex to be serviced by smaller companies, which typically have insufficient

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resources to meet the market's expectations in terms of R&D and international scope. In selecting markets to enter, we aim to maintain a strategic portfolio of downstream markets that allows us to supply a wide array of complementary industries. We believe that this approach enables us to diversify our risk by reducing our exposure to the business cycles of individual markets. In line with this strategy, we have divested parts of our industrial coatings business, which do not meet our criteria with respect to innovation and high demand for technical support, and have decided to focus increasingly on solutions for flexible packaging within our Coatings & Sealants business unit.

\* *Supplement organic growth with acquisitions of selected targets.* In furtherance of our strategic goal to maintain and expand our leading position in selected markets of the specialty chemicals industry, we have historically relied on a combination of organic growth and selective acquisitions, and we intend to continue to pursue this strategy in the future. In selecting acquisition targets, we focus on the potential for synergies, the availability of experienced and competent management and the willingness and ability of the target to accept our corporate culture and our focus on serving our customers.

### **Pharmaceuticals**

#### **Overview**

We develop, manufacture and market a wide range of pharmaceutical products, with a focus on innovative therapeutics. In addition, we offer imaging reagents and OTC drugs. We benefit from an extensive product portfolio, with particular strengths in the area of gastrointestinal therapies, and market our pharmaceuticals internationally, mainly in the United States, Germany and other countries in Europe, as well as in Latin America. The strength of our portfolio has enabled our pharmaceuticals division to increase its net sales substantially in recent years.

In 2004, our pharmaceuticals division generated net sales of € 2,109 million, an increase of 6.5% compared with 2003. The chart below provides a breakdown of our pharmaceuticals net sales by geographic region for the three years ended December 31, 2004:

#### **Pharmaceutical Net Sales by Geographic Region**

A substantial portion of our growth is attributable to the successful marketing of Pantoprazole in all key markets for branded proton pump inhibitors (PPIs) with the exception of Japan. While we have experienced strong double digit growth in the European markets, growth in North America has recently slowed down due to increased competition in the U.S. market for branded PPIs and the increasingly adverse exchange rate situation over the past years. We expect that the proportion of our net sales accounted for by sales to Europe and North America will continue to increase in future

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years due to the continued commercialization of Pantoprazole and the introduction of new pharmaceuticals, such as Ciclesonide, which was recently launched in two major European markets as MDI application. This trend may, however, be less pronounced than it has been in the past. The increase in net sales in Latin America in 2004 was due primarily to investments we made in Brazil in 2003, the effects of which more than offset continuing adverse currency exchange rate effects, especially in Mexico. Sales in Germany declined due to significant savings measures taken by the operators of the German health care system.

As a result of the international dimension of our business, our results of operations are materially affected by exchange rate fluctuations in any given period, especially by changes in the exchange rate between the euro on the one hand, and the U.S. dollar and currencies linked to the U.S. dollar on the other hand. See Item 3: Key Information Risk Factors Risks Related to each of our Businesses and Item 11: Quantitative and Qualitative Disclosure About Market Risk for more information on our exchange rate exposure.

In 2004, our pharmaceuticals division comprised three principal business areas:

Therapeutics, comprising prescription drugs for gastrointestinal and respiratory indications as well as a variety of other therapeutics;

OTC, comprising drugs, tonics, vitamins and medical accessories that patients may purchase over-the-counter without the need to obtain a prescription; and

Imaging, comprising diagnostic reagents, such as contrast media, for in vivo applications.

In addition, we generate limited revenues from other sources, mainly from contract manufacturing on behalf of third parties.

At the end of 2002, we sold a substantial part of our former diagnostics business to DiaSorin s.r.l., while retaining certain diagnostic technologies that are directly relevant to our pharmaceuticals research. Accordingly, effective January 1, 2003, we changed the presentation of our pharmaceuticals business to reflect four business areas: therapeutics, OTC, imaging and other. Diagnostic revenues generated prior to the sale of our diagnostics business in 2002 are now presented within other.

The following chart provides a breakdown of our pharmaceutical net sales by business area for the three years ended December 31, 2004:

#### **Pharmaceutical Net Sales by Business Area**

The growth of our pharmaceuticals division is driven primarily by our therapeutics business and especially by our acid suppressant Pantoprazole, which continued to be the primary growth driver for the division, accounting for 57.6% of its net sales in 2004.

#### **Products**

##### ***Therapeutics***

*Overview.* In our therapeutics business, we develop, manufacture and market prescription drugs, commonly referred to as ethical therapeutics, primarily for gastrointestinal and respiratory indications.

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In addition, we market therapeutics for cardiovascular and a variety of other indications. In 2004, our therapeutics business generated net sales of € 1,839 million.

The following table shows a breakdown of our therapeutics net sales by franchise for the three years ended December 31, 2004:

**Therapeutics Net Sales by Franchise**

	2002	2003	2004
	(€ in millions)		
Gastrointestinal	1,083	1,241	1,367
Respiratory	57	59	59
Other	425	424	413
<b>Total</b>	<b>1,565</b>	<b>1,724</b>	<b>1,839</b>

In the medium- to long-term, we intend to expand our therapeutics business by entering the oncology market. We have already commenced basic research related to oncology and entered into a number of collaborations with biotech companies through which we seek to enhance our R&D expertise in this area. See [Research and Development](#) [R&D strategy](#) for more information on our R&D strategy.

*Gastrointestinal franchise.* In our gastrointestinal franchise, we market drugs for the treatment of diseases affecting the human esophagus, stomach and intestine. In 2004, our gastrointestinal business achieved net sales of € 1,367 million.

The most important product in our gastrointestinal portfolio is our patent-protected therapeutic Pantoprazole. In 2004, Pantoprazole accounted for net sales of € 1,216 million, or 88.9%, of the revenues of our gastrointestinal franchise.

Pantoprazole is an acid suppressant drug that belongs to the family of so-called proton pump inhibitors ( PPIs ). Over the past decade, the worldwide market for PPIs has experienced rapid growth, and the number of PPIs and their labeled indications has expanded. Doctors typically use Pantoprazole for the short- and long-term treatment of patients with gastroesophageal reflux disease ( GERD ), a chronic condition caused by the reflux of stomach acid into the esophagus. Medscape estimates that more than 40% of adults experience GERD symptoms at least twice a week. If left untreated, esophageal damage caused by GERD can lead to even more serious complications, including a precancerous condition known as Barrett 's esophagus and esophageal cancer. Pantoprazole blocks the enzyme responsible for producing acid in the gastric mucosa, thereby restricting the flow of acid into the stomach. Pantoprazole has also received approval in the United States and Europe for the long-term treatment of GERD and very recently in some European countries for the on demand treatment of GERD. These developments have expanded its use. In addition, Pantoprazole has also received regulatory approval in many countries outside the United States for the treatment of gastric and duodenal ulcers as well as the prevention of ulcers caused by non-steroidal anti-inflammatory drugs ( NSAIDs ). Ulcers result from the digestive action of the gastric juice on the mucous membrane when the latter is rendered susceptible to its action, for example, by certain drugs or local factors, including the Helicobacter pylori infection. Helicobacter pylori is the bacterium chiefly responsible for peptic ulcers. In addition, Pantoprazole has received approval in the United States, Europe and various other countries for application in an intravenous formulation. Pantoprazole intravenous has important therapeutic benefits for the treatment of patients who are unable to receive a PPI by other routes and who need an intravenous ( IV ) agent for the short term. In some countries, we also offer Pantoprazole in combination with two antibiotics for the eradication of Helicobacter pylori.

We believe that Pantoprazole enjoys therapeutic advantages vis-à-vis its competitors. First, clinical studies we have conducted on Pantoprazole suggest that Pantoprazole has less clinically relevant potential for metabolic interaction with other drugs. This feature distinguishes Pantoprazole from competing PPIs. Our studies have also shown that Pantoprazole has a higher bioavailability

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than other PPIs. Bioavailability is a measure for the degree and rate at which a substance is absorbed into the body. Finally, Pantoprazole was the first PPI available in the United States as both an oral and an IV preparation. Recently, however, a Lansoprazole IV preparation has been launched, and we expect an Esomeprazole IV preparation to be launched in the near future.

Pantoprazole enjoys substance patent protection in Europe until June 2005 and in the United States until July 2010. In addition, the drug benefits from supplementary protection certificate ( SPC ) protection in the majority of European countries until the end of May 2009. In 2004, a third party submitted an Abbreviated New Drug Application ( ANDA ) for approval of a generic version of Pantoprazole challenging our Pantoprazole substance patents to the U.S. Food and Drug Administration ( FDA ). In response to this patent challenge, we filed a patent infringement suit against the applicant in the United States in April 2004. We are confident that our U.S. patent relating to Pantoprazole is valid and enforceable and of sufficient scope and strength to prevent the company that submitted the ANDA or any other third party from manufacturing and distributing Pantoprazole-based generics during the remaining life of this patent. In 2004, we also received two ANDAs challenging our Pantoprazole formulation patents. Because the earliest that any patent infringement with respect to our formulation patents for Pantoprazole could pose a threat to our business is 2010 (until which date we believe we will continue to enjoy protection under our substance patents), we decided not to take any immediate steps with regard to these two ANDAs. At the beginning of March 2005, we received a notification from Sun Pharmaceuticals Advanced Research Centre (Limited) ( Sun ), one of the challengers of our Pantoprazole formulation patent, informing us that Sun has amended its ANDA to include a paragraph IV certification relating to our Pantoprazole substance patent. We have not yet decided which steps should be taken with regard to this amendment of Sun s ANDA. For additional information, see Intellectual Property , Regulation United States , Legal Proceedings and Item 3: Key Information Risk Factors Risks Related to our Pharmaceutical Business .

We have offered Pantoprazole in our home market, Germany, under the name Pantozol<sup>®</sup>, since 1994 and in the United States, under the name Protonix<sup>®</sup>, since 2000. As a result, we currently offer the drug in virtually all regions of the world with the exception of Japan. According to our internal records and data provided to us by our co-marketing partners, co-promotion partners and licensees, global market sales of Pantoprazole amounted to € 2,481 million in 2004. Market sales include our own direct sales to the market as well as the sales of our licensees and co-marketing and co-promotion partners. See Sales and Marketing for a description of our sales and marketing organization.

Pantoprazole has experienced rapid growth in almost every market in which it has been launched. Based on data available to us, total market sales of Pantoprazole in 2004 totaled € 1,428 million in North America, € 210 million in Germany, € 681 million in Europe excluding Germany, € 48 million in Latin America, and € 114 million elsewhere. These figures yield total market sales of Pantoprazole of € 2,481 million in 2004, compared with € 2,350 million in 2003 and € 2,007 million in 2002. The growth in total market sales of Pantoprazole in each of the three years reflects the strong growth in demand for this product in many regions of the world, including the U.S market.

Our launch of Pantoprazole in the United States benefited from our marketing collaboration with Wyeth Pharmaceuticals, the pharmaceuticals division of Wyeth, Inc. ( Wyeth ). According to IMS Health, as of the week ending February 11, 2005, Pantoprazole s share of new U.S. prescriptions for PPIs was 22.2%, while our total prescription share amounted to 21.8%.

We expect Pantoprazole to continue to be a key revenue driver for our business for at least the next several years, although we expect the growth rate to flatten given that the drug has already achieved a substantial position in all markets in which it has been launched and as a result of the impact of increasing competition. Pantoprazole faces competition from various other branded PPIs, including Takeda s Lansoprazole and AstraZeneca s Esomeprazole. If our competitors continue to invest heavily in marketing these products, the ability of Pantoprazole to capture market share or maintain its current market share could be adversely affected. In addition, Pantoprazole faces increasing competition from generic PPIs, in particular generic PPIs based on a substance called Omeprazole. A variety of companies, including Schwarz Pharma AG, Mylan Laboratories Inc., Novartis AG and Torpharm, are marketing Omeprazole-based generics in Europe and the United

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States at prices that tend to be lower than the price of Pantoprazole and other branded PPIs. Further competition may result from the launch of generic versions of PPI molecules other than Omeprazole once the relevant patents have expired. In addition, Pantoprazole competes with OTC PPIs. Unlike Pantoprazole, these PPIs are available to patients without a prescription. Various Omeprazole-based OTC PPIs have been launched in the United States and several European countries and are being marketed with increasing success. While generic and OTC PPIs have so far had a limited impact on the market for branded PPIs, including Pantoprazole, in Europe and the United States, we have started to experience stronger pricing pressure in the U.S. market.

Factors that we believe should limit Pantoprazole's ongoing exposure to competition include Wyeth's branding experience, which we believe should enable us to continue to convey the therapeutic benefits of Pantoprazole to the market, and the pricing of Pantoprazole at a substantial discount to other PPIs, including Astra Zeneca's Esomeprazole. However, there can be no assurance that we will be able to raise or maintain Pantoprazole's market share in future periods. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business and Competition for more information on the competitors of Pantoprazole.

Our continued commitment to the development of innovative gastrointestinal therapeutics has yielded Soraprazan, a potential next-generation drug for indications similar to those of Pantoprazole. Soraprazan is currently in Phase II clinical development. See Research and Development Pipeline for more information on Soraprazan and its therapeutic profile and on our R&D efforts in the area of gastrointestinal therapeutics generally.

*Respiratory franchise.* In our respiratory franchise, we offer drugs to treat chronic obstructive lung diseases, such as asthma and chronic obstructive pulmonary disease ( COPD ), and respiratory infections. Asthma is a chronic inflammation of the airways, often of allergic origin, that is marked by continuous labored breathing accompanied by wheezing, breathlessness, a sense of constriction in the chest, and often by attacks of coughing or gasping. According to the Global Initiative for Asthma ( GINA ), more than 300 million people worldwide suffer from asthma. The prevalence of asthma is increasing by approximately 50% every decade, and worldwide deaths from asthma total more than 180,000 annually. COPD is a pulmonary disease that is characterized by chronic, typically irreversible airway obstruction resulting in a slowed rate of exhalation. The airflow limitation is typically associated with an abnormal inflammatory response of the lungs to noxious particles or gases. COPD is often, though not always, caused by smoking. Over time, greater airway damage occurs, and patients eventually die due to lung failure. COPD affects 600 million people worldwide and kills more than 2.75 million people each year, according to estimates by the World Health Organization. Our respiratory business generated net sales of € 59 million in 2004 and has been relatively stable over the past few years.

Currently, the principal drug of our respiratory franchise is theophyllin, which we market under the brand names Euphyllin®/Euphylong®. Theophyllin is used for the treatment of asthma and COPD. The drug was among the very first products developed, manufactured and marketed by our pharmaceuticals division.

We had received approval for another respiratory drug, Ciclesonide, in 18 countries as of the end of February 2005, including from the U.K. Medicines and Healthcare Products Regulatory Agency in the United Kingdom in April 2004. We have recently launched the MDI application of Ciclesonide under the brand name Alvesco® in two major European markets, Germany and the United Kingdom, after successfully completing the MRP in most European countries. We expect to initiate the repeat use MRP in the remaining European countries as soon as practicable. For more information on the MRP, see Regulation European Union . Starting in 2002, we filed applications for regulatory approval of Ciclesonide in many other countries, including in the United States at the end of 2003. Our collaborative partner in Japan, Teijin Ltd., filed for regulatory approval of Ciclesonide in January 2004. In October 2004, our collaborative partner in the United States, Sanofi-Aventis, received an approvable letter for Ciclesonide from the FDA. An approvable letter outlines specific issues that must be resolved before the FDA will approve a drug for marketing. Sanofi-Aventis is working closely with the FDA to address the clinical data requests outlined in the letter.



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We have an additional innovative respiratory drug candidate, Roflumilast, at an advanced stage of clinical development. We filed an application for regulatory approval of Roflumilast with the EMEA in February 2004. While the Phase III clinical trials for Roflumilast in the United States are progressing, there have been some delays in patient enrollment, which are expected to delay the application for regulatory approval in the United States.

Provided that the commercialization of Ciclesonide is successful and we are able to obtain regulatory approval for the commercial launch of Roflumilast, which we intend to market under the brand name Daxas<sup>®</sup>, we expect our respiratory business to grow substantially in the future. See Research and Development Pipeline for more information on our R&D pipeline in the respiratory area and Item 3: Key Information Risks Factors Risks Related to our Pharmaceuticals Business for risks associated with the regulatory approval of pharmaceuticals under development.

For respiratory indications, we also offer Broncho-Vaxom<sup>®</sup>, an oral drug used principally for the treatment of recurrent respiratory tract infections. Broncho-Vaxom consists of fractions of eight different strains of bacteria whose application stimulates the natural defenses of the body. As a result, the drug can reduce the severity of symptoms and help patients develop a greater resistance to respiratory tract infections, thereby reducing the incidence and duration of such infections in adults and children. We license Broncho-Vaxom from OM PHARMA SA, a company located in Switzerland.

*Other therapeutics.* In our other therapeutics business, we market a variety of therapeutics for indications outside of our two main franchises, including therapeutics to treat cardiovascular diseases. In 2004, our other therapeutics business had net sales of € 413 million.

Our main product offerings in the cardiovascular area are Ebrantil<sup>®</sup>, a drug based on a substance called urapidil, which is available as both an oral and an IV formulation, and Querto<sup>®</sup>, a therapeutic based on a substance called carvedilol. Ebrantil and Querto are used for the treatment of hypertension. Hypertension is characterized by an increase in blood pressure above normal levels over a prolonged period of time. The condition can cause damage to the heart and blood vessels, creating an increased risk of heart attack, heart failure and stroke. While the IV formulation of Ebrantil is used primarily to treat hypertensive emergencies and postoperative hypertension, Querto is also used for the treatment of coronary heart disease and chronic heart failure. Ebrantil is a so-called selective alpha-1 receptor antagonist with central anti-hypertensive action, whereas Querto is a beta blocker. Alpha and beta receptors are cellular entities that exist on the surfaces of cells and are stimulated by the sympathetic nervous system. Both alpha receptor antagonists and beta blockers reduce stress symptoms by inhibiting the effects of the sympathetic nervous system, thereby preventing cardiovascular damage. While Ebrantil is a result of our own cardiovascular R&D efforts, we have licensed Querto from F. Hoffmann-La Roche Ltd. Querto's patent in Germany expired in 2004, which has led to a decline of our Querto sales. Apart from cardiovascular products, our main products in this area are drugs for the treatment of rheumatism and for urological and gynecological indications, as well as iron supplements and facial topicals.

## **OTC**

In our OTC business, we market a variety of non-prescription brands directly to the consumer. Our portfolio includes gastrointestinal drugs, pain killers, tonics and vitamins. Unlike ethical therapeutics, patients may purchase OTC drugs without a prescription. The OTC market has grown considerably in importance in recent years, as health insurance companies have become more cost-sensitive and refuse to refund the costs of certain categories of therapeutics (especially drugs used to treat trivial complaints). Therefore, we have switched several products from prescription to self-medication in the recent past. We achieve approximately one-half of the revenues of our OTC business in Germany. We also distribute OTC drugs through our subsidiaries in a number of other regions of the world, most notably in other parts of Western Europe and in Latin America. In December 2003, we paid \$ 33 million to acquire Neosaldina, an OTC product for pain treatment, in Brazil. In 2004, our OTC business generated net sales of € 115 million.

The most important products in our comprehensive OTC portfolio are Riopan<sup>®</sup>, Buerlecithin<sup>®</sup>, Neosaldina<sup>®</sup> and Sanostol<sup>®</sup>. Riopan is an antacid for the treatment of GERD, duodenal and gastric

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ulcers, and stress-related mucosal damage. Antacids are agents that neutralize acidity and are used as an adjunct to other drugs to relieve ulcer pain and as self-medication against acid indigestion, heartburn, dyspepsia and sour stomach. The therapeutic importance of antacids has been declining in recent years in view of the better clinical efficacy of PPIs, such as Pantoprazole. We currently market Riopan as an ethical therapeutic in some markets but mainly offer it as an OTC drug. Buerlecithin is a tonic based on lecithin, a substance found in soy plants, and is used to increase mental productivity. Neosaldina is a pain killer composed of three substances (main component: dipirona), which is widely used for the treatment of headaches and is well-established in Brazil, where it is the best-selling drug in pharmacies. Sanostol is a widely recognized vitamin preparation for children in Germany and many other countries.

**Imaging**

In our imaging business, we offer a variety of in vivo diagnostic applications, which are applications for diagnosing medical conditions in the living body of a human. Imaging is a term that covers a range of diagnostic techniques for creating images of parts of the human body. Our portfolio comprises contrast media for x-ray imaging and magnetic resonance imaging ( MRI ) and ultrasonic imaging. MRI is an increasingly important noninvasive diagnostic technique that produces computerized images of internal body tissues and is based on nuclear magnetic resonance of atoms within the body induced by applying radio waves. In 2004, our imaging business generated net sales of € 109 million. We offer our imaging portfolio in cooperation with Bracco S.p.A., an Italian company active in contrast media. Under the terms of our collaboration with Bracco, we manufacture a variety of contrast media developed by Bracco and market them in Germany and in parts of Central Europe. We believe that as a result of our collaboration with Bracco, we are among the leading providers of contrast media in Europe.

**Research and Development****R&D strategy**

We consider R&D to be the foundation of the long-term growth of our pharmaceutical division and are committed to maintaining a high level of investment in R&D in the future. The table below provides information regarding our pharmaceutical R&D expenditures for the three years ended December 31, 2004:

	<b>R&amp;D Expenditures</b>		
	<b>2002</b>	<b>2003</b>	<b>2004</b>
	(€ in millions, except %)		
R&D expenditures	335	376	407
% of pharmaceuticals net sales	18.0	19.0	19.3
% of therapeutics net sales	21.4	21.8	22.1

We believe that our current level of R&D expenditures positions us well vis-à-vis our peers. Our goal is to continue to spend approximately 20% of our therapeutics net sales on R&D in the future. We intend to allocate approximately 20% of our R&D expenditures in any given year to basic research and drug discovery.

The main focus of our R&D expenditures in recent years has been therapeutics, which is the single most important contributor to our pharmaceuticals revenues and which we expect to increase in importance in the future. Within therapeutics, we concentrate on the development of innovative drugs for gastrointestinal and respiratory indications. We have identified oncology as a further focal point of our R&D efforts. To this end, we have commenced basic oncological research and entered into a variety of collaborations with biotech companies. In addition, we also conduct R&D related to molecular diagnostics.

Our current R&D facilities are located in Constance, Germany; Hamburg, Germany; Bromma, Sweden; Florham Park, New Jersey; and Boston, Massachusetts. To support the international expansion of our operations, we are in the process of expanding our R&D facilities in overseas

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locations. In light of the relative size and importance of the U.S. market, we focus our international R&D activities outside of Germany primarily on the United States. To this end, we formed the ALTANA Research Institute, a genomics-oriented research center based in Waltham near Boston, Massachusetts, in May 2002, which was officially opened in June 2003. The unit is equipped with a variety of technology, including technology licensed from GPC Biotech AG (GPC), and specializes in functional genomics and proteomics, target identification and target validation. Its aim is to assist us in decoding complex cell functions and detecting genetically steered cell malfunctions. To conduct clinical studies on, and to assist us with obtaining regulatory approval for, new therapeutics in the United States, we primarily rely on our late-stage U.S. development and marketing facility in Florham Park, New Jersey, which we created in September 2002. In addition, we have started construction of a new research institute in Mumbai, India. This new institute is intended to enhance our research capacity in the field of medicinal chemistry. We expect that this institute will significantly increase our ability to synthesize new chemical compounds in our core indication areas.

In addition to carrying out R&D projects internally, we continuously seek to enhance the scope and depth of our research portfolio by obtaining access to outside knowledge, mainly through collaborations with companies in the biotech field. Our immediate goal is to intensify our activities in the areas of genomics, proteomics and high-throughput screening (HTS) by acquiring equity holdings in biotech companies, sponsoring research projects and facilitating collaborations that we believe will yield results which may assist us with the development of innovative new therapeutics. For example, in 2001, we acquired a strategic 8.3% stake (subsequently reduced to 7.85%) in GPC, a biotech company with facilities in the United States and Germany with which we have a longstanding relationship. In addition to collaborating with third parties in the area of basic research, we also enter into co-development arrangements with third parties. By supplementing our own development efforts with the resources of third parties, we believe that we can enhance the commercial potential of our research results.

We believe that our scientific staff is a key to our success. At December 31, 2004, 1,656 of our employees about 20.2% of the workforce of our pharmaceuticals division worked in our pharmaceutical R&D laboratories. Our goal is to attract and retain the best-qualified scientists for our R&D activities. To this end, we offer our employees a competitive compensation package, which includes the ability to participate in our various employee incentive plans. See Item 6: Directors, Senior Management and Employees Share Ownership Stock Option Plans for additional information on our stock option plans.

