



Science For A Better Life



ANNUAL REPORT

2008

COVER PICTURE

Bayer chemists Dr. Susanne Roehrig and Dr. Alexander Straub examine the molecular contours of rivaroxaban – the active ingredient of the new anticoagulant Xarelto® – using a computer simulation. One of Bayer’s aims in developing this innovative drug is to minimize the risk of thrombosis following orthopedic surgery. Read more in the magazine section on page 32.

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# Key Data

	2007	2008	Change
	€ million	€ million	%
<b>BAYER GROUP</b>			
Sales	32,385	32,918	+1.6
EBITDA <sup>1</sup>	5,866	6,266	+6.8
EBITDA before special items	6,777	6,931	+2.3
EBIT <sup>2</sup>	3,154	3,544	+12.4
EBIT before special items	4,287	4,342	+1.3
Income before income taxes	2,234	2,356	+5.5
Net income	4,711	1,719	-63.5
Earnings per share (€) <sup>3</sup>	5.84	2.22	-62.0
Core earnings per share (€) <sup>4</sup>	3.80	4.17	+9.7
Gross cash flow <sup>5</sup>	4,784	5,295	+10.7
Net cash flow <sup>6</sup>	4,281	3,608	-15.7
Capital expenditures as per segment table	1,891	1,982	+4.8
Research and development expenses	2,578	2,653	+2.9
Dividend per Bayer AG share (€)	1.35	1.40	+3.7
<b>BAYER HEALTHCARE</b>			
External sales	14,807	15,407	+4.1
EBITDA <sup>1</sup>	3,065	3,692	+20.5
EBITDA before special items	3,792	4,157	+9.6
EBIT <sup>2</sup>	1,564	2,181	+39.5
EBIT before special items	2,492	2,764	+10.9
Gross cash flow <sup>5</sup>	2,389	3,045	+27.5
Net cash flow <sup>6</sup>	2,010	2,259	+12.4
Capital expenditures as per segment table	593	610	+2.9
<b>BAYER CROPSCIENCE</b>			
External sales	5,826	6,382	+9.5
EBITDA <sup>1</sup>	1,204	1,450	+20.4
EBITDA before special items	1,324	1,603	+21.1
EBIT <sup>2</sup>	656	918	+39.9
EBIT before special items	786	1,084	+37.9
Gross cash flow <sup>5</sup>	961	1,192	+24.0
Net cash flow <sup>6</sup>	1,040	736	-29.2
Capital expenditures as per segment table	223	314	+40.8
<b>BAYER MATERIALSCIENCE</b>			
External sales	10,435	9,738	-6.7
EBITDA <sup>1</sup>	1,542	1,041	-32.5
EBITDA before special items	1,606	1,088	-32.3
EBIT <sup>2</sup>	1,042	537	-48.5
EBIT before special items	1,117	586	-47.5
Gross cash flow <sup>5</sup>	1,228	850	-30.8
Net cash flow <sup>6</sup>	1,147	782	-31.8
Capital expenditures as per segment table	889	831	-6.5

<sup>1</sup> EBITDA = EBIT plus amortization of intangible assets and depreciation of property, plant and equipment. EBITDA, EBITDA before special items and EBITDA margin are not defined in the International Financial Reporting Standards and should therefore be regarded only as supplementary information. The company considers underlying EBITDA to be a more suitable indicator of operating performance since it is not affected by depreciation, amortization, write-downs/write-backs or special items. The company also believes that this indicator gives readers a clearer picture of the results of operations and ensures greater comparability of data over time. The underlying EBITDA margin is calculated by dividing underlying EBITDA by sales. See also page 76.

<sup>2</sup> EBIT as shown in the income statement

<sup>3</sup> Earnings per share as defined in IAS 33 = net income divided by the average number of shares. For details see page 185 in the notes to the financial statements.

<sup>4</sup> Core earnings per share is not defined in the International Financial Reporting Standards and should therefore be regarded only as supplementary information.

The calculation of core earnings per share is explained on page 21.

<sup>5</sup> Gross cash flow = income from continuing operations after taxes, plus income taxes, plus/minus non-operating result, minus income taxes paid or accrued, plus depreciation, amortization and write-downs, minus write-backs, plus/minus changes in pension provisions, minus gains/plus losses on retirements of noncurrent assets, plus non-cash effects of the remeasurement of acquired assets. The change in pension provisions includes the elimination of non-cash components of the operating result. It also contains benefit payments during the year.

<sup>6</sup> Net cash flow = cash flow from operating activities according to IAS 7

# Bayer: Science For A Better Life

Bayer is a global enterprise with core competencies in the fields of health care, nutrition and high-tech materials.

As an inventor company, we set trends in research-intensive areas. Our products and services are designed to benefit people and improve their quality of life. At the same time we want to create value through innovation, growth and high earning power.

We are committed to the principles of sustainable development and to our social and ethical responsibilities as a corporate citizen.



## We stand for sustainable success

*Dear Stockholders:*

We look back on an eventful year. The fourth quarter, particularly, was marked by the unexpectedly severe financial and economic crisis. While the economy remains surrounded by considerable uncertainty, we are looking to the future with relative confidence. Our Group strategy is tried and tested, and our commitment to research and development stands undiminished even in difficult times. A further budget increase, to €2.9 billion, will make this year's R&D spending the highest in our history and lay the foundations for future growth.

We believe Bayer is well equipped, we trust in its strengths, and we stand for sustainable success. Our performance last year bolsters that confidence. Operationally, 2008 was Bayer's most successful year ever. We again improved our key data compared to the prior year and achieved our published earnings targets:

- Sales rose to €32.9 billion, up by a currency- and portfolio-adjusted 4.4 percent. EBITDA before special items increased by 2.3 percent to €6.9 billion, with the margin edging up to 21.1 percent from 20.9 percent in 2007.
- At Bayer HealthCare, the EBITDA margin before special items moved ahead to 27 percent.
- Bayer CropScience achieved an underlying EBITDA margin of 25 percent, reaching its 2009 target a year earlier than originally planned.
- Bayer MaterialScience – despite a substantial drop in business toward the end of the year – posted a cash flow return on investment (CFROI) of 10.1 percent, clearly exceeding the internal hurdle.
- With a CFROI of 13 percent for the Bayer Group, the highest in our history, we created appreciable value for you, our stockholders.

These achievements were made possible by an outstanding level of commitment on the part of our employees, whom I would like to thank on behalf of the entire Board of Management. And I can assure you that we are taking the overall economic situation and the related concerns of our workforce very seriously. Of course, Bayer too must take appropriate steps in response to the crisis. Yet now more than ever, positive signals are needed to encourage and motivate our people.

It goes without saying that you, our stockholders, should also benefit from the solid performance of our business. The Board of Management and the Supervisory Board are therefore proposing to raise the dividend by 3.7 percent from the previous year, to €1.40.

Bayer stock was unable to escape the general market trend, which was determined by the changing economic situation. Yet its 32 percent decline on the year was significantly smaller than that of the DAX (minus 40 percent) or the EURO STOXX 50 (minus 42 percent).

We achieved a great deal in 2008. It was a strong year for Bayer HealthCare, with all divisions performing very well and posting above-market rates of growth. The integration of Schering, Berlin, Germany, was successfully completed. And we strengthened key areas of the business with further acquisitions and inlicensed products.

A highlight of 2008 is featured on the cover of this Annual Report: the first marketing approvals for our new anticoagulant Xarelto. We believe this innovative drug could achieve peak annual sales of more than €2 billion.

Bayer CropScience turned in the best performance in the history of our crop protection business, benefiting from the positive conditions on agricultural markets around the world. Given the favorable market environment and the high demand for innovative solutions, we now expect that our €2 billion sales target for new active ingredients from the launch program initiated in 2000 will be reached by the end of this year. That would be two years earlier than originally planned.

As a result we have already set ourselves a new goal. Between 2008 and 2012 we plan to launch new active substances with peak sales potential totaling over €1 billion. This underscores the success of our alignment toward the research and development of new crop protection solutions and emphasizes our innovation leadership in this area.

Bayer MaterialScience experienced a much weaker year, with declines in sales and earnings. Business in the fourth quarter, particularly, was tangibly harmed by the effects of the global financial and economic crisis. But we responded prudently to the difficult market conditions at an early stage, reinforcing the foundations for our long-term success. We significantly strengthened our presence in the expanding Chinese market with the inauguration of the world's largest MDI production facility in Shanghai. At the same time this entire production complex sets standards for energy-efficient and environmentally compatible production. Bayer MaterialScience will have invested a total of €2.1 billion in Shanghai by the end of 2012.

The strategic alignment of the Bayer Group allows us to look forward to 2009 with relative confidence despite the current financial and economic crisis. The fact that the less cyclical life-science businesses – HealthCare and CropScience – account for more than 70 percent of our sales is paying off. For these two subgroups we expect a gratifying trend in 2009, and aim to improve the EBITDA margin before special items toward 28 percent at HealthCare and maintain the margin for CropScience at the high level of about 25 percent. The business situation at MaterialScience runs counter to this. We anticipate an extremely difficult year for this subgroup, with a severe drop in sales and earnings. In this negative scenario for MaterialScience, we are nevertheless confident of limiting the decline in Group EBITDA before special items to about 5 percent. Should there be a tangible recovery in our MaterialScience business in the short term, Group EBITDA before special items could match the very high level of 2008 or even post a slight increase.

We are convinced that Bayer can emerge from the financial and economic crisis even stronger than before. Sustainable success requires responsible interaction with all stakeholders, sound business models and investment in the future. And sustainable success is Bayer's utmost priority. We are aiming for sustainability in everything we do.

In these turbulent times we could, of course, help to improve earnings in the short term by cutting back on research, for example. But that would not be a sustainable strategy. It would simply be short-sighted. Our investment in research and development is intended to drive our growth and produce groundbreaking innovations. That is how we safeguard growth – and with it jobs and prosperity. Success tomorrow demands investment today. The time to compete for tomorrow's best products and technologies is now.

But we must not lose sight of the long-term challenges either. By these I mean the major issues such as demographic change, global food supplies, energy conservation and

climate protection. Bayer's climate program is already making very encouraging headway. We have good answers that address long-term challenges and at the same time take advantage of related business opportunities for our enterprise.

There are also other fields in which politicians, industry leaders and society as a whole need to think – and act – in terms of sustainability. Safeguarding the future also involves investing more heavily in education, for example. That is a crucial task to which we should all pay special attention. And for that reason Bayer has for many years trained more young people than it will need to employ at its own facilities. We also support numerous school projects aimed at improving science teaching through the Bayer Science & Education Foundation.

We have seen success in recent years. I and my colleagues on the Board of Management would like to thank you, our stockholders, for your renewed trust in 2008. We will do all we can to ensure that we continue along our successful path.

Sincerely,

A handwritten signature in blue ink, reading 'Werner Wenning', is displayed on a light blue background. The signature is fluid and cursive, with a prominent checkmark-like flourish at the end.

**WERNER WENNING**  
Chairman of the Board of Management of Bayer AG

## Board of Management



### WERNER WENNING Chairman

Werner Wenning has been Chairman of the Bayer AG Board of Management since April 2002. Born in 1946, Wenning joined the company in 1966 as a commercial trainee. He held a number of positions with Bayer in Germany and abroad, serving as managing director of Bayer subsidiaries in Peru and Spain and later as Head of the Corporate Planning and Controlling Division. Wenning was first appointed to the Bayer AG Board of Management as Chief Financial Officer in February 1997. Werner Wenning is married with two daughters.

An avid soccer fan, Werner Wenning watches Bayer 04 Leverkusen in action as often as he can.

### DR. WOLFGANG PLISCHKE Innovation · Technology · Environment · Asia/Pacific region

Born in 1951, Wolfgang Plischke studied biology at Hohenheim University, Germany. Having gained his Ph.D., Plischke began his career with Bayer in 1980, joining the subsidiary Miles. After holding a number of positions in Germany and abroad, he became Head of the Pharmaceuticals Business Group in North America in 2000, and two years later took charge of the Pharmaceuticals Business Group of Bayer AG. Plischke was appointed to the Bayer AG Board of Management in March 2006. Since December 2007, he has been Chairman of the German Association of Research-Based Pharmaceutical Companies. Wolfgang Plischke is married with two sons.

Wolfgang Plischke enjoys endurance sports such as jogging and cycling.





**KLAUS KÜHN**  
**Finance · Europe region**

Born in 1952, Klaus Kühn studied mathematics and physics at the Technical University of Berlin, Germany, gaining a mathematics degree in 1978. He also studied in the United States, where he obtained a Master of Business Administration. Kühn joined Bayer AG in 1998 as Head of the Finance Section, and shortly afterwards was made Head of the Group Finance Division. He was appointed to the Bayer AG Board of Management in May 2002.

Klaus Kühn is married with two daughters.



Klaus Kühn is an enthusiastic amateur musician. On his piano at home, he mostly plays pieces by Classical and Romantic composers.



**DR. RICHARD POTT**  
**Strategy · Human Resources · Labor Director · Americas, Africa and Middle East regions**

Born in 1953, Richard Pott studied physics at the University of Cologne, Germany, where he obtained his Ph.D. In 1984 Pott joined the company's Central Research Division. After holding various positions in the Corporate Staff Division he became Head of the former Specialty Products Business Group in 1999. He was appointed to the Bayer AG Board of Management in May 2002.

Richard Pott is married with three children.

Richard Pott loves the countryside and enjoys driving tractors.

## Report of the Supervisory Board

*Dear stockholders:*

During 2008 the Supervisory Board monitored the conduct of the company's business and acted in an advisory capacity. We performed these functions on the basis of detailed written and oral reports received from the Board of Management. In addition, the Chairman of the Supervisory Board and the Chairman of the Board of Management maintained a constant exchange of information and ideas. In this way the Supervisory Board was kept continuously informed about the company's intended business strategy, corporate planning (including financial, investment and human resources planning), earnings performance, the state of the business and the situation in the company and the Group as a whole.

The documents relating to Board of Management decisions or actions which – by law or under the articles of incorporation or the rules of procedure – required the approval of the Supervisory Board were inspected by the Supervisory Board at its plenary meetings, sometimes after preparatory work by the committees. In certain cases the Supervisory Board gave its approval on the basis of documents circulated to its members. The Supervisory Board was involved in decisions of material importance to the company. We discussed at length the business trends described in the reports from the Board of Management and the prospects for the development of the Bayer Group as a whole, the individual organizational units and the principal affiliated companies in Germany and abroad. Four plenary meetings of the Supervisory Board were held during 2008. In addition, a decision concerning the Possis Medical Inc. acquisition project was made after the relevant documents had been circulated to the members. No member of the Supervisory Board attended fewer than half of its meetings. All members of the Board of Management regularly attended the meetings of the Supervisory Board.

### **PRINCIPAL TOPICS DISCUSSED BY THE SUPERVISORY BOARD**

At the focus of the Supervisory Board's deliberations were questions relating to the strategies and business activities of the Group as a whole and of the subgroups. Other selected topics were dealt with at each of the meetings. At the meeting held in February, the Supervisory Board devoted special attention to the Bayer Group's risk management system and a sale-and-leaseback transaction entered into for financing purposes. At the focus of the September meeting were activities at the Berlin site, research in the fields of women's healthcare and diagnostic imaging, and the acquisition of Direvo Biotech AG, which has since been completed. At the meeting in December 2008, the Board of Management presented its operational, financial and balance sheet planning for the years 2009



through 2011, which was the subject of detailed discussion, and deliberated on the new version of the German Corporate Governance Code and the issuance of a new Declaration of Conformity with the Code. The regular efficiency audit of the Supervisory Board's work was also initiated in December 2008.

#### **COMMITTEES OF THE SUPERVISORY BOARD**

The Supervisory Board has a Presidial Committee, an Audit Committee, a Human Resources Committee and a Nominations Committee\*.

#### **WORK OF THE COMMITTEES**

The Presidial Committee of the Supervisory Board was not required to convene in 2008 in its capacity as the Mediation Committee under Section 27 Paragraph 3 of the German Codetermination Act, nor did it need to resolve on any other matters.

The Audit Committee met four times during the year, addressing in particular the company's and the Group's financial reporting, the Group's risk management system, the internal control system and compliance issues. The Audit Committee also set the budget for the services of the external auditor and discussed with the auditor the main areas of the audit for the 2008 fiscal year. The auditor was present at all the meetings of the Audit Committee, reporting in detail on the audit work and the audit reviews of the interim financial statements.

\* The description of the responsibilities and membership of the committees, which forms part of the Report of the Supervisory Board, can be found in the Corporate Governance Report on page 107 of this Annual Report and therefore is not reproduced here.

The principal topics addressed at the meetings of the Audit Committee were, at the February meeting, the internal control system and the consequences of deregistering with the U.S. Securities and Exchange Commission; at the April meeting, the management of pension risk at Bayer; at the July meeting, the reports received on the status of the tax audits; and at the October meeting, the effects of the financial crisis on Bayer and the implications of the imminent entry into force of the Accounting Law Modernization Act in Germany for the financial reporting of the company and the Group.

The Human Resources Committee convened on two occasions, dealing mainly with matters relating to the remuneration of the Board of Management and the pensions of former members of the Board of Management. At its meeting in December the Committee deliberated on the division of responsibilities between the Human Resources Committee and the full Supervisory Board provided for in the June 2008 revised version of the German Corporate Governance Code and the Code's new recommendations on limiting the severance payment to a member of the Board of Management in the event of premature contract termination. At this meeting the Human Resources Committee also discussed the reappointment of Dr. Plischke to the Bayer AG Board of Management and the renewal of his service contract.

On one occasion in 2008, in accordance with its responsibilities, the Nominations Committee discussed possible candidates for future election to the Bayer AG Supervisory Board as representatives of the stockholders.

The meetings and decisions of the committees were prepared on the basis of reports and other information provided by the Board of Management. Members of the Board of Management regularly attended the committee meetings. Reports on the committee meetings were presented at the plenary meetings of the Supervisory Board.

#### **CORPORATE GOVERNANCE**

The Supervisory Board dealt with the ongoing development of corporate governance at Bayer, taking into account the amendments made to the German Corporate Governance Code in June 2008. In December 2008 the Board of Management and the Supervisory Board issued a new Declaration of Conformity, which is also reproduced in the Corporate Governance Report on page 105 of this Annual Report.

#### **FINANCIAL STATEMENTS AND AUDITS**

The financial statements and management report of Bayer AG were drawn up according to the requirements of the German Commercial Code and Stock Corporations Act, while the consolidated financial statements and management report of the Bayer Group were prepared according to the principles of the International Financial Reporting Standards (IFRS). The financial statements of Bayer AG, the consolidated financial statements of the Bayer Group, the management report of Bayer AG and the management report of the Bayer Group have been examined by the auditor, PricewaterhouseCoopers Aktiengesell-

schaft, Wirtschaftsprüfungsgesellschaft, Essen. The conduct of the audit is explained in the auditor's report. The auditor finds that Bayer has complied with the requirements of the German Commercial Code and the International Financial Reporting Standards, respectively, and issues an unqualified opinion on the financial statements of Bayer AG and the consolidated financial statements of the Bayer Group. The financial statements and management report of Bayer AG, the consolidated financial statements and management report of the Bayer Group, and the audit reports were submitted to all members of the Supervisory Board. They were discussed in detail by the Audit Committee and at a plenary meeting of the Supervisory Board. The auditor submitted a report on both occasions and was present during the discussions.

We examined the financial statements and management report of Bayer AG, the proposal for distribution of the profit, and the consolidated financial statements and management report of the Bayer Group. We found no objections, thus we concur with the result of the audit. We have approved the financial statements of Bayer AG and the consolidated financial statements of the Bayer Group prepared by the Board of Management. The financial statements of Bayer AG are thus confirmed. We are in agreement with the management reports of Bayer AG and the Bayer Group and, in particular, with the assessment of the future development of the enterprise. We also concur with the dividend policy and the decisions concerning earnings retention by the company. We assent to the proposal for distribution of the profit, which provides for payment of a dividend of €1.40 per share.

The Supervisory Board would like to thank the Board of Management and all employees for their dedication and hard work in 2008.

Leverkusen, February 2009  
For the Supervisory Board

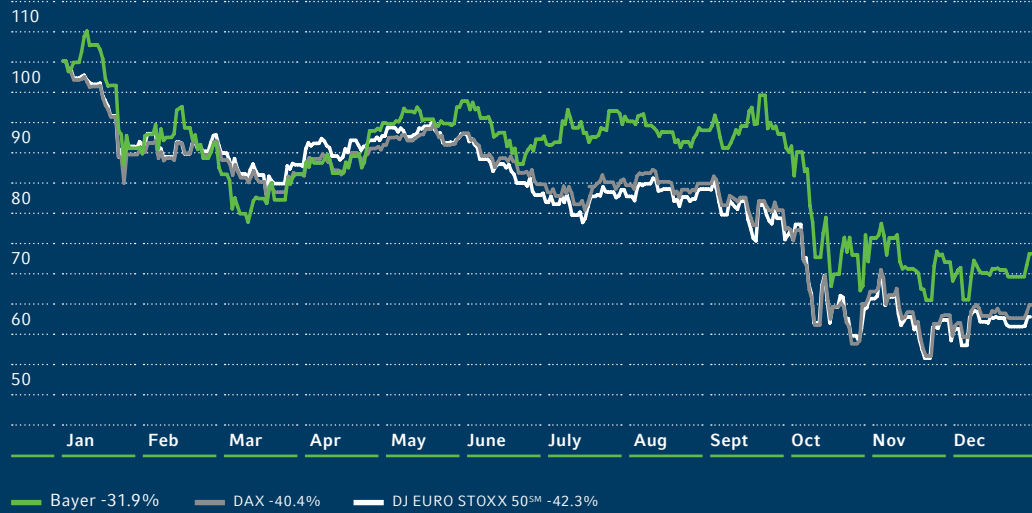
A handwritten signature in blue ink, reading "Manfred Schneider". The signature is written in a cursive style with a long horizontal stroke at the end.

**DR. MANFRED SCHNEIDER**  
Chairman

# Investor Information

## Performance of Bayer Stock in 2008

(indexed; 100 = closing price on December 31, 2007)



Although Bayer stock was unable to escape last year's global market turmoil, its performance placed it in the top third of the stocks in the German DAX index. The price fell by nearly 32 percent on the year, compared with a 40 percent drop in the DAX. The Board of Management and the Supervisory Board propose that the dividend be raised by 4 percent to €1.40 per share.

## Difficult year on the stock market

### WEAKEST YEAR FOR GERMAN STOCKS SINCE 2002

Last year saw the second-worst performance by the DAX since its introduction on July 1, 1988. The index closed 2008 at 4,810 points, down 40 percent from the end of the previous year. Only in 2002 did it sustain a heavier loss of 44 percent.

#### INTERNET

For more information about Bayer on the capital market, go to [WWW.INVESTOR.BAYER.COM](http://WWW.INVESTOR.BAYER.COM)

The downward movement was triggered by the subprime mortgage crisis in the United States, which began in summer 2007. The resulting crisis on the financial markets eventually spread to the real economy, leading to the current global economic downturn. Nearly all DAX companies saw double-digit falls in their share prices.

The performance of stock markets in other European countries, North America and Asia was equally disappointing, with the EURO STOXX 50<sup>SM</sup> ending the year down roughly 42 percent, the S&P 500 in the U.S. falling by some 38 percent, and Japan's Nikkei index losing 42 percent.

### BAYER STOCK MOVED LOWER

Caught up in the global market turbulence, Bayer stock lost 33.6 percent on the year. Including the dividend of €1.35 per share paid in May 2008, its performance amounted to minus 31.9 percent. Despite the drop in the share price, Bayer ranked among the top third of DAX 30 stocks in performance terms.

The price initially fell by some 25 percent at the start of the year to €47 at the beginning of March. This was followed by a rally that lasted until mid-September and restored the price to about €57. The collapse of the investment bank Lehman Brothers in mid-September was just one of the factors causing share prices around the world to plummet in the fourth quarter. Amid very high trading volumes, especially in October (11.5 million shares per day), Bayer stock fell to a year low of €36.83 on November 21, 2008.

### SUCCESSFUL FINANCING DESPITE THE DIFFICULT MARKET CONDITIONS

The subprime mortgage crisis in the U.S. had already put pressure on credit markets in the second half of 2007. Uncertainty among credit investors continued in 2008, leading to a surge in the risk premiums for credit default swaps (CDS) (see CDS graph on page 17).

The market price of these tradable insurance contracts, which are used to hedge against default of a borrower, depends on the underlying credit risk and thus helps to determine the credit margin when raising debt.

Despite the difficult environment, Bayer concluded two opportunistic financing agreements on comparatively attractive terms in the second half of the year. Apart from small private placements totaling Yen 25 billion (approximately €198 million) in Japan, special mention should be made of a €450 million seven-year credit financing agreement with the European Investment Bank and a €200 million private placement. A list of the bonds issued by Bayer can be found in Note 27 to the consolidated financial statements.



**Bayer stock data**

		2007	2008
Earnings per share	€	5.84	2.22
Core earnings per share <sup>1</sup>	€	3.80	4.17
Cash flow per share	€	6.26	6.93
Equity per share	€	22.01	21.38
Dividend per share	€	1.35	1.40
Year-end price <sup>2</sup>	€	62.53	41.55
High for the year <sup>2</sup>	€	62.53	65.68
Low for the year <sup>2</sup>	€	40.20	36.83
Total dividend payment	€ million	1,032	1,070
Shares entitled to the dividend (Dec. 31)	million	764.34	764.34
Market capitalization (Dec. 31)	€ billion	47.8	31.8
Average daily trading volume	million	5.7	6.0
Price/EPS <sup>2</sup>		10.7	18.7
Price/core EPS <sup>1,2</sup>		16.5	10.0
Price/cash flow <sup>2</sup>		10.0	6.0
Dividend yield	%	2.2	3.4

<sup>1</sup>For details on the calculation of core earnings per share, see page 21.

<sup>2</sup>XETRA closing prices (source: Bloomberg)

**Rates for five-year credit default swaps (CDS) in 2008**

in basis points<sup>1</sup>



<sup>1</sup>source: Bloomberg

<sup>2</sup>iTraxx Europe is a CDS index comprising the CDS of 125 companies (including financial institutions) with investment-grade ratings.

### HIGHER LONG-TERM YIELD THAN THE DAX AVERAGE

A long-term investor who purchased Bayer shares for €10,000 five years ago on January 1, 2004 and reinvested all dividends would have seen the value of the position grow to €21,442 as of December 31, 2008, giving an average annual return of 16.5 percent.

#### Comparison of average annual performance in % (dividends reinvested)

Performance p.a.	1 year 2008	3 years 2006–2008	5 years 2004–2008
	%	%	%
Bayer	-31.9	+8.1	+16.5
DAX	-40.4	-3.8	+3.9
DJ EURO STOXX 50 <sup>SM</sup>	-42.4	-9.3	+0.3

### BAYER STOCK INCLUDED IN THE STOXX 50 INDEX

Since September 22, 2008, Bayer stock has been included in the Dow Jones STOXX 50, a European blue chip index comprising the top 50 stocks from 17 western European countries. It also continues to be listed in the EURO STOXX 50<sup>SM</sup> index of the 50 top shares in the euro currency zone.

### MSCI INDEX FAMILY RECLASSIFIES BAYER TO HEALTHCARE SECTOR

The index provider MSCI reclassified Bayer stock from the “Materials” sector, category “Diversified Chemicals,” to the “Health Care” sector, category “Pharmaceuticals,” effective July 1, 2008, reflecting our new focus on the HealthCare business.

### BAYER STOCK DELISTED IN JAPAN

Bayer AG withdrew from the Tokyo Stock Exchange in early December 2008 because the low trading volume made its listing there superfluous. Bayer shares had been listed in Japan since 1988.

### HIGH TURNOUT AT THE ANNUAL STOCKHOLDERS’ MEETING

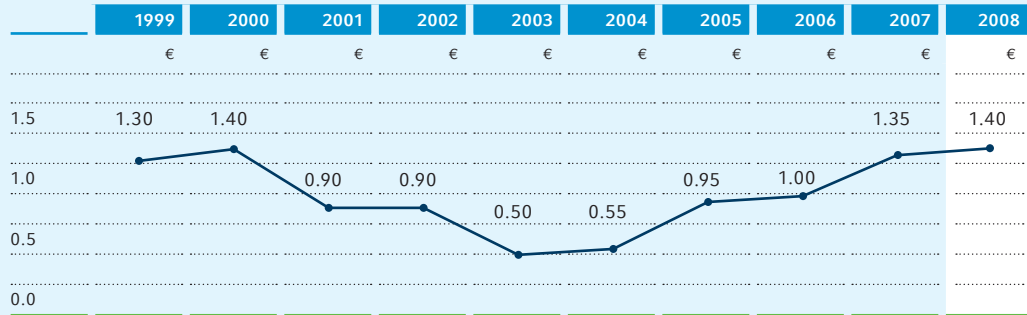
In 2008, the number of stockholders represented at the Annual Stockholders’ Meeting increased for the fourth consecutive year, with 62 percent of the voting capital represented at the meeting held on April 25, 2008.

### DIVIDEND RAISED TO €1.40 PER SHARE

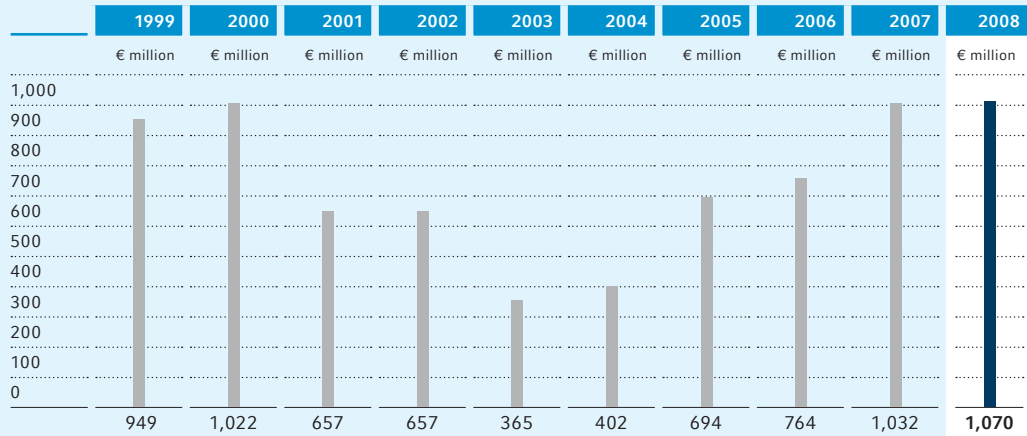
The Board of Management and Supervisory Board will propose to the Annual Stockholders’ Meeting that the dividend be raised by €0.05 to €1.40 per share. This results in a payout ratio of approximately 34 percent calculated on core earnings per share (see page 21), which is within the target corridor of 30 to 40 percent.

The dividend yield calculated on the share price of €41.55 at year end 2008 amounts to 3.4 percent and the total dividend payment to €1,070 million.

Dividends per share



Total dividend payment



### **BROADER STOCKHOLDER STRUCTURE**

The latest survey of domestic and foreign stockholders, which covered 85 percent of Bayer stock (approximately 650.8 million shares out of the 764.3 million total), revealed a slight increase in the proportion of foreign institutional investors compared with the previous year. Of the shares identified, 80 percent are owned by institutions outside Germany, with 43 percent held by U.S.-based institutions, 20 percent by those in Germany and 13 percent by institutions headquartered in the U.K. The high proportion of foreign investors reflects the importance of Bayer stock on the international financial markets.

### **BAYER STOCK A SUSTAINABLE INVESTMENT**

In 2008 Bayer was again included in leading sustainability indices. Our stock has been listed right from the beginning in both the Dow Jones Sustainability Index World and the FTSE4Good Index series. Bayer also featured once more in the Carbon Disclosure Leadership Index and has thus been honored for its activities in the area of climate protection.

At conferences and one-on-one discussions we stepped up our dialogue with investors who are guided largely by sustainability criteria when making their investment decisions.

### **CONTINUING HIGH LEVEL OF INVESTOR RELATIONS ACTIVITIES**

A broad range of investor relations activities again took place in 2008. The Board of Management and Investor Relations department held over 400 one-on-one meetings in some 25 financial centers to provide information on current events in the Bayer Group.

The focus of attention was on progress with the pharmaceutical research pipeline, and especially the anti-thrombosis drug Xarelto®. Experts explained the main research findings at conference calls, which were streamed in parallel on the Internet. Other key topics were the sustained boom in the agricultural sector and the demand situation for polymers.

### **AWARDS FOR INVESTOR RELATIONS ACTIVITIES**

Bayer's capital market communications again received several awards in 2008.

For example, Bayer garnered first place in a buy-side survey conducted by the Institutional Investor Research Group as the company with the best IR work in the European chemicals sector. More than 600 buy-side analysts and portfolio managers in Europe and the U.S. took part in this survey.

The German business journal *Capital* presents the *Capital* Investor Relations Award annually in conjunction with the Society of Investment Professionals in Germany (DVFA). For this purpose financial communications are rated by target-group focus, transparency, and continuity of reporting. In 2008 Bayer came third in the EURO STOXX 50<sup>SM</sup> category.

The French financial journal *La Vie Financière* also honored the excellent service provided by Bayer's financial communications. Bayer was awarded the "Fils d'or 2008" as the best non-French company in the FTSE Eurofirst 80 share index in the category "Prix du Meilleur Service Actionnaire."

For the fourth time, Bayer's investor relations website took first place in the overall ranking issued by the leading international consultancy MZ Consult. The factors appealing to the jury included the breadth of the Internet offering, the use of modern technologies such as RSS (Rich Site Summary) feeds, podcasts and mobile services, and the high update frequency.

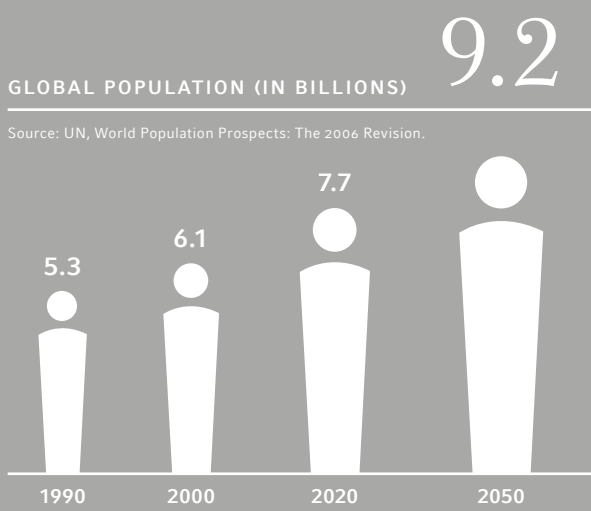
### CALCULATION OF CORE EARNINGS PER SHARE

Earnings per share according to IFRS are affected by the purchase price allocation for Schering, Berlin, Germany, and other special factors. To enhance comparability, we also determine core net income from continuing operations after elimination of the amortization of intangible assets, asset write-downs (including any impairment losses), special items in EBITDA including the related tax effects, and one-time tax income or expense.

The calculation of earnings per share in accordance with the International Financial Reporting Standards (IFRS) is explained in the notes to the financial statements on page 185. Adjusted core net income, core earnings per share and core EBIT are not defined in the IFRS. Therefore they should be regarded as supplementary information rather than stand-alone indicators.

Calculation of core EBIT and core earnings per share	2007	2008
	€ million	€ million
<b>EBIT as per income statement</b>	<b>3,154</b>	<b>3,544</b>
Amortization and write-downs of intangible assets	1,463	1,550
Write-downs of property, plant and equipment	118	88
Special items (other than write-downs)	911	665
<b>Core EBIT</b>	<b>5,646</b>	<b>5,847</b>
Non-operating result (as per income statement)	(920)	(1,188)
Income taxes (as per income statement)	72	(636)
One-time tax income*	(870)	–
Tax adjustment	(887)	(691)
Income after taxes attributable to non-controlling interest (as per income statement)	(5)	(5)
<b>Core net income from continuing operations</b>	<b>3,036</b>	<b>3,327</b>
Financing expenses for the mandatory convertible bond, net of tax effects	98	112
<b>Adjusted core net income</b>	<b>3,134</b>	<b>3,439</b>
	Shares	Shares
<b>Weighted average number of issued ordinary shares</b>	<b>764,341,920</b>	<b>764,342,029</b>
Potential shares to be issued upon conversion of the mandatory convertible bond	59,565,383	59,893,122
<b>Adjusted weighted average total number of issued and potential ordinary shares</b>	<b>823,907,303</b>	<b>824,235,151</b>
<b>Core earnings per share from continuing operations (€)</b>	<b>3.80</b>	<b>4.17</b>

\*arising from the corporate tax reform in Germany in 2007



# A Changing World

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Today's global trends present major challenges. More than ever before, humankind needs to provide conclusive answers to complex questions. Bayer is playing an important part in this through its research and development activities.

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Climate change involves extremes such as flooding, heat-waves and periods of drought. Demographic change is resulting from rapid population growth in developing countries and aging societies in most industrial nations. Each global trend is accompanied by the same basic question: How can we slow the pace of climate change and limit its impact on humankind and the ecosystem to a tolerable level? How can we generate energy sustainably on a large scale? How can we provide enough food for the expanding global population? And how can we ensure that everyone receives good medical care?

Climate change can only be tackled using the most advanced energy-saving technologies combined with sustainable energy generation.

#### ENERGY EFFICIENCY AS A BENCHMARK

Global solutions, like global problems, are closely interlinked. Climate change can only be tackled using the most advanced energy-saving technologies combined with sustainable energy generation. The International Energy Agency (IEA) in its “Energy Outlook 2008” calls for an “energy revolution.” On the other hand, some improvements in efficiency have already been achieved. For example, modern automotive engineering and its use of lightweight plastic parts has brought about substantial reductions in energy consumption. And the development of alternative fuels made from renewable raw materials is well under way.

Improvements in the energy efficiency of buildings are equally impressive. Materials research has brought forth insulating materials for building “passive houses” that require almost no heating. Innovative insulation techniques are already being used for existing buildings to cut their heating requirements, and the associated carbon dioxide emissions, by up to 50 percent. And intelligent, electronic control can significantly cut the energy consumption of virtually all electrical appliances and avoid electricity wastage.

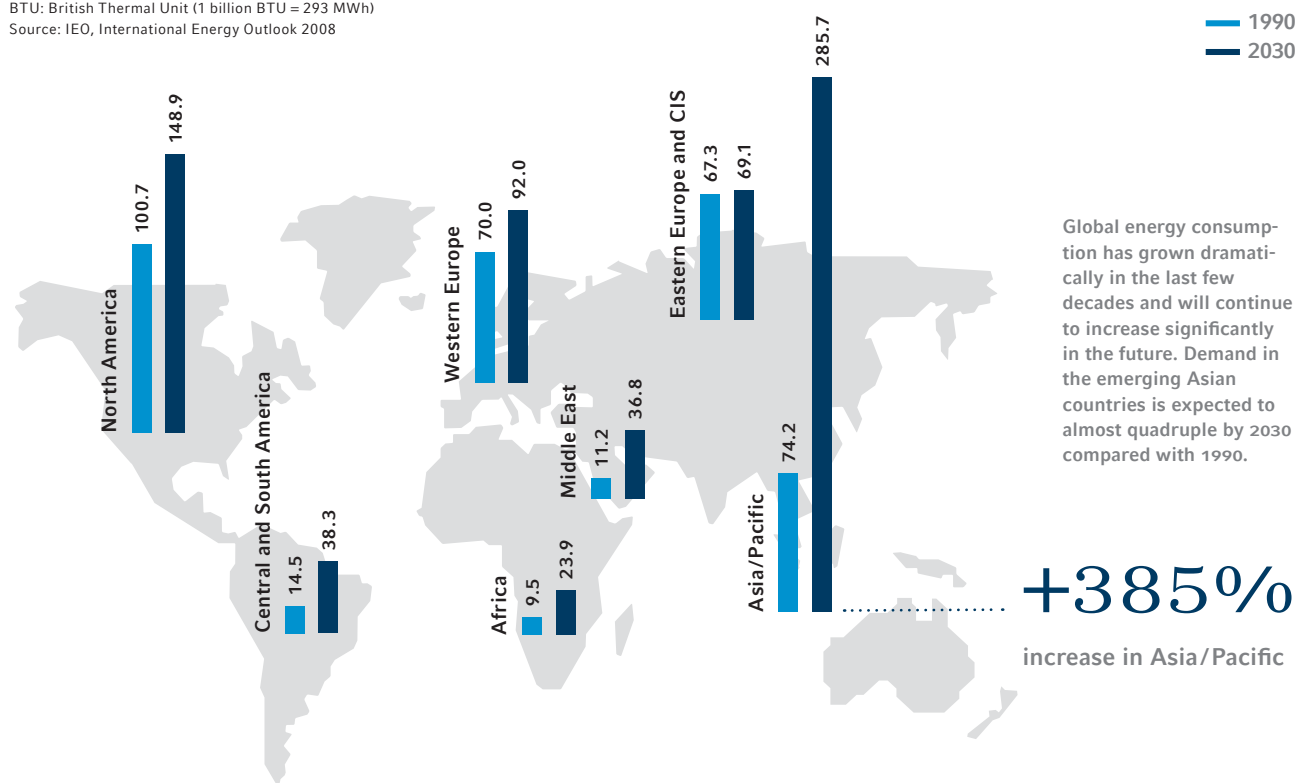
Climate change raises the likelihood of extreme weather conditions such as heatwaves, torrential rain and tropical storms. The potential consequences include increasing desertification, as in the Sahel (left), or floods such as occur frequently in Bangladesh.





GLOBAL ENERGY CONSUMPTION BY REGION (IN QUADRILLION BTU)

BTU: British Thermal Unit (1 billion BTU = 293 MWh)  
 Source: IEO, International Energy Outlook 2008



MARKET OPPORTUNITIES FOR RENEWABLE TECHNOLOGIES

According to estimates by the Fraunhofer Institute for Systems and Innovation Research (ISI), systematic deployment of all existing efficiency-enhancing technologies could already save enormous amounts of energy. The less we consume, the easier it will be to establish a CO<sub>2</sub>-neutral energy supply.

Thanks to intensive research, there have been appreciable advances in renewable energy generation. Thin-film solar cells herald the next stage in the development of photovoltaics, opening up broad market opportunities. The European Photovoltaic Industry Association (EPIA), for example, forecasts significant growth in the global solar industry. Offshore wind turbines are increasingly deployed throughout the world, and large-scale tidal power plants are under development. In addition, the first trials are now taking place at coal-fired power plants to investigate whether carbon capture and storage (CCS) could also make the use of fossil fuels more environmentally friendly. According to the International Energy Agency, CCS technology could help cut CO<sub>2</sub> emissions.

Megacities such as Tokyo, Beijing, Mumbai, Mexico City and New York (below) have high and increasing population densities. The consequences of urbanization include enormous energy demand and high CO<sub>2</sub> emissions.





Rice is an important staple food for many millions of people. The picture shows rice cultivation in the Chinese province of Zhejiang and the hard work it involves.

#### FOOD FOR MORE AND MORE PEOPLE

Sustainable energy is only one of the key requirements for the future. Combating hunger is arguably even more urgent. These two issues are interrelated, because global warming could result in more and more frequent crop failures. This is a major threat in view of global population growth. The steady increase in the earth's population, which already exceeds 6.7 billion, makes ensuring adequate food supplies a major challenge. The Food and Agriculture Organization of the United Nations (FAO) has calculated that global agricultural production would have to double over the next 50 years in order to feed the population of over nine billion that



## +70%

higher crop yields can be achieved with innovative crop protection products

our planet will have by then. This is another area in which science is pointing the way forward. Current crop yields could be increased by up to 70 percent by giving crop plants optimum protection against pests, disease and weeds. Innovative products and integrated solutions for protecting crops could leverage this considerable potential. Novel crop breeding techniques, such as hybridization or the molecular breeding of high-yield seeds, could also play a key role in improving food supplies. Carefully harnessing plant biotechnology options in order to breed stress-tolerant crop plants, for example, offers major further potential for increasing yields.

**INVESTING IN HEALTH**

A changing world needs more than clean energy and improved food supplies. Health care is of growing importance, particularly in aging societies. Great advances have been made in drug research and development in recent decades, the field of cancer treatment being one example. The aim of research-driven pharmaceutical manufacturers is for increasing numbers of people to gain access to innovative drugs.

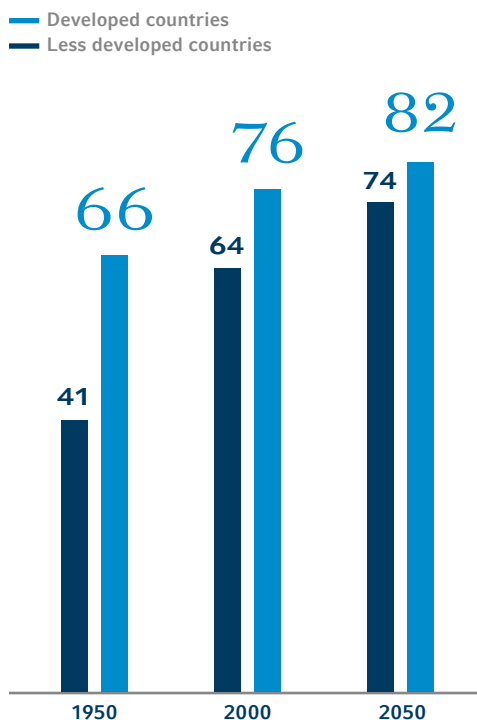
Substantial investment is necessary to successfully combat dangerous diseases and epidemics. The targeted use of biotechnology in particular can bring major benefits in this area. Responsible drug development involves a willingness to make medical advances accessible to people in poor regions of the world as well. This requires collaboration between companies, government agencies and community organizations. Public-private partnerships can use their combined expertise to provide health care where people urgently need it and would not get it without

Health care is of growing importance, particularly in aging societies.

outside help. The same also applies to preventive health education. For example, the provision of expert advice on family planning to specific target groups has also proven an effective way to diminish the spread of sexually transmitted diseases.

People's average life expectancy continues to rise and is dependent on many factors, including hygiene, nutrition, medical care and gender. Western industrial nations in particular are increasingly being confronted by demographic change: the birth rate is falling, while people are living longer and longer.

**LIFE EXPECTANCY IN YEARS**



Source: UN, World Population Prospects: The 2006 Revision



# The Bayer Climate Program

The goal is to achieve economic growth in harmony with ecology and social responsibility.

## SUSTAINABILITY AS A MODEL

A whole range of factors is causing the world to change. Research combined with sustainable development is the key to shaping this change positively. The goal is to achieve economic growth in harmony with ecology and social responsibility. This perspective specifically affects a number of areas, including a company's strategic alignment, its product portfolio and its social commitment. And a company that lives and breathes the principle of sustainability as integral to its mission also inspires the top performers of the future. After all, for increasing numbers of talented young people, corporate governance based on ethical values is a key criterion when choosing a job.

By focusing on sustainability goals, innovative companies can deploy technological solutions to overcome the great challenges of the future. That means using the resources provided to them by research and development. And this is exactly what Bayer is doing in health care, nutrition and high-tech materials, true to the company's mission statement and its slogan "Science For A Better Life."

Bayer is already acknowledged as an international leader in its sector with respect to its achievements in climate protection. Its activities in this area are combined in a Group-wide climate program in which Bayer is investing €1 billion in the period through 2010 alone.



## STRESS-TOLERANT PLANTS

Climate change is leading to worsening growing conditions in agriculture. Heat, drought, cold and soil salinity place food crops under extreme stress. Bayer is working to boost the stress tolerance of rice, corn and other cereals and thereby safeguard crop yields even under extreme conditions.

## SUSTAINABLE AGRICULTURE

A growing global population needs more and more food. The efficiency of agricultural production must therefore be sustainably increased. Thanks to its state-of-the-art crop protection products and new solutions in the field of plant breeding and biotechnology, Bayer is helping to achieve sustainable increases in yields all over the world.



## ZERO-EMISSIONS ARCHITECTURE

Almost 20 percent of all greenhouse gas emissions worldwide are the result of energy consumption in buildings – which could be halved through the systematic use of high-efficiency insulating materials. Bayer is looking to design energy-optimized, zero-emissions structures throughout the world according to its "EcoCommercial Building" concept using innovative materials.

## CLIMATE-FRIENDLY PRODUCTION

Chemical processes require energy and raw materials. With the "Bayer Climate Check," the Group is analyzing its production facilities across the globe. Processes are not only reviewed with respect to factors such as raw materials, logistics and energy supply, but are also assessed in terms of their impact on the climate. The aim is to minimize emissions of climate-relevant gases.

## FURTHER INFORMATION

Further information can be found in the brochure "The Bayer Climate Program," which is available in English, German and Spanish. It may be ordered free of charge by calling +49 214 30 57546 or emailing [SERVICE@BAYER-AG.DE](mailto:SERVICE@BAYER-AG.DE) and is available for download at [WWW.CLIMATE.BAYER.COM](http://WWW.CLIMATE.BAYER.COM)

# Research – the Key to the Future

Bayer scientists are developing innovative answers to future challenges all over the world. The Group’s budget for research and development in 2008 was €2.8 billion. Three of the 11,800 people employed in research and development at Bayer give a brief insight into their work:

## “Simplifying contraception”

**DR. MAUREEN CRONIN**  
Head of Global Medical Affairs, Women’s Healthcare, Bayer HealthCare

Access to safe and effective contraception has revolutionized women’s lives throughout the world. Abortion rates in eastern Europe, which were among the world’s highest, have quickly dropped by half thanks to the increasing use of modern contraception methods. As pioneers in hormone research and gynecology, we are committed to simplifying contraception for women by offering them more options, making products easier to use and providing education.



## “Improving yields”

**DR. ULRIKE WACHENDORFF-NEUMANN**  
Head of Profiling, Fungicides, Bayer CropScience

Growing enough food for an increasing global population on a constant area of arable land is the key challenge facing the agricultural industry. That’s why we are developing new crop protection products that not only safeguard current crop yields but sustainably increase them. Cutting-edge technology platforms enable us to identify potential active ingredients and optimize them. Our research also focuses on substances that boost crops’ tolerance toward climatic stress factors such as heat and drought. In addition, we are raising the yield and quality of canola, rice, vegetables and cotton with our innovative seeds.

## “Shaping the future”

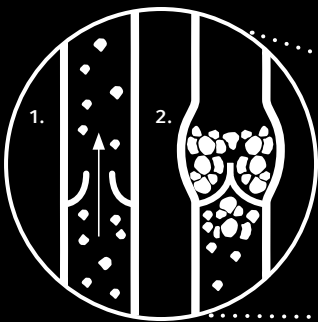
**ECKARD FOLTIN**  
Head of Creative Center, Bayer MaterialScience

Our team of market scouts and innovation managers uses forecasts of customer needs to determine what kinds of materials we need to develop and supply in the future. One of many examples is that higher life expectancy increases the demand for service robots in the home. This is an area in which Bayer can play a key role with functionalized high-tech polymers. We are charting the “robotics” vision of the future as a global team, enabling us to take cultural factors into account as well.



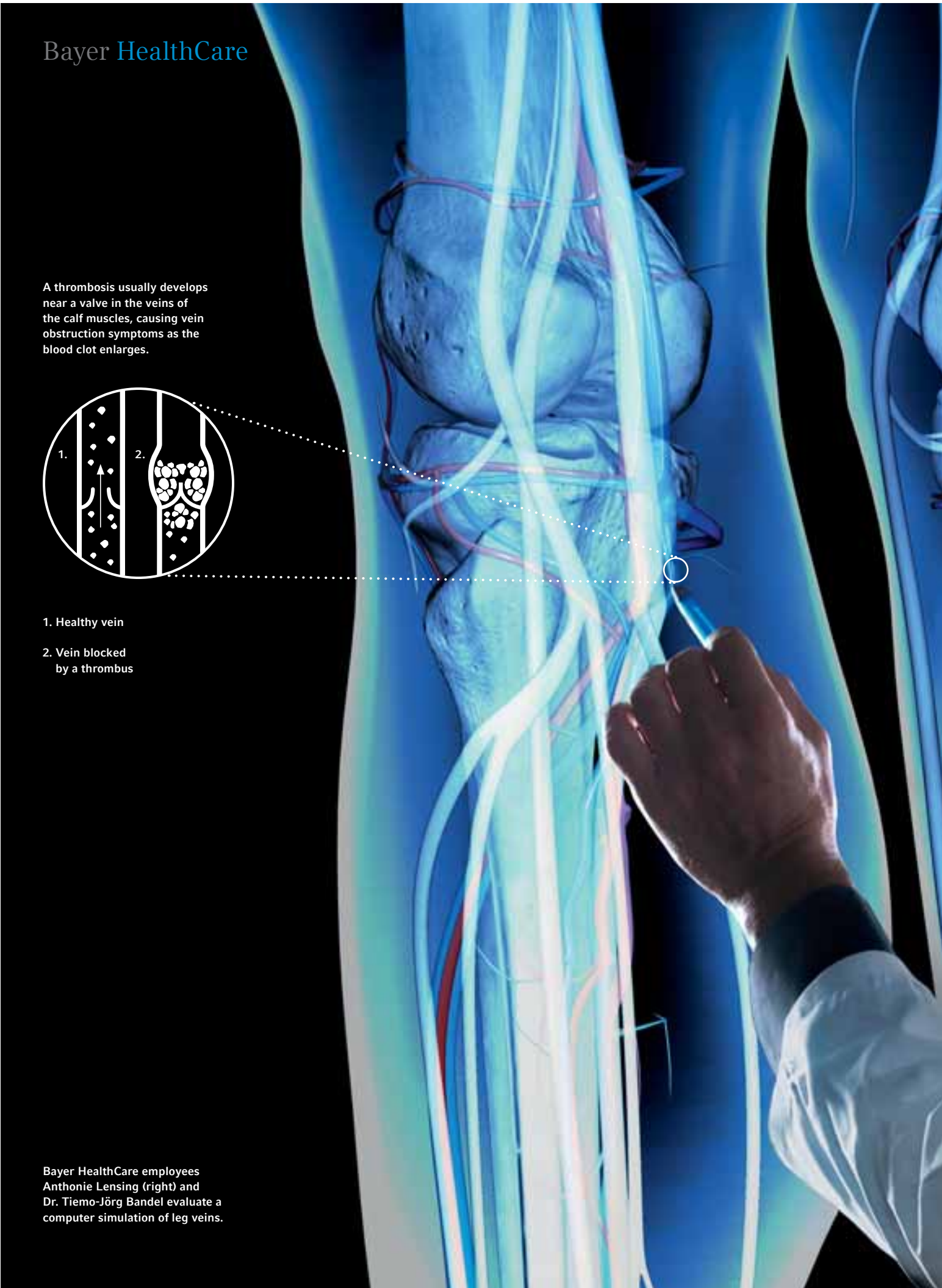
# Bayer HealthCare

A thrombosis usually develops near a valve in the veins of the calf muscles, causing vein obstruction symptoms as the blood clot enlarges.



- 1. Healthy vein
- 2. Vein blocked by a thrombus

Bayer HealthCare employees Anthonie Lensing (right) and Dr. Tiemo-Jörg Bandel evaluate a computer simulation of leg veins.





# Research for a Healthier Future

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Every year, doctors diagnose millions of new cases of cancer, heart attack, stroke and dementia. The mission of Bayer HealthCare is to discover innovative diagnostic approaches and therapies so that diseases can be better identified, treated and cured in the future.

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Red and white blood cells (erythrocytes and leukocytes) can move freely through the body if the veins are healthy.

## Going with the flow

### XARELTO®

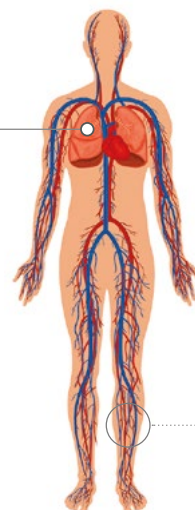
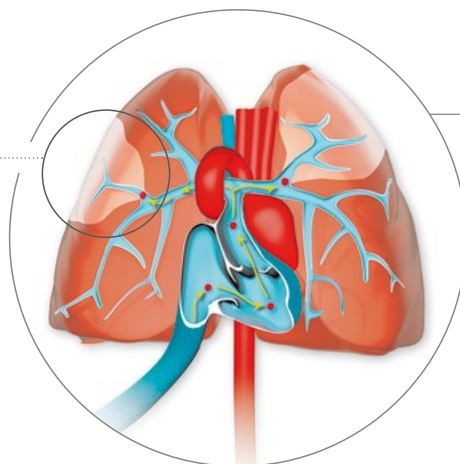
This drug is currently the most thoroughly investigated anticoagulant in clinical development. Over 60,000 patients are to be enrolled in the study program.

The number alone is shocking. Some 540,000 people die in Europe each year as the result of a thrombosis. That is more than the number of deaths attributable to breast cancer, prostate cancer, Aids and road traffic accidents combined. Bayer's innovative anti-coagulant drug Xarelto® helps to prevent thrombosis after orthopedic surgery. The superior efficacy of its active ingredient,

rivaroxaban, compared with the current therapeutic standard has been demonstrated in studies. And it has a comparable safety profile. Xarelto® has been approved in the European Union for the prevention of venous thromboembolism in adults following elective hip or knee replacement surgery. It has also been registered in over ten other countries, and further applications are currently being reviewed by regulatory authorities worldwide, including the U.S. Food and Drug Administration.

### PULMONARY EMBOLISM

If a thrombus enters the pulmonary artery and becomes lodged in one of the blood vessels in the lung, the blood supply to the lung may be restricted and its function thus impaired, putting the patient's life at risk. Pulmonary embolism is the third most common cause of death in Germany.



A thrombus originating in a leg vein may travel through the heart into the lung.



**ACTIVE INGREDIENT INHIBITS KEY ENZYME**

The success of Xarelto® is due in large part to the work carried out by biologist Dr. Elisabeth Perzborn, chemists Dr. Alexander Straub and Dr. Susanne Roehrig, and an interdisciplinary team of chemists, pharmacokinetics experts, toxicologists, physicians and technicians.

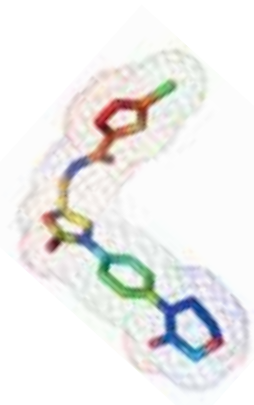
The scientists at Bayer HealthCare’s research center in Wuppertal discovered the mechanism by which rivaroxaban can prevent thrombosis: the active substance inhibits Factor Xa, an enzyme that plays a key role in the blood coagulation cascade.

Blood coagulation normally serves a protective purpose. Without it, people would bleed to death from the slightest injury. Essential to this complex process is the conversion of prothrombin to thrombin – and this is triggered by Factor Xa. The wound is ultimately sealed by a network of insoluble fibrin strands in which red and white blood cells as well as blood platelets are embedded.

If the blood, and with it the coagulation enzymes that occur naturally in the body, flows through the veins more slowly than usual, the formation of these fibrin strands may become life-threatening. Sometimes these enzymes become active without any external stimulus, triggering a chemical chain reaction that may be fatal.

The strands of fibrin link to form a gel-like network that traps blood cells and platelets. This results in a blood clot, or thrombus.

In the United States alone, some 700,000 artificial hip or knee joints are implanted every year. These are routine procedures for the surgeons.



**THE SUCCESSFUL MOLECULE**

It took 700 syntheses and countless test series to optimize the structure of the active substance rivaroxaban. The illustration above shows the volume contour of the rivaroxaban molecule.



“Our active substance rivaroxaban has the potential to set a new therapeutic standard in the global anticoagulant market.”

**DR. ELISABETH PERZBORN**  
Head of Laboratory  
Bayer HealthCare

If it becomes detached and enters the bloodstream, a life-threatening pulmonary or other embolism can develop.

**STUDIES INVOLVING OVER 60,000 PATIENTS**

Patients who need surgery to replace a knee or hip joint have a high risk of developing thrombosis. During surgery, the major leg veins that return the blood to the heart may be damaged. Another factor is that patients’ mobility after the operation is restricted. Doctors often administer heparins to prevent thrombosis, but the disadvantage of these drugs is that they have to be injected. Vitamin K antagonists, another class of preventive drugs, are complicated to administer. “They are difficult to dose,” explains Perzborn. “And the patient’s coagulation status has to be monitored regularly because they interact with other drugs.”

Perzborn, known affectionately by her staff as “Mother Xarelto,” has been a research scientist at Bayer for 30 years. She continues to be a valuable source of information when it comes to preclinical aspects of the new anticoagulant. The efficacy of rivaroxaban in further indications is currently being investigated in a study program focusing on the prophylaxis and therapy of acute and chronic coagulation disorders. The indications include the long-term treatment of venous thromboembolism and stroke prophylaxis in patients with atrial fibrillation. It is intended to enroll over 60,000 patients in these studies.



Liver tumors can be visualized clearly by magnetic resonance imaging (MRI). Imaging is facilitated by Primovist®, a contrast agent from Bayer HealthCare. Hepatocellular carcinoma accounts for about 90 percent of primary malignant tumors of the liver.

## A pioneer in the battle against cancer

### **NEXAVAR®**

The active substance sorafenib has already been approved in more than 60 countries for the therapy of liver cancer and in over 70 countries to treat kidney cancer.

More than 600,000 new cases of liver cancer are diagnosed worldwide every year, and this number is increasing. Around 90 percent of malignant primary tumors – cancers that develop in the liver itself – are hepatocellular carcinomas.

Like many other types of cancer, malignant liver tumors develop when mutated cells go on dividing. This happens, for example, if an individual's genetic material is defective, causing a healthy cell to reproduce uncontrollably.

When Bayer HealthCare's scientists were developing the cancer therapy Nexavar® (active ingredient: sorafenib), they focused on the central points in the cell, where signaling pathways that mediate cell division and growth meet, as a site of action for the new drug.

### **TARGETED ACTION**

Nexavar® blocks a special signaling pathway that is estimated to be hyperactive in around 30 percent of all tumors. At the same time, the innovative mechanism of action inhibits the formation of the new blood vessels that are vital for the survival of a malignant tumor.

"Nexavar is the only systemic therapy proven to be effective and well tolerated in the treatment of liver cancer in a variety of patient populations," says Dr. Dimitris Voliotis from Clinical Development at Bayer HealthCare. Since liver cancer is the third most common cause of death from cancer worldwide, "there is a significant need for new treatment options that can be used at all stages of the disease to delay its progress and extend life."

Nexavar® has already been approved in more than 60 countries for the therapy of liver cancer and in over 70 countries to treat advanced renal cell carcinoma (kidney cancer).

### **GOOD PROSPECTS FOR THE FUTURE**

Ongoing clinical studies on the efficacy of Nexavar® show that it also has therapeutic potential in other types of tumor. Government institutions, oncology groups, individual scientists and, of course, Bayer and its u.s. development partner Onyx Pharmaceuticals are all investigating Nexavar® in various types of cancer as a single-agent therapy and in combination with other drugs. These include non-small-cell lung cancer, breast cancer and metastatic melanoma.

## Lost identity

It's an insidious disease. A person can't remember words, loses keys over and over again, or forgets the date. Alzheimer's disease is a condition that gradually develops over a period of years, because for a long time the brain is able to compensate relatively well for the loss of nerve cells. Then suddenly the patient loses his or her bearings and becomes disoriented even in a familiar environment. Alzheimer's means forgetting what you once knew. And the end is always catastrophic. This disease ultimately destroys the individual.

### DETECTING THE SIGNS EARLY

The World Health Organization (WHO) currently puts the number of people with Alzheimer's at more than 18 million and estimates that it will exceed 34 million by 2025. There is currently no cure for the disease, although there are drugs that relieve the symptoms. If the degeneration of the brain cells is to be countered, the process needs to be identified at an early stage, before the first symptoms develop.

But this is exactly what is proving so difficult. "So far an autopsy is the only way to reach a firm diagnosis," explains Dr. Ludger Dinkelborg, Head of Diagnostic Imaging Research at Bayer HealthCare. Dinkelborg intends to do something about this. He and his team are looking for ways to detect signs of the disease earlier on, preferably before the first symptoms emerge, and thus provide support for doctors and patients in their decisions regarding treatment.

The first results of these endeavors are promising. BAY 94-9172 is the code for a molecule to which a radioactive fluorine-18 atom has

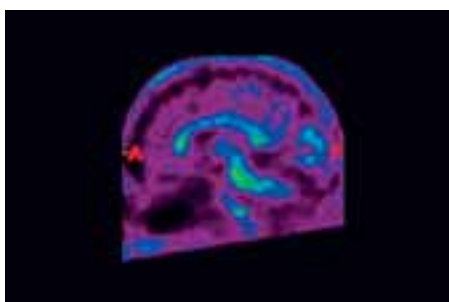
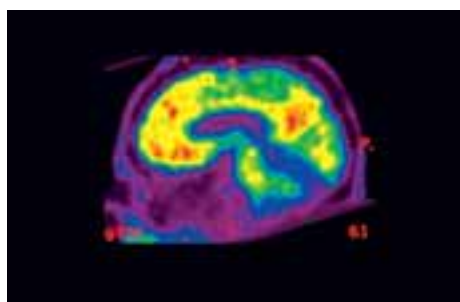


been attached. The labeled substance, known as a tracer, attaches to the protein plaques in the brain that typically occur in Alzheimer's patients and can then be visualized using a technique called positron emission tomography (PET).

### TRACER IN CLINICAL TRIALS

The tracer has a special property that allows it to bind to the plaques. It is so small that it has no difficulty crossing the blood-brain barrier. This physiological barrier between the central nervous system and the bloodstream normally protects the brain against disease pathogens or toxins circulating in the blood. Apart from being so small, the tracer has other advantages: only a tiny quantity needs to be injected into the patient, and the radioactive tag decays after as little as 20 hours. The tracer is currently in Phase II clinical development.

Alzheimer's disease is a neurodegenerative disorder, the most common form of which occurs predominantly in people over 65. Its causes are still not fully understood.



Positron emission tomography (PET) of the brain of an Alzheimer's patient. Amyloid plaques, which develop at an early stage in the disease, are shown in yellow. Right: PET image of a healthy brain.

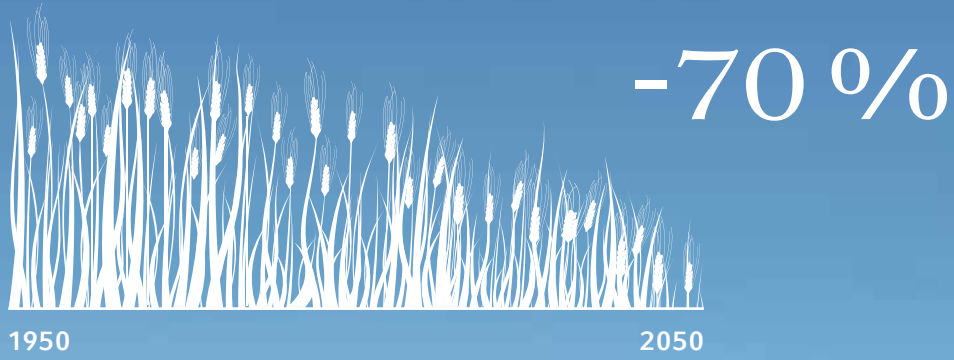
### ALZHEIMER'S DISEASE

In the early stage, a person's short-term memory starts to deteriorate as the cells in the hippocampus are destroyed. The brain tissue shrinks dramatically as the disease progresses. In addition, the ventricles are greatly enlarged. The patient's power of judgment disappears as the disease spreads beyond the cortex of the brain, leading to emotional outbursts and speech impairment.

# Bayer CropScience

## AVAILABLE ARABLE LAND PER CAPITA

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Farmer Neels Neethling (left) and his employee Tol Kaptein inspect the quality of the wheat growing on his 4,500 hectares of land at Malmesbury, South Africa.

# Richer Harvests and Secure Food Supplies

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Climate change, worsening growing conditions and an expanding global population: three factors that are diminishing the global supply of wheat, rice and corn. Researchers at Bayer CropScience are developing innovative crop protection solutions and biotechnological methods that are helping to safeguard harvests and boost crop yields worldwide.

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Research to secure the food supply: Bayer CropScience employees Tinnakorn Srivichai (left) and Noppol Sritharathikul evaluate the data recorded by the weather station at the new rice development center in Suphanburi, Thailand.