### *Pipeline*

*Overview.* We currently have several therapeutics in various stages of our R&D pipeline. For each project, we are required to conduct a number of pre-clinical and clinical studies. In the pre-clinical project phase, we typically conduct a number of in vitro and in vivo studies on animals to test the molecular and physiological effects of a drug candidate on cellular systems and its mechanisms of action. If these tests yield positive results, we then conduct Phase I, Phase II and Phase III clinical studies on humans to test the safety and clinical efficacy of the drug candidate. For more information on the regulatory approval process, see Regulation .

While regulators in the United States and the European Union require that we conduct comprehensive pre-clinical and clinical studies before applying for authorization to market a drug, we typically need not conduct all requisite studies in each of the two jurisdictions. Instead, we are usually able to apply to the regulator of one jurisdiction to give us credit for studies conducted in other jurisdictions. Sometimes, a regulator will require us to supplement our existing studies with additional trials in order to satisfy all applicable requirements. As a result, we often manage to use, for example, the results of Phase I trials conducted in the European Union in order to qualify for Phase II trials in the United States and vice versa. Historically, we used to first test our drug candidates in the European Union and subsequently transfer the results of these tests to the United States, subject to any additional testing required by the FDA. More recently, in connection with the international expansion of our business, we started to conduct trials in the European Union and United States in parallel. In doing so, we rely partly on our own resources and partly on collaborations with third parties.

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Consistent with our R&D strategy, we focus our development efforts on innovative drug candidates for gastrointestinal and respiratory indications.

*Gastrointestinal franchise.* In the gastrointestinal area, we focus our R&D efforts on a new class of therapeutics known as acid pump antagonists ( APAs ). Our main drug candidate in this area is Soraprazan, which we are developing for the treatment of GERD and other acid related diseases. APAs are widely considered the next generation of acid suppressants. Like PPIs, APAs restrict the flow of acid into the stomach. They differ from PPIs, however, in the way they operate. Whereas PPIs are prodrugs, which means they have to be converted before they bind to the proton pump, APAs act directly via an ionic inhibition of the pump. As a result of this difference, Soraprazan displays a faster and more pronounced onset of action and disconnects much more easily from the pump, which we believe should lead to significant therapeutic benefits compared with currently available treatments for GERD and ulcers, such as better symptom relief. This characteristic should make Soraprazan more suitable for treating the symptoms of various gastrointestinal diseases. Soraprazan is currently in Phase II development. Initial data from early Phase II studies indicate that Soraprazan is efficacious and well-tolerated.

*Respiratory franchise.* Our pipeline for respiratory indications contains a series of innovative drug candidates for the treatment of asthma, COPD and rhinitis. Rhinitis is a disease that causes inflammation of the mucous membrane of the nose. The table below provides an overview of our respiratory pipeline along with the respective development stages of each drug:

<b>Drug candidate</b>	<b>Indication</b>	<b>Current project phase</b>
Ciclesonide metered dose inhaler	Asthma	Phase III/IV(1)(2)
Ciclesonide nasal	Rhinitis	Phase III
Ciclesonide combined with formoterol(3)	Asthma	Phase I I
Roflumilast oral	Asthma	Pre-registration in the EU(4) Phase III(5)
Roflumilast oral	COPD	Pre-registration in the EU(4) Phase III(5)

- (1) In conducting Phase III studies with respect to this project in the United States, we collaborate with Sanofi-Aventis.  
(2) Already launched in two and registered in 18 countries as of the end of February 2005.  
(3) Formoterol is a long-acting beta agonist that acts as an acute bronchodilator.  
(4) Application for regulatory approval filed with relevant authorities.  
(5) In conducting clinical studies with respect to this project, we collaborate with Pfizer, Inc.

As part of the regulatory approval process, a New Drug Application ( NDA ) must be submitted to the FDA in the United States. In the European Union, a Marketing Authorization Application ( MAA ), has to be submitted to the EMEA. For more information on the regulatory approval process, see Regulation . In light of the inherent unpredictability of the regulatory process, you should be aware that there can be no assurance that an MAA or NDA with respect to any of the drug candidates listed in the table above will be filed by any particular time or at all.

Ciclesonide, which we have recently started to market under the name Alvesco<sup>®</sup>, is an inhaled corticosteroid for the treatment of asthma. Because asthma is a global and widespread disease, there is a substantial need for further effective therapeutics in addition to those which are already on the market. Corticosteroids are powerful anti-inflammatory drugs that prevent asthma attacks by reducing airway hyper-responsiveness and inflammatory reactions, such as edema and mucous secretion. Inhaled steroids are considered the current drug of choice for the treatment of asthma, as they offer the best overall therapeutic profile. The inhaled steroids currently available on the market, however, have two main side effects. First, when administered via inhalers, portions of the drugs active ingredients are deposited not only in the lung but also in the mouth and throat, which can cause local side effects such as hoarseness and fungal infections. Second, once spread throughout the body following absorption and distribution via the blood, the systemic availability of these ingredients can lead to serious systemic effects. Of these systemic effects, diabetes, osteoporosis and slowed growth in children are the most important. In contrast, Ciclesonide is activated predominantly in the lung by

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enzymes known as esterases. This feature of Ciclesonide reduces the systemic effects that characterize existing inhaled steroids and may provide the drug with a significant therapeutic advantage over present treatments. In clinical trials, patients treated with Ciclesonide have experienced significantly fewer mouth and throat side effects, while benefiting from improved lung function, effective symptom control and reduced use of rescue medications.

We are developing Ciclesonide for use in connection with MDIs, nasal applicators and as a dry powder inhaler ( DPI ) in combination with formoterol, which is a compound acting as an acute bronchodilator.

We had received approval for the MDI application of Ciclesonide, for which we use a CFC-free environmentally friendly device, in 18 countries as of the end of February 2005, including in the United Kingdom, which we had chosen as the reference EU member state for Ciclesonide under the MRP to obtain regulatory approval for this drug throughout the European Union. For more information on the MRP, see Regulation European Union . Accordingly, we recently launched Ciclesonide under the brand name Alvesio<sup>®</sup> in two major European markets, Germany and the United Kingdom. Starting in 2002, we filed applications for regulatory approval of Ciclesonide in many countries, including in the United States at the end of 2003. Our collaborative partner in Japan, Teijin Ltd., filed for regulatory approval of Ciclesonide in January 2004. In October 2004, our collaborative partner in the United States, Sanofi-Aventis, received an approvable letter for Ciclesonide from the FDA. Phase II studies with respect to Ciclesonide in combination with formoterol for oral inhalation are ongoing. We have abandoned our plans of marketing a Ciclesonide-only DPI application for the time being and are focusing on a DPI application in combination with formoterol. With respect to the nasal application of Ciclesonide, Phase III studies are ongoing following the successful conclusion of Phase II.

Roflumilast, which we intend to market under the name Daxas<sup>®</sup>, is a selective phosphodiesterase ( PDE ) 4 inhibitor for the treatment of asthma and COPD. In the United States COPD is second only to cardiovascular disease as a cause of disability, according to U.S. Social Security statistics, which speaks to the substantial need for an effective treatment. PDE 4 inhibitors are substances that have anti-inflammatory and immuno-modulatory effects and are effective against various inflammatory diseases. We refer to Roflumilast as a selective PDE 4 inhibitor because it selectively inhibits one form of the PDE enzyme family, namely the PDE 4 enzyme. As a result of its special molecular interaction with this enzyme, we expect that Roflumilast will have an improved side-effect profile compared with other PDE 4 inhibitors. Unlike most existing therapies for asthma and COPD, Roflumilast can be administered orally.

For both the asthma and the COPD indications of Roflumilast, we have completed a number of Phase III studies in the European Union and are currently in the process of conducting several additional studies in the European Union, the United States and other geographic regions.

In February 2004, we submitted the registration dossier for Roflumilast for European approval to the EMEA. Despite certain similarities in their indications, our various pipeline drugs in the respiratory area are targeted at complementary markets. While Ciclesonide and Roflumilast are both aimed at the treatment of asthma, they have different therapeutic profiles as a result of differences in their mode of action and the manner in which they are administered. In addition, unlike Ciclesonide, Roflumilast is being developed also for the treatment of COPD.

While clinical trials of the various pipeline drugs described above have so far shown promising results, given the nature of the drug development process, there can be no assurance that any of these drugs will reach the market. There is always a significant possibility that adverse results with respect to a drug will become apparent in the future, which may result in substantial delays in the launch of the drug and possibly force us to abandon the drug altogether.

**R&D collaborations**

*Overview.* The table below provides an overview of some of our more important current R&D collaborations, including a brief description of the scope and objectives of each:

[Back to Contents](#)**R&D Collaborations**

<b>Partner</b>	<b>Scope</b>
<i>Research collaborations</i>	
GeneData AG	Bioinformatics and genomics information management and analysis systems  Data storage and analysis of high-throughput screening assays
GPC Biotech AG	Validation of tumor-specific targets  Collaboration in the area of pathway mapping and kinases
Atugen AG	Antisense target validation, i.e., validation of drug targets by using a complementary sequence to a given segment of genetic material
Pharmacopeia Inc.	Screening for new chemical compounds with special biological properties in the field of inflammation research
Evotec OAI AG	Technical collaboration in the field of confocal laser detection in high throughput screening; development of a kinase assay
Proteros Biostructures GmbH	Crystallization and X-ray analysis of drug target complexes in order to obtain three-dimensional information on the binding geometry of drug molecules and their biological target
<i>Development collaborations</i>	
Sanofi-Aventis (formerly Aventis S.A.)	Co-development and co-promotion of Ciclesonide under the brand name Alvesco® in the United States
Teijin Ltd.	Development and marketing of Ciclesonide under the brand name Alvesco® in Japan; co-development of the nasal application of Ciclesonide
Pfizer Inc.	Co-development and co-promotion of Roflumilast under the brand name Daxas® in the United States, Europe and other markets
Tanabe Seiyaku Co. Ltd.	Co-development and co-promotion of Roflumilast under the brand name Daxas® in Japan

*Research collaborations.* In 2000, we entered into an alliance with GeneData AG, a Swiss company that is a leading provider of bioinformatics and genomics information management and analysis systems used in various genomic R&D applications. Our collaboration with GeneData has put us in a position to manage the huge amounts of data involved in functional genome analysis, thereby significantly enhancing our capabilities in this important area of pharmaceutical R&D. In 2002, we expanded the scope of our collaboration with GeneData to develop a high-throughput screening ( HTS ) data storage and analysis system. High-throughput screening is an automated process that is used to select the best drug candidate from among hundreds of thousands of candidate molecules.

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In December 2000, we entered into a five-year research alliance with GPC Biotech AG in the area of tumor research. The alliance replaced our earlier collaboration with GPC, under which we worked together to investigate new genomic targets for the control of infections caused by microorganisms causing or capable of causing disease. Under the terms of this agreement, we collaborate in the identification of tumor-specific targets, that is, targets whose inhibition selectively eradicates cancer cells (but not normal cells). Most current chemotherapeutics for tumors show poor efficacy and safety profiles because they are unable to specifically target tumor cells. As a result, we believe that our collaboration with GPC will benefit our oncological research efforts. In addition to research, we are also entitled to have target validation, assay development and screening carried out by GPC. In 2001, we entered into an agreement with GPC, pursuant to which the company provides us with technology for our research unit in Waltham near Boston, Massachusetts, which specializes in functional genomics and proteomics. In addition, under the terms of the agreement, we collaborate with GPC in the area of pathway mapping and kinases. Kinases are enzymes that catalyze the transfer of phosphate groups and play an important role in the cell cycle and for the regulation of biochemical pathways in living cells.

In July 2001, we entered into a three-year arrangement with Atugen AG pursuant to which Atugen will carry out target validation for us, including the validation of tumor-specific targets. The agreement was partially renewed until the end of September 2005. Target validation constitutes an essential step in the process of turning new target proposals identified with genomic technologies, which is the subject-matter of our agreement with GPC, into new drugs. The agreement will help us determine whether a target is critically involved in a disease process and whether drugs that modulate the target are likely to have a beneficial therapeutic effect.

In December 2003, we entered into a research collaboration with Pharmacoepia Inc. The goal of this collaboration is to search and identify new lead compounds for a biological target that we have identified in our inflammation research area. A lead compound is a chemical molecule that has been shown to bind to, inhibit or activate a target. Lead compounds are usually put through a process of modification and re-testing called optimization before a drug candidate is found. Under our agreement with Pharmacoepia Inc., we will screen Pharmacoepia's large chemical library for compounds that influence the biological behavior of the target. Upon successful completion of defined preclinical and clinical milestones, Pharmacoepia will receive milestone payments. We believe that this agreement will enable us to improve the number and quality of relevant lead compounds.

Since 2001, we have collaborated with Evotec OAI in the field of HTS technologies. As part of this collaboration, Evotec develops specialized equipment for the detection of fluorescence signals in cellular HTS assays, which constitutes a core capability for the high content screening of bioactive compounds and which we believe will provide us with a competitive advantage. The collaboration entitles us to a non-exclusive license to this technology. In October 2004, we signed an agreement with Evotec to advance the discovery of one of its kinase assays. Applying Evotec's drug discovery engine from target to clinic, we aim to identify and optimize novel lead compounds that interact with the target in the research program.

In October 2001, we entered into a collaboration with Proteros AG, a company specializing in X-Ray crystallography of proteins. Under this collaboration, Proteros develops crystallization protocols for target proteins, 3D-structure elucidation of these proteins as well as protein-ligand complexes that permit the further optimization of our lead structures. The collaboration gives us an exclusive right to use the data generated by Proteros in our own R&D efforts, for example, in connection with the development of biological targets and bioactive compounds.

*Development collaborations.* We are currently party to four development collaborations. In 2001, we entered into an agreement with Aventis Pharmaceuticals Inc., the U.S. pharmaceuticals subsidiary of Aventis S.A., now Sanofi-Aventis, pursuant to which we cooperate with Sanofi-Aventis in connection with the ongoing Phase III clinical trials for Ciclesonide carried out in the United States and share the costs of these trials. In addition, we agreed with Sanofi-Aventis that if we obtain regulatory approval to launch Ciclesonide in the United States, we will distribute the drug in the U.S. market in collaboration with Sanofi-Aventis. In 1998, we entered into a contract in relation to the same drug with Teijin Ltd., a Japanese conglomerate, pursuant to which we granted Teijin the right to develop and market Ciclesonide in Japan. Our collaboration with Teijin will enable us to gain

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access to the Japanese market, which operates substantially differently from the U.S. and EU markets, through an experienced partner. In addition, we agreed with Teijin to collaborate in the development of the nasal application of Ciclesonide.

In 2002, we entered into an agreement with Pfizer to co-develop and, provided we receive regulatory approval, market Roflumilast in the United States, Europe and other important markets. While we coordinate the development of the drug in the European Union, Pfizer does so in the United States. The agreement provides that, following the receipt of regulatory approval in the relevant jurisdictions, we and Pfizer will jointly launch and promote Roflumilast in the United States, Europe and other markets. Under the agreement, we received an upfront payment in the amount of \$ 30 million in 2002 and a milestone payment in the amount of \$ 30 million in 2003. In 2004, we received a further \$ 10 million under this contract and we may receive additional payments based on the achievement of certain milestones in the future. In 2002, we also entered into a separate agreement with Tanabe Seiyaku Co. Ltd., a Japanese company, for the co-development and co-promotion of Roflumilast in Japan.

### Supplies and Raw Materials

We purchase our supplies and raw materials on a worldwide basis from a number of third-party providers. In those instances where there is only a single supplier, we seek to reduce our dependence on that supplier by accumulating and maintaining strategic reserves of the supplies and raw materials that we need for the manufacture of our products. We may also seek to qualify new suppliers, and, to the extent feasible, develop production processes in our own facilities. We typically attempt to secure strategic materials through medium- and long-term supply contracts and to ensure that in case of an outage, alternative sources would be readily available to us without undue expense and delay. We have not experienced significant difficulties in obtaining sufficient amounts of supplies and raw materials in recent years, and we do not expect to encounter such difficulties in the foreseeable future.

We have several sources for the most important raw materials of Pantoprazole, i.e., the active ingredient of the drug and a freeze-dried IV formulation. We source the active ingredient of Pantoprazole from our FDA-approved Singen facility and from two suppliers, one of which has received FDA approval. The IV formulation is sourced internally from our Singen facility and from two external contract manufacturers as back-up sources, one of which has received FDA approval.

Our recently launched product Ciclesonide is sourced from our partner 3M in the United Kingdom based on a long-term supply and collaboration contract. 3M's manufacturing site has already passed pre-approval inspection by the FDA.

### Production

In the area of production, our goal is to ensure consistent quality and to minimize costs by creating facilities that specialize in discrete manufacturing tasks. We concentrate the manufacture of most of our products for the supply of the worldwide pharmaceuticals markets in Europe. Our manufacturing facility in Singen, Germany, has sole responsibility for all sterile application forms of therapeutics, including Pantoprazole IV, and also produces non-sterile semi-solid and liquid application forms as well as active pharmaceutical ingredients, predominantly Pantoprazole. Our facility in Oranienburg, Germany, which we have recently expanded in order to facilitate the large-scale production of Roflumilast, is engaged in the production of solid dosage forms, primarily Pantoprazole tablets. Our facility in Lyskowitz, Poland, specializes in solid and liquid formulations. We started the construction of a new manufacturing facility for Pantoprazole and Roflumilast tablets in County Cork, Ireland, in the fourth quarter of 2003 and expect to complete this facility in 2006. In Latin America, we are in the process of concentrating our activities for the Mercosur area in our facility in Jaguariuna, Brazil. Accordingly, we ceased operations at our production site in Pilar, near Buenos Aires, Argentina for a couple of months in 2004. The facility's production volumes have subsequently been substantially reduced to cover only the manufacturing of a herbal drug for the local market. All of our sites comply with current Good Manufacturing Practice (cGMP) standards, which are a set of officially recognized scientifically sound methods, practices and principles for the development and manufacture of pharmaceuticals. In addition, certain of our sites, including



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Singen and Oranienburg, have been inspected and have received approvals by the FDA and the relevant EU authorities.

We currently operate ten production facilities around the world. We source the active ingredient for Pantoprazole principally from our manufacturing facility located in Singen, Germany, and Isochem S.A., a French company that performs contract manufacturing for us. Pantoprazole tablets are manufactured at our facilities in Oranienburg, Germany, and Jaguariuna, Brazil. While we procure key starting materials for Pantoprazole from our facility in Mumbai, India, we also use external sources. For the construction of our Mumbai facility we have entered into a 50% joint venture with a third party. We own all of our principal production facilities and, with the exception of our facility in Ireland, substantially all of the land on which they are located.

The following table shows selected key information with respect to our principal current manufacturing facilities as well as our facilities under construction:

#### Production Facilities

Location	Function	Size (m <sup>2</sup> )
Singen, Germany	Pharma (sterile, solid and semi-solid dosage forms and active pharmaceutical ingredients)	167,000
Oranienburg, Germany	Pharma (solid dosage forms)	64,300
Lyskowice, Poland	Pharma (solid and liquid dosage forms)	25,000
Melville, New York	Pharma (semi-solid and liquid dosage forms)	52,000
Hicksville, New York	Pharma (semi-solid dosage forms)	23,200
Mexico City, Mexico	Pharma (solid, semi-solid and liquid dosage forms)	11,900
Jaguariuna, Brazil	Pharma (solid, semi-solid and liquid dosage forms)	214,000
Mumbai, India	Key starting materials for Pantoprazole	25,100
Carrigtwohill, Ireland (1)	Under construction; Pharma (solid dosage forms)	119,000
Bromma, Sweden	Diagnostics	2,785
Pilar, Argentina	Pharma (herbal extraction)	58,000

(1) Long-term lease.

#### Sales and Marketing

We use the ALTANA brand to market products of our pharmaceuticals division on a worldwide basis. In doing so, we use sales and marketing methods customary in the pharmaceuticals industry. In addition to advertising our drugs, we maintain a network of sales representatives, collaborate with third parties and use our company's website to provide information about our pharmaceuticals. We also grant rebates to our customers. Our rebate practices vary widely among the countries in which we are active, depending on the respective country's regulatory framework and our position in the relevant market. The amount of control that we have over the sales mix used by our partners in any given market depends on the distribution arrangements we use in that market.

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We have sales and marketing organizations in most European pharmaceuticals markets. As with other pharmaceuticals companies, however, we do not distribute our products exclusively through our own sales and marketing organization but also use collaborations with third parties. For example, while we supply a number of hospitals directly, we frequently rely on wholesalers to distribute our products to retailers, such as pharmacies.

Following the establishment of an additional sales force in the United States in 2003, which co-promotes Pantoprazole in the U.S. market under the name Protonix® alongside Wyeth, our sales force in the United States now comprises approximately 600 members, the majority of which are

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provided to us by Ventiv Health Inc. ( Ventiv ). We entered into an agreement with Ventiv, a provider of outsourced marketing and sales solutions, in October 2002, under which Ventiv provides us with a nationwide sales force and related services, including recruitment, training and operational support services. We expect that our U.S. sales organization will assume a significant role in the distribution of Ciclesonide and Roflumilast if and when these drugs are launched in the U.S. market. In the meantime, our staff co-promotes Pantoprazole and several drugs of Pfizer in the United States.

In Japan, we established our own operating subsidiary in January 2004, which together with our Japanese partner Tanabe Seiyaku Co. Ltd. will focus on the development and, following approval, the marketing of Roflumilast in the Japanese market.

With respect to Pantoprazole, we have found it desirable to supplement our internal sales and marketing efforts with the branding experience and marketing capabilities of external partners, particularly in the United States.

Among our third-party partners, we make a distinction between licensees, co-marketing partners and co-promotion partners. Licensees are partners that we typically use in markets that we do not serve ourselves. By contrast, co-marketing and co-promotion partners are distributors that we use in markets where we have a sales and marketing organization of our own. We use co-marketing partners when we decide to sell a product under more than one brand in the same market. Although we typically coordinate our efforts with our co-marketing partners, particularly in terms of dealing with regulators and drug safety, we and our co-marketing partners each manage a separate brand and use distinct distribution channels. To generate revenue, we charge our co-marketing partners a fee in an amount tied to the price that they charge their customers. By contrast, when we use co-promotion partners to sell a product under a single brand, either we or our co-promotion partners take sole responsibility for distributing the product, although we cooperate with our co-promotion partners in promoting the brand under which the product is marketed.

The type of arrangement we use in any given situation depends on the particular product and the features of the targeted market. An example of a licensing arrangement is our agreement with Wyeth to distribute Pantoprazole in the United States, where we have begun to build a sales and marketing organization of our own only relatively recently. Pursuant to our agreement with Wyeth, Wyeth is required to use commercially reasonable efforts to distribute Pantoprazole in the U.S. market and to bill its customers for the drug directly. Wyeth is free to set the retail price at its discretion, which affords it the flexibility necessary to adapt its distribution strategy to the prevailing market conditions. In return, Wyeth is required to pay us a fixed percentage of its net sales, subject to a minimum price. Since July 2003, our own dedicated sales force for the U.S. market has been co-promoting Pantoprazole alongside Wyeth in accordance with a co-promotion agreement entered into with Wyeth in April 2003. While this arrangement has afforded us greater influence with respect to the marketing of Pantoprazole in the United States, the revenues that we derive from this drug in the U.S. market continue to materially depend on the resources that Wyeth devotes to the marketing of this therapeutic. We currently use co-marketing partners for the distribution of Pantoprazole in Germany, most other European countries and Latin America. In Australia and Canada, we distribute Pantoprazole in collaboration with a co-promotion partner.

Going forward, we intend to use licensees primarily in markets that we do not consider a strategic focus or where we believe that the costs of building and maintaining the necessary infrastructure and expertise outweighs the benefits of having a sales and marketing organization of our own. In strategically important markets that offer a substantial growth potential for our pharmaceuticals business, especially the United States, our goal is to rely less on licensees and instead to use experienced local companies as co-marketing and co-promotion partners. We believe that this approach will enable us to gradually build our own sales forces in these markets and to reduce our dependence on partners. We have already entered into a co-promotion agreement with Aventis, now Sanofi-Aventis, for the distribution of our drug Ciclesonide in the United States and a similar agreement with Pfizer with respect to Roflumilast.

At December 31, 2004, Wyeth, the U.S. company through which we distribute Pantoprazole in the United States, accounted for 7.8% of our accounts receivable, compared with 6.4% at December 31, 2003. In 2004 and 2003, Wyeth accounted for 14.2% and 15.3% of our net sales, respectively.

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## Competition

For the most part, our pharmaceuticals division operates in markets characterized by intense competition. Our competitors include a wide variety of companies, ranging from small pharmaceutical companies to large national and international pharmaceuticals groups and from off-patent manufacturers of generic pharmaceuticals to owners of preeminent brands.