**T**he world's population is growing rapidly – and needs enough to eat. It is estimated that eight billion people will inhabit our planet by 2025. Figures produced by the World Bank already put the number of people facing starvation at around 850 million, and that number is growing. Yet global food stocks have already dropped to their lowest level in 30 years. At the same time there is little scope for increasing the amount of land under cultivation. On the contrary, according to a U.N. forecast there will be around one third less arable land available per capita of the population in 2050 than in 2000.

Climate change is exacerbating the situation. Meteorologists are recording more and more frequent extreme weather events such as drought or delayed precipitation. In South America, torrential rain has devastated large areas. Southeast Africa, Indonesia and Australia have experienced prolonged droughts. And Florida has been hit by frost. Extreme weather fluctuations can make farming a highly unpredictable business and greatly reduce the size of the harvest.

#### THE SECOND GREEN REVOLUTION

However, the main factors responsible for persistently poor growing conditions, and hence much smaller harvests, are lack of water, increasingly saline soil, and intense heat and cold. Corn, rice and wheat, for example, can no longer cope with such extreme environmental factors – and this has dire consequences. Even if their fields are optimally managed, farmers regularly lose between 30 and 70 percent of their crops. It is clear that the agricultural industry must overcome major challenges if it is to safeguard the world's food supply in the future. "We need higher yields per unit of land and yields that are more resilient to climatic factors, particularly drought," says Professor Stefan Tangermann, who for many years headed the Trade and Agriculture Directorate at the Organization for Economic Cooperation and Development (OECD). In the 1960s, the global community launched a number of programs, known jointly as the "Green Revolution," designed to combat poverty in developing countries and meet the demand for food by introducing modern agricultural technology and high-quality seed. This kind of effort now needs to be repeated.

“Biotechnology enables plants to deliver high, stable yields over the long term in spite of fluctuating environmental conditions.”

**DR. MICHAEL METZLAFF**  
 Research Liaison Manager  
 Bayer CropScience

Bayer scientist Michael Metzloff inspects canola crops in which stress tolerance has been enhanced by silencing specific genes.



## €3.4 BILLION

“What we need is a second Green Revolution. We must refocus on agricultural research, with particular emphasis on increasing harvests and yields,” stresses Professor Friedrich Berschauer, Chairman of the Board of Management of Bayer CropScience AG. Bayer CropScience intends to contribute to this effort, and between 2008 and 2012 will be investing a total of €3.4 billion in the discovery of innovative crop protection products and new solutions in the areas of seeds and plant biotechnology.

### STRESS-TOLERANT PLANTS

We could go a long way toward reaching the United Nations’ goal of halving hunger in the world by 2015 if optimum use were made of all existing technology options. Bayer CropScience believes that farmers throughout the world could increase their yields by up to 70 percent just by using innovative crop protection products. And the Council for Biotechnology estimates that green genetic engineering could increase yield potential worldwide by some 25 percent. In this context researchers at Bayer CropScience are developing ways of protecting crops more effectively against stress caused by factors such as climate and environment. For example, they are employing genetic engineering tech-

niques to equip rice plants with traits that will enable them to cope better with several stress factors. In some cases our scientists are introducing useful genes into the plants to make them more resistant to the extreme stress caused by drought or humidity. In other cases they are silencing individual genes that would otherwise trigger excessive stress reactions and reduce yields. “This enables plants to deliver high, stable yields over the long term in spite of fluctuating environmental conditions,” explains Dr. Michael Metzloff from the Innovation Center for Plant Molecular Biology operated by Bayer CropScience in Ghent, Belgium.

Bayer CropScience will invest €3.4 billion through 2012 to research and develop innovative crop protection products and plant biotechnology solutions.



In Canada, genetic engineering has already helped to boost the oil yield of canola by up to 30 percent compared with conventional varieties. It is clear that modern breeding techniques and plant biotechnology can make a major contribution to feeding the world, but this presupposes greater acceptance of this technology so that it can be used on a large scale worldwide. “The food crisis has rekindled awareness of the need to secure the food supply. This is encouraging a change in attitude and will lead to a calmer approach to green genetic engineering,” concludes agricultural expert Tangermann.



“The food crisis has rekindled awareness of the need to secure the food supply. This is encouraging a change in attitude and will lead to a calmer approach to green genetic engineering.”

PROFESSOR STEFAN TANGERMANN  
Former Head of the Trade and Agriculture Directorate of the OECD

## INNOVATIVE PRODUCTS

Apart from biotechnology, however, conventional crop protection products can also help to boost harvests. One of the company's most recent innovations is Movento® for the control of aphids and white flies. Its active ingredient, spirotetramat, displays exceptional mobility within the plant (see illustration on page 41), and when properly used it spares bees and other important beneficials.

Another example is trifloxystrobin, a compound that farmers all over the world have been using for years to protect their cereal, vegetable and fruit crops against harmful fungal diseases. But that is not all this fungicide can do: it also increases the resistance of plants to stress. “Field trials have shown that crops on which the active ingredient has been used produce higher yields than those treated with conventional fungicides,” explains Dr. Dirk Ebbinghaus, a crop protection scientist at Bayer CropScience. Plants treated with trifloxystrobin also grow considerably better than untreated plants when water is in short supply.

The latest research shows that certain active ingredients make rice plants more resistant to fluctuations in the salt content of water.

Yet there is another problem that agriculture will have to solve in the future. It, too, results from the shortage of arable land and the increase in the global population. In the future there will be increasing competition between plants grown for food and those destined for producing energy.

## PLANT BIOTECHNOLOGY AT BAYER

Bayer's scientists are examining ways to raise crop yields with the aid of new biotechnological processes. For example, they are looking at how to boost plants' tolerance of stress factors or enhance their photosynthetic performance.

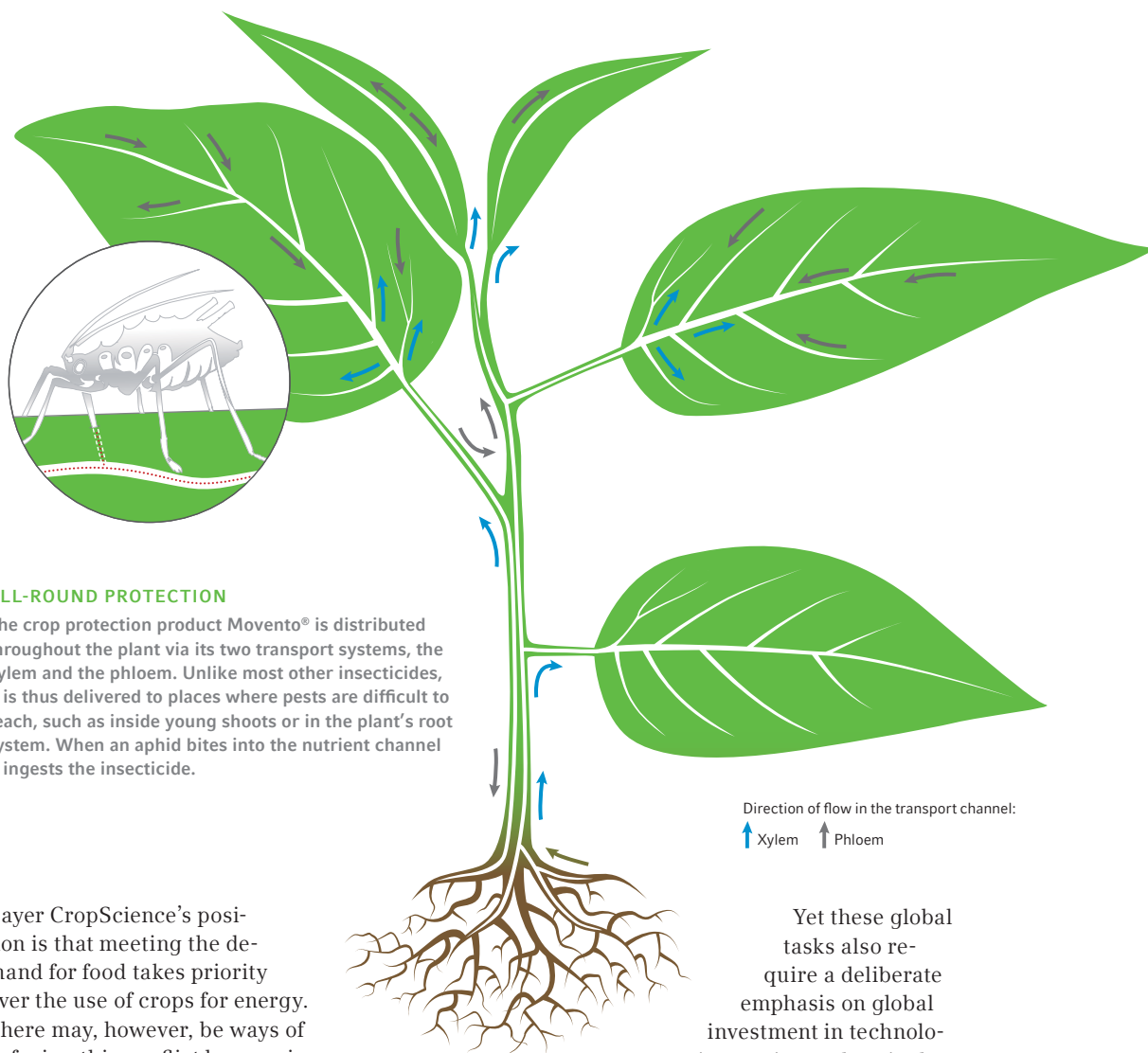


**+25%**

growth thanks to plant  
biotechnology







**ALL-ROUND PROTECTION**

The crop protection product Movento® is distributed throughout the plant via its two transport systems, the xylem and the phloem. Unlike most other insecticides, it is thus delivered to places where pests are difficult to reach, such as inside young shoots or in the plant's root system. When an aphid bites into the nutrient channel it ingests the insecticide.

Direction of flow in the transport channel:  
 ↑ Xylem    ↑ Phloem

Bayer CropScience's position is that meeting the demand for food takes priority over the use of crops for energy. There may, however, be ways of defusing this conflict by growing plants on what are known as marginal soils. *Jatropha*, for example, is an inedible plant that grows in barren soils. It has an oil content of more than 30 percent that can be used to produce biodiesel. Bayer CropScience is working with partners to investigate specific crop protection solutions for *Jatropha* with the aim of finding out more about the economic potential of this plant.

Yet these global tasks also require a deliberate emphasis on global investment in technology, innovation and agricultural infrastructure. "We need intensive agricultural research if we are to meet the challenge of producing enough food, and we must also ensure that optimum use is made of our agricultural resources," emphasizes Berschauer. This is the only way to feed the rapidly growing number of people who will be sharing our planet in the coming decades.

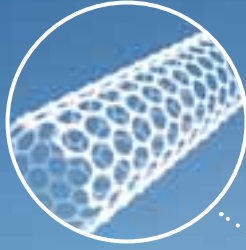
If efforts to safeguard and increase crop yields on existing arable land succeed, this could also help to solve the problem of human food and animal feed crops competing for acreages. This problem is occurring particularly in emerging nations such as China and India, where people are eating more meat as prosperity increases, thereby driving the demand for animal feed.

Bayer CropScience is well placed to meet the agricultural challenges posed by climate change and an expanding world population.



The active ingredient tri-floxystrobin protects cereal, vegetable and fruit crops (such as orange trees) against fungal diseases and also increases the plants' resistance to stress factors such as lack of water.

## Bayer MaterialScience



20 times  
stronger than steel

Baytubes<sup>®</sup> carbon nanotubes are twenty times stronger than steel, but six times lighter – a property put to good use in modern wind turbines like those at this gas station in Helsinki, Finland.



# The Stuff the Future is Made of

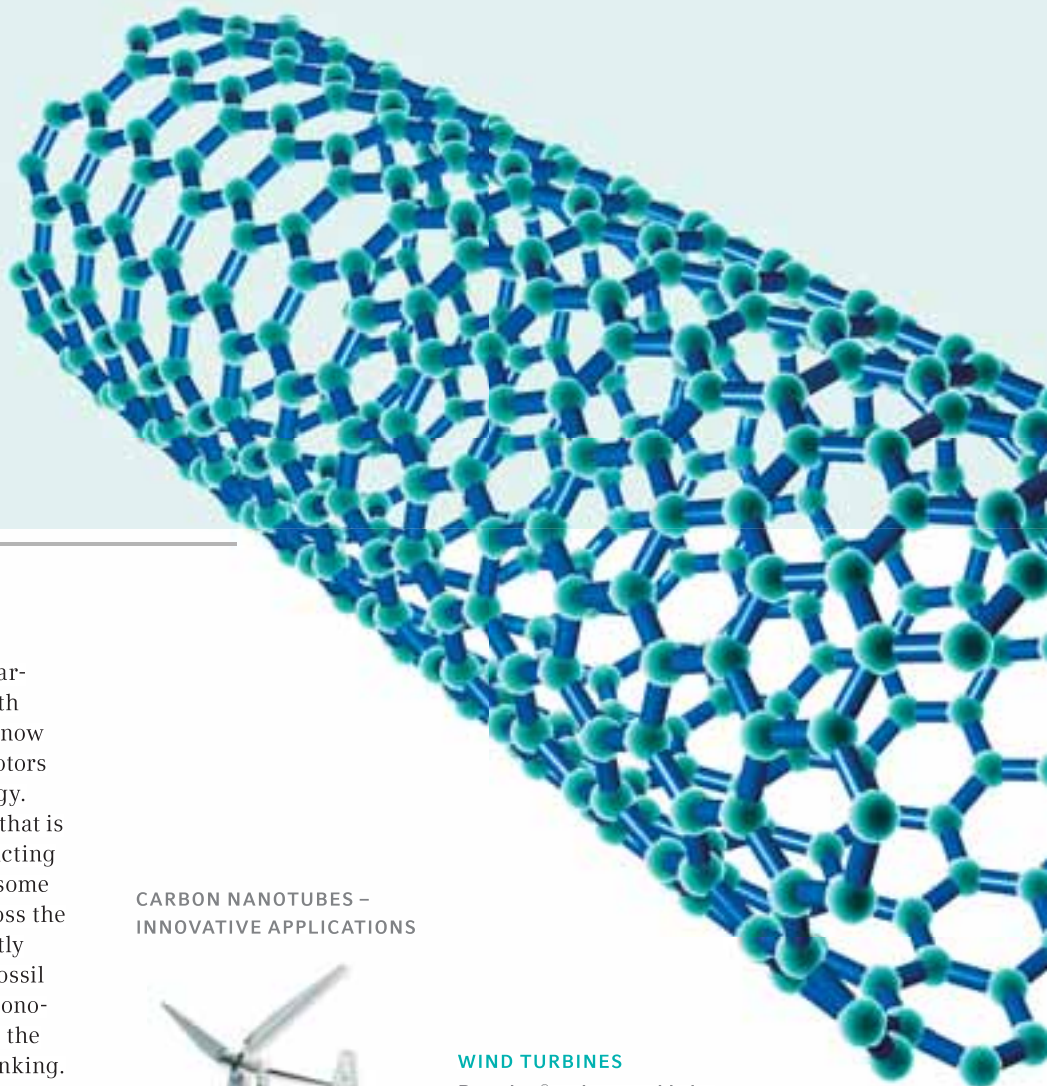
Life depends on energy, and global demand for electricity, light and heat is growing at an astounding rate. To achieve a balance between energy consumption and climate protection from both an environmental and an economic perspective, researchers at Bayer MaterialScience are developing innovative materials for use in applications like zero-emission buildings, lighter cars and efficient wind turbines.



**CARBON NANOTUBES –  
DESIGN AND FUNCTION**

The future of materials science is closely bound up with nanotechnology. Bayer MaterialScience is exploiting the potential of Baytubes® carbon nanotubes. Baytubes® form the basis for materials that combine strength with low weight, imparting properties such as conductivity and increased toughness. Their benefits are already being felt in a wide range of products.

Right: a 3D model of the hexagonal structure of carbon nanotubes.



The wind is increasingly being harnessed as a source of power, with coastal and mountainous areas now home to a growing number of rotors that convert airflows into electrical energy. Wind turbines are experiencing a boom that is expected to continue, with experts predicting that wind turbines with a total power of some 718,000 megawatts will be installed across the world by 2017. These turbines are urgently needed because, although energy from fossil sources continues to power the global economy, oil shortages and the need to protect the climate necessitate a rapid change of thinking. The link between energy consumption and economic growth must be broken and CO<sub>2</sub> emissions cut. These are the findings of the International Energy Agency (IEA) in its report “Energy Technology Perspectives 2008,” which forecasts that global GDP will quadruple by 2050, possibly even increasing tenfold in emerging markets such as China and India. But current CO<sub>2</sub> emissions from energy consumption are already threatening the earth’s climate, the agency warns.

High-tech “windmills” are gaining importance in the bid to meet at least part of tomorrow’s energy needs from sustainable sources. But making turbine blades longer will soon take conventional materials to the limits of their load-bearing capacity. Baytubes® carbon nanotubes are therefore viewed as a beacon of hope for the future of wind power. These tiny cylinders just a few nanometers across achieve a material strength twenty times that of steel, yet the blade is only one-sixth as heavy as a steel blade of the same size. What’s more, they

**CARBON NANOTUBES –  
INNOVATIVE APPLICATIONS**



**WIND TURBINES**

Baytubes® make rotor blades much lighter and stronger so that they can withstand extreme loads.

**LITHIUM-ION BATTERIES**

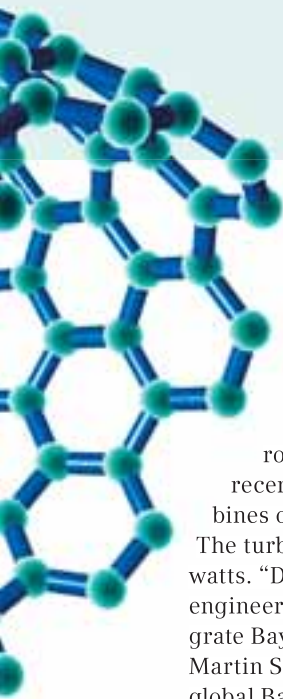
Baytubes® conduct heat better than diamonds, ensuring a continuous flow of electricity in rechargeable batteries and thereby boosting their performance and service life.

**PLASTIC AUTO  
FENDERS**

Carbon nanotubes enable automakers to coat exterior plastic components electrostatically without first applying a conductive primer.

“Baytubes offer tremendous opportunities for innovation. We will continue to drive research in this field and open up new areas of application.”

MARTIN SCHMID  
General Manager Carbon Nanotubes  
Bayer MaterialScience



can turn even small wind power plants into cost-effective energy producers. Ultra-lightweight plastic rotor blades made with Baytubes® recently went into service in the wind turbines of Finnish company Eagle Windpower. The turbines have an output of up to 20 kilowatts. “Drawing on our expertise in polymer engineering, we can help our customers integrate Baytubes into various plastics,” explains Martin Schmid, responsible for developing the global Baytubes® business at Bayer MaterialScience. Thanks to the high strength of the tubes, the two-and-a-half-meter-long blades of the Finnish turbines are so light and slender that they generate energy efficiently even at low wind speeds, making them suitable for residential properties as well.

**LITHIUM-ION BATTERIES WITH NANO MATERIALS**

Carbon nanotubes have enormous market potential, which experts estimate at several thousand metric tons a year over the next few years. This is because, apart from their very high strength, they have other outstanding properties that boost efficiency. They conduct heat better than diamonds and as well as copper. That’s why carbon nanotubes also offer great potential for lithium-ion batteries. Baytubes® ensure an unimpeded flow of electrons within the batteries, thereby boosting their performance and prolonging their service life. The automotive industry could even use nanotubes to save on costly production steps. For example, a plastic fender made

electrically conductive by incorporating Baytubes® can be coated by the eco-friendly electrostatic process, saving a considerable quantity of solvent, coating materials and energy.

**LIGHTWEIGHT PLASTICS SAVE FUEL**

Automotive engineers exploit material innovations from Bayer MaterialScience to make vehicles lighter – for example by using Makrolon® plastic for windows. Glazing made from Bayer’s polycarbonate weighs up to 50 percent less than glass. Industry experts forecast that over the next few years automotive designers will include significantly more transparent areas in vehicles. The trend towards large, lightweight panoramic roofs is particularly evident, the latest example being Hyundai’s “i-mode” car. A total of eleven lightweight glazing panels made from Makrolon® flood the interior of this concept car with light, while at the same time helping to cut fuel consumption.

Bayer MaterialScience has also developed numerous weight-saving solutions for cars using polyurethanes – including strong and rigid trunk floors, spare-wheel covers and sunroof sections. The Volkswagen Tiguan features a number of lightweight components made from Bayer plastics, which are up to 80 percent lighter than their sheet metal counterparts, thus significantly cutting fuel consumption and CO<sub>2</sub> emissions.

**INTERNET**

For more information on the production of Bayer’s carbon nanotubes and their applications, go to [WWW.BAYTUBES.COM](http://WWW.BAYTUBES.COM)



In Dubai there is an increasing focus on climate protection and building insulation. Bayer's polyurethane insulating materials are ideal for either keeping the heat out or protecting against the cold.

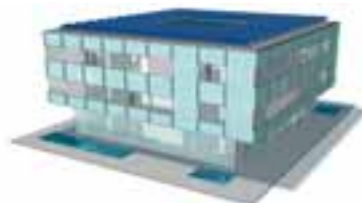
## DESIGNING BUILDINGS TO SUIT THE CLIMATE

The construction sector needs innovative material concepts for the future. According to figures published by the United Nations Intergovernmental Panel on Climate Change, energy consumption in buildings is responsible for almost 20 percent of global greenhouse gas emissions. Now, specialists from Bayer MaterialScience are proving that climate-friendly construction is possible with the first project to be launched as part of the "EcoCommercial Building" initiative. The project is an office complex currently being built for Bayer near New Delhi, India. Scheduled for completion by the end of 2009, it will consume 70 percent less electricity than other local commercial buildings. The engineers are adapting the building to the extreme heat and humidity of the subtropics. The result will be zero emissions, thanks to insulation with high-quality Bayer materials combined with the EcoCommercial Building's own ability to harness solar energy. The building will meet its entire energy needs itself, thus lowering emissions by at least the amount generated by its operation.

# -70%

power consumption

The first "EcoCommercial Building" is under construction near New Delhi. It can meet its entire energy needs itself – electricity, heating, hot water and refrigeration.



Polyurethane insulating materials are ideal both for keeping the heat out in countries like India and for protecting against the cold. This enables the new Bayer climate concept for buildings to be deployed throughout the world. "We bring the best materials, systems and technologies together to design buildings that are adapted to local climatic conditions," says Rüdiger Utsch, in charge of the project at Bayer MaterialScience. At the Madinat Jumeirah resort in Dubai, for example, 7,000 square meters of floor space have been insulated with Bayer polyurethane.

## CO<sub>2</sub> – THE RAW MATERIAL FOR NEW PRODUCTS

Researchers from Bayer MaterialScience are actively helping to reducing carbon dioxide (CO<sub>2</sub>) emissions. In fact, they hope this greenhouse gas can soon be used as a raw material: "We want to use CO<sub>2</sub> as a feedstock for polyurethane production," says Dr. Christoph Gürtler from Bayer MaterialScience. To this end, Bayer has joined forces with RWTH Aachen University to set up the "CAT Catalytic Center." Researchers there initially intend to develop new catalysts to convert CO<sub>2</sub> into a valuable starting material for new products. If this is successful, it may soon be possible to bind the gas in polyurethane, thus removing it from the atmosphere.

**VEGETABLE OILS FOR  
“GREEN” PLASTICS**

Natural materials such as industrial sugar and vegetable oils have been used for some time in the production of polyols, which, along with isocyanates, are basic components of polyurethanes. Bayer MaterialScience has now developed polyols that contain up to 70 percent (by weight) renewable raw materials, such as canola or soybean oil, and therefore help to reduce emissions. In some cases, these “green” polyurethane foams have even better material properties than conventionally manufactured products. The vegetable oils enhance compatibility with the pentane blowing agent used for foaming these plastics, which provide efficient insulation in buildings, refrigerating appliances and pipelines, and are used to produce car seats, flooring, shoe soles and high-quality mattresses.

The conventional method of producing polyurethane raw materials requires large quantities of chlorine, and chlorine production is energy-intensive. But together with its partners, Bayer has developed a process that consumes some 30 percent less energy and thus reduces CO<sub>2</sub> emissions from power plants. Known as oxygen-depolarized cathode technology, it uses oxygen in the electrolysis of hydrochloric acid. The process has already received the Environmental Award of the Federation of German Industries. In 2009, Bayer is looking to use this technology to cut CO<sub>2</sub> emissions by 100,000 metric tons in China alone.

**GLOBAL CLIMATE CHECK  
OF PRODUCTION FACILITIES**

The company also is employing the “Bayer Climate Check” to analyze processes at its facilities throughout the world with the aim of making them more efficient. Some 100 production plants are being examined by this method, which was developed by Bayer Technology Services, to gauge their climate compatibility. Bayer is looking at the “climate footprint” – the impact that raw materials, logistics and energy use have on the climate. The Bayer Climate Check thus adds a new dimension to the basis for decisions on process design, for the first time ensuring that environmental aspects are taken into account along with profitability criteria. The Group’s emissions of direct and indirect greenhouse gases are expected to be reduced by between five and ten percent as a result. “The Bayer Climate Check will help us to identify new potential for cutting emissions, harness that potential and ultimately achieve our ambitious emission targets,” says Dr. Wolfgang Plischke, the member of the Bayer AG Board of Management responsible for innovation, technology and the environment.

The less unused energy escapes in the future, the smaller will be the climate burden affecting future generations. High-tech materials and process know-how from Bayer MaterialScience are crucially important in this respect, as materials play a key role in saving energy and thus reducing greenhouse gases such as carbon dioxide.

Plant assistant Jörg Bähler checks the oxygen inlet pipe of the plant at Bayer’s Brunsbüttel site that uses the oxygen depolarized cathode technology.



# Highlights 2008

## JANUARY



### Leukemia drug: European registration expanded

The European Commission grants marketing authorization to MabCampath® for the treatment of patients with B-cell chronic lymphocytic leukemia (B-CLL) for whom fludarabine combination chemotherapy is not appropriate. MabCampath® works in an entirely different way than chemotherapy, and is the first and only monoclonal antibody approved in Europe for the treatment of B-CLL, the leading form of adult leukemia in the Western hemisphere.

## FEBRUARY



### Catalysis center to raise production efficiency

In February 2008 a new catalysis center opens in Aachen, Germany. Bayer MaterialScience, Bayer Technology Services and RWTH Aachen University sign a cooperation agreement for a research facility in which Bayer will invest more than €7 million. The planned research projects will focus partly on making sustainable chemical production more efficient, one of the aims being to find alternative raw materials for plastics. Photo: Dr. Angelina Prokofiewa and Dr. Guilia Erre (from left) at the Aachen catalysis center.

## MARCH



### Innovative active substance offers protection from fungal diseases

Fluopicolide, an innovative fungicidal active ingredient from Bayer CropScience, receives regulatory approval in Japan and the United States. It can now be used in Japan for the control of late blight (*Phytophthora infestans*) in potatoes. In the United States, fluopicolide is used to protect vegetables, grapes, turf and ornamentals from disease.

## APRIL



### Donation for hemophilia patients

On the occasion of World Hemophilia Day on April 17, Bayer HealthCare donates €250,000 to the World Federation of Hemophilia (WFH) along with more than 950,000 international units of the recombinant coagulation factor Kogenate® FS. This further donation means Bayer has contributed more than €1 million to the WFH in recent years to support treatment and training programs. Approximately 400,000 people around the world have hemophilia A.

## MAY



### High-yielding rice variety for India

Bayer CropScience launches Arize® Dhani – the world's first hybrid rice variety resistant to bacterial leaf blight – in India. The new variety increases yields by between 20 and 30 percent compared with conventional varieties and at the same time offers broad protection against this devastating disease, which is caused by the bacteria *Xanthomonas oryzae oryzae*. In India, bacterial leaf blight can destroy up to 60 percent of the rice crop. Photo: Bayer employee Frank Adam removes seeds from a rice plant.

## JUNE



### Bayer receives Environmental Award from the Federation of German Industries

Bayer is presented with the 2008 Environmental Award in the category "Environmentally Friendly Technologies" by the Federation of German Industries (BDI) for its new chlorine production process, which reduces power consumption and CO<sub>2</sub> emissions by 30 percent. The new process is based on oxygen-depolarized cathode technology. Chlorine is a basic chemical used in the manufacture of high-tech materials such as polyurethanes. Photo: BMS employees Andreas Bulan (left) and Blas Riquelme-Moreno next to an oxygen-depolarized cathode.



**JULY**



**New insecticide approved in North America**

The new insecticide Movento® from Bayer CropScience is granted regulatory approval in the United States and Canada, two strategically important markets. The innovative feature of Movento® is that it works by moving up and down through the entire plant system. Thanks to this two-way transport, the product also prevents insect eggs and larvae from growing in the shoots, leaves and roots.

**AUGUST**



**Bayer MaterialScience at the Olympics**

Numerous buildings at the Olympic Games in Beijing incorporate materials from Bayer MaterialScience. The roof of the stadium in Shenyang, for example, is made of Makrolon®, its wing-shaped design symbolizing elegance and lightness. Makrolon® sheets in the Tianjin Olympic stadium form a transparent inner ring measuring approximately 13,000 square meters that covers part of the stands. Another example is the use of the aliphatic polyurethane crosslinking agent Desmodur® N in the topcoat for the steel struts of the "Bird's Nest" national stadium (photo).

**SEPTEMBER**



**Industrial-scale production of biopharmaceuticals**

A facility is to be developed in Owensboro, Kentucky, United States, for the industrial-scale production of proteins in tobacco plants. Plant-made pharmaceuticals (PMP) and other high-value products will be manufactured there on the basis of Bayer's magniCON® technology. Photo: Dr. Stefan Herz of Bayer subsidiary Icon Genetics homogenizes tobacco plants.

**OCTOBER**



**World-scale production facilities in Shanghai**

Bayer MaterialScience commissions its new 350,000 tons-per-year diphenylmethane diisocyanate (MDI) production complex in Shanghai, the largest MDI facility of its kind in the world. MDI is needed for the manufacture of rigid polyurethane foams. The company also breaks ground at the site for a 250,000 tons-per-year toluene diisocyanate (TDI) plant, due on stream in 2010. TDI is the primary raw material used in the production of flexible polyurethane foams.

**NOVEMBER**



**Joining forces to fight cancer**

The German Cancer Research Center and Bayer Schering Pharma form a strategic research alliance scheduled to run for an initial period of two years. The collaboration is aimed at enabling more rapid exploitation of research findings for the development of new cancer drugs and enhancing the evaluation of innovative therapeutic approaches for tumor diseases. To this end, the partners will each invest €1.75 million in joint cancer research through 2010. Photo: Prof. Dr. Otmar D. Wiestler (DKFZ) and Dr. Wolfgang Plischke (from left) sign the collaboration agreement.

**DECEMBER**



**Expanding innovation**

At a press forum entitled "Bayer's Perspective on Innovation 2008," Management Board Chairman Werner Wenning announces a further increase in the Bayer Group's research and development activities. The demand for food and health care, in particular, continues to grow. Bayer is responding with the development of new crop protection products, ten of which it is planned to bring to market in the period from 2008 through 2012. The company's pharmaceutical pipeline is also well stocked, with 50 projects currently in Phases I to III of clinical testing.

# Management Report

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Group strategy holds up well in a difficult environment

## Bayer achieves 2008 earnings targets

- Sales advance by 1.6% to €32.9 billion
- EBITDA before special items up 2.3% to €6.9 billion
- EBIT before special items up 1.3% to €4.3 billion
- Net income of €1.7 billion
- Dividend to be raised to €1.40
- Outlook for 2009:

Earnings growth at HealthCare and CropScience;  
substantial decline at MaterialScience  
Significant reduction in financial debt

## Overview of Sales, Earnings and Financial Position

### FULL YEAR 2008

In 2008 Bayer had a successful year overall in an increasingly difficult economic environment. The Group's key operational performance data showed a slight further improvement from the previous year, and earnings targets were achieved. We benefited from the Group's focus on the HealthCare and CropScience businesses, which are less dependent on global economic development.

Change in Sales	2007	2008
	%	%
Volume	+5.6	+2.8
Price	+0.5	+1.6
Currency	-3.6	-3.4
Portfolio	+9.3	+0.6

Sales of the Bayer Group came in at €32,918 million, up 1.6% from the prior-year figure of €32,385 million. Adjusted for currency and portfolio effects, business expanded by 4.4%, slightly less than we had forecasted. HealthCare posted a 6.9% increase on a currency- and portfolio-adjusted basis. CropScience sales climbed by 13.9%. MaterialScience experienced a considerable drop in business in the fourth quarter as a result of the financial and economic crisis, causing full-year sales to drop by 4.6%.

Group **EBITDA** before special items rose by 2.3% to a record €6,931 million (2007: €6,777 million). With an improvement in the **EBITDA** margin before special items to 21.1%, we met our profitability target for fiscal 2008.

**EBITDA** before special items of the HealthCare subgroup advanced by 9.6% to €4,157 million (2007: €3,792 million), yielding an **EBITDA** margin before special items of 27.0%. Contributing to this increase were the gratifying business performance and the synergies realized from the integration of the former business of Schering AG, Berlin, Germany. Earnings of CropScience rose by 21.1% to €1,603 million (2007: €1,324 million), and the **EBITDA** margin before special items came in at 25.1%. This increase resulted from significantly larger volumes, selling price increases and cost savings. MaterialScience reported **EBITDA** before special items of €1,088 million, down by a substantial 32.3% from the prior-year figure of €1,606 million. The decline was due to lower volumes, mainly because of the overall slump in the economy in the fourth quarter. Earnings were also hampered by a high average level of petrochemical raw material and energy costs for the year.

**EBIT** before special items of the Bayer Group amounted to €4,342 million, up 1.3% from the prior-year figure of €4,287 million. **EBIT** in 2008 was diminished by net special charges of €798 million, against €1,133 million in the previous year. Of the 2008 figure, HealthCare accounted for €583 million, CropScience for €166 million and MaterialScience for €49 million. Special charges of €365 million (2007: €683 million) related to the acquisition and integration of Schering AG, €215 million (2007: €172 million) to restructuring at CropScience and MaterialScience, €106 million (2007: €139 million) to litigation and €98 million (2007: €166 million) to impairments. **EBIT** of the Bayer Group rose by 12.4% to €3,544 million (2007: €3,154 million).

After a non-operating result of minus €1,188 million (2007: minus €920 million), income before income taxes came in at €2,356 million (2007: €2,234 million). The main components of the non-operating result were €702 million (2007: €701 million) in net interest expense, €300 million (2007: €246 million) in interest cost for pension and other provisions and a €79 million exchange loss (2007: €88 million exchange gain). The shift in the balance of exchange gains and losses was partly due to the increased cost of exchange hedging in emerging countries arising from the

**Bayer Group Quarterly Sales**

		Domestic	€ million	Foreign	€ million	Total
Q1	2007		1,301		7,034	8,335
	2008		1,325		7,211	8,536
Q2	2007		1,199		7,018	8,217
	2008		1,202		7,309	8,511
Q3	2007		1,190		6,603	7,793
	2008		1,227		6,721	7,948
Q4	2007		1,125		6,915	8,040
	2008		1,043		6,880	7,923

**Quarterly Sales by Subgroup**

		Bayer HealthCare	€ million	Bayer CropScience	€ million	Bayer MaterialScience	€ million
Q1	2007		3,610		1,786		2,608
	2008		3,731		1,978		2,512
Q2	2007		3,717		1,562		2,623
	2008		3,734		1,804		2,622
Q3	2007		3,680		1,157		2,625
	2008		3,802		1,248		2,549
Q4	2007		3,800		1,321		2,579
	2008		4,140		1,352		2,055

**Bayer Group Quarterly EBITDA Before Special Items**

		€ million
Q1	2007	
	2008	
Q2	2007	
	2008	
Q3	2007	
	2008	
Q4	2007	
	2008	

**Quarterly EBITDA Before Special Items by Subgroup**

















		Bayer HealthCare	€ million	Bayer CropScience	€ million	Bayer MaterialScience	€ million
Q1	2007		948		584		409
	2008		1,050		713		407
Q2	2007		969		396		409
	2008		994		501		372
Q3	2007		953		167		421
	2008		1,018		207		255
Q4	2007		922		177		367
	2008		1,095		182		54

expansion of our business there, while in the previous year we had benefited from exchange gains on financial transactions.

In 2008 we recorded tax expense of €636 million, compared to net tax income of €72 million in the prior year. The latter amount included a one-time, non-cash positive tax effect of €912 million arising in connection with the 2007 corporate tax reform in Germany.

Income from continuing operations after taxes receded to €1,720 million (2007: €2,306 million). After-tax income in the previous year also included €2,410 million from discontinued operations, chiefly consisting of gains from the divestitures of the diagnostics business, H.C. Starck and Wolff Walsrode.

After non-controlling interest, net income of the Bayer Group came in at €1,719 million (2007: €4,711 million). Earnings per share amounted to €2.22 (2007: €5.84). Core earnings per share improved to €4.17 (2007: €3.80). The calculation of core earnings per share is explained under "Investor Information," page 21.

<b>Gross Cash Flow</b>				€ million	<b>Net Cash Flow</b>				€ million
Q1	2007			1,411	Q1	2007			375
	2008			1,651		2008			528
Q2	2007			1,187	Q2	2007			816
	2008			1,322		2008			889
Q3	2007			1,165	Q3	2007			1,623
	2008			1,171		2008			1,234
Q4	2007			1,021	Q4	2007			1,467
	2008			1,151		2008			957

Gross cash flow increased by 10.7% from the previous year to €5,295 million (2007: €4,784 million), due to the gratifying business trend at HealthCare and CropScience. Net cash flow declined by 15.7% to €3,608 million (2007: €4,281 million), mainly due to a significant increase in cash tied up in working capital. Contributing to this increase was a higher level of receivables and inventories at HealthCare and CropScience, which was partly the result of business growth.

Net debt of the Bayer Group as of December 31, 2008 amounted to €14.2 billion (2007: €12.2 billion). Components of this increase included the increase in cash tied up in working capital, €0.9 billion in acquisition-related disbursements and a €0.6 billion effect from fluctuations in major currencies against the euro. The €0.7 billion for payments to minority stockholders of Bayer Schering Pharma AG, Berlin, Germany, did not affect net debt, as the amount held in escrow accounts for this purpose was not deducted when net debt was calculated in the past.

The net pension liability rose by €1.0 billion compared with December 31, 2007, to €6.0 billion, due to sharp falls in share prices that diminished the value of stocks held by pension funds, particularly in the United States. The return on plan assets was a negative 6.5% overall.

#### FOURTH QUARTER OF 2008

**Sales** of the Bayer Group in the fourth quarter of 2008 declined by 1.5% to €7,923 million (Q4 2007: €8,040 million) due to a substantial decline in business at MaterialScience. Adjusted for currency and portfolio effects, business was down by 4.0%. While HealthCare and CropScience grew sales by 6.2% and 1.7%, respectively, on a currency- and portfolio-adjusted basis, MaterialScience saw sales decline by an adjusted 24.2%.

#### Key Data by Subgroup and Segment, 4th Quarter

	Sales		EBIT before special items*		EBITDA before special items*		EBITDA margin before special items*	
	4th Quarter 2007	4th Quarter 2008	4th Quarter 2007	4th Quarter 2008	4th Quarter 2007	4th Quarter 2008	4th Quarter 2007	4th Quarter 2008
	€ million	€ million	€ million	€ million	€ million	€ million	%	%
<b>HealthCare</b>	<b>3,800</b>	<b>4,140</b>	<b>584</b>	<b>759</b>	<b>922</b>	<b>1,095</b>	<b>24.3</b>	<b>26.4</b>
Pharmaceuticals	2,619	2,868	367	508	670	804	25.6	28.0
Consumer Health	1,181	1,272	217	251	252	291	21.3	22.9
<b>CropScience</b>	<b>1,321</b>	<b>1,352</b>	<b>43</b>	<b>53</b>	<b>177</b>	<b>182</b>	<b>13.4</b>	<b>13.5</b>
Crop Protection	1,100	1,124	33	52	147	158	13.4	14.1
Environmental Science, BioScience	221	228	10	1	30	24	13.6	10.5
<b>MaterialScience</b>	<b>2,579</b>	<b>2,055</b>	<b>241</b>	<b>(86)</b>	<b>367</b>	<b>54</b>	<b>14.2</b>	<b>2.6</b>
Systems	1,801	1,506	240	(17)	325	82	18.0	5.4
Materials	778	549	1	(69)	42	(28)	5.4	(5.1)
<b>Reconciliation</b>	<b>340</b>	<b>376</b>	<b>(94)</b>	<b>(20)</b>	<b>(44)</b>	<b>26</b>	<b>(12.9)</b>	<b>6.9</b>
<b>Continuing Operations</b>	<b>8,040</b>	<b>7,923</b>	<b>774</b>	<b>706</b>	<b>1,422</b>	<b>1,357</b>	<b>17.7</b>	<b>17.1</b>

\*for definition see chapter "Calculation of EBIT(DA) Before Special Items," page 76

Fourth-quarter **EBITDA** before special items came in at €1,357 million, down 4.6% from the prior-year figure of €1,422 million. HealthCare saw earnings advance by 18.8% to €1,095 million (Q4 2007: €922 million), while underlying **EBITDA** of CropScience improved by 2.8% to €182 million (Q4 2007: €177 million). **EBITDA** before special items of MaterialScience amounted to only €54 million (Q4 2007: €367 million), due mainly to the steep decline in volumes. Underlying **EBIT** of the Bayer Group fell by 8.8% in the fourth quarter, to €706 million. There were special charges of €294 million (Q4 2007: €389 million). Of this figure, HealthCare accounted for €197 million (Q4 2007: €311 million), CropScience for €62 million (Q4 2007: €36 million) and MaterialScience for €35 million (Q4 2007: €42 million). **EBIT** for the fourth quarter thus came in at €412 million (Q4 2007: €385 million).

After a non-operating result of minus €375 million (Q4 2007: minus €179 million), income before income taxes for the fourth quarter came in at €37 million (Q4 2007: €206 million). The non-operating result contained net interest expense of €167 million (Q4 2007: €160 million). After one-time tax effects, we had tax income of €65 million (Q4 2007: €149 million tax expense). Income from continuing operations after taxes came to €102 million (Q4 2007: €57 million).

After non-controlling interest, Group net income in the fourth quarter came to €106 million (Q4 2007: €67 million). Earnings per share amounted to €0.16 (Q4 2007: €0.11). Core earnings per share were €0.71 (Q4 2007: €0.71).

Gross cash flow moved ahead by 12.7% year on year in the fourth quarter of 2008, to €1,151 million. Net cash flow declined by 34.8% to €957 million (Q4 2007: €1,467 million) due to a significant increase in cash tied up in working capital.

## Operating Environment

### GLOBAL ECONOMY

The **global economy** weakened increasingly during 2008. Major factors contributing to the decline were the sharp increases in commodity prices in the first half of the year and the severe real-estate crisis in the United States. Market prices for the petrochemical raw materials relevant to our business reached an all-time high in the summer but showed a distinct turnaround in the second half.

The global financial crisis worsened as the year went on, accelerating the global economic downturn. The economy of the United States remained reasonably robust in the first half thanks to monetary countermeasures adopted in the form of sharp cuts in interest rates. After that, however, the U.S. economy weakened considerably. In Europe, too, the downturn intensified as the year went on, plunging some countries into recession. Yet in many emerging markets, particularly the so-called BRIC countries (Brazil, Russia, India and China), growth initially continued almost unabated thanks to robust domestic demand. There too, however, economic growth slowed increasingly toward year end.

**Pharmaceutical market**  
Stable growth in the  
mid-single digits

### HEALTHCARE

In 2008 the **market for prescription medicines** posted stable growth in the mid-single digits. The importance of specialty pharmaceuticals continued to increase and, as in previous years, there were further regional shifts. Pharmaceutical markets continued to expand in the emerging countries, where health services are becoming more broadly available and the demand for the treatment of chronic diseases is growing. By contrast, there were signs of slower market expansion in the United States and the major European countries. This was due partly to the fact that leading drugs in major therapeutic areas such as cardiovascular care have come off patent, with generic products increasingly capturing market share as a result. In addition, growth in western Europe in particular was hampered by health policy factors that drove more rigorous cost containment and limited access to certain types of treatment.

The global **consumer care market** again experienced solid growth, to which all regions contributed. Market expansion was above the average in Latin America, eastern Europe and the Asia/Pacific region except for Japan. The **animal health** environment was again favorable, with firm growth in most areas following a record year in 2007. In the majority of the industrialized countries the companion animal market made a strong contribution to the positive market development.

### CROPSCIENCE

The global **seed and crop protection market** benefited in 2008 from very favorable conditions on the world agricultural markets. Market prices for the principal plant-based raw materials reached an all-time high in the first half of the year, boosting crop production and the related demand for crop protection products worldwide. The higher prices for agricultural inputs in general enabled prices to be raised for crop protection products as well. Climatic conditions in the most important growing regions were also favorable. In this environment, the crop protection market registered double-digit growth rates in all the major regions. This performance was particularly positive in Latin America, where growth was driven primarily by higher farm incomes in Brazil. Crop production and the related demand for crop protection products also intensified in eastern Europe, especially in Russia and Ukraine. The suspension of mandatory fallowing practices in the European Union benefited the cereals sector in particular. In North America, crop protection products were used increasingly to improve yields. The market situation in the Asia/Pacific region varied from one country to another. While the agricultural economy in Australia benefited from considerably higher precipitation and the Chinese and Indian markets also developed favorably, Japan continued to show a slight downward trend.

Very favorable  
conditions on the world  
agricultural markets



**MATERIALSCIENCE**

The business environment for the **automotive industry** deteriorated sharply in 2008, especially in the second half of the year. Experts believe the entire industry is facing its most difficult period in decades. Global manufacturers saw sales drop more sharply each month. Most manufacturers responded to this very difficult situation with temporary shutdowns or worktime reductions or by shedding contract workers. This directly impacted the automotive supply industry and the car retail trade in the fourth quarter.

Difficult business environment for MaterialScience

The real-estate and financial crisis also had a significant effect on the **construction industry**, where global investment was slightly down compared with 2007. This was due to the dramatic decline in the United States and to distinctly negative developments in major western European countries (Spain, United Kingdom, Italy). These factors were partially offset by what was still a robust situation in eastern Europe, the Middle East and Asia/Pacific.

In contrast to many other sectors, the **electronics industry** maintained growth in the mid-single digits in 2008, again driven by Asia and eastern Europe. Highly developed technologies (such as renewable energies) and strong exports to eastern Europe and China led to moderate growth in the western European electronics industry, while the sector's performance in North America was impaired by the economic crisis.

The **furniture industry** had to contend with increasingly difficult business conditions worldwide. The uncertainty created by the real-estate and financial crisis also made consumers somewhat reticent about buying furniture. This trend particularly affected manufacturers in North America, although companies in western Europe and Asia also had to contend with a drop in demand.

## Performance by Subgroup and Segment

### CORPORATE STRUCTURE

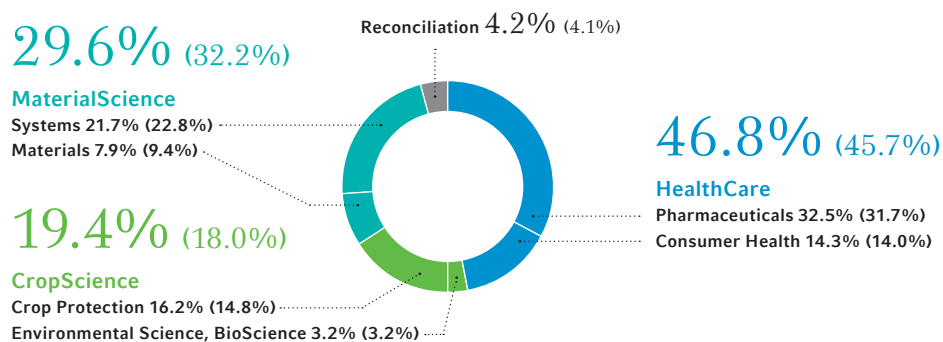
Bayer AG, headquartered in Leverkusen, Germany, is the strategic management holding company for the Bayer Group. Business activities are conducted by the HealthCare, CropScience and MaterialScience subgroups, supported by the service companies Bayer Business Services, Bayer Technology Services and Currenta. There have been no material changes to the Bayer Group's structure since the 2007 Annual Report.

With the entry of the squeeze-out of the remaining minority stockholders of Bayer Schering Pharma AG in the commercial register on September 25, 2008, Bayer Schering Pharma AG became a wholly owned subsidiary of Bayer AG.

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

The commentaries in this report relate exclusively to continuing operations, except where specific reference is made to discontinued operations or to a total value (total).

### Sales by Segment, 2008 (2007 in parentheses)



### Key Data by Subgroup and Segment

	Sales		EBIT before special items*		EBITDA before special items*		EBITDA margin before special items*	
	2007	2008	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	%	%
<b>HealthCare</b>	<b>14,807</b>	<b>15,407</b>	<b>2,492</b>	<b>2,764</b>	<b>3,792</b>	<b>4,157</b>	<b>25.6</b>	<b>27.0</b>
Pharmaceuticals	10,267	10,704	1,641	1,835	2,807	3,080	27.3	28.8
Consumer Health	4,540	4,703	851	929	985	1,077	21.7	22.9
<b>CropScience</b>	<b>5,826</b>	<b>6,382</b>	<b>786</b>	<b>1,084</b>	<b>1,324</b>	<b>1,603</b>	<b>22.7</b>	<b>25.1</b>
Crop Protection	4,781	5,339	632	962	1,093	1,397	22.9	26.2
Environmental Science, BioScience	1,045	1,043	154	122	231	206	22.1	19.8
<b>MaterialScience</b>	<b>10,435</b>	<b>9,738</b>	<b>1,117</b>	<b>586</b>	<b>1,606</b>	<b>1,088</b>	<b>15.4</b>	<b>11.2</b>
Systems	7,394	7,130	1,017	670	1,333	1,012	18.0	14.2
Materials	3,041	2,608	100	(84)	273	76	9.0	2.9
<b>Reconciliation</b>	<b>1,317</b>	<b>1,391</b>	<b>(108)</b>	<b>(92)</b>	<b>55</b>	<b>83</b>	<b>4.2</b>	<b>6.0</b>
<b>Continuing operations</b>	<b>32,385</b>	<b>32,918</b>	<b>4,287</b>	<b>4,342</b>	<b>6,777</b>	<b>6,931</b>	<b>20.9</b>	<b>21.1</b>

\*for definition see "Calculation of EBIT(DA) Before Special Items," page 76



## Bayer HealthCare

Key Data – HealthCare	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>14,807</b>	<b>15,407</b>	<b>+4.1</b>
Pharmaceuticals	10,267	10,704	+4.3
Consumer Health	4,540	4,703	+3.6
<b>Sales by Region</b>			
Europe	6,184	6,379	+3.2
North America	4,439	4,512	+1.6
Asia/Pacific	2,023	2,278	+12.6
Latin America/Africa/Middle East	2,161	2,238	+3.6
<b>EBITDA*</b>	<b>3,065</b>	<b>3,692</b>	<b>+20.5</b>
<i>Special items</i>	<i>(727)</i>	<i>(465)</i>	
<i>EBITDA before special items*</i>	<i>3,792</i>	<i>4,157</i>	<i>+9.6</i>
EBITDA margin before special items	25.6%	27.0%	
<b>EBIT*</b>	<b>1,564</b>	<b>2,181</b>	<b>+39.5</b>
<i>Special items</i>	<i>(928)</i>	<i>(583)</i>	
<i>EBIT before special items*</i>	<i>2,492</i>	<i>2,764</i>	<i>+10.9</i>
<b>Gross cash flow**</b>	<b>2,389</b>	<b>3,045</b>	<b>+27.5</b>
<b>Net cash flow**</b>	<b>2,010</b>	<b>2,259</b>	<b>+12.4</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\*for definition see "Liquidity and Capital Resources," page 78

Above: illustration of blood cells.

## Bayer HealthCare

**Sales** of the HealthCare subgroup rose by 4.1% in 2008 to €15,407 million (2007: €14,807 million). Adjusted for currency and portfolio effects, business expanded by 6.9%. Sales growth was driven by positive business trends in both the Pharmaceuticals and the Consumer Health segments.

**EBITDA** before special items of HealthCare rose by 9.6% in 2008 to €4,157 million (2007: €3,792 million). The EBITDA margin before special items came in at 27.0%, meeting the target set for the year. This increase was attributable to the pleasing business trend and the synergies realized from the Schering integration. Earnings growth was held back by negative currency effects and appreciably higher marketing expenses for the expansion of our activities in emerging markets and the introduction of new products. **EBIT** before special items came to €2,764 million, up 10.9% from the prior-year level of €2,492 million. The net special charges of €583 million (2007: €928 million) resulted mainly from expenses relating to the acquisition and integration of Schering AG, Berlin, Germany, litigations and asset write-downs. EBIT jumped by 39.5% to €2,181 million (2007: €1,564 million).

### PHARMACEUTICALS

Key Data – Pharmaceuticals	2007	2008	Change
	€ million	€ million	
<b>Sales</b>	<b>10,267</b>	<b>10,704</b>	<b>+4.3</b>
Primary Care	3,055	3,113	+1.9
Women's Healthcare	2,630	2,873	+9.2
Diagnostic Imaging (including Medrad)	1,298	1,323	+1.9
Specialized Therapeutics	1,253	1,364	+8.9
Hematology/Cardiology	1,033	896	-13.3
Oncology	754	885	+17.4
Dermatology (Intendis)	244	250	+2.5
<b>Sales by Region</b>			
Europe	4,367	4,403	+0.8
North America	2,862	2,966	+3.6
Asia/Pacific	1,659	1,867	+12.5
Latin America/Africa/Middle East	1,379	1,468	+6.5
<b>EBITDA*</b>	<b>2,108</b>	<b>2,657</b>	<b>+26.0</b>
Special items	(699)	(423)	
EBITDA before special items*	2,807	3,080	+9.7
EBITDA margin before special items	27.3%	28.8%	
<b>EBIT*</b>	<b>741</b>	<b>1,294</b>	<b>+74.6</b>
Special items	(900)	(541)	
EBIT before special items*	1,641	1,835	+11.8
<b>Gross cash flow**</b>	<b>1,685</b>	<b>2,220</b>	<b>+31.8</b>
<b>Net cash flow**</b>	<b>1,451</b>	<b>1,627</b>	<b>+12.1</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\*for definition see "Liquidity and Capital Resources," page 78

Sales of our **Pharmaceuticals** segment increased by 4.3% in 2008 to €10,704 million (2007: €10,267 million). Adjusted for currency and portfolio effects, sales rose by 7.1%.

Best-Selling Pharmaceutical Products	2007	2008	Change	Currency-adjusted
	€ million	€ million		%
YAZ®/Yasmin®/Yasminelle® (Women's Healthcare)	1,042	1,222	+17.3	+22.2
Betaferon®/Betaseron® (Specialized Therapeutics)	1,028	1,144	+11.3	+15.0
Kogenate® (Hematology/Cardiology)	818	848	+3.7	+7.3
Adalat® (Primary Care)	614	626	+2.0	+3.9
Avalox®/Avelox® (Primary Care)	445	462	+3.8	+7.8
Nexavar® (Oncology)	270	462	+71.1	+75.7
Mirena® (Women's Healthcare)	361	462	+28.0	+35.5
Levitra® (Primary Care)	332	341	+2.7	+7.0
Cipro®/Ciprobay® (Primary Care)	383	338	-11.7	-8.9
Glucobay® (Primary Care)	298	304	+2.0	+1.8
Aspirin Cardio® (Primary Care)	229	270	+17.9	+19.6
Ultravist® (Diagnostic Imaging)	235	261	+11.1	+16.5
Magnevist® (Diagnostic Imaging)	301	241	-19.9	-17.4
Iopamiron® (Diagnostic Imaging)	211	199	-5.7	-10.1
Diane® (Women's Healthcare)	175	164	-6.3	-3.6
<b>Total</b>	<b>6,742</b>	<b>7,344</b>	<b>+8.9</b>	<b>+12.4</b>
Proportion of Pharmaceuticals sales	66 %	69 %		

Sales of the **Primary Care** business unit expanded by 1.9% to €3,113 million (2007: €3,055 million). On a currency-adjusted (Fx adj.) basis, business was up by 4.2%, thanks largely to increases for Aspirin Cardio® (Fx adj. +19.6%), Avalox®/Avelox® (Fx adj. +7.8%) and Levitra® (Fx adj. +7.0%). The cholesterol-lowering drug Zetia® (Fx adj. +147%), launched on the Japanese market in summer 2007, also contributed to the upward trend. Sales of Cipro®/Ciprobay® fell significantly in Europe due to generic competition but rose in the United States following the signing of a two-year contract with the U.S. government.

The **Women's Healthcare** business unit saw sales increase by a substantial 9.2% to €2,873 million (2007: €2,630 million). On a currency-adjusted basis, business expanded by 13.6%. Sales of the intra-uterine system Mirena® developed very well (Fx adj. +35.5%), due particularly to higher unit sales in the United States. While business with the older oral contraceptive product Diane® continued to decline (Fx adj. -3.6%), sales of our YAZ®/Yasmin®/Yasminelle® line of oral contraceptives registered another strong increase (Fx adj. +22.2%). Sales of the YAZ® product family as a whole gained at about the same rate in the United States too, despite the launch of a generic competitor for Yasmin®. The market introduction of YAZ® in Europe began in September 2008.

Sales of our **Diagnostic Imaging** business unit moved ahead by 1.9% in 2008 to €1,323 million (2007: €1,298 million). The 2008 figure includes the sales of U.S.-based thrombectomy systems supplier Possis Medical, Inc., acquired in April. Adjusted for currency and portfolio changes, sales rose by 1.7%. Our medical appliances business (Medrad) continued its positive prior-year performance, with sales advancing by a currency- and portfolio-adjusted 7.5%. Sales of Magnevist® declined (Fx adj. -17.4%), due partly to a shift toward Gadovist® in Europe. Business with Ultravist® (Fx adj. +16.5%) developed very well, especially in China and France. Sales of Iopamiron® were hampered by a government-imposed price reduction in Japan.

The **Specialized Therapeutics** business unit grew sales by a substantial 8.9% to €1,364 million (2007: €1,253 million). Adjusted for shifts in exchange rates, business expanded by 12.2%. This gratifying performance was due especially to the successful marketing for our multiple sclerosis drug Betaferon®/Betaseron® (Fx adj. +15.0%).

In the **Hematology/Cardiology** business unit, sales fell by 13.3% to €896 million (2007: €1,033 million), or by 9.6% when adjusted for currency and portfolio effects. This decline was attributable to the worldwide suspension of marketing for Trasylol® in November 2007, sales of this product in 2007 having amounted to €103 million. Business with our blood coagulation factor Kogenate® showed pleasing growth (Fx adj. +7.3%). At the end of 2008 we already commenced marketing activities for our new anti-thrombosis drug Xarelto® in 19 countries.

Our **Oncology** business unit saw sales grow by a substantial 17.4% to €885 million (2007: €754 million). After adjusting for currency changes, business expanded by 20.9%. This positive performance was attributable to the significant gains made by Nexavar® (Fx adj. +75.7%), which more than offset slight declines for other products. We received new or extended marketing authorizations for the cancer drug Nexavar® in numerous countries during 2007 and 2008.

Sales of our **Dermatology** business (Intendis) advanced by 2.5% in 2008 to €250 million (2007: €244 million). The currency-adjusted increase came to 4.7%.

**EBITDA** before special items of the Pharmaceuticals segment rose by 9.7% in 2008 to €3,080 million (2007: €2,807 million). This increase was due especially to the realization of planned synergies from the integration of Schering, Berlin, Germany, as well as to the gratifying business trend. The considerable business growth more than offset higher marketing costs, which were incurred mainly in connection with the expansion of our Primary Care business in China and the launch of YAZ®, Xarelto® and Nexavar®. **EBIT** before special items advanced by 11.8% to €1,835 million (2007: €1,641 million). Of the net special charges of €541 million, expenses related to the acquisition and integration of Schering accounted for €365 million. In addition, we discontinued marketing of the former Schering product Vasovist® and terminated clinical development for Spheramine®. We also incurred special charges in connection with the suspension of marketing for Trasylol®. **EBIT** climbed by a substantial €553 million to €1,294 million (2007: €741 million).

## CONSUMER HEALTH

Key Data – Consumer Health	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>4,540</b>	<b>4,703</b>	<b>+3.6</b>
Consumer Care	2,634	2,770	+5.2
Diabetes Care	950	970	+2.1
Animal Health	956	963	+0.7
<b>Sales by Region</b>			
Europe	1,817	1,976	+8.8
North America	1,577	1,546	-2.0
Asia/Pacific	364	411	+12.9
Latin America/Africa/Middle East	782	770	-1.5
<b>EBITDA*</b>	<b>957</b>	<b>1,035</b>	<b>+8.2</b>
Special items	(28)	(42)	
EBITDA before special items*	985	1,077	+9.3
EBITDA margin before special items	21.7%	22.9%	
<b>EBIT*</b>	<b>823</b>	<b>887</b>	<b>+7.8</b>
Special items	(28)	(42)	
EBIT before special items*	851	929	+9.2
<b>Gross cash flow**</b>	<b>704</b>	<b>825</b>	<b>+17.2</b>
<b>Net cash flow**</b>	<b>559</b>	<b>632</b>	<b>+13.1</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\* for definition see "Liquidity and Capital Resources," page 78

Our **Consumer Health** segment improved **sales** by 3.6% to €4,703 million (2007: €4,540 million). After adjusting for currency and portfolio effects, the increase came to 6.3%, with all divisions contributing similarly to growth.

Best-Selling Consumer Health Products	2007	2008	Change	Currency-adjusted change
	€ million	€ million	%	%
Contour®* (Diabetes Care)	488	554	+13.5	+18.4
Aspirin®** (Consumer Care)	460	449	-2.4	+1.2
Advantage® product line (Animal Health)	314	329	+4.8	+11.1
Aleve®/naproxen (Consumer Care)	239	220	-7.9	-1.4
Canesten® (Consumer Care)	182	200	+9.9	+16.1
Bepanthen®/Bepanthol® (Consumer Care)	145	173	+19.3	+20.7
Baytril® (Animal Health)	156	152	-2.6	+1.6
Breeze®* (Diabetes Care)	152	145	-4.6	-0.5
Supradyn® (Consumer Care)	134	140	+4.5	+6.8
One-A-Day® (Consumer Care)	130	138	+6.2	+13.8
<b>Total</b>	<b>2,400</b>	<b>2,500</b>	<b>+4.2</b>	<b>+9.0</b>
Proportion of Consumer Health sales	53%	53%		

\* previously included with the Ascensia® product family

\*\* total Aspirin® sales = €719 million (2007: €689 million), including Aspirin Cardio®, which is reflected in sales of the Pharmaceuticals segment

In the **Consumer Care** Division, sales advanced by 5.2% to €2,770 million (2007: €2,634 million). The increase came in part from the calcium supplement Citracal® acquired in October 2007, the Sagmel business in eastern Europe acquired in June 2008 and, since September 2008, the Topsun acquisition in China. Sales rose by 6.2% on a currency- and portfolio-adjusted basis. Bepanthen®/Bepanthol® (Fx adj. +20.7%), Canesten® (Fx adj. +16.1%) and One-A-Day® (Fx adj. +13.8%) developed particularly well.

Sales of our **Diabetes Care** Division rose by 2.1% to €970 million (2007: €950 million). After adjusting for shifts in exchange rates, the increase came to 6.4%. The blood glucose monitoring systems of our Contour® product line performed very well in the market, with sales up by a currency-adjusted 18.4%. This growth was partly due to substitution of the older Elite® systems, sales of which declined by a currency-adjusted 26.5%. Also contributing to the positive business performance of Diabetes Care was our Contour® TS product line, launched in the second half of 2007, which generated sales of €25 million in 2008 (2007: €4 million).

**Animal Health** recorded sales of €963 million (2007: €956 million). On a currency-adjusted basis, business expanded by 6.4%. Our Advantage® product line for flea and tick control performed particularly well (Fx adj. +11.1%). We also benefited from higher sales of our Drontal® line of dewormers (Fx adj. +5.5%).

**EBITDA** before special items of our Consumer Health segment improved by 9.3% to €1,077 million (2007: €985 million) due chiefly to the favorable business development in all divisions. **EBIT** before special items moved ahead €78 million to €929 million (2007: €851 million). After special charges of €42 million related to litigations, **EBIT** advanced by 7.8% to €887 million (2007: €823 million).





## Bayer CropScience

Key Data – CropScience	2007	2008	Change
	€ million	€ million	
<b>Sales</b>	<b>5,826</b>	<b>6,382</b>	<b>+9.5</b>
Crop Protection	4,781	5,339	+11.7
Environmental Science, BioScience	1,045	1,043	-0.2
<b>Sales by Region</b>			
Europe	2,383	2,625	+10.2
North America	1,332	1,396	+4.8
Asia/Pacific	913	964	+5.6
Latin America/Africa/Middle East	1,198	1,397	+16.6
<b>EBITDA*</b>	<b>1,204</b>	<b>1,450</b>	<b>+20.4</b>
<i>Special items</i>	<i>(120)</i>	<i>(153)</i>	
<i>EBITDA before special items*</i>	<i>1,324</i>	<i>1,603</i>	<i>+21.1</i>
EBITDA margin before special items	22.7%	25.1%	
<b>EBIT*</b>	<b>656</b>	<b>918</b>	<b>+39.9</b>
<i>Special items</i>	<i>(130)</i>	<i>(166)</i>	
<i>EBIT before special items*</i>	<i>786</i>	<i>1,084</i>	<i>+37.9</i>
<b>Gross cash flow**</b>	<b>961</b>	<b>1,192</b>	<b>+24.0</b>
<b>Net cash flow**</b>	<b>1,040</b>	<b>736</b>	<b>-29.2</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\* for definition see "Liquidity and Capital Resources," page 78

Above: detailed photograph of a canola leaf.

## Bayer CropScience

**Sales** of CropScience rose by a substantial 9.5% in 2008 to a record €6,382 million (2007: €5,826 million). Adjusted for currency and portfolio effects, business expanded by 13.9%. Conditions on the world's agricultural markets as a whole were highly favorable. Against the background of a steadily expanding global population with increasing nutritional requirements, combined with low inventories worldwide and heightened demand for plants as alternative energy sources, very high prices for major agricultural products – particularly in the first half of the year – led to higher investment by farmers in high-quality seed and innovative crop protection products. We not only increased volumes significantly but also succeeded in raising prices, especially in the Crop Protection business.

**EBITDA** before special items advanced by 21.1% to €1,603 million (2007: €1,324 million). With an EBITDA margin before special items of 25.1%, we achieved our 2009 target a year early. The significant improvement in profitability was the result of the gratifying business trend. Earnings were held back by negative currency effects. **EBIT** before special items climbed by 37.9% to €1,084 million (2007: €786 million). Special charges of €166 million were taken in connection with the cost structure program initiated in 2006. **EBIT** jumped by 39.9% to €918 million (2007: €656 million).

**Net cash flow** fell by 29.2% to €736 million, mainly because of a much greater inventory build-up than in the previous year in anticipation of high sales levels in the coming spring season, coupled with an increase in receivables due to the strong sales performance.

Best-Selling Bayer CropScience Products*	2007	2008	Change	Currency-adjusted change
	€ million	€ million	%	%
Confidor®/Gaucho®/Admire®/Merit® (Insecticides/Seed Treatment/Environmental Science)	556	599	+7.7	+13.0
Flint®/Stratego®/Sphere®/Nativo® (Fungicides)	243	365	+50.2	+58.0
Proline®/Input®/Prosaro® (Fungicides)	175	246	+40.6	+46.8
Atlantis® (Herbicides)	207	244	+17.9	+21.1
Folicur®/Raxil® (Fungicides/Seed Treatment)	235	242	+3.0	+6.7
Basta®/Liberty®/Rely® (Herbicides)	241	235	-2.5	+1.9
Poncho® (Seed Treatment)	237	223	-5.9	+0.5
Puma® (Herbicides)	187	203	+8.6	+13.5
Decis®/K-Othrine® (Insecticides/Environmental Science)	178	175	-1.7	+3.5
Fandango® (Fungicides)	80	132	+65.0	+68.2
<b>Total</b>	<b>2,339</b>	<b>2,664</b>	<b>+13.9</b>	<b>+19.1</b>
Proportion of Bayer CropScience sales	40%	42%		

\* Figures are based on active ingredient class. For the sake of clarity, only the principal brands and business units are listed.