The global therapeutics markets are highly competitive and are targeted both by large companies and by small niche players. The main competitive factors include product efficacy and safety and distribution capabilities. In addition, price has become increasingly important, particularly in Europe, North America, Australia and Latin America. Our main competitors for drugs in the gastrointestinal area are various other branded PPIs, including Takeda's Lansoprazole and AstraZeneca's Esomeprazole. If our competitors continue to invest heavily in marketing these drugs, the ability of Pantoprazole to capture market share or maintain its current market share could be adversely affected. In addition, Pantoprazole faces increasing competition from generic PPIs. A variety of companies, including Schwarz Pharma AG, Mylan Laboratories Inc., Novartis AG and Torpharm, are marketing Omeprazole-based generics in Europe and the United States at prices that tend to be lower than the price of Pantoprazole and other branded PPIs. Further competition may result from the launch of generic versions of PPI molecules other than Omeprazole once their respective patents expire and from OTC versions of PPIs in the United States and certain European countries, which, unlike Pantoprazole, are available to patients without a prescription. While generic and OTC versions of PPIs have so far had a limited impact on the market for branded PPIs, including Pantoprazole, in Europe, pricing pressure in the U.S. market has grown stronger as a result of an increase in the rebates provided by all market participants. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business for a discussion of the risks resulting from competition by other PPI brands, generic and OTC versions of Omeprazole-based PPIs and Products Therapeutics for more information on Pantoprazole. In the highly competitive respiratory market, we compete primarily with AstraZeneca, GlaxosmithKline, Merck & Co. and Boehringer-Ingelheim.

In the OTC area, the key competitive factors are price and branding. The OTC market is highly fragmented, and we face competition not only from other pharmaceuticals companies but also from distributors of homeopathic remedies and medical accessories.

The imaging markets are highly competitive. The key competitive factors include price (especially with respect to x-ray contrast media), product efficacy, safety, and sales and marketing capabilities. As far as new diagnosing techniques are concerned, technological innovation is also an important factor. Our competitors include Schering AG, Tyco Inc. and Amersham plc.

## Intellectual Property

Intellectual property and especially patent protection are of critical importance to our pharmaceuticals business. At December 31, 2004, we held 124 U.S., 82 European and 30 Japanese patents for various pharmaceutical inventions. In addition, we have 91 patent applications pending at the U.S. Patent and Trademark Office, 202 at the European Patent Office and 153 in Japan. Our most important patents are those covering Pantoprazole, Ciclesonide and Roflumilast as well as the patents for which we have applied and which have been granted in connection with our various pipeline drugs.

Pantoprazole enjoys substance patent protection in Europe until June 2005 and, by virtue of an extension granted by the U.S. Patent and Trademark Office in July 2003, in the United States until July 2010. In addition, Pantoprazole benefits from supplementary protection certificates, which have an effect similar to that of an extension of original patents, in the majority of European countries until the end of May 2009.

On February 2, 2004, an ANDA with paragraph IV certification relating to Pantoprazole was filed with the FDA and in April 2004 we received the corresponding paragraph IV patent certification notice from TEVA Pharmaceutical USA, Inc ( "TEVA" ). On May 20, 2004, we, together with Wyeth, filed a patent infringement suit with the U.S. District Court of New Jersey (Newark) against TEVA and its parent TEVA Pharmaceuticals Industries, Ltd., alleging infringement of our Pantoprazole substance patent. Since the patent infringement action was brought against TEVA within 45 days

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after the receipt of the notification from TEVA, FDA approval of the ANDA cannot become effective until August 2, 2007, unless there is an earlier court decision stating that our substance patent is invalid or has not been infringed. In 2004 we also received two ANDAs challenging our Pantoprazole formulation patents. Because the earliest that any patent infringement with respect to our formulation patents could pose a threat to our business is 2010 (until which date we believe we will continue to enjoy protection under our substance patents), we have decided not to take any immediate action with regard to these two ANDAs. At the beginning of March 2005, we received a notification from Sun, one of the challengers of our Pantoprazole formulation patent, informing us that Sun has amended its ANDA to include a paragraph IV certification relating to our Pantoprazole substance patent. We have not yet decided which steps should be taken with regard to this amendment of Sun's ANDA. For additional information on the risk posed by ANDAs and ANDAs generally, see Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business, Legal Proceedings and Regulation United States.

Drug companies are required to include a certification in their ANDA filings when they intend to manufacture and distribute a generic version of a patent-protected drug listed in the Orange Book, which is a list of proprietary drugs together with pertinent patent information maintained by the FDA. Inclusion of a paragraph IV certification in an ANDA implies that the applicant is asserting that the patents listed in the Orange Book are either invalid or unenforceable or will not be infringed by the manufacture and distribution of a generic version of that drug. The applicant is required to notify the innovator company that it has filed an ANDA with the FDA, and must describe the reasons it believes the listed patents will not be infringed or are invalid or unenforceable. Once the innovator drug company has received notice that a generic application has been filed and its patent is being challenged, it may file a lawsuit claiming patent infringement based on its review of the generic drug company's notice. If a lawsuit is brought within 45 days of receiving the applicant's notice, the FDA's approval is stayed for 30 months. The 30-month period starts five years after the approval of the drug. If the patent court determines that the patent is valid, enforceable and would be infringed by the product proposed in the ANDA, the FDA will not approve the application until the patent expires. If the court decides that the patent will not be infringed or is invalid or unenforceable, the FDA may approve the generic application when that decision occurs. The FDA may approve the application at the end of the 30-month period, even if the litigation is ongoing. A generic applicant who is the first to challenge a listed patent using a paragraph IV certification is granted a 180-day exclusivity period with respect to other generic applicants. This exclusivity period provides generic applicants with an incentive to challenge listed patent for innovative drug products.

Other patents and pending patent applications that are material to our business include those set forth in the table below:

	Patent Expiration Year		
	Europe(1)	United States	Japan
Ciclesonide (substance)	2011(2)	2013(2)	2011(2)
Ciclesonide (key intermediate)	2014	2015	2014
Ciclesonide (purification process)	2017	2019	2017
Ciclesonide (aerosol)	2018	2018	2018
Ciclesonide (nasal formulation)	2020	2020	2020
Roflumilast (substance)	2014(2)	2015(2)	2014(2)
Roflumilast (formulation)	2023	2023	2023
Soraprazan (substance)	2019(2)	2019(2)	2019(2)

(1) Includes European patents or national patents in major European countries.

(2) Does not reflect a possible extension of the term of patent protection or the grant of supplementary protection certificates for up to five additional years.

We rely on intellectual property that we obtain through cross-licensing arrangements with third parties to develop, manufacture and market pharmaceuticals. For example, we have entered into licensing arrangements with Hoffmann-La Roche and Invitrogen to obtain access to technologies that we consider critical to the R&D projects carried out in our molecular diagnostics unit. If we are

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unable to obtain licenses on commercially reasonable terms in the future, we may be limited in our ability to develop, manufacture and market new products.

We depend on our ability to obtain and, if challenged, successfully defend our patents, licenses, trademarks, trade secrets and other forms of intellectual property protection. Although we intend to continue to file and prosecute patent applications aggressively, we may not be able to obtain patents for all our inventions. In addition, the process of seeking patent protection is lengthy and expensive, and the issuance of a patent is conclusive neither of its validity nor of its scope. Therefore, there is no assurance that our currently pending or future patent applications will result in patents being granted or that, if patents are issued, they will be valid or of sufficient scope or strength to provide us with meaningful legal protection or a commercial advantage in the marketplace. In addition, if our competitors develop technologies that are themselves protected by patents or other forms of intellectual property protection, the underlying technologies may be unavailable to us or available to us only on unfavorable terms.

A significant part of our intellectual property consists of registered trademarks. We are continuously engaged in developing brand names for new products, securing trademark protection for our new brand names, policing our existing trademarks and enforcing our legal entitlements in situations where third parties infringe upon any of these rights. Before we start to advertise and sell a product under a new brand name, we seek to minimize the risks of infringing upon the trademark rights of others by filing for trademark protection and by conducting trade and service mark searches and other inquiries.

As with other pharmaceuticals companies, a portion of our know-how is not patent-protected. To protect this information, we rely on trade secret law and frequently enter into confidentiality agreements with our employees, customers and partners. These agreements may be unenforceable, however, and the remedies that are available to us for breaches may be inadequate. Likewise, our competitors may gain access to our know-how by lawful means, for example, by reverse engineering, or may independently develop the same know-how, which may destroy any competitive edge that we may have.

As a result of the key role that intellectual property plays in the pharmaceuticals industry, we may from time to time become involved in litigation as either plaintiff or defendant. There can be no assurance that we will be able to successfully settle or otherwise resolve claims that may be brought against us by third parties in the future. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage in costly and time-consuming litigation and may be prevented from, or experience substantial delays in, marketing our existing pharmaceuticals and launching new ones. Each of these events could materially adversely affect our business, financial condition or results of operations or halt the sales of our existing products. For more information concerning the types of litigation that we face in our business, see [Legal Proceedings](#) and [Item 3: Key Information Risk Factors Risks Related to each of our Businesses](#).

## Regulation

All companies developing, manufacturing and marketing pharmaceuticals are subject to extensive, complex and evolving regulations in the United States, Europe and Japan. We are working within the framework of the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use ( ICH ) guidelines. The ICH is a collaborative effort among regulators in Europe, Japan and the United States and experts from the pharmaceutical industry in the three regions with the goal of streamlining the development and regulatory approval of medicinal products by harmonizing the applicable procedures. Our compliance with the ICH guidelines assists us in obtaining regulatory approval for our drug candidates in as many jurisdictions as possible.

### *United States*

The principal U.S. regulators relevant to the business of our pharmaceuticals division are the U.S. Food and Drug Administration ( FDA ) and to a lesser extent the U.S. Drug Enforcement Agency ( DEA ) and state government agencies. The Federal Food, Drug and Cosmetic Act, the Controlled Substances Act and other federal statutes and regulations all govern or influence the

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development, testing, manufacture, packaging, labeling, storage, record keeping, safety, approval, advertising, promotion, marketing, sale and distribution of our pharmaceuticals.

FDA approval is required before any dosage form of any new pharmaceutical, including any off-patent equivalent of a previously approved pharmaceutical, may be marketed. The process for obtaining governmental approval to market pharmaceuticals in the United States is rigorous, time-consuming and costly, and it is difficult to predict the extent to which this process may be affected by legislative and regulatory developments. Like all pharmaceutical companies, we are dependent on receiving FDA and other types of governmental approvals prior to producing and marketing virtually all of our new pharmaceuticals in the United States. Consequently, there is always a chance that the FDA or any other applicable agency will not approve our new pharmaceuticals, or that the rate, timing and cost of such approvals will adversely affect our launch plans and ultimately our results of operations. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business for a discussion of these risks.

All applications for FDA approval are required to contain information relating to formulation, raw materials, stability, manufacturing, packaging, labeling and quality control. There are two types of applications for FDA approval:

*New Drug Application ( NDA )*. An NDA is filed whenever approval is sought for drugs with active ingredients and/or with dosage strengths, dosage forms, delivery systems or pharmacokinetic profiles that have not previously been approved by the FDA. A drug's pharmacokinetic profile relates to the characteristic interactions of the drug with the human body in terms of absorption, distribution, metabolism, and excretion. NDAs are typically filed for newly developed branded pharmaceuticals as well as for new dosage forms of existing drugs that have been approved previously.

*Abbreviated New Drug Application ( ANDA )*. An ANDA is filed whenever approval is sought for generic equivalents of previously approved drugs or unapproved dosage forms of such drugs. The FDA will accept the filing of an ANDA before the expiration of the exclusivity period of the relevant patent only if the applicant simultaneously challenges that patent. For a description of the recent ANDA filings challenging the patents underlying Pantoprazole, see Intellectual Property.

The process mandated by the FDA before a previously unapproved pharmaceutical may be marketed in the United States essentially involves the following steps:

Preclinical laboratory and animal tests;

Submission of an Investigational New Drug Application ( IND ), which must become effective before clinical trials may begin;

Adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use;

Submission of an NDA containing the results of the preclinical and clinical trials establishing the quality, safety and efficacy of the proposed drug for its intended use; and

FDA approval of the NDA.

Preclinical tests encompass the laboratory evaluation of a new pharmaceutical, its chemistry, formulation and stability, as well as animal studies to assess its potential safety and efficacy. Following the conclusion of preclinical tests, the results of these studies, which have to demonstrate that the pharmaceutical delivers sufficient quantities of the drug to the bloodstream to create the desired therapeutic results, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA unless the FDA, during that 30-day period, raises concerns or questions about the conduct of the trials as outlined in the IND. In such cases, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin. In addition, an independent Institutional Review Board at the medical center that proposes to conduct the clinical trials must review and approve any clinical study before it commences.

Human clinical trials are typically conducted in three sequential phases:

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*Phase I.* During this phase, the drug is initially introduced into a relatively small number of healthy humans or patients and is tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion.

*Phase II.* This phase involves studies in a limited patient population to identify possible adverse effects and safety risks, to determine the efficacy of the drug for specific targeted diseases or conditions, and to determine dosage tolerance and optimal dosage.

*Phase III.* When Phase II evaluations demonstrate that a dosage range of the drug is ineffective and has an acceptable safety profile, Phase III trials are undertaken to further evaluate dosage, clinical efficacy and test for safety in an expanded patient population at geographically dispersed clinical sites.

Following completion of these trials, the results of the internal development processes and the mandatory preclinical and clinical studies along with documentation evidencing compliance with applicable Chemistry, Manufacturing and Controls (CMC) requirements as part of an NDA are submitted to the FDA. The drug development and NDA approval process averages approximately eight to twelve years.

FDA approval of an ANDA is required before a generic equivalent of a drug that previously has been approved under an NDA or a previously unapproved dosage form of a drug that has been approved under an NDA may be marketed. The ANDA approval process differs from the NDA approval process in that it does not require new preclinical and clinical studies; instead, it relies on the clinical studies establishing safety and efficacy conducted for the previously approved drug. The ANDA process, however, requires the generation of data that show that the ANDA drug is bioequivalent (that is, therapeutically equivalent) to the previously approved drug. Bioequivalence compares the bioavailability of one drug with another and, if established, indicates that the rate and extent of absorption of an off-patent drug in the body are substantially equivalent to the previously approved drug. Bioavailability establishes the rate and extent of absorption, as determined by the time-dependent concentrations of a drug in the bloodstream needed to produce a therapeutic effect. Supplemental NDAs or ANDAs are required for, among other things, approval to transfer products from one development site to another. Such applications may be under review by the FDA for a year or more. In addition, certain drugs may be approved for transfer only once new bioequivalence studies have been conducted or certain other requirements have been satisfied.

To obtain FDA approval of both NDAs and ANDAs, a pharmaceutical company's procedures and operations must conform to FDA quality system and control requirements generally referred to as current Good Manufacturing Practices (cGMP), as defined in Title 21 of the U.S. Code of Federal Regulations. These regulations cover all aspects of the development, manufacturing and marketing process from receipt and qualification of components to distribution procedures for finished products. Since they are evolving standards, we have to continue to expend time, money and effort in all production and quality control areas to maintain compliance. The evolving and complex nature of regulatory requirements, the broad authority and discretion of the FDA, and the high level of regulatory oversight results in the continuing possibility that we may be adversely affected by regulatory actions despite our efforts to maintain compliance with the applicable regulatory requirements. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business for a discussion of these risks.

In addition, we are subject to periodic inspections of our facilities, procedures and operations and/or the testing of our pharmaceuticals by the FDA, the DEA and certain other authorities that conduct periodic inspections to assess our compliance with applicable regulations. The FDA also conducts pre-approval and post-approval reviews and plant inspections in connection with its review of our applications for new products to determine whether our systems and processes comply with GMP and other applicable FDA regulations. If the FDA determines that deficiencies have occurred at any of our facilities, it may, among other things, withhold approval of any NDAs, ANDAs or other applications that we have submitted. Our vendors that provide us with finished products or components used to manufacture, package and label pharmaceuticals are subject to similar regulations and periodic inspections. Following its inspections, the FDA may issue notices on Form 483 and Warning Letters that may cause us to modify certain activities identified during the inspection. A Form 483 notice is typically issued at the conclusion of an FDA inspection and lists conditions that



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the FDA investigators believe may violate GMP or other FDA regulations. FDA guidelines specify that a Warning Letter be issued only for violations of regulatory significance for which the failure to adequately and promptly achieve correction may be expected to result in an enforcement action.

Failure to comply with FDA and other governmental regulations may result in fines, unanticipated compliance expenditures, recall or seizure of pharmaceuticals, total or partial suspension of production and/or distribution, suspension of the FDA's review of NDAs, ANDAs or other applications, enforcement actions, injunctions and criminal prosecution. Under certain circumstances, the FDA also has the authority to revoke previously granted approvals. Although we have internal compliance programs, if these programs do not meet the applicable standards or if our compliance is deemed deficient in any significant way, our business may be materially adversely affected. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business for a further discussion of risks in connection with FDA regulations.

The Generic Drug Enforcement Act of 1992 established penalties for wrongdoing in connection with the development or submission of ANDAs. Under this act, the FDA has the authority to permanently or temporarily bar companies or individuals from submitting or assisting in the submission of ANDAs and to temporarily deny approval and suspend applications to market off-patent drugs. The FDA may also suspend the distribution of all drugs approved or developed in connection with certain wrongful conduct and/or withdraw approval of ANDAs and seek civil penalties. The FDA may also significantly delay the approval of any pending NDA, ANDA or other regulatory applications under the Fraud, Untrue Statements of Material Facts, Bribery and Illegal Gratuities Policy Act.

In recent years, there has been enhanced political attention and governmental scrutiny at the federal and state levels of the prices paid or reimbursed for pharmaceuticals under Medicaid, Medicare and similar programs. The U.S. Federal Trade Commission (FTC) has announced its intention to conduct a study of whether brand-name and generic drug providers have entered into agreements, or have used other strategies, to delay competition from generic versions of patent-protected drugs. The FTC's announcement could affect the manner in which generic drug providers resolve intellectual property litigation with branded pharmaceutical companies, and may result in an increase in private-party litigation against pharmaceutical companies. See Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business for a discussion of government regulation in connection with third-party reimbursement programs.

### ***European Union***

Much of what has been said with respect to the approval process applicable to new drugs in the United States also applies to the European Union. In the European Union, however, two different basic procedures are available: a centralized approval procedure and one based on the Mutual Recognition Procedure (MRP). The London-based European Medicines Agency (EMA) governs the centralized drug registration and approval process. The respective scientific committees, the committee for medicinal products for human use (CHMP) and the committee for veterinary medicinal products (CVMP), make recommendations based on reviews by appointed rapporteurs and co-rapporteurs, who are part of the CHMP/CVMP. Following the committee's recommendation, the European Commission issues a formal decision, which is valid throughout the entire European Union. Upon completion of the approval process, the drug may be marketed within all member states. An alternative procedure is the MRP. Pursuant to this procedure, one member state carries out the primary evaluation. The other member states then have 90 days to decide whether they accept or reject the decision made by that member state. If a member state does not follow the decision of the reference country, then the issue is referred to the CHMP for arbitration. Based on the CHMP's determination, a formal decision is made by the European Commission.

### ***Japan***

In Japan, two issues make the approval process difficult for drugs developed outside of that country. First, the Japanese approval agency recognizes only a limited number of the documents used in registration procedures in other countries. Second, the Japanese approval agency requires that tests to determine appropriate dosages for Japanese patients be conducted on Japanese subjects and patients. As a result of these issues, parts of Phase II and Phase III clinical trials carried out in the

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United States or Europe typically need to be repeated in Japan. These regulatory requirements may cause delays of two to three years in introducing drugs developed outside of Japan to the Japanese market.

## Chemicals

### Overview

We develop, manufacture and market a wide range of specialty chemicals targeted at selected markets. Specialty chemicals are high value-added products used in the manufacture of a wide array of applications. Compared with commodity chemicals, specialty chemicals are typically produced in smaller volumes. We offer our specialty chemicals together with support and comprehensive customer service regarding the use of our products and their adaptation to the specific manufacturing requirements of individual customers. The highly application-specific nature of specialty chemicals impedes product substitution, which fosters close relationships between suppliers and customers.

In 2004, our chemicals division generated net sales of € 854 million, an increase of 13.1% compared with 2003. The chart below provides a breakdown of our chemicals net sales by geographic region for the three years ended December 31, 2004:

In 2004, our chemicals net sales increased in all regions due to increased demand and the net effect of acquisitions and dispositions. The most dynamic market was again Asia, with a growth rate of 26%. In Europe, our chemicals business achieved 10% growth. Despite adverse currency exchange rate effects, we experienced growth in the United States due to fewer customers transferring from North America to Asia compared to 2003, when this trend led to a decline of our sales in the North American region and caused our sales in the Far East to rise. As a result of the international dimension of our business, our results of operations are materially affected by exchange rate fluctuations in any given period, especially by changes in the exchange rate between the euro, on the one hand, and the U.S. dollar, Chinese renminbi yuan and the Japanese yen, on the other hand. See Item 3: Key Information Risk Factors Risks Related to each of our Businesses and Item 11: Quantitative and Qualitative Disclosure about Market Risk for more information on our exchange rate exposure.

Our chemicals division comprises three business areas:

Additives & Instruments, which comprises paint additives, plastic additives and wax additives as well as paint testing instruments, including gloss and color meters;

Electrical Insulation, which comprises electrical insulation coatings for copper and aluminum wires, electrical insulation systems for use in electrical and electronic components, and compounds for a variety of other applications; and

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Coatings & Sealants, which comprises coatings for packaging and general industry applications, sealing compounds, and, increasingly, solutions for flexible packaging.

Our chemicals division has grown steadily over the past several years both organically and as a result of strategic acquisitions. We expect to continue to rely on a combination of organic growth and acquisitions for the expansion of our operations in the future. In identifying suitable targets for acquisitions, we seek majority interests in companies that present a clear strategic fit, have potential for net income contribution and whose management is both experienced and competent.

The chart below provides a breakdown of our chemicals net sales by business area for the three years ended December 31, 2004:

#### **Chemicals Net Sales by Business Area**

Because chemicals are used in a variety of industries, manufacturers of specialty chemical products are typically affected by the business cycles experienced by the industries that they serve. By targeting selected markets in complementary industries all over the world, we seek to diversify our risk and reduce our exposure to these cycles.

### **Products**

#### *Additives & Instruments*

We provide a wide range of innovative, high-quality additives and related measuring and testing instruments. In 2004, net sales generated by our Additives & Instruments business totaled € 348 million.

We offer a comprehensive portfolio of paint additives, plastic additives and wax additives, which we develop for the specific requirements of our customers in the coatings, plastics and printing ink industries and which we market under our global brand BYK-Chemie. Additives are substances that have essentially two applications: first, they facilitate manufacturing processes, for example, by reducing viscosities and shortening processing times, and second, they substantially improve the quality of products, especially their mechanical properties and appearance. Because additives can achieve effects that otherwise would not be possible, additives have become an integral and indispensable part of modern paint and plastics formulations. Due to their high effectiveness, they are usually applied in small dosages.

Our additives portfolio comprises wetting and dispersing additives for pigments and fillers, additives to improve surface properties, defoamers and air release agents, rheological additives, wax emulsions, dispersions and micronized waxes. Our additives are used in a variety of downstream applications, such as architectural and industrial coatings, automotive finishes, wood, can and coil coatings, printing inks, vinyl floorings, polyester, epoxy or acrylic resin systems and polishes.

As a complement to our additives portfolio, we also offer measuring and testing instruments that may be used to measure the surface characteristics of plastics and paints, including their color

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and gloss attributes. We market our instruments under our global brand BYK-Gardner. By enabling our customers to adjust their selection and dosage of additives based on the surface characteristics of the raw materials that they use, our instruments portfolio naturally complements our additives offering. We believe that our ability to offer complete solutions consisting of additives and instruments affords us a competitive edge.

We manage our additives business from the headquarters of our chemicals division, which are located in Wesel, Germany, and which are responsible for our worldwide R&D, manufacturing and marketing efforts. In contrast, sales and customer service are the responsibility of our local operating companies, which operate in proximity to our customers. We believe that this dual approach enables us to achieve operational synergies, while staying in touch with our customers.

Our Additives & Instruments business has expanded continuously over the past several years, almost entirely as a result of organic growth.

In July 2004, we sold the distribution company Byk Chemie France, which served the French market and had generated revenues of € 14.5 million in 2003, to IMCD France SNC and entered into a long term supply and distribution agreement with the company.