## CROP PROTECTION

Key Data – Crop Protection	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>4,781</b>	<b>5,339</b>	<b>+11.7</b>
Herbicides	1,725	1,856	+7.6
Fungicides	1,270	1,565	+23.2
Insecticides	1,181	1,275	+8.0
Seed Treatment	605	643	+6.3
<b>Sales by Region</b>			
Europe	2,035	2,277	+11.9
North America	912	979	+7.3
Asia/Pacific	769	818	+6.4
Latin America/Africa/Middle East	1,065	1,265	+18.8
<b>EBITDA*</b>	<b>1,008</b>	<b>1,252</b>	<b>+24.2</b>
Special items	(85)	(145)	
EBITDA before special items*	1,093	1,397	+27.8
EBITDA margin before special items	22.9%	26.2%	
<b>EBIT*</b>	<b>537</b>	<b>804</b>	<b>+49.7</b>
Special items	(95)	(158)	
EBIT before special items*	632	962	+52.2
<b>Gross cash flow**</b>	<b>799</b>	<b>1,026</b>	<b>+28.4</b>
<b>Net cash flow**</b>	<b>881</b>	<b>653</b>	<b>-25.9</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\* for definition see "Liquidity and Capital Resources," page 78

**Sales** of the **Crop Protection** segment rose significantly in 2008 to €5,339 million, exceeding the prior-year figure of €4,781 million by 11.7%. Adjusted for currency effects, business moved ahead by a gratifying 16.4%. In a positive market environment with generally more favorable weather patterns than in the previous year, sales of all business units improved significantly. Our Fungicides business unit posted particularly strong increases.

Key growth drivers were our young products based on active ingredients introduced to core markets since 2000. Currency-adjusted sales of these products climbed by approximately 36% to €1.8 billion.

Sales in the **Europe** region advanced by 11.9% to €2,277 million (2007: €2,035 million). On a currency-adjusted basis, business expanded by 13.3%. The suspension of fallowing practices in the European Union led to an increase in land under cultivation. This particularly benefited our products for cereal crops, such as the young fungicides Fandango® and Proline® and the herbicides Atlantis®, Hussar® and Puma®. From a geographical perspective, the strongest sales growth was recorded in the core markets of western Europe – France, Germany and the United Kingdom – as well as in eastern Europe.

Sales in **North America** advanced by 7.3% to €979 million (2007: €912 million). The currency-adjusted increase was 15.1%. Our fungicides Stratego®, Proline® and Folicur® for use in important field crops such as soybeans, corn, cereals and canola posted particularly strong gains. The new herbicides Laudis® and Huskie®/Infinity®, introduced in 2008, were very successful in the market. We expanded our insecticides business thanks to strong performances by young products such as Oberon®, Movento® and Belt®.

In the **Asia/Pacific** region, sales of the Crop Protection business unit grew by 6.4% to €818 million (2007: €769 million). On a currency-adjusted basis, the increase amounted to 12.2%. Our insecticides and fungicides developed particularly well. Our business made good headway in India, Southeast Asia and China. In Australia, the recovery of the agricultural industry following two years of extreme drought led to a tangible recovery in business with fungicides, herbicides and seed treatment products.

Sales in the **Latin America/Africa/Middle East** region rose by 18.8% to €1,265 million (2007: €1,065 million). Business was up by a substantial 26.3% after adjusting for shifts in exchange rates. Sales declined in Africa and the Middle East but advanced significantly in Latin America. Supported by the outstanding performance in Brazil, where Crop Protection sales climbed by a currency-adjusted 47.0%, we registered double-digit growth rates in all business units. Our young products based on new active ingredients and innovative mixtures, such as **Nativo**<sup>®</sup>, **Sphere**<sup>®</sup>, **Soberan**<sup>®</sup>, **Connect**<sup>®</sup> and **CropStar**<sup>®</sup>, played a key role in this growth.

**EBITDA** before special items advanced by 27.8% to €1,397 million (2007: €1,093 million). This pleasing earnings improvement came mainly from higher volumes and also from selling-price increases and higher margin contributions by our new products. The impact of higher raw material and energy prices was more than offset by savings from the cost structure program initiated in 2006. However, adverse currency effects and higher marketing expenses to support the business expansion had a negative impact. **EBIT** before special items advanced by 52.2% to €962 million (2007: €632 million). Special charges for our cost structure program amounted to €158 million. **EBIT** improved by €267 million, or 49.7%, to €804 million (2007: €537 million).

## ENVIRONMENTAL SCIENCE, BIOSCIENCE

Key Data – Environmental Science, BioScience	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>1,045</b>	<b>1,043</b>	<b>-0.2</b>
Environmental Science	663	591	-10.9
BioScience	382	452	+18.3
<b>Sales by Region</b>			
Europe	348	348	+0.0
North America	420	417	-0.7
Asia/Pacific	144	146	+1.4
Latin America/Africa/Middle East	133	132	-0.8
<b>EBITDA*</b>	<b>196</b>	<b>198</b>	<b>+1.0</b>
Special items	(35)	(8)	
EBITDA before special items*	231	206	-10.8
EBITDA margin before special items	22.1%	19.8%	
<b>EBIT*</b>	<b>119</b>	<b>114</b>	<b>-4.2</b>
Special items	(35)	(8)	
EBIT before special items*	154	122	-20.8
<b>Gross cash flow**</b>	<b>162</b>	<b>166</b>	<b>+2.5</b>
<b>Net cash flow**</b>	<b>159</b>	<b>83</b>	<b>-47.8</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\* for definition see "Liquidity and Capital Resources," page 78

Sales in the **Environmental Science, BioScience** segment came to €1,043 million in 2008 (2007: €1,045 million). Adjusted for currency and portfolio effects, sales rose by 2.4%.

Sales of the **Environmental Science** business unit fell by 10.9% to €591 million. Business shrank by 7.0% on a currency-adjusted basis. The main impact came from lower sales of products for professional users in the North American green industry due to adverse market conditions and heightened generic competition. We also registered lower sales of specialty active ingredients for the processing industry. Business with products for consumers, marketed under the umbrella brands Bayer Garden in Europe and Bayer Advanced in North America, remained level with the previous year.

**BioScience** increased sales by a substantial 18.3% to €452 million (2007: €382 million). After adjusting for exchange-rate and portfolio effects, sales rose by 18.8%. We successfully raised sales in our three core agricultural crops – canola and cotton, predominantly in North America, and rice in Asia. Vegetable seeds posted very encouraging gains, particularly in Asia, the Middle East and eastern Europe.

**EBITDA** before special items of the Environmental Science, BioScience segment came in at €206 million, down €25 million year on year. We raised research and development expenditures at BioScience to strengthen the innovative capability and future growth of our seed business. The decline in sales of our Environmental Science business in North America and unfavorable currency effects also had an adverse impact on earnings. **EBIT** before special items fell by 20.8% to €122 million (2007: €154 million). After special charges of €8 million for restructuring at Environmental Science, EBIT came in at €114 million (2007: €119 million).



## Bayer MaterialScience

Key Data – MaterialScience	2007	2008	Change
	€ million	€ million	
<b>Sales</b>	<b>10,435</b>	<b>9,738</b>	<b>-6.7</b>
Systems	7,394	7,130	-3.6
Materials	3,041	2,608	-14.2
<b>Sales by Region</b>			
Europe	4,585	4,267	-6.9
North America	2,376	2,108	-11.3
Asia/Pacific	2,229	2,098	-5.9
Latin America/Africa/Middle East	1,245	1,265	+1.6
<b>EBITDA*</b>	<b>1,542</b>	<b>1,041</b>	<b>-32.5</b>
<i>Special items</i>	<i>(64)</i>	<i>(47)</i>	
<i>EBITDA before special items*</i>	<i>1,606</i>	<i>1,088</i>	<i>-32.3</i>
EBITDA margin before special items	15.4%	11.2%	
<b>EBIT*</b>	<b>1,042</b>	<b>537</b>	<b>-48.5</b>
<i>Special items</i>	<i>(75)</i>	<i>(49)</i>	
<i>EBIT before special items*</i>	<i>1,117</i>	<i>586</i>	<i>-47.5</i>
<b>Gross cash flow**</b>	<b>1,228</b>	<b>850</b>	<b>-30.8</b>
<b>Net cash flow**</b>	<b>1,147</b>	<b>782</b>	<b>-31.8</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\*for definition see "Liquidity and Capital Resources," page 78

Above: thermoplastic  
polyurethane film

## Bayer MaterialScience

**Sales** of the MaterialScience subgroup came in at €9,738 million in 2008, down 6.7% from the prior-year figure of €10,435 million. After adjusting for currency and portfolio effects, sales fell by 4.6%. Selling price increases were more than offset by a drop in volumes, particularly in the fourth quarter. The global financial and economic crisis impacted MaterialScience in nearly all product groups and regions.

**EBITDA** before special items fell by 32.3% from the year before, to €1,088 million (2007: €1,606 million). Earnings were hampered by a €0.5 billion increase in purchase prices for petrochemical raw materials and energies. In addition, volumes and capacity utilization dropped significantly in the wake of the economic slump, especially in the fourth quarter. The relative easing of prices on the raw material markets of importance to MaterialScience did not yet significantly improve earnings in the fourth quarter. Selling price increases, the savings from our restructuring program and further countermeasures adopted only partially offset the negative volume and raw material cost effects over the year as a whole. Accordingly, **EBIT** before special items dropped by 47.5% to €586 million (2007: €1,117 million). We took special charges of €49 million (2007: €75 million) in connection with the restructuring program initiated in 2007. EBIT fell by 48.5% to €537 million (2007: €1,042 million).

### SYSTEMS

Key Data – Systems	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>7,394</b>	<b>7,130</b>	<b>-3.6</b>
Polyurethanes	5,224	4,894	-6.3
Coatings, Adhesives, Specialties	1,598	1,586	-0.8
Industrial Operations	423	489	+15.6
Other	149	161	+8.1
<b>Sales by Region</b>			
Europe	3,446	3,269	-5.1
North America	1,802	1,635	-9.3
Asia/Pacific	1,192	1,229	+3.1
Latin America/Africa/Middle East	954	997	+4.5
<b>EBITDA*</b>	<b>1,269</b>	<b>980</b>	<b>-22.8</b>
Special items	(64)	(32)	
EBITDA before special items*	1,333	1,012	-24.1
EBITDA margin before special items	18.0%	14.2%	
<b>EBIT*</b>	<b>942</b>	<b>636</b>	<b>-32.5</b>
Special items	(75)	(34)	
EBIT before special items*	1,017	670	-34.1
<b>Gross cash flow**</b>	<b>991</b>	<b>779</b>	<b>-21.4</b>
<b>Net cash flow**</b>	<b>964</b>	<b>557</b>	<b>-42.2</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\*for definition see "Liquidity and Capital Resources," page 78

**Sales** of our **Systems** segment in 2008 amounted to €7,130 million, down 3.6% from the previous year. We acquired a number of systems houses to strategically reinforce our polyurethanes business. After adjusting for currency and portfolio effects, business shrank by 2.7%. For the year as a whole, we came close to offsetting the significant decline in volumes by raising our prices. In the fourth quarter the segment could not escape the effects of a steep drop in global demand in the wake of the financial and economic crisis.

Sales in our **Polyurethanes** business unit receded by 6.3% to €4,894 million (2007: €5,224 million). On a currency- and portfolio-adjusted basis, sales decreased by 4.3%. Business with diphenylmethane diisocyanate (MDI) was slightly down on an adjusted basis. Sales expanded in the Asia/Pacific region but moved back in the North America and Latin America regions. By contrast, sales of toluene diisocyanate (TDI) moved ahead, with all regions except Europe contributing to growth. Sales of polyethers (PET) declined sharply despite selling price increases. With the exception of Latin America, we registered a drop in sales in all regions.

Sales of our **Coatings, Adhesives, Specialties** business unit were almost level with the prior year at €1,586 million (-0.8%). On a currency- and portfolio-adjusted basis, sales decreased by 4.0%. Business expanded in Asia/Pacific and Latin America, while sales in Europe and North America declined.

The **Industrial Operations** business unit saw a gratifying 15.6% rise in sales in 2008, to €489 million. The currency-adjusted increase was 17.7%. This was mostly attributable to price increases achieved for sodium hydroxide solution in both Germany and the United States and also to slightly higher volumes.

The Systems segment generated **EBITDA** before special items of €1,012 million, down 24.1% year on year. The selling price increases we implemented and the savings from our restructuring program did not fully compensate for the combined effect of the sharply higher average raw material and energy costs for the year and the drop in volumes. Earnings were also held back, particularly in the fourth quarter, by a demand-related drop in plant utilization rates and by start-up costs for our new MDI plant in Shanghai, China. **EBIT** before special items decreased by 34.1% to €670 million (2007: €1,017 million). Our restructuring program led to special charges of €34 million (2007: €75 million) for the full year. **EBIT** moved back by 32.5% to €636 million.



## MATERIALS

Key Data – Materials	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>3,041</b>	<b>2,608</b>	<b>-14.2</b>
Polycarbonates	2,811	2,372	-15.6
Thermoplastic Polyurethanes	230	236	+2.6
<b>Sales by Region</b>			
Europe	1,139	998	-12.4
North America	574	473	-17.6
Asia/Pacific	1,037	869	-16.2
Latin America/Africa/Middle East	291	268	-7.9
<b>EBITDA*</b>	<b>273</b>	<b>61</b>	<b>-77.7</b>
Special items	0	(15)	
EBITDA before special items*	273	76	-72.2
EBITDA margin before special items	9.0%	2.9%	
<b>EBIT*</b>	<b>100</b>	<b>(99)</b>	<b>•</b>
Special items	0	(15)	
EBIT before special items*	100	(84)	•
<b>Gross cash flow**</b>	<b>237</b>	<b>71</b>	<b>-70.0</b>
<b>Net cash flow**</b>	<b>183</b>	<b>225</b>	<b>+23.0</b>

\* for definition see "Calculation of EBIT(DA) Before Special Items," page 76

\*\* for definition see "Liquidity and Capital Resources," page 78

**Sales** of the **Materials** segment receded by 14.2% to €2,608 million (2007: €3,041 million). On a currency- and portfolio-adjusted basis, the decline amounted to 9.5%.

Sales of the **Polycarbonates** business unit fell by 15.6% to €2,372 million. After adjusting for currency and portfolio effects, sales dropped by 10.1%. This resulted primarily from the effects of the financial and economic crisis, which led to lower volumes in the fourth quarter of 2008 in nearly all regions and product groups. Only in the polycarbonate sheet business did we post a slight increase in volumes.

Sales of the **Thermoplastic Polyurethanes** business unit rose by 2.6% to €236 million. Adjusted for currency and portfolio effects, however, business declined by 2.4%. Price increases, which were implemented in all regions, only partially offset the drop in sales resulting from lower volumes.

**EBITDA** before special items of the Materials segment fell steeply to €76 million (-72.2%). This fall in earnings was mainly caused by sharp increases in average raw material and energy costs for the year combined with a demand-related drop in volumes, particularly in the fourth quarter, and lower capacity utilization as a result of the financial and economic crisis. Earnings were enhanced by the savings achieved from the cost structure program initiated in 2007. **EBIT** before special items for the Materials segment came in at minus €84 million (2007: €100 million). Special charges for restructuring in 2008 amounted to €15 million. **EBIT** amounted to minus €99 million (2007: €100 million). Against this background we reduced working capital, improving net cash flow in the Materials segment by 23.0% to €225 million.

## Performance by Region

Sales by Region and Segment (by Market)	Europe				North America			
	2007	2008			2007	2008		
	€ million	€ million	% yoy	% yoy Fx adj.	€ million	€ million	% yoy	% yoy Fx adj.
<b>HealthCare</b>	<b>6,184</b>	<b>6,379</b>	<b>+3.2</b>	<b>+4.3</b>	<b>4,439</b>	<b>4,512</b>	<b>+1.6</b>	<b>+8.8</b>
Pharmaceuticals	4,367	4,403	+0.8	+1.7	2,862	2,966	+3.6	+10.8
Consumer Health	1,817	1,976	+8.8	+10.5	1,577	1,546	-2.0	+5.1
<b>CropScience</b>	<b>2,383</b>	<b>2,625</b>	<b>+10.2</b>	<b>+11.6</b>	<b>1,332</b>	<b>1,396</b>	<b>+4.8</b>	<b>+12.1</b>
Crop Protection	2,035	2,277	+11.9	+13.3	912	979	+7.3	+15.1
Environmental Science, BioScience	348	348	+0.0	+1.2	420	417	-0.7	+5.7
<b>MaterialScience</b>	<b>4,585</b>	<b>4,267</b>	<b>-6.9</b>	<b>-6.9</b>	<b>2,376</b>	<b>2,108</b>	<b>-11.3</b>	<b>-4.8</b>
Systems	3,446	3,269	-5.1	-5.1	1,802	1,635	-9.3	-2.7
Materials	1,139	998	-12.4	-12.4	574	473	-17.6	-11.7
<b>Continuing operations (incl. reconciliation)</b>	<b>14,353</b>	<b>14,549</b>	<b>+1.4</b>	<b>+2.1</b>	<b>8,161</b>	<b>8,026</b>	<b>-1.7</b>	<b>+5.3</b>

yoy = year-on-year; Fx adj. = currency-adjusted

## Earnings Performance

Bayer Group Summary Income Statements	2007	2008	Change
	€ million	€ million	%
<b>Sales</b>	<b>32,385</b>	<b>32,918</b>	<b>+1.6</b>
Cost of goods sold	(16,352)	(16,456)	+0.6
Selling expenses	(7,782)	(8,105)	+4.2
Research and development expenses	(2,578)	(2,653)	+2.9
General administration expenses	(1,772)	(1,649)	-6.9
Other operating income and expenses – net	(747)	(511)	-31.6
<b>EBIT (operating result)</b>	<b>3,154</b>	<b>3,544</b>	<b>+12.4</b>
<b>Non-operating result</b>	<b>(920)</b>	<b>(1,188)</b>	<b>-29.1</b>
<b>Income before income taxes</b>	<b>2,234</b>	<b>2,356</b>	<b>+5.5</b>
Income taxes	72	(636)	•
Income after taxes from discontinued operations	2,410	4	-99.8
<b>Income after taxes</b>	<b>4,716</b>	<b>1,724</b>	<b>-63.4</b>
of which attributable to non-controlling interest	5	5	+0.0
of which attributable to Bayer AG stockholders (net income)	4,711	1,719	-63.5

Sales of the Bayer Group increased by 1.6%, or €533 million, from the previous year to €32,918 million. Adjusted for currency and portfolio effects, sales rose by 4.4%.

The cost of goods sold remained approximately level year on year at €16,456 million (+0.6%). The ratio of the cost of goods sold to total sales was 50.0% (2007: 50.5%). Selling expenses rose by 4.2% from the previous year, to €8,105 million, and were thus equivalent to 24.6% of sales (2007: 24.0%). This increase was due particularly to the introduction of new pharmaceutical products and the expansion of our sales organization in the BRIC countries. Our research and development expenses also increased by 2.9% to €2,653 million. The ratio of R&D expenses to sales was 8.1% (2007: 8.0%). However, we reduced general administration expenses by 6.9% to €1,649 million (2007: €1,772 million), thanks mainly to synergies from the integration of Schering AG, Berlin, Germany, and the restructuring program at MaterialScience. The negative balance of other operating income and expenses, at €511 million, resulted mainly from costs related to the integration of Schering AG, restructuring, litigations and valuation write-downs.

	Asia/Pacific				Latin America/Africa/Middle East				Continuing Operations			
	2007	2008			2007	2008			2007	2008		
	€ million	€ million	% yoy	% yoy Fx adj.	€ million	€ million	% yoy	% yoy Fx adj.	€ million	€ million	% yoy	% yoy Fx adj.
	2,023	2,278	+12.6	+14.2	2,161	2,238	+3.6	+9.6	14,807	15,407	+4.1	+7.8
	1,659	1,867	+12.5	+13.1	1,379	1,468	+6.5	+12.1	10,267	10,704	+4.3	+7.4
	364	411	+12.9	+19.2	782	770	-1.5	+5.1	4,540	4,703	+3.6	+8.3
	913	964	+5.6	+11.4	1,198	1,397	+16.6	+24.0	5,826	6,382	+9.5	+14.2
	769	818	+6.4	+12.2	1,065	1,265	+18.8	+26.3	4,781	5,339	+11.7	+16.4
	144	146	+1.4	+7.5	133	132	-0.8	+5.2	1,045	1,043	-0.2	+4.2
	2,229	2,098	-5.9	-3.0	1,245	1,265	+1.6	+5.7	10,435	9,738	-6.7	-4.1
	1,192	1,229	+3.1	+4.5	954	997	+4.5	+8.8	7,394	7,130	-3.6	-1.2
	1,037	869	-16.2	-11.8	291	268	-7.9	-4.6	3,041	2,608	-14.2	-11.4
	5,211	5,385	+3.3	+6.2	4,660	4,958	+6.4	+12.2	32,385	32,918	+1.6	+5.0

EBIT for 2008 came in at €3,544 million. Before net special charges of €798 million (2007: €1,133 million), EBIT increased by 1.3% to €4,342 million.

The non-operating result dropped by €268 million to minus €1,188 million, its main components being €702 million (2007: €701 million) in net interest expense, €300 million (2007: €246 million) in interest cost for pension and other provisions, a €70 million (2007: €69 million) net loss from investments in affiliated companies and a €79 million exchange loss (2007: €88 million exchange gain). The shift in the balance of exchange gains and losses was partly due to the increased cost of exchange hedging in emerging countries arising from the expansion of our business there, while in the previous year we had benefited from exchange gains on financial transactions.

In 2008 we recorded tax expense of €636 million. In the previous year we had net tax income of €72 million after one-time non-cash tax income of €912 million arising in connection with the corporate tax reform in Germany. This tax effect resulted mainly from the remeasurement of the deferred tax liabilities accrued in connection with the Schering acquisition, particularly in order to reflect the lower nominal rates of corporate income tax that apply in Germany from 2008. Without this one-time effect, tax expense in 2007 amounted to €840 million.

Including the result of discontinued operations and after non-controlling interests, Group net income came in at €1,719 million. Group net income of €4,711 million in 2007 included €2,410 million of income from discontinued operations, which contained mainly the proceeds from the divestments of the diagnostics business, H.C. Starck and Wolff Walsrode.

## Calculation of EBIT(DA) Before Special Items

Key performance indicators for the Bayer Group are EBIT before special items, EBITDA before special items and the EBITDA margin before special items. These indicators are reported in order to allow a more accurate assessment of business operations. The special items – one-time effects that are non-recurring or do not regularly recur or attain similar magnitudes – are detailed in the following table. “EBITDA,” “EBITDA before special items” and “EBIT before special items” are not defined in the International Financial Reporting Standards and should therefore be regarded only as supplementary information. The company considers EBITDA before special items to be a more suitable indicator of operating performance since it is not affected by depreciation, amortization, write-downs/write-backs or special items. The company also believes that this indicator gives readers a clearer picture of the results of operations and ensures greater comparability of data over time. The EBITDA margin before special items, which is the ratio of EBITDA before special items to sales, serves as a relative indicator for the internal and external comparison of operational earning power.

Depreciation and amortization in 2008 was virtually level with the previous year at €2,722 million (+0.4%), comprising €1,550 million in amortization and write-downs of intangible assets and €1,172 million in depreciation and write-downs of property, plant and equipment. Of the included write-downs, €133 million constituted special items.

Reconciliation of Special Items	EBIT*	EBIT*	EBITDA**	EBITDA**
	2007	2008	2007	2008
	€ million	€ million	€ million	€ million
<b>After special items</b>	<b>3,154</b>	<b>3,544</b>	<b>5,866</b>	<b>6,266</b>
<b>HealthCare</b>	<b>928</b>	<b>583</b>	<b>727</b>	<b>465</b>
Schering PPA effects***	177	208	216	208
Schering integration costs	506	157	418	111
Write-downs	166	98	14	26
Litigations	106	106	106	106
Other	(27)	14	(27)	14
<b>CropScience</b>	<b>130</b>	<b>166</b>	<b>120</b>	<b>153</b>
Restructuring	97	166	87	153
Litigations	33	0	33	0
<b>MaterialScience</b>	<b>75</b>	<b>49</b>	<b>64</b>	<b>47</b>
Restructuring	75	49	64	47
<b>Reconciliation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total special items</b>	<b>1,133</b>	<b>798</b>	<b>911</b>	<b>665</b>
<b>Before special items</b>	<b>4,287</b>	<b>4,342</b>	<b>6,777</b>	<b>6,931</b>

2007 figures restated

\* EBIT as shown in the income statement

\*\* EBITDA: EBIT plus amortization of intangible assets and depreciation of property, plant and equipment. The underlying EBITDA margin is calculated by dividing underlying EBITDA by sales.

\*\*\* The purchase price paid for Schering AG, Germany, was allocated among the acquired assets and assumed liabilities in accordance with the International Financial Reporting Standards (IFRS). To ensure comparability with future earnings data, the expected long-term effects of the step-up are reflected in EBIT and EBITDA before special items, whereas temporary, non-cash effects of the purchase price allocation are eliminated and deducted when calculating EBIT before special items.

## Value Management

### CASH VALUE ADDED-BASED SYSTEM

One of the prime objectives of the Bayer Group is to sustainably increase enterprise value. In 1994 we became one of the first German companies to embark on the development of a value management system, which we introduced throughout the Group in 1997. The system is used for the planning, controlling and monitoring of our businesses. Our primary value-based indicator is the cash value added (CVA), which shows the degree to which the cash flows needed to cover the costs of equity and debt and of reproducing depletable assets have been generated. If the CVA is positive, the company or business entity concerned has created additional value. If it is negative, the anticipated capital and asset reproduction costs have not been earned. Gross cash flow and CVA are profitability indicators for a single reporting period. For a year-on-year comparison we therefore use the delta CVA, which is the difference between the CVAs of two consecutive periods. A positive delta CVA shows that value creation has improved from one period to the next.

### CALCULATING THE COST OF CAPITAL

Bayer calculates the cost of capital according to the debt/equity ratio by the weighted average cost of capital (WACC) formula. The cost of equity capital is the return expected by stockholders, computed from capital market information. The cost of debt used in calculating WACC is based on the terms for a ten-year corporate bond issue.

Weighted average  
cost of capital for the  
Bayer Group  
**7.5%**

To take into account the different risk and return profiles of our principal businesses, we calculate individual capital cost factors after income taxes for each of our subgroups. In 2008 this was 8.0% (2007: 8.0%) for HealthCare, 7.5% (2007: 7.0%) for CropScience and 7.0% (2007: 6.5%) for MaterialScience. The minimum return required for the Group was 7.5% (2007: 7.5%).

### GROSS CASH FLOW, CASH FLOW RETURN ON INVESTMENT AND CASH VALUE ADDED AS PERFORMANCE YARDSTICKS

The gross cash flow as published in our cash flow statement is the measure of our internal financing capability. Bayer has chosen this parameter because it is relatively free of accounting influences and thus a more meaningful performance indicator.

The profitability of the Group and of its individual business entities is measured by the cash flow return on investment (CFROI). This is the ratio of the gross cash flow to the capital invested, which is derived from the balance sheet and basically comprises the property, plant and equipment and intangible assets required for operations – stated at cost of acquisition or construction – plus working capital, less interest-free liabilities (such as current provisions). To allow for fluctuations, the CFROI is computed on the basis of the average capital invested for the respective year.

Taking into account the costs of capital and of reproducing depletable assets, we determine the gross cash flow hurdle. If the gross cash flow hurdle is equaled or exceeded, the required return on equity and debt plus the cost of asset reproduction has been earned. The CFROI hurdle for 2008 was 10.1% (2007: 10.2%), while the corresponding gross cash flow hurdle was €4,049 million (2007: €4,035 million).

Actual gross cash flow came in at €5,295 million, exceeding the hurdle by a substantial 30.8%. Thus in 2008 we earned our entire capital and asset reproduction costs, and the positive CVA of €1,246 million shows that Bayer created additional value. Given the previous year's CVA of €749 million, the Bayer Group therefore recorded a delta CVA of €497 million, showing that the rate of value creation increased. The CFROI for 2008 reached a record 13.0% (2007: 12.2%).

Positive CVA  
=  
additional value  
created

All three subgroups exceeded their target returns including asset reproduction. The CFROI for HealthCare was 13.6% (2007: 11.1%), for CropScience 14.1% (2007: 11.3%) and for MaterialScience 10.1% (2007: 15.9%).

#### Value Management Indicators by Subgroup

	HealthCare		CropScience		MaterialScience		Bayer Group	
	2007	2008	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Gross cash flow hurdle	2,394	2,387	939	906	624	696	4,035	4,049
Gross cash flow*	2,389	3,045	961	1,192	1,228	850	4,784	5,295
Cash value added (CVA)	(5)	658	22	286	604	154	749	1,246
CFROI hurdle	11.0%	10.9%	10.8%	10.8%	8.3%	8.7%	10.2%	10.1%
Cash flow return on investment (CFROI)	11.1%	13.6%	11.3%	14.1%	15.9%	10.1%	12.2%	13.0%
Average capital invested	21,608	22,380	8,500	8,471	7,722	8,442	39,203	40,862

\* for definition see "Liquidity and Capital Resources"

## Liquidity and Capital Resources

#### Bayer Group Summary Cash Flow Statements

	2007	2008
	€ million	€ million
<b>Gross cash flow*</b>	<b>4,784</b>	<b>5,295</b>
Changes in working capital/other non-cash items	(503)	(1,687)
<b>Net cash provided by (used in) operating activities (net cash flow), continuing operations</b>	<b>4,281</b>	<b>3,608</b>
Net cash provided by (used in) operating activities (net cash flow), discontinued operations	2	-
<b>Net cash provided by (used in) operating activities (net cash flow) (total)</b>	<b>4,283</b>	<b>3,608</b>
<b>Net cash provided by (used in) investing activities (total)</b>	<b>3,186</b>	<b>(3,089)</b>
<b>Net cash provided by (used in) financing activities (total)</b>	<b>(7,730)</b>	<b>(873)</b>
<b>Change in cash and cash equivalents due to business activities (total)</b>	<b>(261)</b>	<b>(354)</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>2,915</b>	<b>2,531</b>
Change due to exchange rate movements and to changes in scope of consolidation	(123)	(83)
<b>Cash and cash equivalents at end of period</b>	<b>2,531</b>	<b>2,094</b>

\* Gross cash flow = income from continuing operations after taxes, plus income taxes, plus/minus non-operating result, minus income taxes paid or accrued, plus depreciation, amortization and write-downs, minus write-backs, plus/minus changes in pension provisions, minus gains/plus losses on retirements of noncurrent assets, plus non-cash effects of the remeasurement of acquired assets. The change in pension provisions includes the elimination of non-cash components of the operating result. It also contains benefit payments during the year.

#### OPERATING CASH FLOW

Gross cash flow in 2008 rose by 10.7%, from €4,784 million in the prior year to €5,295 million. There was a significant improvement in gross cash flow at HealthCare and CropScience due to the gratifying business performance in those subgroups, more than offsetting the decline at MaterialScience. Net cash flow declined to €3,608 million (2007: €4,281 million), mainly due to a significant increase in cash tied up in working capital. Contributing particularly to this increase was a higher level of receivables and inventories at HealthCare and CropScience due to business growth. We also recorded high cash disbursements in connection with the utilization of provisions.

## INVESTING CASH FLOW

There was a net cash outflow of €3,089 million for investing activities in 2008. This total contained disbursements of €1,617 million for acquisitions, including €227 million in connection with the acquisition of U.S.-based Possis Medical, Inc., €265 million associated with the purchase of the eastern European OTC business of Sigmel, Inc., €109 million for the acquisition of the OTC business of the Chinese Topsun group and €185 million to acquire Direvo Biotech AG, Germany. Disbursements of €695 million were also made for the acquisition of the remaining interest in Bayer Schering Pharma AG, Berlin, Germany. With the entry of the squeeze-out in the commercial register, the remaining minority stockholders received cash compensation of €98.98 per share for their stock. The funds held in escrow accounts for this purpose were paid out to the stockholders at the beginning of October 2008. In the previous year there was a cash inflow of €3,186 million, mainly comprising the net proceeds from the divestitures of the diagnostics business, H.C. Starck and Wolff Walsrode.

Cash outflows for property, plant and equipment and intangible assets in 2008 totaled €1,759 million (2007: €1,860 million). This figure included the expenditures for the expansion of our polymers production facilities in Shanghai, China, and the acquisition of the hematology portfolio of Maxygen, Inc. Inflows comprised €553 million in “interest and dividends received” and €167 million in proceeds from the sale of property, plant, equipment and other assets.

Selected capital expenditures for property, plant and equipment made by the Bayer Group in the last two years are described in the following table:

Segment	Description
Capital expenditures 2008	
Pharmaceuticals	Optimization of steroid production in Bergkamen, Germany New packaging lines in Weimar and Berlin, Germany, and Gaillard, France Expansion of the production site in Beijing, China Capacity expansion in Jakarta, Indonesia
Crop Protection	Capacity expansion for herbicidal active ingredients in Frankfurt and Knapsack, Germany Consolidation of formulating activities in Kansas City, Missouri, U.S.A. Expansion of formulating capacity for non-herbicides in Belford Roxo, Brazil New insecticide formulation plant in Hangzhou, China Modification of a herbicide production facility in Ankleshwar, India
BioScience	Construction of greenhouse, breeding and laboratory facilities for canola seed in Saskatoon, Canada
Systems	Construction of a world-scale integrated production facility for MDI in Shanghai, China Polyether capacity increases in Dormagen, Germany, and Santa Clara, Mexico Construction of a pilot plant for carbon nanotubes in Leverkusen, Germany Construction of a polyurethane systems house in Noida, India
Materials	Construction of the MacroColor Center in Noida, India Modification of a facility for the manufacture of high-purity polycarbonate in Antwerp, Belgium

Segment	Description
Capital expenditures 2007	
Pharmaceuticals	Consolidation of biotech production facilities in Seattle, Washington, U.S.A. Integration of biotech production facilities in Emeryville, California, U.S.A. Consolidation of R&D activities in Germany and the U.S. due to the integration of Bayer Schering Pharma Expansion of production facility for contrast media application systems in Warrendale, Pennsylvania, U.S.A.
Crop Protection	Capacity expansion at the active ingredient and formulating facilities in Hangzhou, China Formulation site consolidation project, U.S.A. Modification of existing facilities for the production of intermediates and new active ingredients for insecticides in Dormagen, Germany Site consolidation projects in Thane, India, and Wolfenbüttel, Germany Reconstruction of an active ingredient unit in Belford Roxo, Brazil
BioScience	New greenhouse for vegetable seeds in 's-Gravensande, Netherlands
Systems	Construction of a world-scale MDI production facility in Shanghai, China Construction of a plant for polyurethane dispersions in Shanghai, China Construction of a world-scale facility for polymer polyols in Antwerp, Belgium
Materials	Expansion of the polycarbonate facility in Map Ta Phut, Thailand Expansion of the polycarbonate facility in Shanghai, China Construction of a new logistics center for polycarbonate compounds in Krefeld-Uerdingen, Germany

## FINANCING CASH FLOW

Net cash outflow for financing activities in 2008 amounted to €873 million. The outflow in the prior year came to €7,730 million. This figure included €5.6 billion for net loan repayments, which in turn included the scheduled redemption of our 2002/2007 Eurobond in April 2007 (€2.1 billion). We made net borrowings of €1,525 million in 2008. Interest payments dropped by 5.4% year on year to €1,272 million. The Bayer AG dividend and dividend payments to non-controlling stockholders of consolidated companies, along with payments of withholding tax, totaled €1,126 million (2007: €773 million).