### ***Electrical Insulation***

In our Electrical Insulation business, we offer a comprehensive range of wire enamels, impregnating resins, coatings and other compounds used for electrical insulation in a variety of applications. All of the products in our Electrical Insulation portfolio are formulated to fulfill various performance requirements in addition to electrical insulation, such as mechanical and chemical resistance and thermal endurance even under severe operating conditions. Our Electrical Insulation portfolio comprises:

Enamels for the electrical insulation of copper and aluminum wires used in a variety of electrical applications, including electrical motors, transformers, household appliances and consumer electronics;

Resins for the impregnation of electrical windings in motors, generators and other coils;

Compounds for the potting, encapsulation and embedding of electrical and electronic components such as transformers, printed circuit boards and capacitors; and

Coatings and compounds for specialized applications, including tooling, rapid prototyping and magnetic materials.

In 2004, our Electrical Insulation business generated net sales of € 291 million.

Our growth strategy in our Electrical Insulation business area includes the expansion of our market position by making selective acquisitions of innovative companies with strong positions in the markets in which they operate. In August 2003, we completed the acquisition of the global electrical insulation business of Schenectady International, Inc. As part of the transaction, we acquired 100% of the shares of Schenectady Europe GmbH (now Beck Electrical Insulation GmbH), Hamburg, Germany, and 83% of the shares (subsequently increased to 87%) of Schenectady Beck India Ltd., Pune, India, a company listed on the Indian stock exchange. In addition, we acquired Schenectady's electrical insulation business operations in the United States, the United Kingdom, South Africa, Brazil, Mexico, Canada and Australia, and integrated them in our existing subsidiaries. In 2002, Schenectady's electrical insulation business had revenues of \$ 91 million. In January 2004, we acquired the electrical insulation business of Ranbar Electrical Materials Inc., comprising impregnating resins, varnishes and potting compounds for the secondary insulation of electrical equipment. In 2003, this business had revenues of approximately \$ 11 million.

### ***Coatings & Sealants***

In the area of Coatings & Sealants, we offer coatings as well as compounds and sealants. In 2004, our Coatings & Sealants business generated net sales of € 215 million. Our coatings are used, among other things, to coat steel and aluminum sheets, plastic, paper and board. An important downstream application of our coatings portfolio are packaging materials that are used in the food industry, including cans, drums, tubes and closures as well as aluminum, plastic and paper foils for flexible packaging. Our compounds and sealants portfolio comprises sealing compounds for use in

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beverage cans and metal as well as plastic closures and jar lids. In addition, our coil coatings are used for applications, such as facade claddings, roller shutters, blinds and furniture.

We believe that we offer a comprehensive portfolio of coatings and sealants. This is especially true of packaging applications, for which we are able to provide our customers with complete solutions. Our position in the coatings market is particularly strong in Europe. In the area of closure compounds and can sealants, we consider ourselves to be among the leading providers worldwide. Our declared goal is to be the best in class with respect to every type of product that we offer and every market that we are active in.

In July 2004, we sold the coil coating business of our French subsidiary Rhenacoat S.A., which had generated net sales of € 12 million in 2003, to Akzo Nobel N.V. In August 2004, we sold our 51% stake in our Italian joint venture, Salchi-Rhenacoat s.r.l., which had achieved net sales of € 27 million in 2003, to our joint venture partner. In the first quarter of 2005, we sold our Austrian subsidiary Rembrandtin Lack Ges.m.b.H., which had generated net sales of € 33 million in 2004. These transactions reflect our strategic decision to realign our Coatings & Sealants business area by reducing our activities in the industrial coatings sector and concentrating on high-potential niches of the specialty chemicals markets, such as chemical solutions for flexible packaging. As with Electrical Insulation, our growth strategy in our Coatings & Sealants business unit includes the expansion and strengthening of our market position by making selected acquisitions.

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

We consider the development of innovative specialty chemicals that are capable of satisfying our customers' needs a key prerequisite for the success of our business. The overarching goal of our R&D efforts is to create customized solutions that add value to our customers' manufacturing processes and the products that they market. In doing so, we seek to distinguish ourselves from our competitors in terms of quality and innovation. In order to be in a position to employ state-of-the-art technology in all aspects of our dealings with customers, we supplement our development processes with basic research in selected areas.

In our Additives & Instruments business, we manage most aspects of our R&D efforts on a centralized basis. Virtually all research related to additives is carried out at the headquarters of our chemicals division, which are located in Wesel, Germany. While we also maintain laboratories for these products in close proximity to our customers in all major markets, none of them is engaged in research activities. Instead, the function of these laboratories is to provide our customers with technical assistance and to solve their problems on-site. In our Electrical Insulation business, we carry out basic research projects at our facilities in Hamburg, particularly in the area of wire enamels. In addition, we maintain R&D laboratories at selected local manufacturing sites. These laboratories develop and produce region-specific formulations in close contact with our customers and provide them with technical service and support. In our Coatings & Sealants business, we manage our entire R&D process on a decentralized basis, with our R&D laboratories being located at our local plants. To avoid overlaps and redundancies, our management promotes close collaboration and the mutual exchange of information between R&D facilities within each of our business areas.

As far as new technologies are concerned, such as UV-curing and nano technologies, which we expect to play an increasingly important role in the specialty chemicals industry, each of our business areas conducts its own R&D efforts. Because the value of new technologies to our business is highly application-specific, our management considers this approach preferable to concentrating all R&D in one location. To ensure that know-how built up in one business area becomes available to other business areas, we actively manage cooperation between our various R&D facilities involved in similar technology projects. In addition, in March 2004, we acquired a 7% stake in, and entered into a cooperation and development agreement with, Nanophase Technologies Corporation, a company active in nano materials, to jointly identify and develop products for use in the manufacture of paints, coatings and plastics.

As of December 31, 2004, 469 people worldwide (18.6% of the workforce of our chemicals division) were employed in our laboratories. Our R&D expenditures in this division totaled € 38 million in 2004, representing 4.4% of total sales.

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## **Supplies and Raw Materials**

We purchase our supplies and raw materials from third parties and typically seek to diversify our sources so as to minimize the risk of supply chain outages. We do not believe that the loss of any one of our providers would have a material adverse effect on our business. In addition, we believe that alternative sources for all supplies and raw materials that we need in our business would be readily available to us without undue expense and delay. We have not experienced significant difficulties in obtaining supplies and raw materials of sufficient amounts and quality in recent years, and we do not expect to encounter such difficulties in the foreseeable future.

Like other companies in the chemicals industry, we are exposed to raw material price increases. While historically we have mostly been able to pass such increases on to our customers, we have experienced difficulties in doing so in the past two business years, which has created pressure on our margins. To reduce this pressure, we attempt to secure important raw materials by entering into long-term contracts. In 2004, we were able to achieve savings as a result of a transfer of production volumes formerly produced by contractors to our own production facilities and by an ongoing streamlining of our procurement processes. In addition, we were able to limit our exposure to high raw material prices by substituting cheaper raw materials for more expensive ones.

## **Production**

Our production strategy is to minimize costs by streamlining our manufacturing processes and by creating facilities that specialize in discrete product groups, thereby achieving economies of scale. In implementing this strategy, we focus on capacity and process improvements with respect to our existing facilities. To the extent necessary, we also construct new facilities. As a rule, we seek to promote close collaboration between our production facilities and our sales and service organizations so as to be able to adapt our manufacturing processes according to our customers' needs. We consider this approach especially important in the areas of Coatings & Sealants and Electrical Insulation.

We own substantially all of our manufacturing facilities and substantially all of the land on which they are located. Our most important production facility in the chemicals division is located in Wesel, Germany, where we manufacture the majority of the products of our additives business area. We lease our facilities in Collecchio, Italy, and Fort Wayne, Indiana.

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The following table shows selected key information with respect to our current manufacturing facilities as well as our facilities under construction:

#### Production Facilities

Location	Function	Size (m <sup>2</sup> )
Wesel, Germany	Additives	98,810
Kempen, Germany	Wire enamels	36,713
Hamburg, Germany	Impregnating resins and compounds	34,711
Grevenbroich, Germany	Coatings	25,219
Bremen, Germany	Closure compounds	13,719
Lehrte, Germany	Coatings	24,719(1)
Geretsried, Germany	Measuring and testing instruments	10,323
Tongling City, China	Additives and wire enamels	40,634
Shunde, China	Coatings	9,754
Zhuhai, China	Wire enamels, impregnating resins and compounds	70,000
Sedan, France	Coatings	20,000
Quattordio, Italy	Wire enamels, impregnating resins	40,096(2)
Ascoli Piceno, Italy	Wire enamels, impregnating resins	17,499
Collecchio, Italy	Compounds	8,000
Deventer, Netherlands	Additives	18,850
Vigo, Spain	Can sealants	20,637
Manchester, United Kingdom	Impregnating resins	8,500
St. Louis, Missouri	Wire enamels, impregnating resins and compounds	70,000
Wallingford, Connecticut	Additives	75,366
Fort Wayne, Indiana	Wire enamels	3,345
Ankleshwar, India	Wire enamels, impregnating resins	116,655
Pune, India	Wire enamels, impregnating resins and compounds	96,536

(1) 14,104 m<sup>2</sup> owned and 10,615 m<sup>2</sup> leased.

(2) 26,030 m<sup>2</sup> owned and 14,066 m<sup>2</sup> leased.

#### Customers, Sales and Marketing

We sell our specialty chemical products in more than 100 countries worldwide. Our customer focus and our commitment to quality and service have enabled us to achieve leading market positions. We seek to maintain close links between our manufacturing facilities and our sales and marketing organization in order to be able to respond to our customers' changing needs quickly. In addition, this approach enables us to ship products directly from our manufacturing facilities to our customers, which reduces both our and their inventories.

Each of the specialty chemicals business areas has its own centralized management, which coordinates the business area's sales and marketing strategy and which is responsible for dealing with its key customers. The actual sales and marketing, however, is carried out at the local level by our operating companies. In addition, to the extent that we do not serve a particular market through our own local organization, it is carried out either by way of direct sales made by us or through external agents, whom we remunerate on a commission basis.

Our main customers in the area of Additives & Instruments are in the paint and plastics industry. We offer our Additives & Instruments portfolio worldwide under our global brands BYK-Chemie and BYK-Gardner. Our marketing efforts are coordinated by our headquarters in Wesel, Germany, and are supported by our global sales and marketing organization, which consists of marketing companies in the United States, Singapore and Japan and sales offices in Korea and China. In those areas of the world where it does not make sense for us to maintain sales and marketing organizations of our own, we rely on distributors with which we have long-term relationships and whom we typically remunerate on a commission basis. We do not depend on any one of our distributors, and none accounts for a material portion of our revenues. In addition, we





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employ technical consultants who provide technical advice and service to our customers in all major markets.

The principal customers of our Electrical Insulation business are large manufacturers of magnet wires and various producers of electrical and electronic components. Because electrical and electronic devices are used in a wide variety of applications of everyday life, our customer base for impregnating resins and compounds is large and diverse. As far as Electrical Insulation is concerned, we use our own sales operations in all major markets worldwide.

In the area of Coatings & Sealants, our customers comprise a small number of globally operating companies in the packaging and certain other industries. For sales and marketing purposes, we rely on our own organizations in Germany, most other major European markets, the United States and China.

### Competition

Because specialty chemicals are frequently critical components of the manufacturing processes or end products in which they are used, they are typically offered together with support and customer service regarding their use and adaptation to the manufacturing requirements of individual customers. Therefore, the key competitive factors in all our business areas are the ability to respond to customers' needs and the commitment to constantly introducing new products and providing consistent quality and service.

The specialty chemicals industry is a highly fragmented industry, and there is no company that competes with us across all our business areas. The following table provides an overview of our principal competitors by business area:

#### Competitors

Additives & Instruments	Air Products, Ciba Specialty Chemicals, Cognis, Cytec, Degussa-Tego and Lubrizol
Electrical Insulation	
Wire enamels	Du Pont, Nexans, Fupao Chemical and Hitachi
Impregnating resins and compounds	Vantico, Du Pont, Hitachi and Von Roll Isola
Coatings & Sealants	
Can coatings	ICI, PPG and Valspar
Coil coatings	Akzo Nobel Nippon Paint, BASF, Becker Industrial Coatings, Sigma-Kalon and Tikkurila
Can sealants and closure compounds	W.R. Grace

### Regulation

The development, manufacture and marketing of chemical substances is regulated by national and international laws. Almost every country has its own legal procedures for manufacturing, registration and import. Of all countries, the laws and regulations of the European Union, the United States, China and Japan, however, are those which are most significant to our business. These regulations include the European inventory of existing commercial chemical substances, the European list of notified chemical substances, the United States Toxic Substances Control Act and the chemicals list of the Japanese Ministry of Trade and Industry. Chemicals that are contained in one or more of these lists can usually be registered and imported without additional testing into any other country, although additional administrative requirements may exist.

In the fall of 2003, the European Commission adopted a proposal for a new EU regulatory framework for chemicals. Under the proposed new system called REACH (Registration, Evaluation

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and Authorisation of CHemicals), which aims to improve the protection of human health and the environment by providing more safety information on chemical substances, enterprises that manufacture or import more than one metric tonne of a chemical substance per year would be required to register it in a central database. The proposal is currently being considered by the European Parliament and the Council of the EU for adoption under the so-called co-decision procedure and is not expected to enter into force prior to 2007. While we are currently unable to assess the full impact of this proposed new system on our business, we expect that it will very likely require the deployment of additional resources and thus result in increased costs, which could have a negative impact on our results of operations.

### **Employees**

See Item 6: Directors, Senior Management and Employees Employees for information on our employees.

### **Environmental Matters**

Our operations are subject to a number of environmental laws and regulations in each of the jurisdictions in which we operate governing, among other things, air emissions, wastewater discharges, the use, handling and disposal of hazardous substances and wastes, soil and groundwater contamination, as well as employee health and safety. Environmental compliance obligations and liability risks are inherent in many of our manufacturing activities. In the United States, certain environmental remediation laws, such as the federal Superfund law, can impose joint and several liability for site cleanup, regardless of fault, upon certain statutory categories of parties, including companies that sent waste to a site. We are subject to potential liability at a number of owned and third party sites in the United States.

We believe that our operations are currently in material compliance with all applicable environmental laws and regulations. In many jurisdictions, environmental requirements may be expected to become more stringent in the future, which could affect our ability to obtain or maintain necessary authorizations and approvals and result in increased environmental compliance costs.

While our management does not believe that environmental compliance or remedial requirements are likely to have a material effect on us, there is no assurance that future material environmental compliance or remedial obligations will not arise in connection with our operations or facilities or that such obligations will not have a material adverse effect on our business, financial condition or results of operations.

We have established and continue to establish accruals for environmental remediation liabilities where the amount of such liability can be reasonably estimated. As a rule, investigations into potential contamination and subsequent cleanup are required only when a site is closed and the existing production facilities dismantled. Accordingly, it is not possible to reasonably estimate the ultimate liability for investigation and cleanup at sites that are still in operation. Likewise, given the uncertainty inherent in such estimates, any accruals that we have established may be subject to change.

### **Organizational Structure**

We have subsidiaries that operate in a number of countries throughout the world. The following table provides information as of December 31, 2004, with respect to our current significant subsidiaries:

[Back to Contents](#)**Significant Subsidiaries**

Corporate name, location and country of incorporation	Field of activity	Equity(1)	Ownership interest(2)
		(€ in millions)	(%)
<b>Pharmaceuticals</b>			
ALTANA Pharma AG, Constance, Germany	Administration, R&D, Production, Distribution	95	100
ALTANA Pharma Deutschland GmbH, Constance, Germany	Distribution	1	100
ALTANA Pharma B.V., Hoofddorp, The Netherlands	Distribution	10	100
ALTANA Pharma N.V. /S.A., Diegem, Belgium	Distribution	7	100
ALTANA Pharma S.A.S., Le Mée-sur-Seine, France	Distribution	15	100
ALTANA Pharma GmbH, Vienna, Austria	Distribution	11	100
ALTANA Pharma S.p.A., Milan, Italy	Distribution	31	100
ALTANA Pharma S.A., Madrid, Spain	Distribution	20	100
ALTANA Pharma Sp.z.o.o., Warsaw, Poland	Distribution	22	100
ALTANA Inc., Melville, New York	Production, Distribution	38	100
ALTANA Pharma Inc., Oakville, Canada	Distribution	28	100
ALTANA Pharma S.A. de C.V., Mexico City, Mexico	Production, Distribution	62	100
ALTANA Pharma Ltda., São Paulo, Brazil	Production, Distribution	54	100
ALTANA Pharma AG, Kreuzlingen, Switzerland	Distribution	8	100
ALTANA Madaus (Pty.), Midrand, South Africa	Distribution	12	50
ALTANA Pharma Ltd., Marlow, Great Britain	Distribution	4	100
Zydus ALTANA Healthcare Private Ltd., Vashi, India	Production	14	50
ALTANA Pharma US, Florham Park, New Jersey	Distribution	19	100
<b>Chemicals</b>			
ALTANA Chemie AG, Wesel, Germany	Administration	867	100
BYK-Chemie GmbH, Wesel, Germany	Production, Distribution	105	100
Rhenania Coatings GmbH, Grevenbroich, Germany	Production, Distribution	9	100
DS-Chemie GmbH, Bremen, Germany	Production, Distribution	7	100
Terra Lacke GmbH, Lehrte, Germany	Production, Distribution	6	100
Beck Electrical Insulation GmbH, Hamburg, Germany	Production, Distribution	24	100
BYK-Cera B.V., Deventer, The Netherlands	Production, Distribution	23	100
Deatech s.r.l., Ascoli Piceno, Italy	Production, Distribution	30	100
The P.D. George Company Inc., St. Louis, Missouri	Production, Distribution	17	100
BYK-Chemie USA, Wallingford, Connecticut	Production, Distribution	50	100
BYK-Chemie Japan KK, Osaka, Japan	Distribution	5	100
Tongling SIVA Insulating Materials Co. Ltd., Tongling City, People's Republic of China	Production, Distribution	18	100
<b>Other subsidiaries</b>			
ALTANA Technology Projects GmbH, Bad Homburg v.d.H., Germany	Investments in and collaborations with biotech companies	63	100

- (1) Figures calculated in accordance with International Financial Reporting Standards ( IFRS ).  
(2) Portion of ownership interest equals portion of voting power held.

**Property, Plants and Equipment**

We own approximately 2.1 million square meters of property at our production, distribution and administrative facilities around the world and nearly all of the land that they occupy. See [Pharmaceuticals Production](#) and [Chemicals Production](#) for more information on our production facilities. Virtually all of our facilities are either owned by us or available to us under long-term leases. We believe that our current facilities and those of our consolidated subsidiaries are in good condition and adequate to meet the requirements of our present and foreseeable future operations.

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### Legal Proceedings

As is the case with many companies in the pharmaceuticals and specialty chemicals industry, we are and may from time to time become a party to claims and lawsuits incidental to the ordinary course of our business. We are not currently involved in any legal or arbitration proceedings that we expect to have a material adverse effect on our financial position, and, to our knowledge, no such legal or arbitration proceedings are currently threatened.

In 1988, we held 91% of Deutsch-Atlantische Telegraphen AG ( DAT ). In connection with the execution of a profit transfer and control agreement with DAT, which provided that all of DAT 's profits and losses had to be transferred to us, we made a mandatory exchange offer to the minority shareholders offering them 1.3 shares of our company for each DAT share held by them. The offer was based on a valuation of DAT. Subsequently, several minority shareholders applied to the competent court for relief, alleging that our compensation offer was inadequate. After raising our stake in DAT and integrating it into our company in 1990, we submitted a new compensation offer based on an exchange ratio of 1.4. After protracted litigation, in which lower courts confirmed the adequacy of our offers, the German Federal Constitutional Court (*Bundesverfassungsgericht*) reversed and remanded. The court held that the compensation offered by us should have been based on the market price of the shares, which would have led to a higher compensation to the DAT shareholders. On March 12, 2001, the German Federal Supreme Court (*Bundesgerichtshof*) decided that the exchange ratio had to be based on the average share price during the three months preceding the shareholders' meeting that approved the profit transfer and control agreement. The case was subsequently remanded to a district court, which in its decision dated January 15, 2003 set the exchange ratio at 3.45 shares of our company for one DAT share (not taking into account the various stock splits that have occurred in the meantime). We appealed that decision and on July 4, 2003, the appellate court (*Oberlandesgericht Düsseldorf*) confirmed the district court's decision. Based on the final court ruling, our total liability amounted to € 19.3 million. As at December 31, 2002 we had already accrued € 16.1 million. Accordingly, we recorded an expense of € 3.2 million as other operating expenses in 2003. We were required to settle our obligation in cash and shares. The obligation had been calculated based on the stock price of our shares on the day of the court ruling. In 2003, we transferred 207,036 of our treasury shares to former DAT shareholders and paid € 0.9 million in cash. However, in 2004, 7,704 shares and € 0.03 million in cash were transferred back to us, since the bank which had requested the shares and the cash in 2003 was unable to locate the former DAT shareholders. In 2004, we transferred 3,492 shares of our treasury shares to former DAT shareholders and paid € 0.02 million in cash. At December 31, 2004, we recorded the outstanding obligation in an amount of € 8.2 million under other liabilities.

On February 2, 2004, an Abbreviated New Drug Application ( ANDA ) with paragraph IV certification relating to Pantoprazole was filed with the U.S. Food and Drug Administration ( FDA ) and in April 2004 we received the corresponding paragraph IV patent certification notice from TEVA Pharmaceutical USA, Inc. ( TEVA ). On May 20, 2004, we, together with Wyeth, filed a patent infringement suit with the U.S. District Court of New Jersey (Newark) against TEVA and its parent TEVA Pharmaceuticals Industries, Ltd., alleging infringement of our Pantoprazole substance patent. Since the patent infringement action was brought against TEVA within 45 days after the receipt of the notification from TEVA, FDA approval of the ANDA cannot become effective until August 2, 2007, unless there is an earlier court decision stating that our substance patent is invalid or has not been infringed. At the beginning of March 2005, we received a notification from Sun, one of the challengers of our Pantoprazole formulation patent, informing us that Sun has amended its ANDA to include a paragraph IV certification relating to our Pantoprazole substance patent. We have not yet decided which steps should be taken with regard to this amendment of Sun's ANDA. For additional information on the risk posed by ANDAS and ANDAS generally, see Item 3: Key Information Risk Factors Risks Related to our Pharmaceuticals Business , Pharmaceuticals Intellectual Property and Pharmaceuticals Regulation United States .

[Back to Contents](#)**ITEM 5: OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

The following discussion includes forward-looking statements based on assumptions about our future business. Our actual results could differ materially from those contained in the forward-looking statements.

You should read the following discussion of our financial condition and results of operations in conjunction with our consolidated financial statements, including the related notes, and the other financial information that we have included elsewhere in this annual report. For our consolidated financial statements as of and for the three years ended December 31, 2004, see the discussion beginning on page F-1. We have prepared our consolidated financial statements in accordance with IFRS, which differ in certain significant respects from U.S. GAAP. For a description of the significant differences between IFRS and U.S. GAAP and a reconciliation of net income and shareholders' equity to U.S. GAAP, see notes 33 and 34 to our consolidated financial statements.

**Overview**

We are a globally operating company that develops, manufactures and markets innovative pharmaceutical and specialty chemical products for a range of targeted, highly specialized applications. In each of the last five years, we were able to significantly increase our revenues and operating income, although the growth rate has flattened in recent years. Much of this development has been driven by Pantoprazole. The following table indicates the growth of our business in recent years in terms of our net sales and our operating income for each of the last five years:

	2000	2001	2002	2003	2004
	(€ million)				
Net sales	1,928	2,308	2,609	2,735	2,963
Operating income	309	520(1)	538	563	617
Net income	181	328	324	345	391

(1) Includes a one-time gain in the amount of € 110 million resulting from the sale of our interest in a joint venture with H. Lundbeck A/S, a Danish company active in the treatment of diseases of the central nervous system ( CNS ) and a special donation of € 15 million to the Herbert Quandt endowment. Excluding these items, our operating income in 2001 would have been € 424 million.

The following discussion highlights the main factors driving the revenues and results of operations of each of our two divisions from 2002 to 2004.