## LIQUID ASSETS AND NET DEBT

Net Debt	Dec. 31, 2007	Dec. 31, 2008
	€ million	€ million
Bonds and notes	10,411	10,729
of which hybrid bond	1,237	1,245
of which mandatory convertible bond	2,285	2,296
Liabilities to banks	3,032	4,438
Liabilities under finance leases	358	535
Liabilities from derivatives	235	612
Other financial liabilities	162	333
Positive fair values of hedges of recorded transactions	(230)	(454)
<b>Financial debt</b>	<b>13,968</b>	<b>16,193</b>
Cash and cash equivalents*	(1,776)	(2,037)
Current financial assets	(8)	(4)
<b>Net debt from continuing operations</b>	<b>12,184</b>	<b>14,152</b>
Net debt from discontinued operations	0	0
<b>Net debt (total)</b>	<b>12,184</b>	<b>14,152</b>

\* In view of the restriction on its use, the €57 million liquidity in escrow accounts as of December 31, 2008 (December 31, 2007: €755 million) was not deducted when calculating net debt. December 31, 2008: €2,037 million = €2,094 million – €57 million.



Net debt (total) rose by €2.0 billion in 2008, to €14.2 billion. Contributing to this increase were significant growth in cash tied up in working capital, €0.9 billion in acquisition-related disbursements, a €0.6 billion effect of shifts in major currencies against the euro, a higher dividend payment and the granting of €0.3 billion in loan capital to Bayer-Pensionskasse for its effective initial fund. The €695 million for payments to minority stockholders of Bayer Schering Pharma AG, Berlin, Germany, did not affect net debt, as the amount held in escrow accounts for this purpose was not deducted when net debt was calculated in the past. As of December 31, 2008 the Group had cash and cash equivalents of €2,094 million. Financial debt on the closing date was €16.2 billion, including the €1.2 billion subordinated hybrid bond issued in July 2005 and the €2.3 billion mandatory convertible bond maturing in June 2009. Net debt should be viewed against the fact that Moody's and Standard & Poor's treat 75% and 50%, respectively, of the hybrid bond as equity. Both rating agencies consider the mandatory convertible bond wholly as equity. Unlike conventional borrowings, the hybrid bond thus only has a limited effect on the Group's rating-specific indicators, while the mandatory convertible bond has no effect.

In light of their maturity dates, the mandatory convertible bond issued in 2006, the floating rate note of Bayer AG, also issued in 2006, and the Eurobonds of Bayer Corporation issued in 2004 were reclassified in 2008 from noncurrent to current financial liabilities. Our noncurrent financial liabilities as of December 31, 2008 amounted to €10.6 billion.

## Asset and Capital Structure

Bayer Group Summary Balance Sheets	Dec. 31, 2007	Dec. 31, 2008	Change
	€ million	€ million	%
<b>Noncurrent assets</b>	<b>34,712</b>	<b>35,351</b>	<b>+1.8</b>
<b>Current assets</b>	<b>16,582</b>	<b>17,152</b>	<b>+3.4</b>
Assets held for sale and discontinued operations	84	8	-90.5
<b>Total current assets</b>	<b>16,666</b>	<b>17,160</b>	<b>+3.0</b>
<b>Total assets</b>	<b>51,378</b>	<b>52,511</b>	<b>+2.2</b>
<b>Stockholders' equity</b>	<b>16,821</b>	<b>16,340</b>	<b>-2.9</b>
<b>Noncurrent liabilities</b>	<b>23,945</b>	<b>22,336</b>	<b>-6.7</b>
<b>Current liabilities</b>	<b>10,436</b>	<b>13,822</b>	<b>+32.4</b>
Liabilities directly related to assets held for sale and discontinued operations	176	13	-92.6
<b>Total current liabilities</b>	<b>10,612</b>	<b>13,835</b>	<b>+30.4</b>
<b>Liabilities</b>	<b>34,557</b>	<b>36,171</b>	<b>+4.7</b>
<b>Total stockholders' equity and liabilities</b>	<b>51,378</b>	<b>52,511</b>	<b>+2.2</b>

Total assets increased by €1.1 billion compared with December 31, 2007, to €52.5 billion.

Noncurrent assets rose by €0.6 billion to €35.4 billion. They included goodwill of €8.6 billion resulting primarily from the acquisition of Schering AG, Berlin, Germany. Current assets increased by €0.5 billion from the previous year, to €17.2 billion.

Stockholders' equity fell by €0.5 billion to €16.3 billion. A positive effect came particularly from the Group net income of €1.7 billion. Stockholders' equity was diminished mainly by the dividend payment of €1.0 billion made in 2008, an €0.7 billion increase in pension obligations that did not affect earnings, and negative currency effects of €0.4 billion. Our equity ratio (equity coverage of total assets) was 31.1% as of December 31, 2008 (2007: 32.7%).

Liabilities increased by €1.6 billion compared with December 31, 2007, to €36.2 billion. Current and noncurrent financial liabilities rose by €2.4 billion to €16.9 billion.

#### NET PENSION LIABILITY

Net Pension Liability	Dec. 31, 2007	Dec. 31, 2008
	€ million	€ million
Provisions for pensions and other post-employment benefits	5,501	6,347
Prepaid benefit assets	(533)	(351)
<b>Net pension liability</b>	<b>4,968</b>	<b>5,996</b>

The net pension liability increased by €1.0 billion compared with December 31, 2007, to €6.0 billion, mainly because the fair value of plan assets was lower than in the previous year.

Balance Sheet and Financial Ratios		2007	2008
Cost of sales ratio (%)	<u>Cost of goods sold</u> Sales	50.5	50.0
R&D expense ratio (%)	<u>Research and development expenses</u> Sales	8.0	8.1
Inventory turnover	<u>Cost of goods sold</u> Inventories	2.6	2.5
Receivables turnover	<u>Sales</u> Trade accounts receivable	5.6	5.5
EBIT margin before special items (%)	<u>EBIT before special items</u> Sales	13.2	13.2
EBITDA margin before special items (%)	<u>EBITDA before special items</u> Sales	20.9	21.1
Asset intensity (%)	<u>Property, plant and equipment + intangible assets</u> Total assets (continuing operations) <sup>1</sup>	61.6	61.1
D&A/capex ratio (%)	<u>Depreciation and amortization<sup>3</sup></u> Capital expenditures <sup>3</sup>	128.3	129.7
Liability structure <sup>2</sup> (%)	<u>Current liabilities</u> Liabilities	30.7	38.2
Gearing	<u>Net debt + pension provisions</u> Stockholders' equity	1.1	1.3
Free operating cash flow (€ million)	Net cash flow less cash outflows for additions to property, plant, equipment and intangible assets	2,423	1,849
Equity ratio <sup>2</sup> (%)	<u>Stockholders' equity</u> Total assets	32.7	31.1
Return on stockholders' equity <sup>2</sup> (%)	<u>Income after taxes</u> Average stockholders' equity	31.8	10.4
Return on assets (%)	<u>Income before taxes and interest expense</u> Average total assets for the year based on segment table	6.9	7.0

<sup>1</sup> total assets (continuing operations) = noncurrent and current assets minus the balance sheet item "assets held for sale and discontinued operations"

<sup>2</sup> Ratio refers to the total of continuing and discontinued operations.

<sup>3</sup> property, plant and equipment + intangible assets

## Information Required Under Takeover Law

### REPORT PURSUANT TO SECTION 315, PARAGRAPH 4 OF THE GERMAN COMMERCIAL CODE IN CONJUNCTION WITH SECTION 120, PARAGRAPH 3, SENTENCE 2 OF THE GERMAN STOCK CORPORATION ACT

The capital stock of Bayer AG amounted as of December 31, 2008 to €1,956,718,656 (2007: €1,956,715,315.20), divided into 764,343,225 (2007: 764,341,920) no-par bearer shares. Each share confers one voting right.

We received no notifications in 2008 or 2007 of direct or indirect holdings of shares in Bayer AG that exceed 10% of the capital stock. The Capital Research and Management Company, U.S.A., notified us that the proportion of voting rights it holds in our company exceeded the 10% threshold on November 8, 2006, and that since that date it has held 10.0852% of the voting rights.

Pursuant to Section 84, Paragraph 1 of the German Stock Corporation Act (AktG), the members of the Board of Management are appointed and dismissed by the Supervisory Board. Since Bayer AG falls within the scope of the German Codetermination Act, the appointment or dismissal of members of the Board of Management requires a majority of two thirds of the votes of the members of the Supervisory Board on the first ballot. If no such majority is achieved, the appointment may be approved pursuant to Section 31, Paragraph 3 of the Codetermination Act on a second ballot by a simple majority of the votes of the members of the Supervisory Board. If the required majority is still not achieved, a third ballot is held. Here again, a simple majority of the votes suffices, but in this ballot the Chairman of the Supervisory Board has two votes pursuant to Section 31, Paragraph 4 of the Codetermination Act.

Under Section 6, Paragraph 1 of the Articles of Incorporation of Bayer AG, the Board of Management must comprise at least two members. The Supervisory Board may appoint one member to be Chairman of the Board of Management pursuant to Section 84, Paragraph 2 of the German Stock Corporation Act or Section 6, Paragraph 1 of the Articles of Incorporation.

Under Section 179, Paragraph 1 of the German Stock Corporation Act, amendments to the Articles of Incorporation require a resolution of the Stockholders' Meeting. Pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act, this resolution must be passed by a majority of three quarters of the voting capital represented at the meeting, unless the Articles of Incorporation provide for a different majority. However, where an amendment relates to a change in the object of the company, the Articles of Incorporation may only specify a larger majority. Section 17, Paragraph 2 of the Articles of Incorporation of Bayer AG utilizes the scope for deviation pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act and provides that resolutions may be passed by a simple majority of the votes or, where a capital majority is required, by a simple majority of the capital.

Provisions of the Articles of Incorporation concerning Authorized Capital I and Authorized Capital II are entered in the commercial register of Bayer AG. With the approval of the Supervisory Board and until April 27, 2011, the Board of Management may use the Authorized Capital I to increase the capital stock by up to a total of €465 million. The issue of new shares may take place in exchange for cash and/or contributions in kind, but capital increases in exchange for contributions in kind may not exceed a total of €370 million. If the Authorized Capital I is used to issue shares in return for cash contributions, stockholders must be granted subscription rights. With the approval of the Supervisory Board and until April 26, 2012, the Board of Management is also authorized to increase the capital by up to €195 million in one or more installments by issuing shares out of the Authorized Capital II in exchange for cash contributions. The stockholders must be granted subscription rights. However, the Board of Management is authorized, with the approval of the Supervisory Board, to exclude subscription rights for stockholders provided the capital increase out of the Authorized Capital II does not exceed 10% of the capital stock existing at the time this authorization becomes effective or the time this authorization is exercised.

Conditional capital of €186.88 million, corresponding to 73 million shares, exists to service the conversion rights under a mandatory convertible bond issued by Bayer Capital Corporation B.V., Netherlands, on April 6, 2006 and maturing on June 1, 2009. The Annual Stockholders' Meeting on April 25, 2008 adopted two resolutions creating conditional capital of €195,584,000 each in connection with two authorizations for the issuance of bonds with warrants or convertible bonds, profit-sharing rights or profit participation bonds (collectively referred to as "bonds") with a total face value of €6 billion. The Board of Management may, with the consent of the Supervisory Board, exclude the subscription rights that in principle are granted to stockholders for such bonds provided, among other things, that the proportionate amount of the shares covered by such subscription rights does not exceed 10% of the capital stock. Any other shares issued without granting subscription rights to the stockholders in direct or analogous application of Section 186, Paragraph 3, Sentence 4 of the Stock Corporation Act shall be credited against this 10% limit. Further, the Annual Stockholders' Meeting on April 25, 2008 authorized the Board of Management to purchase and sell company shares representing up to 10% of the capital stock. This authorization expires on October 24, 2009.

A material agreement entered into by Bayer AG that is subject to the condition precedent of a change of control pertains to the €7 billion syndicated loan granted to Bayer AG on March 23, 2006. This agreement contains provisions entitling the banks participating in the syndication to terminate the agreement in the event of a change of control and demand repayment of any outstanding sums. The loan was valued at €1.25 billion as of December 31, 2008, unchanged from the previous year. There is also an undrawn €3.5 billion syndicated credit facility, arranged by Bayer AG and its U.S. subsidiary Bayer Corporation on March 31, 2005, that is available until 2012. The participating banks are entitled to terminate the credit facility in the event of a change in control at Bayer and demand repayment of any loans that may have been granted under this facility up to that time.

Similarly, the aforementioned €2.3 billion mandatory convertible bond issued by Bayer Capital Corporation B.V., Netherlands, on April 6, 2006, which is secured by a subordinated guarantee from Bayer AG, also contains a change of control clause. Under Section 6.5 of the conditions of issue, in the event of a takeover offer pursuant to Section 29, Paragraph 1 of the German Securities Acquisition and Takeover Act (WpÜG) or a mandatory offer, pursuant to Section 35, Paragraph 1 of that Act, bondholders shall be entitled to exercise their conversion rights. If they do so, they will receive Bayer AG shares in accordance with the applicable conversion ratio.

Finally, the terms of the €4.3 billion (as of December 31, 2008) in notes issued by Bayer in the years 2006 to 2008 under its multicurrency European Medium Term Note program also contain a change-of-control clause. Holders of these notes have the right to demand the redemption of their notes by Bayer AG in the event of a change of control if Bayer AG's credit rating is downgraded within 120 days after such change of control becomes effective.

In the event of a takeover offer for Bayer AG, the following agreements exist for members of the Board of Management whose service contracts were concluded prior to the entry into force of the amendments to the German Corporate Governance Code in June 2008:

The severance indemnity clause for the members of the Group Management Board described in the Compensation Report is currently supplemented by a change-of-control clause which, like the severance indemnity clause, only takes effect if a change of control results in the termination of a Group Management Board member's service contract and his leaving the Bayer Group prior to his 60th birthday. The potential benefits are the same as under the severance indemnity clause.

This clause is now obsolescent and of only limited significance. The Supervisory Board has decided to follow the recommendation of the German Corporate Governance Code, as amended in June 2008, and limit severance payments under new service contracts. In the case of the only Board of Management member to have his contract renewed since then, it was contractually agreed during the second half of 2008 that payment claims can only arise in the event of premature contract termination by the company without cause and that their amount is limited. Such

payments, including ancillary benefits, are limited to the value of two years' compensation (severance payment cap) and may not compensate more than the remaining term of the contract. The severance payment cap is to be calculated on the basis of the total compensation (fixed salary plus target value of the short-term incentive) for the previous year and, if appropriate, also the expected total compensation for the current year. Payments in the event of premature contract termination due to a change of control may not exceed 150% of the severance payment cap.

## Proposal for Distribution of the Profit

Under German law, the dividend payment is based on the balance sheet profit of the parent company Bayer AG, which amounted to €1,070 million in 2008.

Proposed dividend  
for 2008  
**€1.40**

<b>Bayer AG Summary Income Statements according to the German Commercial Code</b>	<b>2007</b>	<b>2008</b>
	€ million	€ million
Income from investments in affiliated companies – net	3,030	2,711
Interest expense – net	(744)	(948)
Other non-operating income (expense) – net	18	(228)
Other operating income	260	209
General administration expenses	(197)	(194)
Other operating expenses	(242)	(266)
<b>Income before income taxes</b>	<b>2,125</b>	<b>1,284</b>
Income taxes	(197)	(123)
<b>Net income</b>	<b>1,928</b>	<b>1,161</b>
Allocation to retained earnings	(896)	(91)
<b>Balance sheet profit</b>	<b>1,032</b>	<b>1,070</b>

We will propose to the Annual Stockholders' Meeting on May 12, 2009 that the balance sheet profit be used to pay a dividend of €1.40 (2007: €1.35) per share (764,343,225 shares) on the capital stock of €1,957 million entitled to the dividend for 2008.

## Procurement, Production and Distribution

Our activities in the areas of procurement, production and distribution are organized on a decentralized basis in view of our diversified business portfolio.

### Bayer HealthCare

The **Pharmaceuticals** segment generally procures the starting materials for manufacturing the active ingredients of its ethical pharmaceuticals from external suppliers. To prevent supply bottlenecks and to mitigate major price fluctuations, these starting materials and intermediates we do not produce ourselves are generally purchased under global contracts or from several internally approved suppliers.

The active ingredients of our ethical pharmaceuticals currently are manufactured mainly at our sites in Wuppertal and Bergkamen, Germany, and Berkeley and Emeryville, California. The manufacturing and packaging of pharmaceutical products based on these active ingredients takes place at locations around the world including Berlin, Leverkusen and Weimar, Germany; Berkeley and Emeryville, California; Garbagnate, Italy; São Paulo, Brazil; Madrid, Spain; Beijing, China; and Turku, Finland.

Optimized distribution  
through  
partnerships

Our pharmaceutical products are primarily distributed through wholesalers, pharmacies and hospitals. Co-promotion and co-marketing agreements serve to optimize our distribution network. In June 2007, for example, we began co-marketing the Schering-Plough product Zetia® in Japan under a strategic alliance with Schering-Plough. (Please note that Schering-Plough Corporation, New Jersey, and the company acquired by Bayer in June 2006, i.e. Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, are unaffiliated companies that have been totally independent of each other for many years.) In the United States, Schering-Plough also distributes Primary Care products from Bayer and co-markets our erectile dysfunction drug Levitra® with GlaxoSmithKline. The agreement with Johnson & Johnson subsidiary Ortho-McNeil on the further development and marketing of the anticoagulant Xarelto® ensures optimum progress in this area, conferring regional marketing rights that enable both partners to share in the product's expected success.

In our **Consumer Health** segment the focus is on products marketed directly to consumers. Consumer Care procures certain high-volume raw materials such as acetylsalicylic acid and clotrimazole from within the HealthCare subgroup. The principal raw materials we purchase from third parties are naproxen, citric acid, ascorbic acid and other vitamins, and paracetamol. To minimize business risks, we diversify our raw material procurement sources worldwide and conclude long-term supply agreements. Among the division's largest production sites are the facilities in Myerstown, Pennsylvania, United States; Gaillard, France; and Bitterfeld and Grenzach, Germany. While the division's sales and distribution channels outside Europe are typically supermarket chains, drugstores and other large retailers, pharmacies are the usual distribution channel in Europe.

Some four fifths of the products of the Diabetes Care Division are procured from original equipment manufacturers (OEMs). Material prices and availability are contractually agreed in most cases and therefore are not subject to major fluctuations. We hold strategic reserves of certain direct materials or finished products in order to be able to supply our customers consistently and reliably. Our largest production site is located in Mishawaka, Indiana, United States. We generally market our Diabetes Care products to consumers outside Europe through pharmacies, drugstores, mass merchants, hospitals and wholesalers. In Europe, they are sold mainly through pharmacies.

The Animal Health Division procures the pharmaceutical active ingredients for its veterinary medicines both from within the Bayer Group and from external suppliers throughout the world. Our animal health products are manufactured mainly at the sites in Kiel, Germany, and Shawnee, Kansas, United States, and marketed worldwide. Depending on local regulatory frameworks, animal health products may be available to end users with a prescription issued by a veterinarian or over the counter from retail stores, drugstores and pharmacies.

## Bayer CropScience

CropScience procures most of its raw materials for the manufacture of crop protection products externally in various parts of the world. The cost of some raw materials depends on fluctuating crude oil and energy prices and freight charges.

Our business is subject to the growing seasons for the relevant crops and the respective distribution cycles.

CropScience operates some 40 production facilities of its own around the world. Among the largest are the plants in Dormagen and Frankfurt am Main, Germany; Institute, West Virginia and Kansas City, Missouri, United States; and Vapi, India. In addition to the central locations for the manufacture of our active ingredients, a network of decentralized formulation and filling sites enables us to respond rapidly to local market needs.

40 CropScience  
production sites  
worldwide

Our crop protection products are marketed either via wholesalers or directly through retailers by means of a two- or three-step distribution system, depending on local market conditions.

The products of the Environmental Science unit for non-agricultural uses are marketed through various distribution channels. Our green industry, pest control and vector control products are sold directly to professional users, while home and garden products are marketed to consumers through specialist retailers.

BioScience produces its commercial seeds in numerous breeding stations around the world. The products are made available to growers, breeders, specialist dealers and processing industries. Traits developed using plant biotechnology are either incorporated into our own seed varieties or licensed to other seed companies for use in their products. In some cases, traits are also provided to other companies for research purposes.

## Bayer MaterialScience

The primary raw materials for our products are petrochemical feedstocks, which we generally purchase under long-term agreements. This safeguards the supply of raw materials on competitive terms.

MaterialScience manufactures polyurethanes, polycarbonates, coating and adhesive raw materials and certain basic chemicals in close proximity to its customers at 30 locations around the world. Our largest production facilities for the European market are located in Dormagen, Krefeld-Uerdingen and Brunsbüttel, Germany; Antwerp, Belgium; and Tarragona, Spain. The major production site for the U.S. market is at Baytown, Texas, while customers in the Asia/Pacific region are supplied chiefly from Map Ta Phut, Thailand and Shanghai, China. Our focus is on world-scale facilities.

World-scale production  
facilities at  
MaterialScience

Our polyurethane raw materials, such as diphenylmethane diisocyanate (MDI), toluene diisocyanate (TDI) and polyether (PET), and the polyurethane systems based on them that are offered in the market are used, for example, in the production of mattresses, refrigerator insulations, automotive bumpers and shoe soles. The Coatings, Adhesives, Specialties business unit manufactures raw materials for coatings used in the automobile and commercial vehicle industries, and for adhesives used in footwear. Examples of applications for our polycarbonates, which we market under the Makrolon®, Bayblend®, Makroblend® and other trademarks, include car headlamps, stadium roofs, housings for electrical appliances, and water bottles for water dispensers.

Depending on their fields of application, these products are used mainly in the automotive, construction, electronics, information technology, furniture, timber, chemical, sports equipment, leisure goods, textile, medical technology and manufacturing industries.

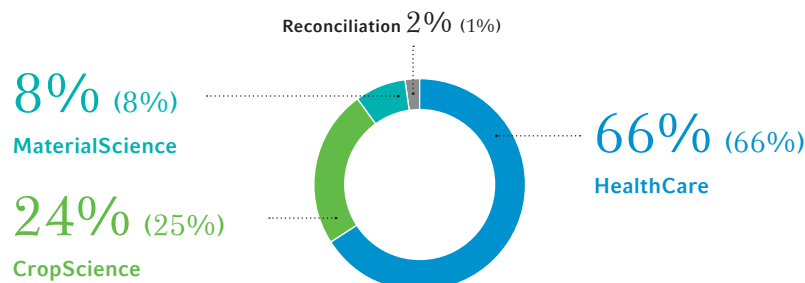
Our plastics materials are marketed primarily through regional distribution channels or directly to customers. We also work together with trading houses and local distributors who are responsible for business with small customers. Major customers with global operations are serviced directly by our key account managers.

**€2.7 billion**  
for research  
and development

## Research and Development

Our mission statement “Science For A Better Life” underscores Bayer’s belief that innovation will play a major part in resolving the challenges facing society and will therefore remain a key growth driver for our research-based enterprise. Bayer has the necessary resources in place to realize further growth opportunities for the future through research and development activities. In 2008 a total of €2,653 million was invested in research and development, compared with €2,578 million in the previous year. It is particularly important for us to develop new products that strengthen our core businesses. To enable us to meet our growth targets, we strive to continuously expand our product portfolio and optimize our production processes. Our research activities are closely aligned to the requirements of our markets. Our own research and development activities are supplemented by an international network of collaborations with leading universities, public-sector research institutes and partner companies. Through this pooling of expertise, we aim to rapidly translate new ideas into successful products. Our activities are also supported by the systematic advancement of talented scientists and experts in our research and development units.

Research and Development Expenses by Subgroup (2007 in parentheses)





## Bayer HealthCare

In 2008 we invested €1,742 million (2007: €1,700 million) in research and development in the Pharmaceuticals and Consumer Health segments to lay the foundations for the introduction of further innovative products in the subgroup's expanding markets. This represented about 66% of the Bayer Group's entire research and development expenditures and was equivalent to 11.3% of sales.

**€1,742 million**  
for research  
and development  
at HealthCare

Research and development in the Pharmaceuticals segment is strategically aligned to the conditions in its markets. In drug discovery we focus on four growth areas: diagnostic imaging, cardiology, oncology, and women's healthcare. The respective research activities and capacities are concentrated at three sites in Berlin and Wuppertal, Germany, and Berkeley, California. Work at the Berlin and Wuppertal sites focuses on identifying molecular targets in order to develop and optimize lead substances. Research is also carried out at these sites in the fields of drug metabolism, pharmacokinetics, toxicology and clinical pharmacology. Berkeley is an important global research and development center for protein-based active ingredients and is home to the biotechnological production facility for Kogenate®. To drive the development of new substances to treat diseases with a high unmet medical need, we conducted clinical studies with several drug candidates from our research and development pipeline during 2008. Following the completion of all necessary studies, we submitted applications to one or more regulatory authorities for registration or extension of the existing registration for some of these drug candidates. The most important drug candidates currently in registration are:

Xarelto®	U.S.A., prevention of venous thromboembolism following major orthopedic surgery
Recothrom®	E.U., hemostatic agent in surgery
Visanne®	E.U., for the treatment of endometriosis

The following table shows our most important drug candidates currently in Phase III or II of clinical testing:

### Research and Development Projects (Phases III and II)

	Indication	Status
Alemtuzumab	Multiple sclerosis	Phase III
Angeliq® low-low	Menopause management	Phase III
Aspirin® i.v.	Acute coronary syndrome	Phase III
Bonefos®	Prevention of bone metastasis in breast cancer	Phase III
Gadovist®	Magnetic resonance imaging	Phase III
LCS (Levonorgestrel Contraceptive System)	Intrauterine fertility control	Phase III
Levitra®	New galenic formulation	Phase III
Mirena®	Menorrhagia (U.S.A.)	Phase III
Nexavar®	Melanoma	Phase III
Nexavar®	Non-small-cell lung cancer	Phase III
Qlaira® (E2/DNG)	Supplementary indication: dysfunctional uterine bleeding	Phase III
Riociguat (sGC stimulator)	Pulmonary hypertension (PAH, CTEPH)	Phase III
Rivaroxaban/Xarelto®	Prevention of venous thromboembolism in medically ill, immobilized patients	Phase III
Rivaroxaban/Xarelto®	Treatment of venous thromboembolism	Phase III
Rivaroxaban/Xarelto®	Stroke prevention in atrial fibrillation	Phase III
Rivaroxaban/Xarelto®	Secondary prevention of acute coronary syndrome/myocardial infarction	Phase III

**Research and Development Projects (Phases III and II)**

	Indication	Status
VEGF Trap-Eye	Wet age-related macular degeneration	Phase III
YAZ® plus, Yasmin® Plus	Oral contraception; combined product containing folate	Phase III
YAZ®	Dysmenorrhea (Japan)	Phase III
YAZ® Flex	Oral contraception	Phase III
Adenosine A1 agonist	Atrial fibrillation	Phase II
Amikacin Inhale	Pneumonia	Phase II
BAY 60-4552 (sGC stimulator)	Heart failure	Phase II
BAY 94-9172 (AV1/ZK)	PET diagnosis of Alzheimer's disease	Phase II
Cinaciguat (sGC activator)	Acute heart failure	Phase II
Ciprofloxacin Inhale	Lung infection	Phase II
DAST Inhibitor	Cancer	Phase II
E2/DRSP	Fertility control (oral)	Phase II
ERβ Agonist	Menopause management	Phase II
FC Patch low	Fertility control	Phase II
Kogenate®	Hemophilia (formulation based on liposome technology)	Phase II
Combined oral contraceptives/DHEA	Fertility control (oral)	Phase II
Lonaprisan (ZK-PRA)	Breast cancer	Phase II
Nexavar®	Breast cancer	Phase II
Nexavar®	Colon cancer	Phase II
Nexavar®	Ovarian cancer	Phase II
Nexavar®	Additional indications	Phase II
Riociguat (sGC stimulator)	Pulmonary hypertension (COPD/ILD)	Phase II
Sagopilone (ZK-EPO)	Lung/ovarian/prostate cancer	Phase II
Valette® plus	Oral contraception; combined product containing folate	Phase II
Vardenafil	New indications	Phase II
VEGF Trap-Eye	Diabetic macular edema	Phase II

PAH = pulmonary arterial hypertension; CTEPH = chronic thromboembolic pulmonary hypertension

COPD = chronic obstructive pulmonary disease; ILD = interstitial lung disease

The nature of drug discovery and development is such that not all compounds can be expected to meet the pre-defined project goals. It is possible that any or all of the projects listed above may have to be discontinued due to scientific and/or commercial reasons and will not result in marketed products. It is also possible that the requisite FDA, European Medicines Agency (EMA) or other regulatory approval will not be granted for these compounds.

We regularly evaluate our research and development pipeline in order to prioritize the most promising pharmaceutical projects. Our most important development candidates include, for example, the innovative cancer drug Nexavar®, which has been developed jointly with Onyx Pharmaceuticals, Inc., United States. Nexavar® targets both the tumor cells and the vascular supply to the tumor. Preclinical trials have shown that the action of Nexavar® intervenes in two classes of kinase which are known to be involved both in cell proliferation (growth) and angiogenesis (blood supply) – two important processes that enable tumor growth. We continue to conduct research with this promising active substance, which is currently being marketed for the treatment of advanced renal cell carcinoma and hepatocellular carcinoma. The product was approved in January 2008 in Japan for the treatment of renal cell carcinoma, and in July 2008 in China for the treatment of hepatocellular carcinoma. Nexavar® is currently in various stages of clinical testing for the treatment of other tumor types.

Our novel anticoagulant Xarelto®, a direct Factor Xa inhibitor in tablet form, has received approval since September 2008 in Canada, Europe and several other countries for the prevention of venous thromboembolism (VTE) following elective hip or knee-joint replacement surgery. The extensive clinical trial program supporting Xarelto® makes it the most studied oral, direct Factor Xa inhibitor in the world today. More than 60,000 patients are expected to be enrolled into the Xarelto® clinical development program, which will evaluate the product in the prevention and treatment of a broad range of acute and chronic blood-clotting disorders including VTE treatment, stroke prevention in patients with atrial fibrillation, VTE prevention in hospitalized medi-

cally ill patients, and secondary prevention of acute coronary syndrome (heart attack). The Phase III study on secondary prevention of acute coronary syndrome was initiated in December 2008.

Featuring an innovative, patent-protected 24/4 day dosage regimen, our low-dose oral contraceptive YAZ<sup>®</sup> from the drospirenone product family can be used in three distinct indications: contraception, treatment of moderate acne, and treatment of the emotional and physical symptoms associated with PMDD (premenstrual dysphoric disorder). The product is already registered in all three indications in the United States, important markets of the Asia/Pacific region and in Latin America. In September 2008, YAZ<sup>®</sup> was launched for the oral contraception indication in Europe.

Our activities in the field of biological products are focused on strengthening and expanding our recombinant Factor VIII product Kogenate<sup>®</sup>. A key project here is the development of a new presentation of Kogenate<sup>®</sup> based on a patent-pending pegylated liposome technology.

Based on positive Phase II trial outcomes with riociguat, the first member of a new class of vasodilating agents known as soluble guanylate cyclase (sGC) stimulators, we moved into Phase III trials with this substance in December 2008. Administered in tablet form, riociguat is currently being investigated as a new approach for the treatment of various forms of pulmonary hypertension.

The portfolio of products emerging from our own research and development is supplemented by products licensed on a national, regional or global level. The humanized monoclonal antibody alemtuzumab successfully completed Phase II clinical trials and is now being tested in two global Phase III studies for the treatment of multiple sclerosis (MS). This novel approach to the treatment of the autoimmune disease MS is being developed in collaboration with Genzyme Corporation.

The Phase III study in age-related macular degeneration (wet AMD) for our VEGF Trap-Eye project that we are pursuing in collaboration with Regeneron Pharmaceuticals Inc. has started. Our development partner additionally initiated a Phase II study in patients with diabetic macular edema in December 2008. VEGF (vascular endothelial growth factor) is a natural growth factor that stimulates the formation of new blood vessels (angiogenesis) and is formed naturally during the growth of tissues and organs. VEGF Trap-Eye blocks this growth factor specifically and very effectively. Inhibition of VEGF prevents the abnormal formation of new blood vessels and the leakage of fluid, which is very important in treating patients with wet AMD. The medication is administered topically into the eye. Once the product has been granted regulatory approval, Bayer will market it outside the United States. Regeneron maintains exclusive commercialization rights to VEGF Trap-Eye in the U.S.

We have also acquired the commercialization rights for recombinant human thrombin (rhThrombin) outside the United States from U.S.-based ZymoGenetics, Inc. This product received FDA approval for the U.S. market in January 2008. The two companies will co-promote the product in the United States for an initial period of three years under the name Recothrom<sup>®</sup> for the control of bleeding during surgery. In August 2008 Bayer submitted a marketing authorization application for rhThrombin in Europe.