**Pharmaceuticals**

The net sales of our pharmaceuticals division rose by 13.3%, from € 1,861 million in 2002 to € 1,980 million in 2003 and € 2,109 million in 2004. During the same period, the division's operating income grew by 12.7%, from € 471 million in 2002 to € 506 million in 2003 and € 531 million in 2004. The results of operations of our pharmaceuticals division are driven by:

*Our ability to develop and launch new and innovative therapeutics.* Our pharmaceuticals division derives most of its revenues from the sale of therapeutic drugs, and its ability to develop and launch new and innovative drugs materially influences its results of operations. The launch of new drugs, however, requires the successful completion of a regulatory approval process that is complex and burdensome and the outcome of which is uncertain. Currently, the main revenue driver of our pharmaceuticals division is our gastrointestinal therapeutic Pantoprazole, whose net sales have risen by 25.9% over the past three years, from € 966 million in 2002 to € 1,113 million in 2003 and further to € 1,216 million in 2004. Pantoprazole accounted for 57.6% of our pharmaceuticals net sales in 2004, compared with a contribution of 56.2% in 2003 and 51.9% in 2002. In 2004, Pantoprazole continued to be the primary growth driver of the division's net sales. However, increasing competition in the U.S. market, our most important market, by other branded proton pump inhibitors ( PPIs ), in particular Takeda's Lansoprazole and AstraZeneca's Esomeprazole, by various generic PPIs, in particular those based on Omeprazole, as well as

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by over-the-counter ( OTC ) versions of Omeprazole based PPIs has led to increased pressure on Pantoprazole, which may result in reduced growth and potentially even a decline in our Pantoprazole net sales in future periods . To reduce our reliance on sales and earnings of Pantoprazole, we are in the process of developing several respiratory drugs, including Ciclesonide and Roflumilast, which we hope will become revenue drivers of our pharmaceuticals division in the future. We recently started marketing the metered dose inhaler ( MDI ) application of Ciclesonide under the brand name Alvesco® in Germany and the United Kingdom. We plan to launch Ciclesonide in additional territories and to launch Roflumilast under the brand name Daxas® over the next several years.

*Price regulations and budgeting decisions of local governments and health care providers.* The sale of pharmaceuticals is subject to extensive price controls, which not only limit the amount of revenues that we can earn from our products but also influence the purchasing patterns of hospitals, doctors and patients. For example, after a period in which health care providers in Germany were afforded greater flexibility in their budgeting decisions and during which we were able to increase our sales of ethical therapeutics in the German market, recent legislation providing a framework for the introduction of reference prices is likely to have the opposite effect. Since January 1, 2003, the pharmaceutical industry in Germany is required to grant German public health care insurance companies fixed mandatory rebates (*Kassenrabatte*) off the list price for most ethical products. These fixed mandatory rebates were increased from 6% to 16% in 2004. The introduction of the fixed mandatory rebate system and the increases in the levels of these rebates have had a negative impact on our pharmaceuticals sales in Germany. For more information on the accounting impact of the fixed mandatory rebate system, see Critical Accounting Policies Revenue Recognition . In addition, in 2004, new legislation took effect which provides for the possibility to include patent-protected drugs in the system of statutory fixed reference prices for generic drugs containing certain classes of active ingredients. Drugs included in the statutory fixed reference price system are not subject to the fixed mandatory rebates. On January 1, 2005, the inclusion of Pantoprazole in the statutory fixed reference price system took effect. The association of the German health care insurance providers has included Pantoprazole in a reference price group along with other branded PPI s and cheaper Omeprazole-based generics. While we have lowered our prices for Pantoprazole in Germany so that German patients wishing to purchase Pantoprazole do not have to pay more than the statutory fixed reference price, we have also filed suit against the association s decision in the Social Court in Berlin, Germany. As a result of these developments, we anticipate the negative impact of German regulation on our business in Germany to persist.

*The level of our investment in R&D in any given period.* The development of new and innovative therapeutics involves substantial investments in R&D. Thus, the level of our R&D spending in any given period has a material impact on the results of operations of our pharmaceuticals division in that period. To maintain our high level of innovation, we seek to invest approximately 20% of the annual revenues of our therapeutics business in R&D. Basic research, the initial development of new drug candidates, the establishment of production facilities and the launch of new therapeutics typically require high levels of cash expenditures, whereas the marginal cost of producing additional units of the therapeutic is low. As a result, our ability to recover our R&D expenditures and to generate a profit from our drugs depends on our ability to obtain patent and other forms of intellectual property protection for these drugs to shield us from competition by manufacturers of generic equivalents.

*The sales and marketing methods we use for our therapeutics.* The results of operations of our pharmaceuticals division depend substantially on the selling and distribution expenses that we incur in marketing our therapeutics. The amount of selling and distribution expenses incurred with respect to any given drug depends on a variety of factors. One principal factor is the stage of the drug s life cycle. When we launch a new therapeutic, we

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typically incur substantial selling and distribution expenses to support its introduction to the worldwide pharmaceuticals markets. As the drug becomes established in its markets, these costs decline.

Another key factor influencing the level of selling and distribution expenses of our therapeutics and the revenues generated by them is the method that we use to distribute them. While we record selling and distribution expenses in markets where we sell our drugs directly, we at times use arrangements under which a local distributor purchases therapeutics from us at a price specified in the relevant distribution agreement and then assumes sole responsibility for selling and distributing these drugs in its local market. All expenses incurred in connection with the sale and distribution of the drugs are the distributor's responsibility. An example of this type of distribution arrangement is our agreement with Wyeth Pharmaceuticals, the pharmaceuticals division of Wyeth, Inc., ( Wyeth ) to distribute Pantoprazole in the United States. See Item 10: Additional Information Material Contracts for a summary of the material terms of our distribution arrangement with Wyeth.

*The composition of our portfolio of pharmaceuticals.* The manufacturing costs of the various products sold by our pharmaceuticals division vary considerably relative to their prices. Therefore, the results of operations of our pharmaceuticals division depend in part on the mix of pharmaceuticals that we ship in any given period. For example, because Pantoprazole has lower manufacturing costs relative to its price than many other products in our portfolio, our cost of sales as a percentage of net sales are lower in periods in which we ship higher volumes of Pantoprazole.

### **Chemicals**

The net sales of our chemicals division increased by 14.2% from € 748 million in 2002 to € 755 million in 2003 and € 854 million in 2004. Over the same period, its operating income fluctuated from € 104 million in 2002 to € 92 million in 2003 and € 121 million in 2004. The results of operations of our chemicals division are driven by:

*Our ability to consistently launch new and innovative products.* The longer a successful product is on the market, the more time competitors have to develop products with similar features, leading to increased competition and downward price pressure. As a result, a key driver of the revenues and results of operations of our chemicals division is our ability to consistently develop, manufacture and sell new and innovative specialty chemical products with advanced technical features and to ensure that such products account for a substantial share of our product portfolio.

*Our ability to maintain close ties with our customers.* In the specialty chemicals industry, it is important to be able to offer customers complete solutions consisting not only of products but also of comprehensive technical advice and service in connection with these products. Because the relationship aspect is an integral part of our product offering, our ability to maintain close ties with our customers affects the prices that our customers are willing to pay us and ultimately our revenues and results of operations.

*The business cycles experienced by our customers.* Although our products are targeted at specialized applications, our chemicals division is subject to the business cycles experienced by our customers. While we find it difficult to insulate our business from the impact of economic downturns that affect all of our customers, we attempt to reduce our exposure to the business cycles of the industries that we serve by focusing on complementary industry segments and discrete geographic regions.

*The level of raw material prices.* Another driver of the results of operations of our chemicals division is the level of raw material prices prevailing at any given point. Historically, we have at times found it difficult to pass such increases on to our customers, and we may experience similar difficulties in the future. In each of the last several years, the results of operations of our chemicals division were materially influenced by rising raw



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material prices. We continued to be exposed to high raw material prices in 2004 but were able to limit their impact on our business by substituting cheaper raw materials for more expensive ones.

Each of our two divisions' results of operations have been and continue to be materially influenced by exchange rate movements, particularly between the euro and each of the U.S. dollar, the Japanese yen, the Chinese renminbi yuan and the Mexican peso. For example, in 2004, net sales of our pharmaceuticals division were reduced by two percentage points due to the unfavorable exchange rate movements of the euro vis-à-vis the U.S. dollar and currencies linked to the U.S. dollar. Similarly, in 2004, exchange rate effects resulted in a reduction of the net sales of our chemicals division by three percentage points.

In addition, the revenues of each of our two divisions in any given period may be influenced by acquisitions and dispositions made by that division during that period. This is particularly true of our chemicals division, whose growth strategy contemplates the acquisition of suitable targets. For example, in August 2003 we acquired the electrical insulation business of Schenectady International, Inc., which contributed € 27 million to our revenues in 2003.

To promote comparability across reporting periods, the following discussion of our results of operations breaks out acquisition, disposition and currency effects.

We present segment information in accordance with IAS 14. The basis for our segment reporting is our two divisions: pharmaceuticals and specialty chemicals. This reporting system reflects the management structure of our organization, pursuant to which our holding company is responsible for making strategic decisions with respect to our two divisions, whereas the implementation of these decisions at the division level is the responsibility of the heads of the respective divisions, who manage them on a day-to-day basis. The reporting system also reflects our internal financial reporting and the predominant sources of risks and returns in our business. During the periods under review, there have not been significant sales between our pharmaceuticals and our chemicals segments.

### **Critical Accounting Policies**

#### **Revenue Recognition**

As described in note 2 to our consolidated financial statements, we recognize revenue if the revenue can be reliably measured, it is probable that we will realize the economic benefits of the underlying transaction, and all costs to be incurred in connection with the transaction can be measured reliably. Accordingly, we recognize revenue in connection with the sale of a product at the moment the product is shipped and title passes to the customer.

We make provisions for discounts, allowances, rebates, chargebacks and product returns by customers in the same period in which we recognize the related revenue. Such provisions primarily relate to potential revenue reductions in our pharmaceutical business as a result of:

Fixed mandatory rebates on ethical pharmaceuticals granted to the German public health care insurance companies as required by German law (*Kassenrabatt*). In the case of ethical pharmaceutical products, these rebates amounted to 6% and 16% of the products' retail price in 2003 and 2004, respectively. We calculate such rebates based on the sales volume shipped to our wholesale dealers. Additionally, we rely on market data provided by external sources to estimate the amounts sold by these dealers to patients insured under the German public health care system. The final rebate is determined and invoiced to us by the pharmacies' centralized service centers on a regular basis. Generally, the settlement occurs two months after shipping. Historically, our estimates have not deviated significantly from the ultimate rebate granted. Accordingly, we believe that we are able to determine the aggregated amount of rebates on our pharmaceutical products with a high degree of certainty at the time of shipment. As from January 1, 2005, Pantoprazole ceased to be subject to the German fixed mandatory rebate system and became subject to a statutory fixed price in Germany.

Volume-based customer loyalty rebates that relate almost exclusively to our sales activities in Brazil and the United States. These rebates are offered to our key customers to promote customer loyalty and encourage greater product sales. Our rebate programs provide that

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upon the attainment of pre-established volumes or the attainment of revenue milestones in a specified period, the customer receives credit against purchases. Other promotional programs are incentive programs periodically offered to our customers. We estimate provisions for rebates and other promotional programs based on the specific terms of each agreement and historical experience at the time of shipment.

Merchandise returns with regard to returns of expired ethical pharmaceutical products. Consistent with industry practice, we maintain a return goods policy that allows our customers to return product within a specified period prior to and subsequent to the expiration date. The majority of returns occur from six months before expiration to twelve months after expiration of the products. We base our accruals for product returns on our historical return experience. Due to high customer demand experienced in the past, customer returns due to product expiration have not been significant.

Chargebacks relate to wholesale dealers in the US who are supplying our products to indirect customers. The provisions for chargebacks are determined in light of expected sell-through levels by wholesale customers to indirect customers based upon past history. Direct customer rebate arrangements in the United States are typically related to the Medicaid Drug Rebate Program. These direct customer rebate arrangements do not make up a significant feature of our normal sales terms and conditions.

Reductions of gross revenues for our pharmaceutical business amounted in total to € 161 million in 2003 and € 211 million in 2004. There have been no material changes in estimates for prior year revenue reductions included in these amounts. Additionally we offer volume based rebates and cash discounts to customers of our chemicals business. Revenue reductions related to the chemicals business were € 9 million in 2003 and € 10 million in 2004. Accrued liabilities for these reductions amounted to € 38 million for 2003 and € 60 million for 2004.

We generate a substantial portion of our revenues from licensing agreements under which we grant third parties rights to certain of our products and technologies. We record non-refundable upfront payments received under these agreements as deferred revenue and recognize them in income over the estimated performance period stipulated in the agreement. An example of such a licensing agreement is our contract with Wyeth to distribute Pantoprazole in the United States. See Item 10: Additional Information Material Contracts for more information on this contract.

Currently, Wyeth is our single largest customer. Under our agreement with Wyeth related to the distribution of Pantoprazole, we have granted Wyeth an exclusive license to sell Pantoprazole-based products in the U.S. market. Under the agreement, Wyeth pays us a specified percentage of its Pantoprazole-related net sales, subject to a minimum price. Because our net sales from this arrangement are directly dependent on the price that Wyeth charges to the final consumer, our revenue from products that we have delivered to Wyeth but that have not been sold to the final consumer as of the balance sheet date are accounted for at the minimum price. We use what we believe is a reasonable system for estimating the number of unsold products held by Wyeth as of each relevant balance sheet date. The difference between the minimum price and the price invoiced by us to Wyeth is treated as deferred income until such time as the product is actually sold to the final consumer. Additionally, under this licence agreement we ship semi finished-products to Wyeth, who then completes the manufacturing process and sells the finished products to the final consumer. Under the terms of the contract, any yield adjustment resulting from the completion of the manufacturing process by Wyeth results in an adjustment, or allowance, to the original price.

We also generate revenues from our collaborative research and development arrangements. Examples of such arrangements include our agreement with Pfizer to co-develop and co-promote Roflumilast, which we intend to market under the brand name Daxas<sup>®</sup>, and our agreement with Aventis, now Sanofi-Aventis, with respect to the co-development of Ciclesonide, which we have recently started to market in two major European markets under the brand name of Alvesco<sup>®</sup>. See Item 4: Information on the Company Pharmaceuticals Research and Development for more information on these arrangements. We enter into co-development and co-promotion agreements to enhance the scope and depth of our research portfolio. Such agreements consist of multiple elements and provide for varying consideration terms, such as upfront, milestone and similar payments, which are complex and require significant analysis by management in order to determine the most

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appropriate method of revenue recognition. In 2003, we reviewed our various collaborative arrangements to determine if the multiple elements can be divided into separate units of accounting and how the arrangement consideration should be recognized. Where an arrangement can be divided into separate units, the arrangement consideration is recognized amongst those varying units and recognized over the respective performance period. Where the arrangement cannot be divided into separate units, the total arrangement consideration is allocated on a straight-line basis over the estimated collaboration period. Such determinations require us to make certain assumptions and judgments.

With respect to the agreements we have entered into to date, upfront payments and other similar non-refundable payments received that relate to the sale or licensing of products or technologies are reported as deferred income and recognized as other income over the collaboration periods on a straight-line basis. In previous years, non-refundable up-front payments received in connection with a development agreement were normally recognized as revenue on a straight-line basis over the expected development period through final regulatory approval. Non-refundable milestone payments which represented the achievement of a significant technical/regulatory hurdle in the research and development process, pursuant to collaborative agreements, were recognized as revenue upon the achievement of the specified milestone. The revised method is appropriate for recognizing revenue under our existing agreements and has not resulted in a material impact on our prior-year consolidated balance sheets, income statements or cash flows.

Under our arrangement with Pfizer, which is currently the most important of our development collaborations, we received upfront payments in 2002 of € 33.4 million. Initially, € 22.3 million of the upfront payment was deferred and is being recognized on a straight-line basis over the expected research and development period. Following the review of our accounting for our various collaborative arrangements in 2003, the upfront payment is now deferred and recognized over the entire collaboration period. The balance of € 11.1 million is refundable in the event that we fail to obtain regulatory approval for Roflumilast and is therefore deferred in full through final regulatory approval. If and when we obtain regulatory approval, the € 11.1 million will also be deferred over the remaining collaboration period. In addition, in 2003 and 2004, we received milestone payments of € 28.1 million and € 8.2 million, respectively, which are being deferred and recognized over the collaboration period.

It is important to emphasize that given the complex nature of our development projects, our collaborative arrangements and the uncertainties inherent in the research and development and regulatory approval processes, any estimate of dates on which we expect to advance further in research and development or obtain regulatory approval involves uncertainty and the exercise of significant management judgment. Any change in any of these dates has an impact on the corresponding collaboration periods. For each new drug candidate, we establish a detailed timetable in close consultation with our partners. We base these timetables on, among other things, our past experience. We believe that our current estimates are based on sound assumptions and are realistic.

### **Employee Incentive Plans**

As described in greater detail elsewhere in this annual report and in notes 2 and 13 to our consolidated financial statements, we offer various share-based employee incentive plans. See Item 6: Directors, Senior Management and Employees Share Ownership Stock Option Plans and Item 6: Directors, Senior Management and Employees Share Ownership ALTANA Investment Program for additional information on these plans. To enable us to satisfy our obligations under these plans, we may from time to time purchase shares of our company in the open market. Under International Financial Reporting Standards ( IFRS ), we amortize the excess of the average price at which we acquire these shares over the exercise price of the options over the applicable vesting period. U.S. GAAP currently permits companies to choose whether to apply the intrinsic value accounting provided by Accounting Principles Board ( APB ) Opinion No. 25 Accounting for Stock Issued to Employees ( APB 25 ) or the fair value method as set forth in the Financial Accounting Standards Board's ( FASB's ) Standard of Financial Accounting Standards ( SFAS ) No. 123 Accounting for Stock Based Compensation 123 . We currently apply APB 25 to our U.S. GAAP reporting. U.S. GAAP makes a distinction between fixed plans and variable plans.

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Generally, a plan is deemed to be fixed if both the option exercise price and the number of options that the participant will receive are known at the date of grant. Conversely, plans under which options are granted or become exercisable only upon the achievement of performance hurdles are normally variable. Special rules apply to plans that require cash settlement or permit participants to choose between cash and stock settlement. These plans invariably require variable accounting. Most of our employee incentive plans are variable plans. The only plan offered by us that is a fixed plan is our stock option plan for key members of our management launched in 2002. In the case of our variable plans, we calculate the excess of the market value of the shares over the exercise price at each annual balance sheet date and, if we consider it probable that the exercise condition will be satisfied, record the vested portion of the difference as an expense. With respect to our only fixed plan, we have so far not recorded any compensation cost, as the options granted under that plan have been out of the money since the date of grant. The primary aspect of our accounting for employee incentive plans that involves uncertainty and the exercise of management judgment is the determination of the likelihood that the exercise conditions under our variable plans will be satisfied.

As a result of the issuance of IFRS 2, which took effect on January 1, 2005, our accounting for employee incentive plans will change with effect from that date. The new standard introduces a fair-value based model for the accounting for share-based compensation. It requires us to record the fair value of an option as an expense. For equity-settled plans, the fair value is measured at the grant date and for cash-settled plans at each balance sheet date using a valuation technique consistent with generally accepted valuation methodologies. Vesting conditions are not taken into account when estimating the fair value, unless these conditions are market-based. Instead, the total expense incurred is adjusted for the number of options that eventually vest. In the case of equity- and cash-settled plans, the expense is deferred over the vesting period. However, for cash-settled plans the amount of the expense is adjusted to the fair value of the options on each balance sheet date. The compensation costs that we expect to record under this fair-value based model will differ from the compensation costs that we record using our current accounting policy.

The level of compensation costs that we have historically recorded under IFRS and U.S. GAAP is not necessarily indicative of the level of compensation costs that we may record in the future. Furthermore, fair value measurements are frequently based on estimates that involve significant management judgment, including estimates of the expected dividend yield and future share price volatility.

### **Pension Plans**

We provide various pension plans and other retirement benefit plans for our employees both in Germany and abroad. While some of these plans are funded by separate plan assets, most of them are not. We value our exposure under each of these plans using the projected unit credit method set forth in IAS 19. In performing valuations, we rely on the advice of actuarial consultants. The methodologies used by us require that we make estimates for some parameters, including the expected discount rate, the expected rate of compensation increase, the expected rate of pension increase and, in the case of plans covered by plan assets, the expected return on these assets. Although we believe that the actuarial assumptions used by us are appropriate, the relevant parameters may develop materially differently, which in turn may have a material impact on the level of our net periodic pension costs in any given period. We reflect all such changes in actuarial losses (gains), subject to the corridor approach.

### **Research and Development**

We invest significant financial resources in our research and development activities on an ongoing basis. This is necessary to maintain continued success in the highly competitive and research/technology intensive markets in which we are active. In addition to our in-house research and development activities, we maintain various research and development collaborations and alliances with third parties, under which we are required to fund costs and/or pay for the achievement of performance milestones. For accounting purposes, research expenses are defined as costs incurred for original and planned investigations undertaken to gain new scientific or technical knowledge and understanding. Development expenses are defined as costs incurred to achieve technical and

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commercial feasibility of products under development. Our research and development expenses typically consist of salaries and benefits, allocated overhead costs, occupancy costs, clinical trial and related manufacturing costs, as well as milestone-based payments, contract manufacturing and other outside costs.

We expense all research costs as incurred. Further, given the regulatory approval process and other uncertainties inherent in the development of our products, the conditions set forth in IAS 38 for capitalizing development costs are not satisfied, therefore development costs are also expensed as incurred. Significant management judgment is required when assessing the possible outcome of development activities.

In the case of collaborations and alliances with third parties, considerable judgment can be involved in assessing whether milestone based payments simply reflect the funding of research, in which case expensing would always be required, or whether, by making a milestone payment, we acquire an asset which has alternative uses in our own on-going research efforts and which may therefore be expensed over one or more future periods.

### **Impairment**

*Goodwill.* Since January 1, 2004, goodwill is not longer amortized but instead must be tested for impairment annually or more frequently if events and circumstance indicate that the carrying amount is not recoverable. The goodwill impairment test is based on recent financial budgets, which are based on historical experience, are subject to change and represent management's current best estimates regarding future developments. For a more detailed description of our impairment test, see note 5 of our consolidated financial statements.

*Tangible and intangible assets, other than goodwill.* A significant percentage of our assets is comprised of long-lived assets. We record these long-lived assets at cost and amortize or depreciate them, as the case may be, on a straight-line basis over the shorter of the term of the underlying contract, if applicable, or their estimated useful lives. As shown in note 5 to our consolidated financial statements, we hold various intangible assets other than goodwill. The useful life of an intangible asset, which is the period over which the asset is expected to contribute directly or indirectly to future cash flows, can be influenced by various factors, including legal, regulatory, contractual, competitive, economic and other factors. While many of our intangibles have a known contractual or legal life, determining the impact of other factors can involve considerable uncertainty and therefore require management to exercise significant judgment in estimating the period over which the cost of an asset should be expensed. Similar estimates are required for our tangible fixed assets.

The carrying value of all long-lived assets is subject to possible impairment. If facts and circumstances indicate that the carrying amount of an asset may not be recoverable in full, we estimate the value of the asset by discounting the expected future cash flows generated by it during its remaining estimated useful life plus any salvage value at the end of that period. If the estimated value of the asset is lower than its carrying amount, we take an impairment charge and adjust the carrying amount accordingly. Fair value estimates involve uncertainty and often require the exercise of significant management judgment. Although our management is confident that its estimates rest on sound assumptions, the actual cash flows generated by an asset in any given period and its actual salvage value could be materially different than that estimated, which could require us to record an unexpected impairment charge.

*Marketable securities and certain long-term investments.* We hold marketable securities and certain long-term investments classified as available-for-sale and, therefore, carried at fair value with unrealized gains and losses recorded in equity (revaluation reserve), net of tax. These securities are tested for impairment at each balance sheet date. Our policy to determine if an impairment of a security exists is based on a two-step approach, which takes into account both the fact whether the difference between the fair market value of the security and its book value is significant as well as for how long this difference exists. Impairment losses are recognized in other financial expenses when realized and are determined on a security-by-security basis. If there is an indication that the consideration that led to the impairment no longer exists, we would consider the need to reverse all or a portion of the impairment charge. Because market prices are available for most of the securities we hold in our portfolio, there is no need for estimates to determine the fair market value. Our

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management monitors our securities portfolio closely and believes the impairment procedures set out above as well as our procedures for assessing the need to make reversals are adequate to determine whether an impairment or reversal is necessary with respect to a particular security. However, there might be market effects which cannot be anticipated by management and would therefore cause unexpected impairment charges.

### Results of Operations

#### Group

The following table sets forth selected items of our consolidated income statement for the three years ended December 31, 2004 both in absolute terms and as percentages of net sales:

#### Results of Operations(1)

	Year ended December 31,					
	2002		2003		2004	
	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)
<i>Amounts in accordance with IFRS</i>						
Net sales	2,609	100.0	2,735	100.0	2,963	100.0
Cost of sales	(928)	(35.6)	(947)	(34.6)	(1,014)	(34.2)
Gross profit	1,681	64.4	1,788	65.4	1,949	65.8
Selling and distribution expenses	(649)	(24.9)	(710)	(26.0)	(777)	(26.2)
Research and development expenses	(369)	(14.2)	(412)	(15.1)	(445)	(15.0)
General administrative expenses	(128)	(4.9)	(120)	(4.4)	(145)	(4.9)
Other operating income	79	3.0	91	3.3	69	2.3
Other operating expenses	(76)	(2.9)	(74)	(2.7)	(34)	(1.2)
Operating income	538	20.6	563	20.6	617	20.8
Financial income (expense)	(12)	(0.5)	17	0.6	7	0.2
Income before taxes and minority interests	527	20.2	580	21.2	624	21.1
Income tax expense	(202)	(7.7)	(235)	(8.6)	(233)	(7.8)
Income before minority interests	324	12.4	345	12.6	391	13.2
Minority interests	0	0.0	0	0.0	0	0.0
Net income	324	12.4	345	12.6	391	13.2
<i>Amounts in accordance with U.S. GAAP</i>						
Net income	338		337		385	

(1) Columns may not add due to rounding.

*2004 compared with 2003*

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Net sales. Net sales increased by 8.3%, from € 2,735 million in 2003 to € 2,963 million in 2004. As in prior periods, the increase in 2004 was once again driven by our pharmaceuticals segment, with net sales rising by € 129 million in absolute terms and by 6.5% in relative terms, primarily due to revenue growth in the segment's therapeutics business as a result of the continued growth of Pantoprazole, particularly in Europe. Given the position that Pantoprazole has achieved in most major markets to date and recent market data suggesting a stabilization of its market share in some major markets, we expect the overall growth of the drug to slow in the future. The positive impact of Pantoprazole on our pharmaceuticals division was partially offset by unfavorable exchange rate movements, greater pricing pressure resulting from increased competition in the U.S. market and

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unfavorable regulatory developments, particularly the impact of the fixed mandatory rebate system (*Kassenrabatte*) in Germany. Net sales of our chemicals segment experienced a strong increase of € 99 million in absolute terms and 13.1% in relative terms, on account of revenue growth of our Additives & Instruments and Electrical Insulation business areas in all regions. Part of this growth is attributable to an acquisition made in August 2003. Adjusted for acquisition, disposition and currency effects, our net sales would have risen by approximately 9%. You should note that net sales reflect the reduction of gross sales by certain deductions. For more information on gross sales and related deductions as well as on the German fixed mandatory rebate system, see [Critical Accounting Policies](#) and [Revenue Recognition](#).

*Cost of sales.* Cost of sales includes the manufacturing costs of products sold. In addition to directly attributable costs, such as material costs, staff costs and energy costs, this line item also covers indirect costs, including directly attributable depreciation charges. Cost of sales rose by 7.0%, from € 947 million in 2003 to € 1,014 million in 2004. As a percentage of net sales, cost of sales remained virtually unchanged, decreasing only slightly from 34.6% to 34.2% during the same period. The absolute increase in cost of sales was primarily driven by our chemicals segment and reflects higher levels of net sales in that segment. The slight decrease in cost of sales as a percentage of sales is almost exclusively attributable to our pharmaceuticals segment, reflecting higher shipped volumes of Pantoprazole, which has relatively low manufacturing costs relative to its price, compared with our other products.

*Selling and distribution expenses.* Selling and distribution expenses are costs incurred by our sales and marketing organization as well as advertising and logistics costs. In absolute terms our selling and distribution expenses rose by 9.5%, from € 710 million in 2003 to € 777 million in 2004. As a percentage of net sales, selling and distribution expenses remained level at approximately 26%. This development was due to an increase in selling and distribution expenses in both of our segments. Pharmaceutical selling and distribution expenses increased in connection with the preparation of the launch of the MDI application of Ciclesonide, marketed under the brand name Alvesco®, and the expected launch of our pipeline drug Roflumilast. The increase of selling and distribution costs in our chemicals segment reflects the growth of the underlying business.

*Research and development expenses.* Research expenses comprise costs incurred for original and planned investigations undertaken to gain new scientific or technical knowledge and understanding. Development expenses include costs incurred to achieve technical and commercial feasibility of products under development. Our research and development expenses typically consist of salaries and benefits, allocated overhead costs, occupancy costs, clinical trial and related manufacturing costs, as well as milestone payments and other outside costs.

Research and development expenses increased by 8.1%, from € 412 million in 2003 to € 445 million in 2004. As a percentage of net sales, research and development expenses remained stable at approximately 15%. The increase in absolute terms reflects increased levels of R&D expenditures in our pharmaceuticals segment, mainly in connection with clinical trials for Ciclesonide and Roflumilast.

*General administrative expenses.* General administrative expenses include overhead, administrative expenses and personnel and non-personnel costs incurred by management to the extent that they are not charged to other cost centers. General administrative expenses increased by 21.2% from € 120 million in 2003 to € 145 million in 2004. As a percentage of net sales, they increased from 4.4% to 4.9%. This increase is mainly attributable to our pharmaceutical branch, reflecting an industry-wide rise in insurance fees and the recruitment of additional employees, mainly to strengthen the corporate function at the ALTANA Pharma headquarters.

*Other operating income.* Other operating income primarily consists of gains realized on the sale of assets, income from milestone payments, income from licensees and co-marketing partners, and, in 2003, the release of accruals. Other operating income declined by 23.9%, from € 91 million in 2003 to € 69 million in 2004. This decline reflects a decrease of earnings from € 20 million in 2003 to € 4 million in 2004 due to the sale of product lines, lower income from milestone payments, which decreased from € 20 million in 2003 to € 16 million in 2004, and the absence of the release of accruals relating to the satisfactory resolution of a potential dispute regarding import prices in one of



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our subsidiaries, which bolstered other operating income in 2003. These effects are partially offset by net foreign currency gains of € 5 million compared with net foreign currency losses in 2003.

*Other operating expenses.* Other operating expenses comprise foreign currency exchange losses and expenses that are not allocable to any of the expense items discussed above. Until 2003, operating expenses also consisted of goodwill amortization. As a result of the adoption of IFRS 3 in 2004, however, goodwill is no longer amortized on a straight-line basis, but is subject to an annual impairment test. For more information on IFRS 3, see note 2 of our consolidated financial statements. No impairment was necessary in 2004. Other operating expenses decreased by 53.7% from € 74 million in 2003 to € 34 million in 2004. This decrease mainly reflects the change in accounting for goodwill (2003: € 17 million) and the absence of net foreign currency losses, which accounted for € 12 million in 2003.

*Financial income.* In 2004, financial income decreased by 58.8%, from € 17 million in 2003 to € 7 million in 2004. Our financial income in 2004 was primarily driven by net interest income of € 9 million. The decline of financial income is mainly attributable to a 2003 reversal of an impairment charge of € 8 million we had taken with respect to our investment in a company to reflect the increased market price of that investment at December 31, 2003. No such reversal was recorded in 2004.

*Income tax expense.* Income tax expense includes corporate income and trade taxes, similar foreign taxes and deferred taxes, each calculated on the basis of the income of our company and its subsidiaries. Income tax expense decreased by 1.1%, from € 235 million in 2003 to € 233 million in 2004. Our effective tax rate decreased from 40.5% to 37.3%. This decrease reflects lower effective tax rates in Germany as well as abroad and higher foreign earnings contributions, the effective tax rates of which are substantially lower than the domestic tax rate.

*Minority interests.* Minority interests consist of the portion of the earnings and losses of less-than-wholly-owned consolidated subsidiaries (excluding joint ventures that are consolidated according to the proportional consolidation method) that is attributable to the other shareholders of these subsidiaries. In 2004, the share of minority shareholders in the earnings of our consolidated subsidiaries had no material impact on our net income.

### **2003 compared with 2002**

*Net sales.* Net sales increased by 4.8%, from € 2,609 million in 2002 to € 2,735 million in 2003. As in prior periods, the main growth driver in 2003 was once again our pharmaceuticals segment, with net sales rising by 6.4%, primarily due to revenue growth in the segment's therapeutics business. Therapeutics net sales increased particularly as a result of the continued growth of Pantoprazole in the United States and, to a lesser extent, Canada and Europe. Given the market position that Pantoprazole has achieved to date, we expect the growth of the drug to slow in the future. The positive operational development of our pharmaceuticals division was partially offset by unfavorable exchange rate movements, the effect of divestitures of certain product lines, especially those relating to our former diagnostics business, and unfavorable regulatory developments, particularly in Germany. Excluding these effects, the net sales of our pharmaceuticals segment would have risen by approximately 15%. Net sales of our chemicals segment rose by 0.9%, on account of slight revenue growth in all of the segment's business areas. Adjusted for acquisition, disposition and currency effects, net sales of our chemicals segment would have risen by 3%.

*Cost of sales.* Cost of sales comprises the manufacturing costs of products sold. In addition to directly attributable costs, such as material costs, staff costs and energy costs, the line item also covers indirect costs, including directly attributable depreciation charges. Cost of sales increased by 2.1%, from € 928 million in 2002 to € 947 million in 2003. As a percentage of net sales, cost of sales decreased slightly from 35.6% to 34.6% during the same period. The slight absolute increase in cost of sales was primarily driven by our chemicals segment, which continued to suffer from price pressures on raw materials. The slight decrease in cost of sales as a percentage of sales is entirely attributable to our pharmaceuticals segment, reflecting higher shipped volumes of Pantoprazole and the divestiture of certain product lines that have low margins compared with Pantoprazole.

*Selling and distribution expenses.* Selling and distribution expenses comprise the costs incurred by our sales and marketing organization as well as advertising and logistics costs. In absolute terms, the

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increase in our selling and distribution expenses amounted to 9.5%, from € 649 million in 2002 to € 710 million in 2003. As a percentage of net sales, selling and distribution expenses increased from 24.9% to 26.0% during the same period. This development was driven by an increase in selling and distribution expenses in our pharmaceuticals segment, which more than offset a decrease in selling and distribution expenses in our chemicals segment.

*Research and development expenses.* Research expenses are costs incurred for original and planned investigations undertaken to gain new scientific or technical knowledge and understanding. Development expenses comprise costs incurred to achieve technical and commercial feasibility of products under development. Our research and development expenses typically consist of salaries and benefits, allocated overhead costs, occupancy costs, clinical trial and related manufacturing costs, as well as milestone payments and other outside costs.

Research and development expenses increased by 11.6%, from € 369 million in 2002 to € 412 million in 2003, which led to an increase in research and development expenses as a percentage of net sales, from 14.2% to 15.1%. In both absolute and relative terms, the development was primarily driven by our pharmaceuticals segment, mainly reflecting expenses linked to clinical trials in connection with Ciclesonide and Roflumilast.

*General administrative expenses.* General administrative expenses consist of overhead, administrative expenses and personnel and non-personnel costs incurred by management to the extent that they are not charged to other cost centers. General administrative expenses decreased by 6.3%, from € 128 million in 2002 to € 120 million in 2003. As a percentage of net sales, they decreased slightly from 4.9% to 4.4%. This decrease mainly reflects the non-recurrence of certain expenses incurred in 2002 in connection with the renaming of our two divisions and a related marketing campaign, as well as our listing on the New York Stock Exchange, Inc. (the NYSE ) on May 22, 2002.

*Other operating income.* Other operating income mainly comprises income from milestone payments, income from licensees and co-marketing partners, gains realized on the sale of assets and the release of accruals. Other operating income increased by 14.9%, from € 79 million in 2002 to € 91 million in 2003. This increase primarily reflects increased earnings from our pharmaceuticals segment attributable to higher levels of income from milestone payments, the release of accruals and the disposition of certain product lines, the effects of which were offset by a decrease in income from the sale of property, plant and equipment.

*Other operating expenses.* Other operating expenses consist of goodwill amortization, foreign currency losses and expenses that are not allocable to any of the expense items discussed above. Other operating expenses decreased slightly by 2.5%, from € 76 million in 2002 to € 74 million in 2003. This decrease reflects lower levels of goodwill amortization, mainly attributable to our pharmaceuticals segment, the effects of which were partially offset by higher levels of foreign currency losses in both segments.

*Financial income (loss).* In 2003, we had financial income of € 17 million, compared with a loss of € 12 million in 2002. Our financial income in 2003 mainly comprised net interest income of € 13 million as well as the reversal of an impairment charge we had taken with respect to our investment in a company to reflect the increased market price of that investment at December 31, 2003, compared with December 31, 2002, due to the announcement of several positive results achieved by that company in connection with two of its R&D projects.

*Income tax expense.* Income tax expense consists of corporate income and trade taxes, similar foreign taxes and deferred taxes, each calculated on the basis of the income of our company and its subsidiaries. Income tax expense increased by 16.3%, from € 202 million in 2002 to € 235 million in 2003. Our effective tax rate increased from 38.4% to 40.5%. This increase reflects the impact of the German Flood Victim Solidarity Act of 2002, which resulted in a 1.5% increase in the German corporate income tax rate in 2003 and the absence in 2003 of a one-time tax credit that we had received in 2002 in connection with certain dividend payments.

*Minority interests.* Minority interests consist of that portion of the earnings and losses of less-than-wholly-owned consolidated subsidiaries (excluding joint ventures that are consolidated according to the proportional consolidation method) that is attributable to the other shareholders of

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these subsidiaries. In 2003, the share of minority shareholders in the earnings of our consolidated subsidiaries had no material impact on our net income.

### Pharmaceuticals

The following table sets forth selected information for our pharmaceuticals segment for the three years ended December 31, 2004:

#### Pharmaceuticals Results of Operations(1)

	Year ended December 31,					
	2002		2003		2004	
	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)
Net sales	1,861	100.0	1,980	100.0	2,109	100.0
Cost of sales	(479)	(25.7)	(487)	(24.6)	(493)	(23.4)
Gross profit	1,382	74.3	1,493	75.4	1,616	76.6
Selling and distribution expenses	(534)	(28.7)	(597)	(30.2)	(644)	(30.5)
Research and development expenses	(335)	(18.0)	(376)	(19.0)	(407)	(19.3)
General administrative expenses	(48)	(2.6)	(47)	(2.4)	(65)	(3.1)
Other operating income	62	3.4	84	4.2	58	2.7
Other operating expenses	(57)	(3.0)	(51)	(2.6)	(27)	(1.2)
Operating income	471	25.3	506	25.5	531	25.2

(1) Columns may not add due to rounding.

#### 2004 compared with 2003

Net sales. Net sales of our pharmaceuticals segment increased by 6.5% from € 1,980 million in 2003 to € 2,109 million in 2004. As in prior years, this development was almost exclusively driven by a significant increase in the net sales of Pantoprazole. In the period under review, net sales of Pantoprazole rose by 9.2%, from € 1,113 million in 2003 to € 1,216 million in 2004, which corresponds to a revenue contribution to the segment of 57.6% in 2004. In 2004, Pantoprazole again achieved double-digit net sales growth in local currencies in most parts of the world. This positive trend was partially offset by a decrease in net sales resulting from unfavorable exchange rate movements of the euro vis-à-vis the U.S. dollar and currencies linked to the U.S. dollar, which reduced the segment's net sales by two percentage points, and adverse regulatory changes, particularly in Germany. Dispositions and acquisitions, including the acquisition of the OTC drug Neosaldina in 2003, accounted for one percentage point of the increase in our pharmaceuticals net sales. Excluding acquisitions, dispositions and currency effects the net sales of our pharmaceuticals segment would have grown by approximately 8% in 2004.

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The following table breaks down the net sales of our pharmaceuticals segment by geographic region for the two years ended December 31, 2003 and 2004:

**Net Sales by Geographic Region(1)(2)**

	Year ended December 31,		Increase (decrease)
	2003	2004	
	€ in millions		(%)
Germany	375	371	(1.0)
Europe (excl. Germany)	597	679	13.7
U.S.A.	638	647	1.4
North America (excl. U.S.A.)	94	102	9.5
Latin America	213	235	10.4
Other	63	75	18.0
<b>Total</b>	<b>1,980</b>	<b>2,109</b>	<b>6.5</b>

(1) By location of customers.

(2) Columns may not add due to rounding.

In 2004, net sales of our pharmaceuticals segment increased in most geographic regions in which we are active. The only exception was Germany, where net sales were affected by increased fixed mandatory rebates (*Kassenrabatte*) imposed by the German government on the prices for most ethical therapeutics. As from January 1, 2005, Pantoprazole ceased to be subject to the German fixed mandatory rebate system and instead became subject to a statutory fixed price in Germany. For more information on the accounting impact of the mandatory rebate system, see Critical Accounting Policies Revenue Recognition. We experienced the strongest growth in Europe (excluding Germany) due to increased Pantoprazole sales in almost all relevant markets. In the United States we experienced only a moderate rise in net sales mainly due to unfavorable currency exchange developments and increased competition on the U.S. PPI market. In Latin America, we achieved double-digit net sales growth despite unfavorable currency exchange rate effects, primarily due to the economic upturn as well as additional revenues resulting from the acquisition of Neosaldina.

The following table breaks down the net sales of our pharmaceuticals segment by business area for the two years ended December 31, 2003 and 2004:

**Net Sales by Business Area(1)**

	Year ended December 31,		Increase (decrease)
	2003	2004	
	€ in millions		(%)
Therapeutics	1,724	1,839	6.6
OTC	104	115	10.7
Imaging	106	109	3.3
Other	46	46	0.4
<b>Total</b>	<b>1,980</b>	<b>2,109</b>	<b>6.5</b>

(1) Columns may not add due to rounding.

In 2004, our net sales growth, as in prior years, was driven by our therapeutics franchise, mainly as a result of the growth of our gastrointestinal franchise, which grew by 10.1% and accounted for 74% of our overall therapeutics revenues in 2004. The main growth driver within our gastrointestinal franchise continued to be Pantoprazole. Net sales of Pantoprazole rose from € 1,113 million in 2003 to € 1,216 million in 2004, contributing 66.1 percentage points to therapeutics

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net sales. Despite competition from a variety of other PPIs, both branded and generic, and from OTC versions of Omeprazole-based PPIs, Pantoprazole's share of prescriptions of the U.S. PPI market continued to rise until autumn 2004 and then stabilized. Given that Pantoprazole has meanwhile achieved a significant share in most markets and based on recent market data, we expect the growth of our net sales of this drug to slow in the coming years. Our respiratory net sales remained flat at € 59 million. Net sales from other therapeutics, which mainly comprises cardiovascular therapeutics, experienced a modest decline from € 424 million in 2003 to € 413 million in 2004 due to the loss of exclusivity for an in-licensed cardiovascular product.

Net sales of our OTC business increased by 10.7% mainly as a result of the acquisition of Neosaldina in December 2003.

Net sales of our imaging business experienced a moderate increase of 3.3% in 2004, due primarily to increased net sales of our magnetic resonance imaging portfolio in Europe (excluding Germany).

#### Operating income

*Cost of sales.* In our pharmaceuticals segment, cost of sales rose by 1.4%, from € 487 million in 2003 to € 493 million in 2004. As a percentage of net sales, cost of sales decreased from 24.6% to 23.4% over the same period. The relative decrease in cost of sales was mainly driven by the shipment of higher volumes of Pantoprazole.

*Selling and distribution expenses.* Selling and distribution expenses of our pharmaceuticals segment increased by 7.8%, from € 597 million in 2003 to € 644 million in 2004. As a percentage of net sales, selling and distribution expenses increased slightly from 30.2% to 30.5% over the same period. This development mainly reflects increased selling and distribution expenses incurred in connection with preparations for the expected launch of our pipeline drugs Ciclesonide and Roflumilast, especially in the United States and Germany.

*Research and development expenses.* Research and development expenses of our pharmaceuticals segment rose by 8.2% from € 376 million in 2003 to € 407 million in 2004. As a percentage of pharmaceuticals net sales research and development expenses increased slightly from 19.0% to 19.3% during the period under review. Expressed as a percentage of therapeutics net sales, research and development expenses increased slightly from 21.8% to 22.1% in the same period, which is in line with our strategy to allocate approximately 20% of our therapeutics net sales in any given year to R&D projects. The majority of our research and development expenses in 2004 were due to R&D activities related to clinical trials and regulatory filings in connection with the expected launch of Roflumilast and Ciclesonide, for which we received approval in some major European markets in 2004. In 2004, we allocated approximately 25% of our research and development expenses to basic research and drug discovery and spent approximately 75% on development.

*General administrative expenses.* General administrative expenses of our pharmaceuticals segment increased by 38.0%, from € 47 million in 2003 to € 65 million in 2004. As a percentage of net sales, general administrative expenses increased from 2.4% to 3.1% over the same period. This increase was due to higher insurance fees and the recruitment of additional employees, mainly to strengthen the corporate function of the ALTANA Pharma headquarters.

*Other operating income and expenses.* Other operating income of our pharmaceuticals segment decreased significantly by 30.8% from € 84 million in 2003 to € 58 million in 2004. This decrease primarily reflects the absence of the sale of certain product lines which contributed € 20 million to other operating income in 2003 and lower income from milestone payments, which decreased from € 20 million in 2003 to € 16 million in 2004. In addition, it reflects the absence of the release of accruals relating to the satisfactory resolution of a potential dispute regarding import prices in one of our subsidiaries, which bolstered other operating income in 2003. These effects were partially offset by net currency gains in 2004. Other operating expenses declined by 48.4%, from € 51 million in 2003 to € 27 million in 2004, mainly due to the absence of foreign currency exchange losses and the change in the accounting for goodwill resulting from the adoption of IFRS 3.

[Back to Contents](#)**2003 compared with 2002**

*Net Sales.* Overall net sales of our pharmaceuticals segment increased by 6.4%, from € 1,861 million in 2002 to € 1,980 million in 2003. As in prior years, the single most important driver of this development was a significant increase in the net sales of Pantoprazole. In the period under review, net sales of Pantoprazole increased by 15.2%, from € 966 million in 2002 to € 1,113 million in 2003, which corresponds to a revenue contribution of 56.2% to the net sales of our pharmaceuticals segment in 2003, compared with a revenue contribution of 51.9% in 2002. In 2003, Pantoprazole achieved double-digit net sales growth in most parts of the world except for Latin America, where our net sales of this drug experienced a single-digit decline due to a weak economic environment and unfavorable currency effects. The increase in net sales of our pharmaceuticals segment was partially offset by a decrease caused by adverse regulatory changes, particularly in Europe. In addition, our pharmaceuticals net sales suffered from unfavorable exchange rate movements of the euro vis-à-vis the U.S. dollar and currencies linked to the U.S. dollar, which reduced the segment's net sales by seven percentage points, and the effect of divestitures of certain product lines, especially product lines relating to our former diagnostics business, which led to a reduction of two percentage points. Excluding these effects, the net sales of our pharmaceuticals segment would have grown by approximately 15% in 2003.

The following table breaks down the net sales of our pharmaceuticals segment by geographic region for the two years ended December 31, 2002 and 2003:

**Net Sales by Geographic Region(1)(2)**

	Year ended December 31,		Increase (decrease)
	2002	2003	
	(€n millions)		(%)
Germany	390	375	(3.8)
Europe (excl. Germany)	542	597	10.1
U.S.A.	547	638	16.6
North America (excl. U.S.A.)	86	94	10.1
Latin America	236	213	(10.0)
Other	60	63	5.1
<b>Total</b>	<b>1,861</b>	<b>1,980</b>	<b>6.4</b>

(1) By location of customers.

(2) Columns may not add due to rounding.

In 2003, net sales of our pharmaceuticals segment increased in most geographic regions in which we are active. The exceptions were Latin America, where our sales were hurt by significant adverse exchange rate movements of the euro vis-à-vis the U.S. dollar and U.S. dollar-related currencies, and Germany, where net sales were adversely affected by mandatory discounts imposed by the German government on the list prices of most ethical therapeutics. In addition, net sales suffered from the divestiture of a substantial portion of our diagnostics business in December 2002. As in prior years, we experienced the strongest growth in North America and Europe, primarily due to the continued success of Pantoprazole in these markets.

The following table breaks down the net sales of our pharmaceuticals segment by business area for the two years ended December 31, 2002 and 2003:

[Back to Contents](#)**Net Sales by Business Area(1)**

	Year ended December 31,		Increase (decrease)
	2002	2003	
	(€m millions)		(%)
Therapeutics	1,565	1,724	10.2
OTC	110	104	(5.2)
Imaging	100	106	5.9
Other	86	46	(46.7)
<b>Total</b>	<b>1,861</b>	<b>1,980</b>	<b>6.4</b>

(1) Columns may not add due to rounding.