In 2007 we entered into a partnership with U.S.-based Nektar Therapeutics, Inc. to develop and commercialize an inhaled formulation of the antibiotic amikacin. This innovative treatment for pneumonia in intubated and mechanically ventilated patients is based on a novel inhalation technology. This project is currently in Phase II clinical testing and shows promising results.

To further strengthen our activities in the area of biopharmaceutical active ingredients, we acquired the protein engineering specialist Direvo Biotech AG, Germany. In addition, July 2008 saw the acquisition of the hemophilia portfolio of Maxygen, Inc., United States, along with a license to use that company's novel biotechnology research platform known as Molecular Breeding. With this acquisition we are seeking to build on our strong market position in hemophilia care.

We also invest in continuous life-cycle management to identify possible additional indications and improved delivery forms for products already on the market.

In our Consumer Health segment, research and development activities of the Consumer Care Division at our product development centers in Morristown, New Jersey, United States, and Gaillard, France, focus on identifying, developing and commercializing non-prescription (over-the-counter = OTC) products. These efforts are centered on support for both existing and new brands through the implementation of product-specific, clinical and regulatory development strategies that enable the successful exploitation of new technologies, the expansion of indications for existing products or the reclassification of current prescription medicines as OTC products. We introduced a variety of new product line extensions to several markets in 2008.

In the Diabetes Care Division, headquartered in Tarrytown, New York, we focus our research and development activities on strengthening core product lines and continuing our expansion into attractive segments of the diabetes market. The results of our internal development work and our collaborations enable us to offer user-friendly monitoring systems to meet the individual needs of people with diabetes, as demonstrated for example by the wireless combination of our new Contour® Link system and the Medtronic® insulin pump.

The Animal Health Division focuses its research and development activities in Monheim, Germany, on anti-infectives and parasiticides as well as active ingredients for the treatment of non-infectious disorders such as chronic kidney and cardiovascular diseases and cancer, particularly in companion animals. With the launch of Renalzin®, an innovative dietary supplement for cats suffering from chronic renal failure, we laid the foundation for expanding our portfolio of kidney disease treatments.

## Bayer CropScience

**€649 million**  
for research  
and development  
at CropScience

In 2008, €649 million (2007: €637 million) in research and development expenditures, or about 24% of the Bayer Group total, were made in the CropScience subgroup. This is equivalent to 10.2% of sales. CropScience maintains a global network of research and development facilities. Our biggest R&D sites for crop protection products are located in Monheim and Frankfurt am Main, Germany, and Lyon, France. The major research centers of the BioScience unit are located in Ghent, Belgium, and Haelen, Netherlands.

While research is concentrated at a small number of sites, our development activities take place both there and at field testing stations across the globe to enable future products to be tested under the relevant regional climatic conditions. Breeding activities for our seed business are also carried out at various decentralized locations to take account of specific local requirements.

In the Crop Protection unit we identify and develop innovative, safe and sustainable insecticide, fungicide and herbicide products for farmers and carry out research projects across all indications in new areas of future importance, such as plant health or stress tolerance. In addition to conventional chemistry, biology and biochemistry, modern technologies such as genomics, high-throughput screening, bioinformatics and combinatorial chemistry play an important role in the identification of new lead structures. Collaborations with external parties supplement our own activities.

We actively seek to extend the spectrum of use for our substances by developing seed treatment solutions, new mixtures or innovative formulations of products that are already on the market so that they can be applied in additional crops or are easier to use.

In 2008 we introduced two new active ingredients to the market: Spirotetramat (major brand: Movento®), Bayer CropScience's third ketoenol compound, is a highly effective systemic insecticide that offers protection against a broad spectrum of sucking insects. Spirotetramat protects pome and stone fruit, citrus fruit, grapes, nuts, vegetables and potatoes against pests such as aphids, cicadas, grape lice, mealybugs, whiteflies and cottony-cushion scales.

Pyrasulfotole (major brand: Huskie®), a member of the benzoylpyrazoles class, is a new cereal herbicide offering farmers reliable control of a large number of broadleaved weeds. Thanks to its novel mechanism of action in cereal crops, this product can play an effective part in resistance management programs.

The active ingredient pipeline in Crop Protection currently contains 18 developmental projects that the company hopes to bring to market maturity between 2009 and 2017, along with a further 50 projects in early-stage research.

In 2008 we already received the first marketing approvals for a new herbicide and an innovative safener substance that we plan to commercialize as of 2009. Safeners are special substances added to herbicides to protect crops from potentially damaging effects of the active ingredient. We aim to introduce three promising new fungicides to the market in 2010 subject to their successful registration:

New active ingredient	Indication	Planned launch
Thiencarbazone-methyl	Herbicide	2009
Cyprosulfamide	Herbicide/safener	2009
Fluopyram	Fungicide	2010
Bixafen	Fungicide	2010
Isotianil	Fungicide	2010

Thiencarbazone-methyl (major brands: Adengo®, Corvus®) is a new sulfonyl amino carbonyl triazolinone (SACT) compound to control weeds in corn and cereal crops. This substance ideally complements our active ingredient isoxaflutole, which is already on the market. The combined modes of action of these two ingredients, in conjunction with our new safener cyprosulfamide, ensure particularly good plant tolerance.

CropScience anticipates a total peak sales potential in excess of €1 billion for the nine new active ingredients it plans to introduce to the market between 2008 and 2012.

The compounds developed by Crop Protection are also tested and evaluated by our Environmental Science unit for possible non-agricultural uses. In addition, we carry out tests with active ingredients from other companies and may purchase such ingredients if results are positive. Current development projects include passive treatments such as gels and baits to combat insect pests, biological solutions for pest control and insecticides for material treatment in a vector-control context. Also at the focus of our development activities are new products for weed control and active ingredient mixtures to control fungal diseases on turf and ornamental plants.

Well-stocked  
research pipeline

In 2008, Environmental Science introduced numerous new products featuring simple, user-friendly handling for professional users and consumers. In Europe, for example, we launched Kid Way® and Pistol®, two new herbicides for professional users that are intended to replace older products in our portfolio. In the United States we launched Temprid®, a new product for professional users featuring an active-ingredient combination to control ants and other pests, particularly outdoors.

We strengthened our Bayer Advanced portfolio for U.S. consumers with new products, including an insecticide that also acts as a disinfectant. In Europe we launched a number of additions to the Bayer Garden range for consumers, including several new products based on the young active ingredient thiacloprid.

Several product introductions are planned for 2009. They include the U.S. launch of Kontos®, a new pest control product for the greenhouse and nursery markets, based on the active ingredient spirotetramat, to protect ornamental plants.

Research in our BioScience unit is concerned with optimizing the properties of plants. We are developing new varieties of our core crops – cotton, canola and rice – and new vegetable seeds.

Our research and development activities are focused on the agronomic properties of these core crops. For example, our scientists are working to develop crop plants that are more resistant to stress factors such as extreme temperatures and drought conditions. We also aim to increase the plants' yield potential and quality, as by improving the profile of canola oil or enhancing the properties of cotton fibers. Other projects are directed toward broadening the spectrum of herbicide tolerance through additional mechanisms of action and improving plants' resistance to insect attack and diseases.

The technologies we use comprise both modern breeding methods and processes based on plant biotechnology. Our research and development pipeline currently contains more than 40 promising lead projects and is supplemented by research and license agreements.

The growth in BioScience sales in 2008 was supported by new product introductions. We launched several new canola varieties – including InVigor® Health, a canola line developed for the specialty canola oil market in North America. The year also saw the market introduction of Arize® Dhani rice seed. This high-yield variety is resistant to bacterial leaf blight, a disease much feared by rice growers. We also successfully introduced numerous new vegetable varieties and several new cotton lines.

In 2009 we plan to launch several innovative seed varieties, including cotton featuring our own glyphosate herbicide-tolerance trait. In conjunction with leading seed producers, we also intend to introduce our LibertyLink® herbicide tolerance technology in soybean seeds for the U.S. market.

To further strengthen the innovative capability of CropScience, we plan to gradually increase research and development spending to reach some €750 million annually by 2015. We intend to step up our research effort, particularly in the seed and plant biotechnology areas, where expenditures are planned to increase to more than €200 million over the same period.

## Bayer MaterialScience

In 2008, MaterialScience spent €221 million (2007: €209 million) on research and development (not including joint development activities with customers) to further expand its leading position in the market and in process technology as a global supplier of high-quality customized materials and system solutions. MaterialScience thus accounted for 8% of the Bayer Group's total research and development expenses. The subgroup's expenses in this field amounted to 2.3% of sales. In the MaterialScience business units – Polyurethanes; Polycarbonates; Thermoplastic Polyurethanes; and Coatings, Adhesives, Specialties – the latest technologies and production processes are used to develop new products and applications in close cooperation with our customers and other external partners.

€221 million  
for research  
and development  
at MaterialScience

Product development work in the Polyurethanes business unit is focused on expanding applications for materials and optimizing the properties of our polyurethane systems. In the construction industry, for example, our polyurethanes serve as the basis for highly efficient insulating materials and thus make an active contribution to climate protection. Roughly 70 times as much energy can be saved during the product life cycle of rigid polyurethane foam as is required for its manufacture. The use of renewable raw materials also plays an important part in our research and development activities. For example, we have developed polyols containing up to 70% by weight of renewable raw materials for use in mattresses, car seats and refrigerator insulation. One new application is a polyurethane foam system used to lay railroad ballast beds. The use of this innovative technology, which is currently being tested under regular rail traffic conditions, can result in a lower maintenance requirement for the railroad bed and also considerably reduce train noise levels.

Investment in process development is currently focused on new and improved raw materials and the optimization of manufacturing processes for polyether polyols and aromatic isocyanates. Our 250,000 tons-per-year TDI facility in Shanghai, China, due on stream in 2010, will employ the gas-phase phosgenation process, which uses up to 60% less energy than would a conventional world-scale facility of the same size. This innovative process also reduces carbon dioxide emissions by 60,000 tons per year. We have also developed highly efficient processes for MDI that are already being used at our 350,000 tons-per-year plant at Shanghai. This is the world's largest single-line MDI facility.

The Coatings, Adhesives, Specialties business unit focuses its research and development activities on developing polyurethane raw materials for the formulation of high performance coatings, adhesives and sealants, such as aliphatic and aromatic polyisocyanates and resin components. Important areas of research are raw materials for waterborne and UV-curing systems that help to conserve resources by obviating the need for organic solvents and reducing drying times for coatings. We are also working to open up more new applications in the areas of cosmetics and medical technology. The new strategic business unit Functional Films was created based on the high level of expertise harbored by the Coatings, Adhesives, Specialties business unit in the field of innovative surfaces. This unit's activities include three-dimensionally formable electroluminescent films (Lyttron®), LCD diffuser films for flat screens, formable coated films for electronic and automotive applications and soft-touch Makrofol® films used in automotive interior components and cellphone housings. We are also collaborating with U.S.-based InPhase Technologies to develop holographic data-storage media with a capacity of 300 gigabytes per first-generation disc. And with an annual capacity of 60 tons, we have quickly established ourselves as one of the world's leading industrial-scale suppliers of carbon nanotubes (Baytubes®).

Our aim in the Polycarbonates business unit is to develop new applications for our products and steadily improve manufacturing processes. We direct our efforts toward finding innovative solutions that align with global societal trends in areas such as climate protection, mobility and living standards against a background of steady population growth. Examples include lightweight plastics components for automotive construction, novel approaches in the field of LED light management technologies and stronger yet lighter materials for the passenger transportation and other sectors. Product development focuses on new polymer alloys (PC blends and compounds), modified base materials for polycarbonate sheets and various coating technologies for modifying polycarbonate surfaces. An example is the polycarbonate-based glazing and roof panels introduced globally in collaboration with leading automakers in the first quarter of 2008 under the "BayVision" competence brand. This pooling of material, application, processing and service expertise is central to integrating development activities in areas that are important for growing the business.

Research and development work in the Thermoplastic Polyurethanes business unit is concerned mainly with high-performance thermoplastic polyurethane resin granules and film products, such as solar-module films with very high transparency and UV stability.

The New Business section of MaterialScience constantly tracks and evaluates new technological and market trends, channeling the most promising ideas into research and development projects in order to create profitable business opportunities for the future or expand existing technology platforms. Early 2008 saw the inauguration of the Center for Catalysis Research (CAT) at RWTH Aachen University, Aachen, Germany, as part of a new technology initiative. The center will develop novel catalytic processes for MaterialScience.

## Bayer Technology Services

All Bayer subgroups work closely with Bayer Technology Services worldwide on technology solutions, particularly in the fields of process technology, plant engineering, automation and product development. For example, this service company cooperates with MaterialScience in the development of new production processes that make efficient use of energy and raw materials, thereby helping the subgroup to maintain and expand its technological and cost leadership. Centralized development work on technologies relevant to more than one subgroup, such as nanotechnology and biotechnology, along with mathematical simulation and data mining expertise, helps HealthCare and CropScience to shorten development times for new products. International sourcing of know-how plays a key strategic role in this respect. It involves country-specific expertise in the implementation of capital expenditure projects, global access to innovations and public funding, and the recruiting of top international personnel.

## Bayer Innovation

Bayer Innovation investigates and evaluates innovative areas related to the subgroups' current core activities and develops them into viable new businesses for the Bayer Group.

An example is the manufacture of plant-made pharmaceuticals (PMP). In 2008 a pilot facility was inaugurated to produce clinical trial samples of a vaccine for the therapy of non-Hodgkin's lymphoma. Bayer Innovation also has activities in the field of medical technology, with novel concepts under development including dressings made from biodegradable silica gel fibers for the treatment of chronic wounds. The full potential of these technologies is being evaluated in close cooperation with the Bayer subgroups and external partners.



## Triple-i: Inspiration, Ideas, Innovation

The innovation campaign entitled “Triple-i: Inspiration, Ideas, Innovation” is motivating Bayer employees worldwide to submit ideas for possible new products and thereby help to strengthen the company’s innovative capability. More than 7,000 suggestions were submitted by February 2009, and many of them have been or continue to be evaluated by our subgroups. Some ideas have already been successfully commercialized, such as the use of polycarbonate in special boatbuilding applications.

## Employees

On December 31, 2008, the Bayer Group had 108,600 employees worldwide, compared with 106,200 at the end of 2007. The net increase of 2,400 was mainly the result of our acquisitions and the expansion of our organization in the BRIC countries (Brazil, Russia, India and China) and other growth markets. These factors were partly offset by decreases in headcount such as that resulting from the integration of Schering, Berlin, Germany. In Germany we had 37,400 employees, who made up 34.4% of the Group workforce.

On the reporting date we employed 53,100 people at HealthCare (2007: 51,500). Included here for the first time are 300 employees who joined the subgroup following the acquisition of Possis Medical, Inc. in the United States, 600 employees of the acquired company Topsun in the Asia/Pacific region, and the 600 employees of Sagmel in Europe. CropScience had 18,300 employees as of December 31, 2008 (2007: 17,800) and MaterialScience 15,100 (2007: 15,400). In addition, 22,100 (2007: 21,500) Bayer Group employees work for the service companies or the holding company. Personnel expenses declined in 2008 by 1.1% to €7,491 million (2007: €7,571 million).

Employee Data	Dec. 31, 2007	Dec. 31, 2008
	FTE	FTE
<b>Employees by region</b>		
Europe	56,200	55,500
North America	16,800	17,000
Asia/Pacific	18,900	20,800
Latin America/Africa/Middle East	14,300	15,300
<b>Employees by corporate function</b>		
Production	48,800	49,100
Marketing	36,900	38,000
Research and development	11,600	12,300
General administration	8,900	9,200
<b>Total</b>	<b>106,200</b>	<b>108,600</b>
of which trainees	2,700	2,900
Training costs in percent of personnel expenses	2.0	2.7
Percentage of women in Bayer Group senior management	4.3	4.7
Number of nationalities in Bayer Group senior management	16	23

The total number of employees with permanent or temporary contracts is reported in full-time equivalents, with part-time employees included in proportion to their contractual working hours. We believe this presentation improves the comparability of personnel expenses and employee numbers.

The Bayer Group's economic success is crucially dependent on a high level of commitment by all employees. It is therefore important to enhance employee skills and performance through continuing education, global personnel development programs and a healthy work environment. Flexible worktime models enable our employees to better harmonize professional and personal interests. We have also initiated actions and projects in many countries to counter the effects of demographic change at an early stage and find tailored solutions for our company.

Our human resources policy is based on the conviction that commercial success and social responsibility are mutually dependent. That's why we offer our employees not only diverse career challenges and development opportunities, competitive performance-based compensation and numerous additional benefits, but also a high level of social security. All of our employees worldwide either have statutory health insurance or can obtain it through the company. 80% of our workforce also has access to corporate pension insurance. The working conditions for nearly 60% of our global workforce are set forth in collective or company agreements. For many years we have safeguarded jobs in Germany through a series of agreements with the employee representatives that rule out dismissals for operational reasons. The current agreement runs until the end of 2009.

#### EMPLOYEE PARTICIPATION

Employee participation

€475 million

The participation of our employees in the company's success has traditionally been a key element of our human resources policy. €475 million is earmarked for short-term incentive (STI) awards for 2008 that are to be paid out to our employees in 2009 under our Group-wide STI program. The Group Management Board decided last year to fundamentally reorganize the globally uniform STI system for managerial employees. The aim of the changes, which will take effect for the 2009 fiscal year, is to make the STI system even more transparent for its approximately 18,000 participants and provide greater rewards for personal performance than in the past.

In 2008 we continued the international introduction of the redesigned "BayShare" stock program launched in 2007, thus stepping up our commitment to this area of compensation policy. The program, already in force in Portugal, Spain, Italy and the Netherlands, was also introduced in Finland and Belgium, enabling employees in these countries to acquire Bayer shares at a discounted price. In addition, we offer local programs in many other countries so that employees there may acquire Bayer shares on special terms in order to benefit further from the company's success. Since 2005 we have offered senior and middle managers throughout the Group uniform, widely acclaimed stock-based compensation programs known as Aspire I and II (see note [26.6] to the consolidated financial statements).

#### VOCATIONAL TRAINING AND PROGRAMS FOR YOUNG EMPLOYEES

The vocational training of young people is not only part of our social responsibility as a major employer, it is also a sustainable investment in the company's future. Thus in 2008 we again continued our intensive global effort to train or recruit future specialists and managerial employees. In countries with dual training programs we offer places on such programs. At our German sites alone, more than 900 young people embarked on our vocational training programs in 2008 to prepare for a career. In Mexico more than 80 youngsters entered our dual training programs, in Argentina about 30 and in China more than 20.

In November 2008, Bayer celebrated the 20<sup>th</sup> anniversary of its program to assist and train disadvantaged youngsters, once again receiving praise for this contribution from numerous representatives of politics and industry. Last year, this groundbreaking initiative implemented at five sites in Germany prepared 149 young people with educational deficits for a formal vocational training program.

As an inventor company, we rely to a great extent on the ideas and potential of managerial staff with an academic background. In Germany, for example, this again prompted us to hire some 300 university graduates in various disciplines during 2008. The number of employees with various academic qualifications joining the company during the same period was over 1,000 in the United States, more than 800 in China, some 400 in Brazil, about 300 in Mexico and nearly 100 in Japan.

**REALIGNING THE HUMAN RESOURCES FUNCTION**

Since 2006 Bayer has been realigning its human resources function by way of the Group-wide “Transforming Human Resources” project. The goal is to increase the contribution of the human resources function to the success of the business and enhance the quality and efficiency of global human resources processes through an innovative operating model. We recorded major progress in this respect during 2008, with the continuing introduction of the new HR operating model in five South American countries, the United Kingdom and at five German affiliates. In January 2009, Bayer Schering Pharma AG also aligned its human resources activities to the new structures. This marks the conclusion of the project in Germany. By 2008, five central human resources processes had already been successfully implemented within the new structures and according to uniform rules and processes in more than 70 countries and over 160 Group companies.

## Sustainable Development

Sustainable development is a key component of the Bayer Mission Statement and of our Values and Leadership Principles. Our commitment in this area is clearly defined in our Sustainable Development Policy and established within the Group by means of our corporate directives and policy statements. Various voluntary commitments, such as our signing of the Responsible Care Global Charter and our membership of the United Nations Global Compact, underscore our attitude to sustainability. Our existing committees for sustainable development and for health, safety and environmental issues continued their work in the reporting period. In 2008 we adopted an extended strategy for sustainability in procurement that we are implementing on a step-by-step basis starting in 2009. In 2008 we continued to implement both the Group-wide position on human rights developed in the prior year and the Bayer Climate Program, which is based on our new policy on climate change.

Both our corporate growth and our sustainability efforts are driven by our innovative capability. Bayer seeks innovative answers to global challenges such as climate change and the need to improve health care and food supplies. We are also addressing the challenges presented by the new agricultural economy. Here our aim is to help safeguard harvests and raise crop yields by deploying the latest crop protection methods and new solutions in the areas of plant biotechnology and breeding. Biotechnology and nanotechnology hold tremendous potential for significant new products and applications for health care, nutrition and environmental protection. Bayer has evolved corporate positions on the responsible use of these technologies of the future.

Innovation, product stewardship, excellence in corporate management, social responsibility and responsibility for the environment are the fields of activity covered in our Sustainable Development Program 2006+ ("Our goals for 2010"). This program – a yardstick for our sustainability performance management – incorporates the goals of all the subgroups and service companies. The respective management and executive boards are responsible for successfully implementing these goals.

Bayer has voluntarily pledged to observe the Greenhouse Gas (GHG) Protocol in its emissions reporting. Our direct greenhouse gas emissions declined in 2008, largely due to process technology improvements in connection with our climate program. Both direct and indirect emissions fell as a result of a lower total production volume at MaterialScience.

The figure originally stated in the 2007 Annual Report for direct greenhouse gas emissions in 2007 has been adjusted from 3.9 to 4.4 million metric tons of CO<sub>2</sub> equivalents because a nitric acid facility was newly included in the Bayer Group emissions statistics to comply with the guidelines of the GHG Protocol. This plant is operated by a third party but owned by MaterialScience. The fact that MaterialScience exerted operational influence at the facility by investing in emissions reduction measures, thereby modifying the process, obligates Bayer under the GHG Protocol to include this plant in its greenhouse gas emissions statistics.

Nearly all other key performance indicators held steady or further improved in 2008. The industrial injury rate fell once again, as did emissions of phosphorus, nitrogen and organic carbon. Use of resources remained constant, with energy use even declining. There was a considerable increase in reportable environmental incidents in 2008. Of particular importance to us is not just the absolute number – which remained relatively steady compared to the five-year average – but also the various reasons for, and effects of, the individual incidents. We are therefore analyzing and evaluating each incident in order to take the necessary action. There was an increase in the emission of volatile organic compounds due to a rise in production at one of our sites in Asia.

**Key Performance Indicators**

Category	Key Performance Indicator	2007	2008
Health and Safety	Industrial injuries to Bayer employees resulting in at least one day's absence (number of injuries per million hours worked)	2.4	2.2
	Reportable industrial injuries to Bayer employees (number of injuries per million hours worked)	3.7	3.6
	Major environmental incidents	3	7
	Transportation incidents	10	10
Emissions	Direct greenhouse gas emissions (CO <sub>2</sub> equivalents in million metric tons)*	4.4	4.0
	Indirect greenhouse gas emissions (CO <sub>2</sub> equivalents in million metric tons)*	3.7	3.5
	Volatile organic compounds (thousand metric tons/year)	2.9	3.2
	Total phosphorus in waste water (thousand metric tons/year)	1.0	0.8
	Total nitrogen in waste water (thousand metric tons/year)	0.7	0.7
	Total organic carbon (thousand metric tons/year)	1.8	1.6
Waste	Hazardous waste generated (million metric tons/year)	0.3	0.4
	Hazardous waste landfilled (million metric tons/year)	0.1	0.1
Use of resources	Water use (million m <sup>3</sup> /day)	1.2	1.2
	Energy use (petajoules [10 <sup>15</sup> joules])/year)	91.7	88.5

2007 figures restated  
\*as per Greenhouse Gas Protocol

The key performance indicators for the “Employees and Society” area can be found in the preceding “Employees” chapter (see page 97). Our Sustainable Development Report, which is issued annually, is based largely on Version G3 of the Global Reporting Initiative (GRI) for sustainability reporting. The 2007 report covers all required indicators in full (Level A+, GRI-checked). Bayer’s Sustainable Development Report for 2008 is scheduled to appear at the end of May 2009.

Evaluating both benefits and possible risks is a key element in Bayer’s product development. We examine all Bayer products in applications known to us and monitor them with regard to possible health, safety, environment or quality risks, taking into account the entire value chain. In 2008 we updated both our directive on economical warehousing and the related instruction manual.

We are committed to product stewardship and also support the objectives of the E.U. chemicals policy (REACH), which are to ensure the safety of everyone who comes into contact with chemical products throughout their life cycles and to further improve consumer safety and environmental protection. To ensure the implementation of this policy throughout the Bayer Group, the Board of Management issued an internal directive in 2007 entitled “REACH Implementation.” The first step in implementing the REACH regulation – the pre-registration of all substances we manufacture in the E.U. or import from elsewhere – was successfully completed in 2008.

We also endorse the goals of the action plans of the E.U. and WHO Europe for improving health and the environment, which focus particularly on children’s health. It is essential here to look at all factors influencing children’s health and focus on relevant health problems. Decision-making must continue to be based on the scientific assessment of risk, which is increasingly based on human biomonitoring. We support scientifically sound human biomonitoring programs and have established a Group-wide position on this topic.

It is important to us that we participate in shaping external conditions. Bayer is keenly involved in the discussion surrounding environmental and consumer protection strategies and regulations at both the national and international levels.

## WORKING FOR CLIMATE PROTECTION

Bayer is permanently committed to addressing the major global challenge presented by climate change. In 2007 we launched the integrated Group-wide Bayer Climate Program, based on our new policy on climate change.

Bayer has set itself ambitious emission targets for the period from 2005 through 2020. The MaterialScience subgroup aims to lower its global specific greenhouse gas emissions per ton of products sold by 25%. CropScience plans to reduce absolute emissions worldwide by 15% and HealthCare by 5%. We currently expect that the Group's emissions will remain at the present level through 2020 despite increased production.

Initiated by the Group Management Board, the program comprises a package of measures to be implemented over a period of several years. Bayer has launched and is pressing ahead with groundbreaking projects such as the global "EcoCommercial Building" concept for zero-emissions office and industrial buildings, the development of stress-tolerant plants and the "Bayer Climate Check" for production processes.

Supporting initiatives play a significant role – including a new car policy, increased use of new telecommunications technologies, and the Bayer Climate Fellows program for dedicated school students.

Details on the Bayer Climate Program can be found in our brochures "Climate Change – We help with solutions" and "The Bayer Climate Program."

Bayer participates in the international dialogue through its membership of the business leadership initiative "3c: Combat Climate Change" and the Climate Change Dialogue of the World Economic Forum in Davos, Switzerland. The company has also joined the voluntary "Caring for Climate" initiative for U.N. Global Compact participants.

## SUSTAINABLE INVESTMENT

For many years Bayer stock has been included in numerous indices and investment funds that focus on companies with sustainable and responsible corporate policies.

Bayer has appeared continuously in the Dow Jones Sustainability Index World (DJSI World) since it was established in 1999. Our stock is also listed continuously in the benchmark series of the FTSE4Good indices, which has been published annually by the Financial Times and the London Stock Exchange since 2001. In 2007, we were additionally included in the newly established FTSE4Good Environmental Leaders Europe 40 Index, which lists European companies with optimal environmental management. The analysts of the Storebrand Principle Fund rated Bayer among the top companies in its peer group in their most recent evaluation in 2007, awarding it the ranking "Best in Class – Environmental and Social Performance." In addition, our shares have been listed in the French "Advanced Sustainable Performance Indices" (ASPI) Eurozone Index since 2001. In 2008 the Carbon Disclosure Project (CDP), an investors' organization, again listed Bayer in the Carbon Disclosure Leadership Index – the first global climate protection index – as one of the world's leading companies in the area of climate protection. Bayer is the only European chemical and pharmaceutical company to have been listed in this index four times in succession.

For more detailed information on sustainability, please refer to our Sustainable Development Report.

### INTERNET

For more information on the Bayer Climate Program, go to [WWW.CLIMATE.BAYER.COM](http://WWW.CLIMATE.BAYER.COM)

### INTERNET

For more information on sustainability, go to [WWW.SUSTAINABILITY2007.BAYER.COM](http://WWW.SUSTAINABILITY2007.BAYER.COM)

## Corporate Social Responsibility

The principle of corporate social responsibility (CSR) is firmly embedded in Bayer's philosophy and strategy as a business enterprise. The company considers itself part of society and therefore obligated to behave as a responsible corporate citizen. Bayer's CSR commitment is exemplified by numerous projects that the company organizes or supports in many parts of the world, some of which have been running for years. In 2008 the Bayer Group provided funding of nearly €50 million for these activities, focusing on the areas of education and research, environment and nature, health and social needs, and sports and culture. We continuously adapt the scope of our projects and/or extend them to additional countries.

### EDUCATION AND RESEARCH

Bayer traditionally places great importance on support for education and research, which are essential to the future viability of society. A company such as ours depends on recruiting people with a very high level of scientific skills.

In 2008 the Bayer Science & Education Foundation provided financial support for outstanding scientists, high-achieving university students and dedicated school students. It also sponsored innovative teaching programs in schools. The €50,000 Otto Bayer Award for 2008 went to Professor Thomas Carell of the Institute for Chemistry and Pharmacy at Ludwig Maximilian University in Munich, Germany, for his work in the field of DNA repair. As part of the Bayer Climate Program, the foundation presented the Bayer Climate Award, also in the amount of €50,000, for the first time in 2008. The honor went to Emeritus Professor Eberhard Jochem of the Fraunhofer Institute for Systems and Innovation Research in Karlsruhe for his groundbreaking contributions to the improvement of energy efficiency, which is essential for reducing greenhouse gas emissions. The Bayer Climate Award is one of the first international prizes to be awarded by a company for fundamental research in climate science.

Bayer provided nearly €140,000 to sponsor 23 gifted and ambitious students in the fields of natural sciences and medicine. The foundation also provided roughly €500,000 in funding for 47 school programs in communities near our sites to help improve the conditions in which science is taught. Again in the context of the Bayer Climate Program, the foundation in 2008 awarded its first scholarships for school students participating in international sustainability seminars. Denmark joined the list of countries participating in Bayer's educational program "Making Science Make Sense," which means schoolchildren in 11 countries are now benefiting from the commitment of Bayer employees who visit schools to demonstrate the fascination and benefits of science with the aid of hands-on experiments.

### ENVIRONMENT AND NATURE

Protecting the environment and nature has long been of major importance to Bayer. As a company with international production operations, Bayer believes the judicious use of natural resources is a major part of its social responsibility along with environmental protection and nature conservation.

In 2008 Bayer and the United Nations Environment Programme (UNEP) again organized around a dozen environmental projects for young people and children within the scope of their global environmental education partnership. The centerpiece of these joint activities was an auction in New York City featuring selected pictures on the subject of climate change that were entered for the International Children's Painting Competition organized each year by the two partners. More than 15,000 children from 90 countries took part in the 2008 competition. The proceeds from the sale of the paintings were donated to a newly established aid fund administered by UNICEF for children in a position of need following climate-related disasters. Bayer also assisted UNEP in organizing the international children's environmental conference and regional youth environmental conferences.

The Young Environmental Envoy program launched by Bayer in Thailand in 1998 last year celebrated the 10th anniversary of its founding. This time young environmental activists from a total of 18 countries in Asia, Latin America, eastern Europe and Africa participated in the week-long study trip to Germany. Nearly 1,000 young photographers from Poland, Hungary, the Czech Republic and Slovakia participated in the 2008 “Ecology in Focus” competition, which centered on the issue of how to tackle climate change.

#### HEALTH AND SOCIAL NEEDS

Bayer demonstrates an active commitment to improving social conditions and health services in many regions of the world with the dual aim of promoting social stability in the communities near its sites and helping to solve global health challenges.

As part of this commitment, the Bayer Cares Foundation supported 21 charitable projects in the environs of our sites with total funding of nearly €90,000. In this way the foundation rewarded employee and citizen volunteerism as a central feature of an active community.

The second permanent area of activity for the Bayer Cares Foundation is providing rapid emergency aid in situations such as natural disasters and assisting with sustainable reconstruction projects. For example, Bayer provided immediate relief to earthquake victims in Sichuan, China, in the form of medicines, equipment and financial aid to which our employees also contributed. The foundation also supported long-term reconstruction efforts, resulting in total assistance from Bayer worth more than €2.2 million. The Bayer Cares Foundation, in cooperation with the Red Cross, provided 20 modern container classrooms, 50 homes and a mobile clinic, using Bayer’s technical expertise, for a college complex with more than 7,000 students in the particularly hard-hit city of Dujiangyan.

In the area of health care, Bayer launched a new collaboration with the U.S. Agency for International Development (USAID). The company will provide USAID with up to 110 million cycles of oral contraceptives annually for family planning programs in developing countries throughout the world at significantly reduced prices. These efforts will give more than eight million women each year access to modern, reliable hormonal contraception.

#### CULTURE AND SPORTS

Bayer has served as a patron of the arts for more than a century. The extensive program of events organized by Bayer’s Cultural Affairs Department and our support for a range of clubs and societies make a significant contribution to cultural life and enhance the attractiveness of our corporate locations.

Bayer has also sponsored sports for over 100 years. Here we focus particularly on the promotion of sports for the disabled as well, mainly through our support for club activities. Among the highlights of 2008 were the 13th Paralympics in Beijing, China, at which the 13 participating disabled athletes from Bayer took home eight medals.

As well as sponsoring disabled athletes as part of our CSR activities, we again supported top-class sports in 2008, with a total of 21 Bayer club members taking part in the 29th Olympic Summer Games in Beijing. As at the Paralympics, the Olympic competitors from TSV Bayer 04 Leverkusen made up the world’s largest club contingent.

#### INTERNET

For more information on Bayer’s social commitment, go to [WWW.CSR.BAYER.COM](http://WWW.CSR.BAYER.COM)



## Corporate Governance Report\*

\* This Corporate Governance Report also constitutes the report pursuant to Section 3.10 of the German Corporate Governance Code; it does not form part of the audited Management Report.