In prior periods, we discussed our therapeutics business on the basis of four franchises: our gastrointestinal franchise, our respiratory franchise, our cardiovascular franchise and our other therapeutics franchise. Effective January 1, 2003, we changed this presentation by reclassifying our cardiovascular net sales as part of our other therapeutics category. As a result, we now present three franchises instead of four. In 2003, our therapeutics net sales increased significantly, mainly as a result of the growth of our gastrointestinal franchise, which grew by 15% and accounted for 72% of our overall therapeutics revenues in 2003. The main growth driver within our gastrointestinal franchise was once again Pantoprazole, whose contribution to total therapeutics net sales rose by 15%, from € 966 million in 2002 to € 1,113 million, or 64.5% of therapeutics net sales, in 2003. Although Pantoprazole faced competition from a variety of other PPIs, both branded and generic, and became subject to competition from an OTC version of an Omeprazole-based PPI in the United States in 2003, its share of prescriptions of the U.S. PPI market continued to rise in 2003. Our respiratory net sale increased from € 57 million to € 59 million. Net sales from other therapeutics, which mainly comprises cardiovascular therapeutics, remained flat at € 424 million.

Net sales of our OTC business declined by 5.2% as a result of our tightening the range of products we offer and the weakness of the Mexican peso.

Our imaging net sales continued to increase in 2003, due primarily to the more widespread use of imaging technologies in the area of computer tomography as well as growth in demand for other magnetic resonance contrast media.

The decline of our other pharmaceuticals net sales reflects the divestiture of a substantial portion of our diagnostics business in December 2002. Excluding the net sales of the divested portion of our diagnostics business, our other pharmaceuticals net sales would have grown at a rate of 2.2%.

*Cost of sales.* In our pharmaceuticals segment, cost of sales increased by 1.7%, from € 479 million in 2002 to € 487 million in 2003. As a percentage of net sales, cost of sales decreased, from 25.7% to 24.6% over the same period. The relative decline in cost of sales was due primarily to the fact that we shipped higher volumes of Pantoprazole, which has lower manufacturing costs relative to its selling price than most products in our portfolio, and the divestiture of certain product lines that have low margins compared with Pantoprazole.

*Selling and distribution expenses.* Selling and distribution expenses of our pharmaceuticals segment increased by 11.8%, from € 534 million in 2002 to € 597 million in 2003. As a percentage of net sales, selling and distribution expenses increased from 28.7% to 30.2% over the same period. The increase in both absolute and relative terms mainly reflects increased selling and distribution expenses incurred in connection with preparations for the expected launch of our pipeline drugs Ciclesonide and Roflumilast.

*Research and development expenses.* Research and development expenses of our pharmaceuticals segment increased by 12.4%, from € 335 million in 2002 to € 376 million in 2003. As a percentage of pharmaceuticals net sales, research and development expenses increased from 18.0% to 19.0% during the period under review. Expressed as a percentage of therapeutics net sales, research and development expenses increased slightly from 21.4% to 21.8% in the same period, which is in line





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with our strategy to allocate approximately 20% of our therapeutics net sales in any given year to R&D projects. The majority of our research and development expenses in 2003 was accounted for by R&D activities related to clinical trials and regulatory filings in connection with the expected launch of Ciclesonide and Roflumilast. In 2003, we allocated approximately 20% of our research and development expenses to basic research and drug discovery and spent approximately 80% on development.

*General administrative expenses.* General administrative expenses of our pharmaceuticals segment decreased by 1.6%, from € 48 million in 2002 to € 47 million in 2003. As a percentage of net sales, general administrative expenses decreased from 2.6% to 2.4% over the same period.

*Other operating income and expenses.* Other operating income of our pharmaceuticals segment increased significantly by 34.1%, from € 62 million in 2002 to € 84 million in 2003. This increase primarily reflects higher income from milestone payments, which led to other operating income € 20 million in the period under review, corresponding to a rise of € 12 million compared with 2002. In addition, it reflects gains of € 20 million realized on the sale of certain product lines, corresponding to an increase of € 7 million compared with 2002. Other operating income also includes income from the release of accruals. Other operating expenses decreased by 10.2%, from € 57 million in 2002 to € 51 million in 2003, primarily reflecting lower levels of goodwill amortization.

**Chemicals**

The following table sets forth selected information for our chemicals segment for the three years ended December 31, 2004:

**Chemicals Results of Operations(1)**

	Year ended December 31,					
	2002		2003		2004	
	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)	(€ in millions)	(% of net sales)
Net sales	748	100.0	755	100.0	854	100.0
Cost of sales	(449)	(60.0)	(461)	(61.1)	(521)	(60.9)
Gross profit	299	40.0	294	38.9	333	39.1
Selling and distribution expenses	(115)	(15.3)	(113)	(14.9)	(133)	(15.6)
Research and development expenses	(34)	(4.6)	(36)	(4.7)	(38)	(4.4)
General administrative expenses	(41)	(5.4)	(41)	(5.4)	(46)	(5.5)
Other operating income	11	1.4	5	0.7	9	1.1
Other operating expenses	(16)	(2.1)	(18)	(2.4)	(4)	(0.5)
Operating income	104	13.9	92	12.2	121	14.2

(1) Columns may not add due to rounding.

**2004 compared with 2003**

*Net Sales.* Net sales of our chemicals segment increased strongly in 2004 by 13.1%, from € 755 million in 2003 to € 854 million in 2004. This increase reflects organic growth of our business as well as the effect of acquisitions, especially the acquisition of the electrical insulation business of Schenectady International Inc. in August 2003, which led to an increase of € 44 million, the effects of which more than offset unfavorable exchange rate movements resulting from the continuing appreciation of the euro vis-à-vis the U.S. dollar and other currencies such as the Chinese renminbi yuan. Exchange rate effects resulted in a reduction of the segment's net sales by three percentage points. The net effect of acquisitions and dispositions contributed four percentage points to the net sales of the segment. Excluding acquisition, disposition and exchange rate effects, our chemicals net sales would have increased by 12%.

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The following table breaks down the net sales of our chemicals segment by geographic region for the two years ended December 31, 2003 and 2004:

**Net Sales by Geographic Region(1)(2)**

	Year ended December 31,		Increase (decrease)
	2003	2004	
	(€ million)		(%)
Germany	107	120	12.4
Europe (excl. Germany)	306	334	9.0
U.S.A.	117	122	4.7
North America (excl. U.S.A.)	8	9	12.8
Asia	154	195	26.1
Other	63	74	17.8
<b>Total</b>	<b>755</b>	<b>854</b>	<b>13.1</b>

(1) By location of customers.

(2) Columns may not add due to rounding.

The increase in net sales in all regions of the world, especially in Asia and Germany, was driven by the net sales contributions of a business that we acquired in August 2003. Net sales in Asia, which increased by 26.1%, from € 154 million in 2003 to € 195 million in 2004, benefited from the continuous economic boom in that region, in particular in China. Our sales outside Europe suffered from the increasing strength of the euro vis-à-vis most major currencies. The economic recovery in the United States led to the increase of net sales there.

The following table sets forth the net sales of our chemicals segment by business area for the two years ended December 31, 2003 and 2004:

**Net Sales by Business Area(1)**

	Year ended December 31,		Increase (decrease)
	2003	2004	
	(€ million)		(%)
Additives & Instruments	308	348	13.0
Electrical Insulation	225	291	29.2
Coatings & Sealants	222	215	(3.1)
<b>Total</b>	<b>748</b>	<b>854</b>	<b>13.1</b>

(1) Columns may not add due to rounding.

In 2004, the net sales of all business areas of our chemicals segment continued to be negatively affected by unfavorable exchange rates, even as the economic environment recovered. The growth of our Additives & Instruments business was mainly attributable to organic growth of this business in all regions of the world. The growth of our Electrical Insulation business area includes the effects of an acquisition, which contributed € 44 million to net sales in 2004. Excluding acquisition, disposition and currency effects, our Electrical Insulation business area would have experienced an increase in net sales of 12%. Our Coatings & Sealants business suffered a decline due to several dispositions in

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2004. Excluding these effects, net sales would have increased by 7%.

*Cost of sales.* Cost of sales of our chemicals segment increased by 12.9%, from € 461 million in 2003 to € 521 million in 2004. As a percentage of net sales, cost of sales decreased from 61.1% to 60.9% during the same period. The growth of the segment's cost of sales is in line with its increased business volume, which is substantially attributable to an acquisition made in August 2003. The

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modest decline in cost of sales as a percentage of net sales, despite rising raw material prices, is attributable to the fact that we started to manufacture certain of our products, which were formerly produced by contractors, ourselves.

*Selling and distribution expenses.* Selling and distribution expenses of our chemicals segment increased by 18.2% from € 113 million in 2003 to € 133 million in 2004. In relative terms, selling and distribution expenses increased from 14.9% to 15.6%. The increase in selling and distribution expenses was due to the expanded business volume resulting in higher freight, shipping and storage costs and to a lesser degree to an acquisition we made in August 2003.

*Research and development expenses.* The level of research and development expenses incurred by our chemicals segment is determined by the requirements of our customers and, in any year, typically amounts to around 5% of the segment's net sales. Research and development expenses of our chemicals segment increased by 6.1% from € 36 million in 2003 to € 38 million in 2004. As a percentage of net sales, research and development expenses decreased slightly from 4.7% to 4.4% in the same period.

*General administrative expenses.* General administrative expenses of our chemicals segment increased by 14.4% from € 41 million in 2003 to € 46 million in 2004. The increase in general administrative expenses is mainly due to an acquisition completed in August 2003. As a percentage of net sales, general administrative expenses increased slightly from 5.4% in 2003 to 5.5% in 2004.

*Other operating income and expenses.* Other operating income of our chemicals segment increased from € 5 million in 2003 to € 9 million in 2004, whereas other operating expenses decreased from € 18 million in 2003 to € 4 million in 2004, primarily reflecting the change in the accounting for goodwill resulting from the adoption of IFRS 3.

**2003 compared with 2002**

*Net Sales.* Net sales of our chemicals segment in 2003 were consistent with our net sales in 2002, increasing by only 0.9%, from € 748 million in 2002 to € 755 million in 2003. The slight increase in our chemicals net sales reflects organic growth of our business as well as the effect of acquisitions. We achieved this increase in the face of unfavorable exchange rate movements resulting from a significant strengthening of the euro vis-à-vis the U.S. dollar and other currencies such as the Chinese renminbi yuan and the Japanese yen and the continuing difficult economic environment. Exchange rate effects resulted in a reduction of the segment's net sales by five percentage points. The net effects of acquisitions and dispositions contributed three percentage points. Excluding these effects, our chemicals net sales would have increased by 3%.

The following table breaks down the net sales of our chemicals segment by geographic region for the two years ended December 31, 2002 and 2003:

[Back to Contents](#)**Net Sales by Geographic Region(1)(2)**

	Year ended December 31,		Increase (decrease)
	2002	2003	
	(€ million)		(%)
Germany	100	107	6.8
Europe (excl. Germany)	292	306	5.1
U.S.A.	137	117	(14.6)
North America (excl. U.S.A.)	9	8	(16.8)
Asia	141	154	9.4
Other	69	63	(9.2)
<b>Total</b>	<b>748</b>	<b>755</b>	<b>0.9</b>

(1) By location of customers.

(2) Columns may not add due to rounding.

The increase in net sales to customers located in Europe (including Germany) is predominantly attributable to the net sales generated by a business that we acquired in 2003. The strongest growth was accounted for by net sales in Asia, which was due in part to a shift of chemicals sales from North America, where net sales declined as a result. Our sales outside Europe suffered from the increasing strength of the euro vis-à-vis most major currencies.

The following table sets forth the net sales of our chemicals segment by business area for the two years ended December 31, 2002 and 2003:

**Net Sales by Business Area(1)**

	Year ended December 31,		Increase (decrease)
	2002	2003	
	(€ million)		(%)
Additives & Instruments	304	308	1.3
Coatings & Sealants	221	222	0.4
Electrical Insulation	223	225	0.9
<b>Total</b>	<b>748</b>	<b>755</b>	<b>0.9</b>

(1) Columns may not add due to rounding.

All business areas of our chemicals segment showed only nominal growth due to unfavorable exchange rate effects in 2003 and the continuing difficult economic environment in the markets in which we operate. The growth of our Electrical Insulation business area also reflects the effects of an acquisition, which contributed sales of € 27 million in 2003. Excluding this acquisition, our Electrical Insulation business area would have suffered a decline in sales of 11%.

*Cost of sales.* Cost of sales of our chemicals segment increased by 2.7%, from € 449 million in 2002 to € 461 million in 2003. As a percentage of net sales, cost of sales experienced an increase from 60.0% to 61.1% during the same period. The increase in cost of sales is due mainly to an acquisition, which had a twofold effect. On the one hand, it led to a shift in our product mix to products with higher cost of sales. On the other

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hand, it forced us to temporarily switch to toll manufacturing to continue to serve some of the markets where we integrated the acquired operations into our existing subsidiaries.

*Selling and distribution expenses.* Selling and distribution expenses of our chemicals segment decreased by 1.7% from € 115 million in 2002 to € 113 million in 2003. In relative terms, selling and distribution expenses showed a modest decrease from 15.3% to 14.9%. The decrease in selling and

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distribution expenses resulted from efficiency gains realized by streamlining the sales and marketing program of our chemicals segment.

*Research and development expenses.* The level of research and development expenses incurred by our chemicals segment is determined by the requirements of our customers and is, in any year, typically around 5% of the segment's net sales. As a percentage of net sales, research and development expenses increased slightly from 4.6% to 4.7% in the same period.

*General administrative expenses.* General administrative expenses of our chemicals segment remained stable in both absolute and relative terms at € 41 million during 2003, or 5.4% of net sales.

*Other operating income and expenses.* Other operating income of our chemicals segment decreased from € 11 million in 2002 to € 5 million in 2003, whereas other operating expenses increased from € 16 million in 2002 to € 18 million in 2003, mainly as a result of higher levels of foreign currency exchange losses.

### U.S. GAAP Reconciliation

We prepare our financial statements in accordance with IFRS, which differ in certain respects from U.S. GAAP. The following table sets forth our net income and shareholders' equity under IFRS and provides the corresponding U.S. GAAP amounts for the periods presented:

#### IFRS to U.S. GAAP Reconciliation

As of and for the year ended  
December 31,

	2002	2003	2004
	(€ in millions)		
<b>Net income</b>			
IFRS	324	345	391
U.S. GAAP	338	337	385
<b>Shareholders' equity (at year-end)</b>			
IFRS	1,250	1,445	1,661
U.S. GAAP	1,261	1,470	1,683

See notes 33 and 34 to our consolidated financial statements for a reconciliation of our net income for the three years ended December 31, 2004 and shareholders' equity as of December 31, 2003 and 2004 as well as for additional details on the reconciliation from IFRS to U.S. GAAP.



[Back to Contents](#)**LIQUIDITY AND CAPITAL RESOURCES****Cash Flow**

The following table highlights selected cash flow data for each of the three years ended December 31, 2004:

	<b>Cash Flow(1)</b>		
	<b>Year ended December 31,</b>		
	<b>2002</b>	<b>2003</b>	<b>2004</b>
	<b>(€ million)</b>		
Net cash flow provided by operating activities	442	425	427
Net cash flow used in investing activities	(204)	(298)	(192)
Net cash flow used in financing activities	(154)	(152)	(201)
Cash and cash equivalents, year end(2)	323	288	317

(1) Columns may not add due to rounding.

(2) Excluding marketable securities.

**2004 compared with 2003**

*Net cash flow provided by operating activities.* Net cash flow provided by operating activities increased slightly by 0.4%, from € 425 million in 2003 to € 427 million in 2004. This slight increase was mainly due to increased operating profits, which led to a rise in net cash flow provided by operating activities before changes in working capital of 17.1% to € 509 million. This increase was almost completely offset by higher volumes of cash bound in working capital, mainly due to an increase in accounts receivable in our pharmaceutical segment.

*Net cash flow used in investing activities.* Net cash used in investing activities decreased by 35.5%, from € 298 million in 2003 to € 192 million in 2004. This decline was primarily due to an acquisition in our chemicals segment in August 2003. The 2004 figure primarily reflects the net cash effect of:

A € 226 million cash decrease primarily reflecting investments in property, plant and equipment and intangible assets.

A € 33 million cash increase reflecting the net effect of a € 218 million cash increase resulting from sales of marketable securities and € 185 million cash decrease due to purchases of marketable securities.

A € 22 million cash increase stemming from the sale of property, plant and equipment, intangible assets and financial assets, and certain product lines.

The following table sets forth our capital expenditures (excluding goodwill) for the years ended December 31, 2003 and 2004:

	<b>Capital Expenditures</b>	
	<b>Year ended December 31,</b>	
	<b>2003</b>	<b>2004</b>
	<b>(€ million)</b>	
Pharmaceuticals	141	165
Chemicals	86	60
Holding Company	10	1
<b>Total</b>	<b>237</b>	<b>226</b>



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*Net cash flow used in financing activities.* Net cash used in financing activities increased by 32.4%, from € 152 million in 2003 to € 201 million in 2004. This increase reflects higher cash outflows due to higher dividend payments in 2004, the amortization of long term financial debt and lower proceeds from the sale of treasury shares used in connection with our stock option plans. For more information on our stock option plans see Item 6: Directors, Senior Management and Employees Share Ownership Stock Option Plans . The 2004 figure reflects the net cash effect of, among other things:

A € 113 million cash decrease reflecting the payment of a dividend in the amount of € 0.83 per share in respect of 2003.

A € 76 million cash decrease resulting from the purchase of treasury shares, primarily in connection with our stock option plans, which was partially offset by the € 18 million cash increase resulting from the sale of treasury shares.

A € 35 million cash decrease mainly attributable to the repayment of long-term debt related to our pharmaceutical segment.

*Net financial position.* At December 31, 2004, we had cash and cash equivalents that is, cash on hand and in bank accounts as well as highly liquid investments with original maturities of three months or less in the amount of € 317 million, compared with cash and cash equivalents of € 288 million at December 31, 2003, corresponding to an increase of € 29 million during the period under review. The increase in cash and cash equivalents at December 31, 2004 compared with December 31, 2003 mainly reflects the high net cash flow provided by operating activities, which was almost completely offset by net cash flow used in investing and financing activities in the period under review.

At December 31, 2004, we had marketable securities in the amount of € 263 million, compared with marketable securities of € 292 million at December 31, 2003, corresponding to a decrease of € 29 million during the period under review. The decrease in marketable securities at December 31, 2004 compared with December 31, 2003 primarily reflects the sale of marketable securities over the course of 2004 to expand our short term financial flexibility.

The high level of net income in 2004 did not result in an increase in our cash balances and portfolio of marketable securities taken as a whole on account of the high level of capital expenditures made during the year and the increase in working capital as well as on account of the financing activities discussed above.

We had debt in the amount of € 58 million at December 31, 2004, compared with debt of € 96 million at December 31, 2003, corresponding to a decline of € 38 million during the period under review. The decline in debt was mainly attributable to repayments of financial debt by our pharmaceutical segment. For the years ended December 31, 2004 and 2003, weighted average interest rates for borrowings from banks were 2.0% and 6.5%, respectively.

### **2003 compared with 2002**

*Net cash flow provided by operating activities.* Net cash flow provided by operating activities decreased by 3.9%, from € 442 million in 2002 to € 425 million in 2003. The decrease was due mainly to changes in our working capital, including, among other items:

A € 78 million cash decrease caused by an increase in trade accounts receivable, other receivables and prepaid expenses, mainly attributable to higher levels of net sales.

A € 65 million cash increase resulting from an increase in trade accounts payables, due mainly to a higher number of goods and services received but not paid at the end of 2003.

A € 30 million cash decrease attributable to higher levels of inventories, reflecting higher levels of semi-finished and finished products and merchandise.

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*Net cash flow used in investing activities.* Net cash used in investing activities increased by 46.1%, from € 204 million in 2002 to € 298 million in 2003. The 2003 figure primarily reflects the net cash effect of:

A € 306 million cash decrease primarily reflecting investments in property, plant and equipment and intangible assets and the purchase price paid for businesses acquired by our chemicals segment. A substantial portion of the assets received as a result of this acquisition, especially existing customer relationships, was accounted for as goodwill.

A € 38 million cash increase stemming from the sale of fixed assets and certain product lines.

A € 25 million cash decrease reflecting the net effect of a € 299 million cash increase resulting from sales of marketable securities and € 324 million cash decrease due to purchases of marketable securities.

The following table sets forth our capital expenditures (excluding goodwill) for the years ended December 31, 2002 and 2003:

### Capital Expenditures

	Year ended December 31,	
	2002	2003
	(€ million)	
Pharmaceuticals	147	141
Chemicals	65	86
Holding Company	13	10
Total	225	237

*Net cash flow used in financing activities.* Net cash used in financing activities decreased by 1.1%, from € 154 million in 2002 to € 152 million in 2003. This decrease reflects the net cash effect of, among other things:

A € 102 million cash decrease reflecting the payment of a dividend in the amount of € 0.75 per share in respect of 2002.

A € 76 million cash decrease resulting from the purchase of treasury shares, primarily in connection with our stock option plans, which was partially offset by a € 39 million cash increase resulting from the sale of treasury shares.

A € 20 million cash decrease mainly attributable to the repayment of long-term debt related to our pharmaceutical segment, the effect of which was partially offset by the receipt of cash proceeds from the incurrence of long-term debt in the amount of € 12 million.

*Net financial position.* At December 31, 2003, we had cash and cash equivalents that is, cash on hand and in bank accounts as well as highly liquid investments with original maturities of three months or less in the amount of € 288 million at December 31, 2003, compared with cash and cash equivalents of € 323 million at December 31, 2002, corresponding to a decrease of € 35 million during the period under review. The decrease in cash and cash equivalents at December 31, 2003 compared with December 31, 2002 mainly reflects the increase in our net cash flow used in financing activities during the period under review.

At December 31, 2003, we had marketable securities in the amount of € 292 million, compared with marketable securities of € 261 million at December 31, 2002, corresponding to an increase of € 31 million during the period under review. The increase in marketable securities at December 31, 2003 compared with December 31, 2002 primarily reflects the recovery of the worldwide stock markets in 2003 and investments of parts of our cash and cash equivalents in marketable securities.

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We had debt in the amount of € 96 million at December 31, 2003, compared with debt of € 117 million at December 31, 2002, corresponding to a decline of € 21 million during the period under review. The decline in debt was mainly attributable to repayments of financial debt by our pharmaceutical segment. For the years ended December 31, 2003 and 2002, weighted average interest rates for borrowings from banks were 6.5% and 6.1%, respectively.

### Liquidity Commitments and Capital Requirements

Special purpose entities, irrespectively of their legal structure, are included in our consolidated financial statements when we have the power to govern their financial and operating policies. We have no special purpose entities that are not consolidated in our financial statements. Moreover, we have no material off-balance sheet arrangements that are reasonably likely to have a material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

The following table provides a maturity analysis of our contractual obligations as of December 31, 2004:

<b>Contractual Obligations(1)</b>					
<b>As of December 31,</b>					
<b>2004</b>					
<b>Total</b>	<b>Payments due by period</b>				
	<b>&lt;1 year</b>	<b>1-3 years</b>	<b>4-5 years</b>	<b>&gt;5 years</b>	
(€ in millions)					
Debt	52	43	1		7
Capital leases	7	1	1	1	4
Operating leases	101	21	28	18	35
R&D obligations(2)	67	37	30		

(1) Columns and rows may not add due to rounding.

(2) Includes minimum and estimated milestone payments under our various R&D agreements.

As of December 31, 2004, we had commitments for investments in property, plant and equipment in the amount of € 47 million, most of which expire in the short term, guarantees for pension commitments in the amount of € 15 million and other commercial commitments in the amount of € 4 million. See note 27 to our consolidated financial statements for additional information on our commitments and contingencies as of December 31, 2004.

As of December 31, 2004, we had recorded provisions for our pension benefit and other post-retirement obligations in the amount of € 264 million. For more information on our accounting for our pension obligations, see [Critical Accounting Policies](#) [Pension Plans](#) and note 14 of our consolidated financial statements.

We typically fund our capital expenditures with our cash flow from operations and, if such funds are not sufficient, liquid funds, including cash, cash equivalents and marketable securities.

On May 5, 2004, our shareholders' meeting approved a proposal by our management and supervisory boards to pay a dividend of € 0.83 per no-par value share in respect of 2003, with the amount attributable to treasury shares to be allocated to retained earnings.

We believe that cash flows from operating activities along with available cash and cash equivalents and marketable securities will be sufficient to fund all of our regular operating needs in the coming 18 months, including capital expenditures, research and development projects and dividends.

### Changes in Accounting Policies

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In 2004, we adopted IFRS 3 and, accordingly, changed our accounting for goodwill. As a consequence, we no longer amortize goodwill on a straight-line basis, but rather test it for impairment

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on an annual basis and whenever events and circumstances indicate that it might be impaired. For more information on IFRS 3, see note 2 of our consolidated financial statements.

#### **New Accounting Standards**

For a discussion of new IFRS and U.S. GAAP accounting standards, see notes 2 and 34 of our consolidated financial statements.

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## ITEM 6: DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### Directors and Management

#### Overview

As required by the German Stock Corporation Act (*Aktiengesetz*), we have a management board (*Vorstand*) and a supervisory board (*Aufsichtsrat*). The two boards are entirely separate, and, subject to a limited exception not currently applicable to us, no individual may simultaneously be a member of both boards. Our management board is responsible for managing our business in accordance with applicable laws, our Articles of Association and its rules of procedure. In addition, it represents us in our dealings with third parties. Our supervisory board appoints and removes the members of our management board and oversees their management of our company but does not make management decisions itself.

In carrying out their duties, the members of our management and our supervisory boards are required to exercise the standard of care of a prudent and diligent businessperson. If they fail to observe the appropriate standard of care, they may become liable to us. In carrying out their duties, both boards have to take into account a broad range of considerations, including our company's interests as well as the interests of our shareholders, employees, creditors and, to some extent, the public interest. Our management board is also required to respect the rights of our shareholders to be treated on equal terms. In addition, it is responsible for implementing an internal monitoring system for risk management purposes.

Our supervisory board has comprehensive oversight responsibilities. To ensure that our supervisory board can carry out these functions properly, our management board must, among other things, regularly submit reports to our supervisory board in relation to the current state of our company's business and future business planning. In addition, our supervisory board is entitled to request special reports at any time.

Under German law, our shareholders have no direct recourse against the members of our management board or the members of our supervisory board in the event of a breach of duty. Apart from insolvency and other special circumstances, only we have the right to claim damages from the members of our two boards. We may waive or settle claims only if at least three years have passed since any violation of a duty occurred and only if our shareholders approve the waiver or settlement at a shareholders' meeting with a simple majority of the votes cast, provided that no shareholders who in the aggregate hold one-tenth or more of our share capital oppose the waiver or settlement and have their opposition formally recorded in the minutes.

#### Supervisory Board

As required by applicable German law and our Articles of Association, our supervisory board consists of twelve members. Six of these members are elected by our shareholders and six are elected by our German employees. One of the employee representatives is member of the management staff (*leitende Angestellte*) and two are elected pursuant to proposals of unions.

Our shareholders may remove any member of our supervisory board whom they have elected by adopting a resolution at a general meeting with a simple majority of the votes cast. Our German employees may remove any supervisory board member whom they have elected by adopting a resolution with a majority of three quarters of the votes cast. Our supervisory board elects a chairman and at least one deputy chairman from among its members. The election of the chairman and the first deputy chairman requires a two-thirds majority vote of the full supervisory board. If no candidate for chairman or first deputy chairman receives the required two-thirds majority, the shareholder representatives elect the chairman and the employee representatives elect the first deputy chairman. If our supervisory board chooses to elect a second deputy chairman, it does so by a simple majority of the votes cast. Resolutions of our supervisory board require a simple majority of the votes cast unless the law requires otherwise, with the chairman having a deciding vote in the event of a deadlock.

Our supervisory board meets at least twice every half year. In 2004, our supervisory board met four times. The main functions of our supervisory board are:



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- To monitor and oversee the management of our company;
- To appoint and remove members of our management board;
- To represent our company in matters concerning our management board;
- To enter into contracts with independent auditors on behalf of our company; and
- To approve matters that the Articles of Association or the supervisory board have made subject to such approval.

Each member of our supervisory board is appointed for a maximum term of five years. A supervisory board member's term of office expires at the end of the general meeting of our shareholders at which our shareholders discharge the respective member for the fourth fiscal year following the fiscal year in which that member was elected. Supervisory board members may be re-elected.

Our supervisory board has established a number of committees, including a remuneration committee (*Personalaussschuss*) and an audit committee (*Prüfungsausschuss*). The remuneration committee is responsible for reviewing and approving the terms of contracts between us and the members of our management board. The audit committee is responsible for engaging the auditor and determining the audit fee following the appointment of the auditor by our shareholders' meeting. The audit committee also determines the areas on which the auditor should put the emphasis when auditing our financial statements, monitors the auditor's independence and reviews our financial statements before they are presented to our supervisory board. In addition, the audit committee oversees the operation of the internal monitoring system for risk management purposes that has been implemented by our management board.

The following table sets forth the names and functions of the current members of our supervisory board, their ages at December 31, 2004, the year in which their current terms expire and their principal business activities outside of our company.

#### Supervisory Board Members

Name	Age	Term expires	Principal business activities outside of our company
<u>Shareholder Representatives:</u>			
Justus Mische(1) <i>Chairman</i>	66	2008	Member of the supervisory boards of B. Braun Melsungen AG (chairman), Software AG
Susanne Klatten(1) <i>Second deputy chairwoman</i>	42	2008	Member of the supervisory boards of Bayerische Motoren Werke AG, ALTANA Pharma AG, UnternehmerTUM GmbH
Dr. Uwe-Ernst Bufe(2)	60	2006	Member of the supervisory boards of Air Liquide GmbH, Cognis Verwaltungs-GmbH, Frankfurter Versicherungs AG, Rütgers AG, UBS Investment Bank AG (chairman), Solvay S.A., Akzo Nobel N.V., Umicore S.A.
Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann	56	2008	President of the Technical University Munich ( <i>Technische Universität München</i> ); member of the supervisory board of Degussa AG
Prof. Dr. Heinz Riesenhuber	69	2006	Member of the supervisory boards of Evotec OAI AG (chairman), Frankfurter Allgemeine Zeitung GmbH, HBM BioVentures AG, Henkel KGaA, Vodafone GmbH, InSynCo AG, Vfw AG, Kabel Deutschland GmbH (chairman)
Dr. Klaus-Jürgen Schmieder(2)	56	2006	Member of the management board of L Air Liquide S.A.

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<b>Name</b>	<b>Age</b>	<b>Term expires</b>	<b>Principal business activities outside of our company</b>
<u>Employee Representatives:</u>			
Marcel Becker(1) <i>First deputy chairman</i>	56	2008	Full-time member of works council; chairman of group s works council
Yvonne D Alpaos-Götz(2)	51	2008	Full-time member of works council; chairwoman of the central works council of ALTANA Pharma AG, member of the supervisory board of ALTANA Pharma AG
Dr. Rango Dietrich	53	2008	None
Ulrich Gajewiak(1)	41	2008	None
Ralf Giesen(2)	41	2008	Member of the Industrial Union Mining, Chemical and Energy ( <i>IG Bergbau, Chemie, Energie</i> ), secretary of the board and director of the department President/Human resources ; member of the supervisory boards of Bayer Material Science AG and Vattenfall Europe Mining AG
Dr. Thomas Martin	40	2008	None

(1) Member of the remuneration committee.

(2) Member of the audit committee.

The business address of the members of our supervisory board is the same as our business address: Am Pilgerrain 15, D-61352 Bad Homburg v. d. Höhe, Germany.

### **Management Board**

Pursuant to our Articles of Association, our supervisory board determines the size of our management board, subject to the condition that our management board has at least two members. Our management board currently consists of four members. Under German law, our management board is responsible for the management of our company, including the following matters:

The preparation of the annual financial statements;

The calling of shareholders meetings and the preparation and execution of shareholders resolutions; and

The submission of reports to our supervisory board.

Our management board has adopted rules of procedure that govern the conduct of its affairs. Pursuant to the currently applicable rules of procedure of our management board, while each board member is responsible for a discrete business area, certain matters enumerated in the rules of procedure have to be managed jointly. The rules of procedure also provide that our management board should make all decisions by consensus. In the event of a deadlock, the chairman of our management board casts the deciding vote.

Our supervisory board appoints the members of our management board for a maximum term of five years. Members may be re-appointed. Our supervisory board may remove any member of our management board prior to the expiration of his or her term for cause.

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The table below gives an overview of the present members of our management board, their ages at December 31, 2004, the year in which their current terms expire and their positions within our company:

#### Management Board Members

Name	Age	Term expires	Position
Dr. Nikolaus Schweickart	61	2007	Chairman and Chief Executive Officer
Dr. Hermann Küllmer	61	2006	Chief Financial Officer
Dr. Hans-Joachim Lohrisch	55	2007	Head of Pharmaceuticals
Dr. Matthias L. Wolfgruber	50	2010	Head of Chemicals

The business address of the members of our management board is the same as our business address: Am Pilgerrain 15, D-61352 Bad Homburg v. d. Höhe, Germany.

*Dr. Nikolaus Schweickart* has been a member of our management board since 1987. In 1990, he was appointed chairman of our management board and chief executive officer of our company. Prior to serving on our management board, Dr. Schweickart worked as a personal assistant to Dr. Herbert Quandt and as a general representative (*Generalbevollmächtigter*) of our company. Dr. Schweickart holds a law degree and two honorary doctor titles.

*Dr. Hermann Küllmer* has been a member of our management board and the chief financial officer of our company since 1990. Until 1990, he served in various finance and general management positions within our company and its predecessor entity, where he began to work in 1975. Dr. Küllmer holds a Ph.D. in economics.

*Dr. Hans-Joachim Lohrisch* has been a member of our management board since 1999 and also serves as the head of our pharmaceuticals division. Before joining our company, Dr. Lohrisch held various executive positions in the areas of therapeutics and generic drugs within Merck KGaA, where he became the head of the company's worldwide ethical pharmaceuticals business in 1998. Dr. Lohrisch holds a Ph.D. in chemistry.

*Dr. Matthias L. Wolfgruber* has been a member of our management board since July 1, 2002 and, since October 1, 2002, also serves as the head of our chemicals division. Before joining our company, Dr. Wolfgruber held a variety of marketing, production, R&D and general management positions within the Wacker group, a multinational chemicals company. Dr. Wolfgruber holds a Ph.D. in chemistry.

#### Compensation

##### *Supervisory board*

The members of our supervisory board receive annual compensation in an amount that is determined by our Articles of Association. Their compensation consists of a fixed portion of € 20,000, € 10,000 of which is payable in shares of our company, and a variable portion the amount of which depends on the relationship that our annual dividend bears to our share capital. The chairman of the supervisory board receives twice this amount and the deputy chairpersons one and a half times this amount. In addition, our supervisory board members are entitled to be reimbursed for their out-of-pocket expenses. The chairpersons of the remuneration and the audit committees each receive an additional € 40,000 per year, while ordinary members of these committees receive an additional € 20,000 per year. Provided that the proposal regarding the dividend to be distributed in respect of 2004 is approved at the annual shareholders' meeting, the compensation paid to our supervisory board members in respect of 2004 totals € 1.4 million, of which € 0.9 million is variable and € 0.2 million is remuneration for supervisory board committee work.

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The table below provides a breakdown of the compensation paid to each member of our supervisory board for 2004:

### Supervisory Board Compensation

For the year ended December 31, 2004

	Fixed(1)	Variable	Committee	Total
(€ in thousands)				
Justus Mische	40	127	40	207
Marcel Becker	30	95	20	145
Susanne Klatten	30	95	20	145
Dr. Uwe-Ernst Bufe	20	64	20	104
Yvonne D Alpaos-Götz	20	64	20	104
Dr. Rango Dietrich	20	64	0	84
Ulrich Gajewiak	20	64	20	104
Ralf Giesen	20	64	20	104
Prof. Dr. Dr. h.c. mult.				
Wolfgang A. Herrmann	20	64	0	84
Dr. Thomas Martin	20	64	0	84
Prof. Dr. Heinz Riesenhuber	20	64	0	84
Dr. Klaus-Jürgen Schmieder	20	64	40	124
<b>Total</b>	<b>280</b>	<b>893</b>	<b>200</b>	<b>1,373</b>

(1) 50% of this amount was paid in shares of our company at the closing price of € 46.51 on Xetra on December 30, 2004.

### Management board

The remuneration committee of the supervisory board is responsible for determining the remuneration of members of the management board. The committee comprises Mr. Justus Mische (chairman of the supervisory board), Ms. Susanne Klatten, Mr. Marcel Becker (both deputy chairpersons of the supervisory board) and Mr. Ulrich Gajewiak.

The remuneration of the members of our management board is based on our size and economic and financial results, and the level and structure of management board compensation at comparable companies in and outside Germany. In addition, the compensation for each board member reflects his or her responsibilities and performance. The level of compensation is designed to be competitive in the international market for highly qualified executives in a high-performance culture.

Remuneration for the members of the management board is to a significant extent performance-related. In fiscal year 2004, it had three components: a fixed salary, a variable bonus and stock-based compensation. The fixed salary and the bonus are based on a target compensation comprising approximately one-third fixed and two-thirds variable remuneration. The amount of the variable compensation is based on our operating income before interest, taxes and amortization ( EBITA ) and our return on capital employed ( ROCE ).

The remuneration of the management board members is composed as follows:

Fixed compensation is paid as a monthly salary.

Variable compensation for Dr. Schweickart and Dr. Küllmer is based on the Group's, and for Dr. Lohrisch and Dr. Wolfgruber on our divisions', achievement of certain ROCE and EBITA targets. These targets are set at the beginning of each fiscal year by the remuneration

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committee on the basis of the most recent internal plan data approved by the supervisory board. The target of the variable compensation is associated with a defined compensation amount. The bonus may range from 0% to 150%. In 2004, the members of our management board achieved target values within the range of 100 to 110%.

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Stock-based compensation is determined by the remuneration committee. In 2004, we granted our management board members a total of 130,000 options under the stock option plan 2004, each option being exercisable for one share at an exercise price of € 51.01 subject to certain conditions. For more information see [Share Ownership](#) [Stock Option Plans](#) .

The remuneration committee determines the amount of the fixed compensation and the target value of the variable compensation. At its meeting on November 19, 2003, the remuneration committee determined the target value of the variable compensation for 2004. On May 5, 2004, the remuneration committee determined the number of stock options granted to the members of the management board under the stock option plan 2004.

As a result, cash compensation in 2004 amounted to € 4.8 million (2003: € 4.7 million), representing an increase of 2.6%.

The following table describes the details of cash compensation:

	<b>Fixed compensation</b>	<b>Variable compensation</b>	<b>Total</b>
(€ in thousands)			
Dr. Nikolaus Schweickart	500	1,356	1,856
Dr. Hermann Küllmer	341	649	990
Dr. Hans-Joachim Lohrisch	375	781	1,156
Dr. Matthias L. Wolfgruber	306	491	797
<b>Total</b>	<b>1,522</b>	<b>3,277</b>	<b>4,799</b>

At its meeting on November 17, 2004, the remuneration committee determined the target value of the variable compensation for 2005.

The value of the stock based compensation, calculated in accordance with the Black-Scholes/ Binominal option pricing model, amounts to € 1.5 million (2003: € 1.8 million) representing a decrease of 15.6%. The number of the stock options, their fair value and their value at December 31, 2004 are shown in the following table. Cash proceeds from the exercise of stock options may differ significantly from the amounts stated in the table below.

	<b>Stock options</b>	<b>Fair value of stock options(1)</b>	<b>Value at December 31, 2004(2)</b>
	(number of options)	(€ in thousands)	
Dr. Nikolaus Schweickart	40,000	461	0
Dr. Hermann Küllmer	30,000	346	0
Dr. Hans-Joachim Lohrisch	30,000	346	0
Dr. Matthias L. Wolfgruber	30,000	346	0
<b>Total</b>	<b>130,000</b>	<b>1,499</b>	<b>0</b>

(1) The fair value of the options at the date of grant is calculated based on the Black Scholes/Binominal option pricing model.

(2) The value of the options as of December 31, 2004 is calculated as the difference of the share price at year end and the exercise price.

Pension commitments up to and including fiscal year 2004 were made on a defined benefit basis.

We cover pension commitments for current members of our management board and for former members of the management board and their surviving dependents. At December 31, 2004, the total amount that we had accrued for the payment of pensions to the current members of our

management board equaled € 4.4 million (2003: € 3.7 million), and the total amount that we had accrued for

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former management board members and their surviving dependents amounted to € 6.9 million (2003: € 6.8 million).

We did not grant any loans to the members of the management board in 2004.

We have provided and will continue to provide insurance for the indemnification of our directors and officers against any general civil liability they may incur in connection with their activities on our behalf, subject to certain limitations and a retainer, as well as against liabilities under the Securities Act.

### Employees

At December 31, 2004, we employed 10,783 people, compared with 10,402 employees and 9,853 employees at December 31, 2003 and 2002, respectively.

The following table provides a breakdown of the number of our employees by main category of activity and location for each of the three years ended December 31, 2002, 2003 and 2004, respectively:

#### Employees by Main Category of Activity and Location

	2002	As of December 31, 2003	2004
	<u>          </u>	<u>          </u>	<u>          </u>
<b>By division</b>			
Pharmaceuticals	7,504	7,702	8,200
Chemicals	2,299	2,634	2,521
Holding company	50	66	62
<b>By main category of activity</b>			
R&D	1,741	2,000	2,125
Production and logistics	3,479	3,651	3,571
Marketing and distribution	3,244	3,377	3,592
Administration	1,389	1,374	1,495
<b>By location</b>			
Germany	4,478	4,816	4,958
Europe (excl. Germany)	2,405	2,363	2,315
North America	1,209	1,332	1,416
Latin America	1,399	1,300	1,439
Other	362	591	655
	<u>          </u>	<u>          </u>	<u>          </u>
Total	9,853	10,402	10,783
	<u>          </u>	<u>          </u>	<u>          </u>

A significant percentage of our employees, especially those located in Germany, are covered by collective bargaining agreements that determine such matters as compensation, working hours and other conditions of employment, and some of our employees are represented by works councils. Works councils are employee-elected bodies, which exist in our company both at the group level for our German employees (*Konzernbetriebsrat*) and in certain of our subsidiaries. Works councils have a number of notification and codetermination rights in personnel, social and economic matters. Under the German Works Constitution Act (*Betriebsverfassungsgesetz*), they are entitled to receive advance notification of any proposed termination of an employee, to confirm hirings, relocations and similar matters, and to codetermine a variety of so-called social matters, such as work schedules and rules of conduct. Our management considers itself to be on good terms with the works councils of our company.



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We offer our German employees a special investment program called *Altersvorsorge Aktiv mit ALTANA (AAA)*. Participating employees may designate a defined amount of their gross salary or wages to be deposited in investment funds, subject to an annual minimum interest rate guaranteed by us.

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During the last three years, we have not experienced any material labor disputes resulting in work stoppages.

### **Share Ownership**

At March 15, 2005, Ms. Klatten owned 70,332,648 shares or 50.1% of our issued share capital or 51.9% of our outstanding share capital. The shares and options held by the other members of our supervisory board and our management board members represent less than 1% of our issued share capital. See Item 7: Major Shareholders and Related Party Transactions .

In order to better align the interests of our employees and our management board members with those of our shareholders, we have implemented a number of plans to involve our employees and the members of our management board in the capital of our company. These plans include various stock option plans, first introduced in 1999, in which our management board members, senior executives and certain other key employees may participate, and the ALTANA Investment Program, an annual share ownership plan that we launched for the first time in 2000 in which most of our employees are eligible to participate.

To be able to meet our obligations under our various stock option plans, we maintain approximately the same number of shares in treasury as we grant in options under our plans, including the ALTANA Investment Program. Each year, we determine the number of additional treasury shares required to be purchased and make the necessary adjustments.

In connection with the acquisition of treasury shares for delivery upon exercise of options under our various employee incentive plans, we recognize compensation expense over the vesting period in an amount equal to the difference between the exercise price of the options and the average price of the treasury shares purchased. See note 13 to our consolidated financial statements for additional information.

### **Stock Option Plans**

With our stock option plans, we aim to align the interests of our management board members, senior executives and key employees who we believe have a high potential with those of our company.

In 1999, we launched for the first time a stock option plan, which was open to the members of our management board, senior executives and certain other key employees. In July 2000 and July 2001, we launched similar plans. Starting with the 2001 plan, we extended the eligibility criteria to include other employees that we consider to have high potential. In 2002, we offered two different plans. One of them ( Plan A ) was open to the members of our management board and certain executives of our two divisions, whereas the other plan ( Plan B ) was open to other key members of management. In order to participate in the various stock option plans that we launched in the past, our employees were required to make an initial investment in the share capital of our company. The minimum investment required of an employee depends on his or her position in our company. Once an employee had made an initial investment under one plan, he or she was not required to purchase additional shares to participate in plans launched subsequently. In 2002, we modified this requirement. Under Plan A, which is one of the stock option plans that we launched in 2002, our management board members and other participating executives were each required to make initial investments of € 150,000 and € 50,000, respectively. By contrast, no initial investment was required of participants in our Plan B.

In 2003, we adopted a new stock option plan for the members of our management board, the top management of our divisions, the managing directors and certain senior executives of certain of our subsidiaries and certain junior executives. A similar plan was launched in 2004. The 2003 plan provides that the remuneration committee may cap the gains realizable upon the exercise of the options granted to our management board members if unforeseen extraordinary developments lead to a disproportionate increase in the price of our shares. Under the 2004 plan, this provision applies to all plan participants.

Under the 1999, 2000, 2001, 2003 and 2004 plans, participants were required to make an initial investment in our shares in an amount between € 5,000 and € 150,000, depending on their position in

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our group. Half of this initial investment had to be paid up immediately. The other half could be paid through future profits realized upon the exercise of options. We expect to grant participants options to subscribe for shares in the amount of approximately 2.0% of our share capital in 2005 and 2006. The number of options to be granted to a participant will be determined by our management board or, to the extent options will be granted to members of our management board, our supervisory board.

Under our various stock option plans, each option granted is exercisable for one share of our company at an exercise price that we determined on the basis of the average closing prices of our shares, as reported on the Xetra trading system of the Frankfurt Stock Exchange, during a 20-trading day reference period prior to the date on which each plan was launched. Options granted cannot be exercised until the expiry of a two-year lockup period from the date of the grant.

Options granted under our 2001 plan are exercisable only if our earnings per share in 2002 exceed our earnings per share in 2000 by at least 20%. Likewise, options granted under our 2002 Plan A become exercisable if our earnings per share in 2003 exceed our earnings per share in 2001 by at least 20%. There are no performance hurdles under Plan B. To create appropriate incentives, we have set the exercise price for Plan B at a level that is 10% above the exercise price for Plan A. Options granted under our 2003 plan vest if our earnings per share in 2004 are 20% higher than in 2002. Options granted under our 2004 plan vest if our share price outperforms a mixed index comprised of the Dow Jones STOXX Healthcare and Dow Jones STOXX Chemicals indices during certain target periods in 2006, 2007 or 2008.

Options granted under the 2001, 2002, 2003 and 2004 plans are exercisable only for shares.

Options granted under the 2001, 2003 and 2004 plans expire five years after the date on which they were granted, and options granted under the 2002 plan expire ten years after the grant date.

Under the 2001 plan, the members of our management board and executive officers are entitled to receive additional options if they make an additional investment in our shares. The 2001, 2002, 2003 and 2004 plans also envisage the grant of additional options, taking into account their roles and responsibilities in our company. Our supervisory board is responsible for making such grants with respect to members of our management board, and our management board is responsible for making such grants to other eligible participants.

The following table provides details regarding the options outstanding under our various stock option plans:

#### Stock Option Plans

Name	Title of securities issuable upon exercise of options	Number of options outstanding as of December 31, 2004	Date on which options become or exercisable	Date on which options expire	Exercise price
2001 plan	Shares	717,800	July 1, 2003	June 30, 2006	€ 42.41
2002 plan					
Executives	Shares	255,000	July 1, 2004	June 30, 2012	€ 51.58
Key management	Shares	937,250	July 1, 2004	June 30, 2012	€ 56.74
2003 plan	Shares	1,158,900	July 1, 2005	June 30, 2008	€ 54.65
2004 plan	Shares	1,206,550	July 1, 2006	June 30, 2009	€ 51.01

For more information on our stock option plan, see note 13 to our consolidated financial statements.

**ALTANA Investment Program**

The ALTANA Investment Program is an employee share ownership plan that we first launched in 2000. In 2001, 2002, 2003 and 2004, we launched new editions of the plan, and we expect to offer

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similar plans in the future. Participation in the plan is open to employees who are not eligible to participate in any of our stock option plans, subject to certain conditions. Each plan consists of two components. The first component entitles participants to purchase a specific number of shares based on their salary or wages at a fixed price per share that corresponds to the lowest market price of our shares on the Frankfurt Stock Exchange on the date at which our management board approves the relevant plan edition. Plan participants are entitled to a discount on a portion of the shares that they purchase. Employees who are unable to receive shares for reasons of statutory law are paid the cash equivalent of the benefit that they would otherwise have received. Under the second component, participants receive one stock appreciation right ( SAR ) for each share that they purchase. The SARs become exercisable two years after the date of grant and entitle their holders to receive cash in an amount equal to the difference between a predetermined exercise price and the market price of our shares on the date on which the SARs are exercised. The SARs expire two years after the date they first become exercisable and, if not previously exercised and in the money, are deemed exercised on such date. If a participant sells shares purchased