### DECLARATION BY THE BOARD OF MANAGEMENT AND THE SUPERVISORY BOARD OF BAYER AG

#### concerning the German Corporate Governance Code (June 6, 2008 version) pursuant to Section 161 of the German Stock Corporation Act \*

Under Section 161 of the German Stock Corporation Act, the Board of Management and the Supervisory Board of Bayer AG are required to issue an annual declaration that the company has been, and is, in compliance with the recommendations of the "Government Commission on the German Corporate Governance Code" as published by the Federal Ministry of Justice in the official section of the electronic Federal Gazette (Bundesanzeiger), or to advise of any recommendations that have not been, or are not being, applied. The declaration pursuant to Section 161 of the Stock Corporation Act shall be available to shareholders at all times. An annual declaration was last issued in December 2007.

With respect to the past, the following declaration refers to the June 14, 2007 version of the Code. With respect to present and future corporate governance practices at Bayer AG, the following declaration refers to the recommendations in the June 6, 2008 version of the Code.

The Board of Management and the Supervisory Board of Bayer AG hereby declare that the company is in compliance with the recommendations of the "Government Commission on the German Corporate Governance Code" as published by the Federal Ministry of Justice in the official section of the electronic Federal Gazette and has been in compliance since issuance of the last declaration of conformity in December 2007.

Leverkusen, December 2008

For the Board of Management

For the Supervisory Board

  
WENNING

  
KÜHN

  
DR. SCHNEIDER

\* This is an English translation of a German document. The German document is the official and controlling version, and this English translation in no event modifies, interprets or limits the official German version.

### BAYER AGAIN IN COMPLIANCE WITH ALL RECOMMENDATIONS OF THE CORPORATE GOVERNANCE CODE

Bayer has always placed great importance on responsible corporate governance and will continue to do so. Last year the company was again able to renew its declaration that it is in full compliance with the recommendations of the German Corporate Governance Code.

In 2008 the Board of Management and Supervisory Board again addressed the question of compliance with the Corporate Governance Code, particularly in light of the new recommendations included in the amended version of the Code published on June 6, 2008. The resulting declaration of conformity, reproduced above, was published in December 2008 and posted on Bayer's website along with previous declarations.

### DUTIES AND ACTIVITIES OF THE BOARD OF MANAGEMENT

Bayer AG is a strategic management holding company, run by its Board of Management on the Board's own responsibility with the goal of sustainably increasing the company's enterprise value and achieving defined corporate objectives. The Board of Management performs its tasks according to the law, the articles of incorporation and the Board's rules of procedure, and works with the company's other governance bodies in a spirit of trust.

The Board of Management defines the long-term goals and the strategies for the Group, its sub-groups and its service companies, and sets forth the principles and directives for the resulting corporate policies. It coordinates and monitors the most important activities, defines the portfolio, develops and deploys managerial staff, allocates resources and decides on the Group's financial steering and reporting.

The members of the Board of Management bear joint responsibility for running the business as a whole. However, the individual members manage the areas assigned to them on their own responsibility within the framework of the decisions made by the entire Board. The allocation of duties among the four members of the Board of Management is defined in a written schedule.

The entire Board of Management makes decisions on all matters of fundamental importance and in cases where a decision of the entire Board is prescribed by law or otherwise mandatory. The rules of procedure of the Board of Management contain a list of topics that must be dealt with and resolved by the entire Board.

Meetings of the Board of Management are held regularly. They are convened by the Chairman of the Board of Management. Any member of the Board of Management may also demand that a meeting be held. The Board of Management makes decisions by a simple majority of the votes cast, except where unanimity is required by law. In the event of a tie vote, the Chairman has the deciding vote.

According to the Board of Management's rules of procedure and schedule of duties, the Chairman bears particular responsibility for leading and coordinating the Board's work. He represents the company and the Group in dealings with third parties and the workforce on matters relating to more than one part of the company or the Group. He also bears special responsibility for certain departments of the Corporate Center and their fields of activity.

The schedule of duties also assigns particular areas of specialist responsibility to the other three members of the Board of Management, who are respectively responsible for Strategy and Human Resources; Finance; and Innovation, Technology and Environment. Each of these members also represents certain geographical regions.

No committees of the Board of Management have been set up in view of the small number of members and the role of Bayer AG as a strategic management holding company.

#### **SUPERVISORY BOARD: OVERSIGHT AND CONTROL FUNCTIONS**

The role of the 20-member Supervisory Board is to oversee and advise the Board of Management. Under the German Codetermination Act, half the members of the Supervisory Board are elected by the stockholders, and half by the company's employees. The Supervisory Board is directly involved in decisions on matters of fundamental importance to the company, regularly conferring with the Board of Management on the company's strategic alignment and the implementation status of the business strategy.

The Chairman of the Supervisory Board coordinates its work and presides over the meetings. Through regular discussions with the Board of Management, the Supervisory Board is kept constantly informed of business policy, corporate planning and strategy. The Supervisory Board approves the annual budget and financial framework. It also approves the financial statements of Bayer AG and the consolidated financial statements of the Bayer Group, taking into account the reports by the auditor.

## COMMITTEES OF THE SUPERVISORY BOARD

The Supervisory Board currently has the following committees:

**Presidial Committee:** This comprises two stockholder representatives and two employee representatives. The Presidial Committee serves primarily as the mediation committee pursuant to the German Codetermination Act. It has the task of submitting proposals to the Supervisory Board on the appointment of members of the Board of Management if the necessary two-thirds majority is not achieved in the first vote at a plenary meeting. Certain decision-making powers relating to capital measures have also been delegated to this committee.

**Audit Committee:** The Audit Committee, comprising three stockholder representatives and three employee representatives, meets regularly four times a year. Its tasks include examining the company's financial reporting along with the financial statements of Bayer AG, the consolidated financial statements of the Bayer Group and the management reports of Bayer AG and the Bayer Group, all of which are prepared by the Board of Management. It also examines the proposal for distribution of the balance sheet profit of Bayer AG and the interim financial statements and management reports of the Bayer Group. On the basis of the auditor's report on the audit of the financial statements of Bayer AG, the consolidated financial statements of the Bayer Group and the management reports of Bayer AG and the Bayer Group, the Audit Committee develops proposals concerning the approval of the statements by the full Supervisory Board. The Audit Committee is also responsible for the company's relationship with the external auditor. The Audit Committee prepares the awarding of the audit contract to the audit firm appointed by the Annual Stockholders' Meeting, suggests areas of focus for the audit and determines the auditor's remuneration. It also monitors the independence, qualifications, rotation and efficiency of the auditor.

In addition, the Audit Committee oversees the company's internal control system along with the procedures used to identify, track and manage risk. It also bears responsibility for corporate compliance issues and discusses developments in this area at each of its meetings. The internal Corporate Auditing department reports regularly to the Audit Committee.

**Human Resources Committee:** On this committee, too, there is parity of representation between stockholders and employees. It consists of the Chairman of the Supervisory Board, one other stockholder representative and two employee representatives. The Human Resources Committee prepares the personnel decisions of the full Supervisory Board, which resolves on appointments or dismissals of members of the Board of Management. The Human Resources Committee resolves on behalf of the Supervisory Board on the service contracts of the members of the Board of Management. However, in accordance with a recommendation of the Corporate Governance Code issued in 2008, the compensation system for the Board of Management and the principal provisions of their contracts are the responsibility of the full Supervisory Board. The Human Resources Committee also discusses the long-term succession planning for the Board of Management.

**Nominations Committee:** This committee carries out preparatory work when an election of stockholder representatives to the Supervisory Board is to be held. It suggests suitable candidates for the Supervisory Board to propose to the Annual Stockholders' Meeting for election. The Nominations Committee comprises the Chairman of the Supervisory Board and the other stockholder representative on the Presidial Committee.

Detailed information on the work of the Supervisory Board and its committees is provided in the Report of the Supervisory Board on page 10ff. of this Annual Report.

## INFORMATION ON THE REMUNERATION OF THE BOARD OF MANAGEMENT AND THE SUPERVISORY BOARD (COMPENSATION REPORT)

To avoid dual presentation of the data, this Corporate Governance Report explicitly adopts, and makes reference to, the information given in the Compensation Report on page 111ff. This also applies to the description of the stock-based compensation for the Board of Management (see page 111ff.) and employees (see Note [26.6] to the consolidated financial statements).

### PERSONAL LIABILITY IN PLACE OF A DEDUCTIBLE

The company meets the recommendation in the German Corporate Governance Code regarding deductibles for any Directors' & Officers' (D&O) liability insurance by obtaining personal declarations from each member of the Board of Management and Supervisory Board to the effect that, should they cause damage to the company or third parties through gross negligence (as defined by German law) in the performance of their duties, they undertake to pay for such damage up to the equivalent of half their total annual remuneration for the year in which such damage occurs. The members of the Supervisory Board undertake to pay for such damage, if caused by them, up to the equivalent of the variable portion of their respective annual remuneration as Supervisory Board members for the relevant year. There is no insurance coverage for intentional breach of duty.

### DISCLOSURE OF SECURITIES TRANSACTIONS BY MEMBERS OF THE SUPERVISORY BOARD AND BOARD OF MANAGEMENT

To comply with Section 15 A of the German Securities Trading Act, members of the Board of Management and Supervisory Board and their close relatives are required to disclose all transactions involving the purchase or sale of Bayer stock where such transactions total €5,000 or more in a calendar year. Bayer publishes details of such transactions immediately on its website and also notifies the German Financial Supervisory Authority accordingly. This information is provided to the company register for archiving.

The following transactions were reported to Bayer AG in 2008:

Willy Beumann, Supervisory Board						
Date/Place	Security/ Right	ISIN	Transaction	Price/ Currency	Quantity	Total transaction volume
May 13, 2008/Xetra	Shares	DE0005752000	Purchase	€55.72	261	€14,542.92
Dec. 22, 2008/Over-the-counter	Shares	DE0005752000	Purchase	€39.20	68	€2,665.60

Information filed with the company by members of the Board of Management and Supervisory Board shows that, on the closing date for the financial statements, their total holdings of Bayer AG stock or related financial instruments were equivalent to less than 1% of the issued stock.

### SYSTEMATIC MONITORING OF ALL BUSINESS ACTIVITIES

Bayer has a control system in place enabling it to identify any business or financial risks at an early stage and take appropriate action to manage them. This control system is designed to ensure timely and accurate accounting for all business processes and the constant availability of reliable data on the company's financial position.

When acquisitions are made, we aim to bring the acquired units' internal control systems into line with those of the Bayer Group as quickly as possible.

However, the control and risk management system cannot provide absolute protection against losses arising from business risks or fraudulent actions.

### CORPORATE COMPLIANCE

Our corporate activity is governed by national and local laws and statutes that place a range of obligations on the Bayer Group and its employees throughout the world. Bayer manages its business responsibly in compliance with the statutory and regulatory requirements of the countries in which it operates.

The Board of Management has also issued internal directives to achieve this goal. These are summarized in the Corporate Compliance Policy – the revised version of the former Corporate Compliance Program – which contains binding rules for fair competition, integrity in business dealings and adherence to the principle of sustainable development.

To avoid conflicts of interest, every employee is required to separate corporate and private interests. The Corporate Compliance Policy also lays down clear rules for the establishment of fair and respectful working conditions and the responsible handling of insider information.

Compliance Committees have been established for Bayer AG, the HealthCare, CropScience and MaterialScience subgroups and the service companies Bayer Business Services, Bayer Technology Services and Currenta.

The role of these committees is to initiate systematic, business-specific training programs and oversee their implementation in line with the Corporate Compliance Policy. They are also responsible for investigating any suspected violations of the Corporate Compliance Policy and, if necessary, taking remedial action. All Compliance Committees report at least once a year to a coordination committee chaired by the Chief Financial Officer. The Group Compliance Officer and the Head of Corporate Auditing regularly report to the Audit Committee of the Supervisory Board on any compliance violations.

All Bayer employees are required to immediately report any violations of the Corporate Compliance Policy. Special telephone hotlines have been set up in all countries to allow this to be done anonymously. By far the majority of these hotlines connect callers to specialist law firms retained by us.

Starting in the fall of 2008, the revised Corporate Compliance Policy was introduced worldwide using the slogan “Compliance w.i.n.s.” (Worldwide Integrity is Necessary for Success).

A global communications campaign was launched to illustrate how compliance contributes to long-term success for the company as a whole and for each employee. The message to employees is: “Compliance makes everyone a winner.”

#### **COMMON VALUES AND LEADERSHIP PRINCIPLES**

To supplement the Corporate Compliance Policy, Bayer has drawn up a Group mission statement setting out the principles underlying Bayer’s corporate strategy. It outlines our corporate philosophy and the framework for our business activity to stockholders, customers, employees and the general public. Common values and leadership principles are considered essential for all employees in their daily work. The values include a will to succeed; a passion for our stakeholders; integrity, openness and honesty; respect for people and nature; and the sustainability of our actions. The assessment of managers’ performance on the basis of defined leadership principles helps to ensure adherence to these values throughout the enterprise.

## DETAILED REPORTING

To maximize transparency, we provide regular and timely information on the company's position and significant changes in business activities for stockholders, financial analysts, stockholders' associations, the media and the general public. Bayer complies with the recommendations of the Corporate Governance Code by publishing reports on business trends, financial position, results of operations and related risks four times a year.

In line with statutory requirements, the members of the company's Board of Management provide an assurance that, to the best of their knowledge, the annual financial statements and management report of Bayer AG and the consolidated financial statements and management report of the Bayer Group provide a true and fair view.

The annual financial statements of Bayer AG and the consolidated financial statements of the Bayer Group are published within 90 days following the end of each fiscal year. During the fiscal year, stockholders and other interested parties are kept informed about the company's performance through the half-year financial report and additional interim reports as of the end of the first and third quarters. The half-year financial report is voluntarily subjected to an audit review by the auditor, whose appointment by the Annual Stockholders' Meeting also relates specifically to this audit review.

Bayer also provides information at news conferences and analysts' meetings. In addition, the company uses the Internet as a platform for timely disclosure of information, including details of the dates of major publications and events, such as the annual and interim reports or the Annual Stockholders' Meeting.

In line with the principle of fair disclosure, we provide the same information to all stockholders and other principal target groups. All significant new facts are disclosed immediately to the general public. Stockholders also have immediate access to the information that Bayer publishes locally in compliance with the stock market regulations of various countries.

In addition to our regular reporting, we issue ad-hoc statements on developments that otherwise might not become publicly known but have the potential to materially affect the price of Bayer stock.

# Compensation Report

## COMPENSATION OF THE BOARD OF MANAGEMENT

The compensation of the Board of Management basically comprises four components: a fixed annual salary, a short-term incentive award on a yearly basis in relation to a target amount, a long-term incentive award for a three-year period in relation to a target amount, and a company pension plan conferring pension entitlements that increase with years of service. Remuneration in kind and other benefits are also provided, such as the use of a company car for private purposes or reimbursement of the cost of health screening examinations.

The fixed salary consists of two parts: a base salary and a fixed supplement.

The short-term incentive award for 2008 is calculated partly according to the Group's EBITDA margin before special items, and partly according to the weighted average target attainment of the HealthCare, CropScience and MaterialScience subgroups. The latter is based mainly on the subgroups' target attainment measured by EBITDA before special items as well as on a qualitative appraisal in relation to the market and competitors. The short-term incentive award for 2007 also contained a one-time special individual performance bonus granted in connection with the structural changes in the Bayer Group.

The directly effected remuneration (non-performance-related remuneration and short-term incentive) of members of the Board of Management in 2008 amounted to €8,813 thousand (2007: €8,883 thousand), comprising €2,105 thousand (2007: €1,986 thousand) in base salaries, €1,042 thousand (2007: €983 thousand) in fixed supplements and €5,498 thousand (2007: €5,769 thousand) in short-term incentive awards to be paid out in 2009 as well as €168 thousand (2007: €145 thousand) in remuneration in kind and other benefits. Remuneration in kind mainly consists of values assigned to remuneration in kind and other benefits in accordance with German taxation guidelines.

The members of the Board of Management participate in the long-term stock-based compensation program *Aspire 1* (annual tranches 2005 through 2008). Under this program, awards are paid out provided that the performance of Bayer stock (both in absolute terms and relative to the EURO STOXX 50<sup>SM</sup> benchmark index) meets defined criteria over a three-year period. Further details of this program are provided in Note [26.6] to the consolidated financial statements. The fair value of the stock-based compensation newly granted in 2008 as of its grant date is included in the calculation of total remuneration (see table below), although the award entitlement was only partially earned as of the balance sheet date.

The following table shows the remuneration components of the individual members of the Board of Management in 2008.

		Werner Wenning	Klaus Kühn	Wolfgang Plischke	Richard Pott	Total
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Base salary	2008	794	437	437	437	2,105
	2007	749	413	412	412	1,986
Fixed supplement	2008	344	336	181	181	1,042
	2007	325	316	171	171	983
Remuneration in kind and other benefits	2008	61	36	38	33	168
	2007	51	36	25	33	145
<b>Non-performance-related remuneration</b>	2008	<b>1,199</b>	<b>809</b>	<b>656</b>	<b>651</b>	<b>3,315</b>
	2007	1,125	765	608	616	3,114
Short-term incentive	2008	2,105	1,305	1,044	1,044	5,498
	2007	2,169	1,380	1,110	1,110	5,769
<b>Directly effected remuneration</b>	2008	<b>3,304</b>	<b>2,114</b>	<b>1,700</b>	<b>1,695</b>	<b>8,813</b>
	2007	3,294	2,145	1,718	1,726	8,883
Fair value of newly granted stock-based compensation as of grant date	2008	352	240	191	191	974
	2007	299	203	162	162	826
<b>Aggregate benefits (according to the German Commercial Code)</b>	2008	<b>3,656</b>	<b>2,354</b>	<b>1,891</b>	<b>1,886</b>	<b>9,787</b>
	2007	3,593	2,348	1,880	1,888	9,709

The award entitlements earned in 2008 – both from the 2008 tranche and from previous years' tranches on which the entitlements were only partially earned – are shown separately in the following table along with the changes in the value of entitlements from previous years' tranches based on the performance of Bayer stock in 2008. The fair value of the award entitlement already earned in 2008 from the 2008 tranche is included under "Stock-based compensation entitlements earned in the respective year." Since certain components of the award entitlements are included in both tables, the figures in the following and the preceding table should not be added together.

		Werner Wenning	Klaus Kühn	Wolfgang Plischke	Richard Pott	Total
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Long-term incentive (stock-based compensation entitlements earned in the respective year)	2008	569	364	267	309	1,509
	2007	1,150	699	359	631	2,839
Change in value of existing entitlements	2008	(195)	(135)	(97)	(106)	(533)
	2007	890	510	101	492	1,993

The current members of the Board of Management are generally entitled to receive a pension from the age of 60 in an annual amount equal to at least 30% of the last yearly fixed salary. No such pensions are currently being paid. This percentage increases depending on years of service as a Board of Management member and, according to the inception of the respective service contract, is capped between 60 and 80%. We refer to the maximum such percentage a member of the Board of Management can reach as his final target pension level. Pension provisions for the current members of the Board of Management amounted to €28,726 thousand (2007: €25,810 thousand).



The current service cost for the pension entitlements of the members of the Board of Management was as follows:

		Werner Wenning	Klaus Kühn	Wolfgang Plischke	Richard Pott	Total
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Current service cost for pension entitlements earned in the respective year	2008	-	505	182	197	884
	2007	-	588	187	224	999

The aggregate remuneration of the Board of Management according to IFRS does not include the fair value of newly granted stock-based compensation, but rather the stock-based compensation entitlements earned in the year under report plus the change in the value of stock-based compensation entitlements from previous years that have not yet been paid out. The current service cost for pension entitlements must also be added.

The components of the Board of Management's remuneration are summarized in the following table:

	2007	2008
	€ thousand	€ thousand
Directly effected remuneration	8,883	8,813
Long-term incentive (stock-based compensation entitlements earned in the respective year)	2,839	1,509
Change in value of existing entitlements	1,993	(533)
Current service cost for pension entitlements earned in the respective year	999	884
<b>Aggregate benefits (according to IFRS)</b>	<b>14,714</b>	<b>10,673</b>

For active Board of Management members whose service contracts were concluded prior to the entry into force of the amendments to the German Corporate Governance Code in June 2008, a general severance indemnity clause applies if the service contract is terminated at the company's instigation prior to a member's 60th birthday. The basic principles according to this clause are as follows:

If a member of the Board of Management is not offered a new service contract upon expiration of his existing service contract because he is not reappointed to the Board of Management, or if the member is removed from the Board of Management prematurely during the term of his contract in the absence of grounds for termination without notice, he will receive a monthly bridging allowance amounting to 80% of his last monthly fixed salary for a maximum period of 60 months from the date of expiration of his service contract less the period for which he was released from his duties on full pay or otherwise compensated. (If he were removed during the term of his contract, he would also receive the payment due for the rest of the term, though this would be reduced to the amount of his annual fixed salary plus the target amount for the short-term incentive payment for at least twelve months). His earnings from any new employment elsewhere would be offset against the bridging allowance. In the case of premature termination at the instigation of the company, further years of service might be credited under certain circumstances for the purpose of computing his Board of Management pension entitlement, though not beyond his 60th birthday.

This clause is now obsolescent and of only limited significance. The Supervisory Board has decided to follow the recommendation of the German Corporate Governance Code, as amended in June 2008, and limit severance payments under new service contracts. In the case of the only Board of Management member to have his contract renewed since then, it was contractually agreed during the second half of 2008 that payment claims can only arise in the event of premature contract termination by the company without cause and that their amount is limited. Such payments, including ancillary benefits, are limited to the value of two years' compensation (severance payment cap) and may not compensate more than the remaining term of the contract. The severance payment cap is to be calculated on the basis of the total compensation (fixed salary plus target value of the short-term incentive) for the previous year and, if appropriate, also the expected total compensation for the current year.

Special supplementary arrangements apply in the event of a change of control, see "Information Required Under Takeover Law," page 83ff.

There were no loans to members of the Board of Management outstanding as of December 31, 2008, nor any repayments of such loans during the year.

We currently pay former and retired members of the Board of Management a monthly pension equal to 80% of the last monthly base salary received while in service. The pensions paid to former members of the Board of Management or their widows are reassessed annually as of January 1, 2009 and adjusted taking into account the development of consumer prices. These benefits are in addition to any amounts they receive under previous employee pension arrangements. Pension payments to retired members of the Board of Management and their surviving dependents totaled €11,697 thousand (2007: €10,997 thousand). Pension provisions for former members of the Board of Management and their surviving dependents amounted to €107,863 thousand (2007: €115,104 thousand).

#### **COMPENSATION OF THE SUPERVISORY BOARD**

The compensation of the Supervisory Board is determined according to the relevant provisions of the Articles of Incorporation, which provisions were approved by the Annual Stockholders' Meeting on April 29, 2005. This provides that, in addition to reimbursement of their expenses, each member of the Supervisory Board receives fixed annual remuneration of €60,000 and a variable annual remuneration component. The variable remuneration component is based on corporate performance in terms of the gross cash flow reported in the consolidated financial statements of the Bayer Group for the respective fiscal year. The members of the Supervisory Board receive €2,000 for every €50 million or part thereof by which the gross cash flow exceeds €3.1 billion, but the variable component for each member may not exceed €30,000.

In accordance with the provisions of the German Corporate Governance Code, additional remuneration is paid to the Chairman and Vice Chairman of the Supervisory Board and for chairing and membership of committees. The Chairman of the Supervisory Board receives three times the basic remuneration, while the Vice Chairman receives one-and-a-half times the basic remuneration. Members of the Supervisory Board who are also members of a committee receive an additional one quarter of the amount, with those chairing a committee receiving a further quarter. However, no member of the Supervisory Board may receive total remuneration exceeding three times the basic remuneration. It has been agreed that no additional remuneration shall be paid for membership of the Nominations Committee. If changes are made to the Supervisory Board and its committees during the fiscal year, members receive remuneration on a pro-rated basis. No member of the Supervisory Board received compensation or any other benefits for personally performed services such as consultancy or agency services. The company has purchased insurance for the members of the Supervisory Board to cover their personal liability arising from their service on the Supervisory Board.

In addition to their remuneration as members of the Supervisory Board, those employee representatives who are employees of Bayer Group companies receive compensation unrelated to their service on the Supervisory Board. The total amount of such compensation was €591 thousand (2007: €687 thousand).

There were no loans to members of the Supervisory Board outstanding as of December 31, 2008, nor any repayments of such loans during the year.

Remuneration of the Members of the Supervisory Board of Bayer AG in 2008	Fixed Remuneration	Variable Remuneration	Total
	€ thousand	€ thousand	€ thousand
Dr. Paul Achleitner	75	38	113
Willy Beumann	60	30	90
Dr. Clemens Börsig	60	30	90
Karl-Josef Ellrich	75	38	113
Dr.-Ing. Thomas Fischer	75	38	113
Peter Hausmann	75	38	113
Prof. Dr.-Ing. e.h. Hans-Olaf Henkel	75	38	113
Reiner Hoffmann	60	30	90
Dr. rer. pol. Klaus Kleinfeld	60	30	90
André Krejcik	60	30	90
Petra Kronen	75	38	113
Dr. rer. nat. Helmut Panke	60	30	90
Hubertus Schmoldt	75	38	113
Dr. Manfred Schneider (Chairman)	180	90	270
Dr.-Ing. Ekkehard D. Schulz	60	30	90
Dr. Klaus Sturany	90	45	135
Dipl.-Ing. Dr.-Ing. e.h. Jürgen Weber	75	38	113
Thomas de Win	120	60	180
Prof. Dr. Dr. h.c. Ernst-Ludwig Winnacker	60	30	90
Oliver Zühlke	60	30	90

## Subsequent Events

At MaterialScience in Germany we have initiated a reduction in the working hours of payscale employees for a limited period, accompanied by a corresponding salary reduction, along with equivalent pay-related measures for managerial staff. We have taken this action in response to the drop in orders and the resulting decline in capacity utilization. Measures such as temporarily shutting down certain plants and cutting back production at others, bringing forward planned maintenance work and making greater use of flextime arrangements were already adopted at an early stage. Comparable measures are being implemented at our sites in other countries in line with local collective agreements and statutory regulations.

## Future Perspectives

### Economic Outlook and Market Opportunities

The prospects for global economic development in 2009 are very uncertain. Business confidence indicators have fallen worldwide, in some cases reaching all-time lows. In view of the many negative factors, we expect the global economy to remain fragile for some time. The sharp downturn in the United States and western Europe is likely to have a substantial impact. While growth is expected to continue in the emerging markets, it will be distinctly weaker than in previous years. It is currently impossible to predict what effects the extensive government measures aimed at stabilizing the financial markets and bolstering the business environment will have on the global economy. We anticipate a significant weakening of global economic growth in 2009, with only very slow expansion at best.

In 2009 we expect the **pharmaceutical market** to grow more slowly than in 2008 by a low single-digit percentage. This enlargement will probably be driven increasingly by countries such as China, Brazil, Mexico, South Korea, India, Turkey and Russia. By contrast, we predict restrained growth in the traditional markets – the United States and the major European countries – due to the expiration of patents for leading products, the drop in new product launches and increasing cost pressure exerted by health institutions. The difficult overall economic environment will probably have a negative impact on the pharmaceutical market as well, particularly in countries where patients bear a large proportion of the costs.

We expect the global **consumer care market** to go on expanding, albeit at a slower pace in 2009 than in 2008. The **animal health market** as a whole is likely to show moderate growth in 2009.

In 2009 we expect a continued positive trend for the global **seed and crop protection market**, although growth rates are likely to be lower than in 2008. Although prices for the most important agricultural commodities have fallen again in recent months, they remain well above the level of two years ago. Demand for plant-based food and feed products on the world markets should remain at a comparatively high level, while inventories are forecasted to remain correspondingly low. We therefore expect an ongoing increase in production for important crops such as cereals, corn, canola, soybeans and rice, which in turn would preserve the favorable business environment for seeds and crop protection products. Although the agricultural industry is generally quite robust in the face of cyclical fluctuations, the ongoing financial crisis poses a certain risk for the crop protection market in countries where agricultural production is financed by the banking sector.

**Automakers** have significantly lowered their production forecasts for 2009 after a slump in sales. For the first time the decline is likely also to affect the Asia/Pacific and eastern Europe regions, which have registered solid growth in recent years. We anticipate stagnation in eastern Europe and a slight decline in the Far East attributable largely to the Japanese market. The global crisis is expected to impact mainly the export-driven auto markets such as Germany, Japan and South Korea. Governments are enacting stimulus packages – including some to promote new car registrations – to set off a recovery in demand. Nonetheless, there are concerns about bankruptcies among car dealerships and automotive industry suppliers worldwide. A recovery is not expected until 2010 at the earliest.

For the **construction industry**, we do not foresee a significant recovery from the effects of the global financial and economic crisis during 2009. Investment in residential construction in the United States is expected to be at a low level. Incipient weakness in the remainder of the construction industry means building investment as a whole is unlikely to recover before 2010. In western Europe, too, we believe the current economic situation will continue to have negative repercussions in 2009, causing a significant drop in investment in the construction industry. In regions that so far have experienced strong growth rates – such as eastern Europe, the Middle East and Asia/Pacific – we anticipate much lower growth than originally forecast. On a global level, these assumptions signify slightly negative growth in 2009.

A slight decrease in global growth is predicted for the **electrical and electronics sector** in 2009, though the extent of the decline will depend on the further effects of the economic crisis. There are generally major regional and sub-regional differences. The demand for electronics and information technology in the emerging countries continues unabated. However, further adverse effects of the economic crisis could have negative implications for individual sectors within the electrical and electronics industry, putting manufacturers in difficult positions. Competition remains strong throughout the world, with prices greatly under pressure.

Sales forecasts for the **furniture industry** in 2009 are very much determined by the effects and the intensity of the global economic crisis. In the United States especially, it is presumed that demand will drop steeply against a background of considerably dampened consumer confidence. The global economic downswing could also impact furniture producers in Europe (Italy, Germany, Poland) and Asia (China, Vietnam, Malaysia), where lower exports probably will not be compensated by higher domestic demand. A significant recovery in the global furniture market is not anticipated until 2010 at the earliest.

## Anticipated Development Opportunities

As an international enterprise, Bayer is subject to a wide variety of developments in the various national and international markets in which it operates in its three areas of business. The following forecasts are based on the business performance described in this report, taking into account the potential risks and opportunities.

We aim to take maximum advantage of the opportunities that present themselves in our various fields of activity. We continuously evaluate potential additional opportunities in all areas. Through our research and development activities in particular, we constantly strive to discover new products and improve existing ones. Various risks described in our Risk Report – particularly financial risks – are counterbalanced by corresponding opportunities that could result from positive trends. In addition, our initiated cost and structural measures are aimed at further improving our earnings performance. We also attempt to realize business opportunities through suitable portfolio measures.

## Risk Report

### RISK MANAGEMENT

Business operations necessarily involve opportunities and risks. Effective risk management is therefore a key factor in sustainably safeguarding a company's value.

The management of opportunities and risks at Bayer is an integral part of the Group-wide corporate governance system, not the task of one particular organizational unit. Key elements of the risk management system are the planning and controlling process, Group regulations and the reporting system. In regular conferences the company's results and its potential opportunities and risks are discussed, and targets and necessary actions are agreed upon. The principles of the Bayer Group's risk management system are set forth in a Group directive.

The subgroups, service companies and the units of the holding company have nominated persons responsible for risk management at the upper managerial level and risk management coordinators to ensure that an effective system for early identification of risks is implemented and maintained.

Corporate Auditing is responsible for coordinating the identification and documentation of risk areas throughout the Group, enhancing the risk management system and monitoring its effectiveness at regular intervals. In addition, during the year-end audit the external auditor issues an opinion on the risk management system and informs the Group Management Board and the Supervisory Board of the outcomes of these evaluations. These outcomes are taken into account in the continuing enhancement of our risk management system.

#### **RISK EXPOSURE**

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous risks. We have purchased insurance coverage – where it is available on economically acceptable terms – in order to minimize related financial impacts. The level of this coverage is continuously re-examined.

Significant risks for the Bayer Group are outlined in the following sections. The order in which the risks are listed is not intended to imply any assessment as to the likelihood of their materialization or the extent of any resulting damages.

#### **LEGAL RISKS**

We are exposed to numerous legal risks from legal disputes or proceedings to which we are currently a party or which could arise in the future, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax assessments and environmental matters. The outcome of any current or future proceedings cannot be predicted with certainty. It is therefore possible that legal or regulatory judgments could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect our revenues and earnings.

Legal proceedings currently considered to involve material risks are described in Note [32] to the consolidated financial statements.

#### **OVERALL BUSINESS RISKS**

Pharmaceutical product prices are subject to regulatory controls in many markets. Some governments intervene directly in setting prices. In addition, in some markets major purchasers of pharmaceutical products have the economic power to exert substantial pressure on prices. Price controls, as well as price pressure from generic manufacturers as a result of government reimbursement systems favoring less expensive generic pharmaceuticals over brand-name products, diminish earnings from our pharmaceutical products and could potentially render the market introduction of a new product unprofitable. We expect the current extent of regulatory controls and market pressures on pricing to persist or increase.

Regulatory changes are continuously monitored, especially in our key markets. If necessary, we adjust our business plans according to the significance of governmental intervention.

Some of our products, particularly medicines, are marketed by third parties. The success of such products therefore depends on the quality of these partners' marketing and sales efforts.

Sales of the Bayer Group are subject to seasonal fluctuations. This applies particularly in the CropScience business, which is affected by factors such as weather conditions. The performance of our MaterialScience subgroup is affected by cyclicalities in customer industries. A downturn in the business cycle, characterized by weak demand – especially from key customers – and overcapacities, may lead to price pressure and more intense competition. Expectations of growth, especially in Asian economies, encourage producers to increase their production capacities. Future growth in demand may not be sufficient to absorb those capacity additions without significant downward pressure on prices.

The early identification of trends in the economic or regulatory environment and active portfolio management are important elements of our business management. Our analyses of the global economy and forecasts of medium-term economic development are documented in detail on a quarterly basis and used to support operational business planning. For a summary forecast, see “Future Perspectives – Economic Outlook and Market Opportunities” on page 116f.

Where it appears strategically advantageous we may acquire a company or part of a company and combine it with our existing business. The amount of goodwill and other intangible assets reflected in the consolidated balance sheet of the Bayer Group has increased significantly in recent years. Failure to successfully integrate a newly acquired business or unexpectedly high integration costs could jeopardize the achievement of quantitative or qualitative targets, such as synergies, and adversely impact earnings.

The integration processes associated with our acquisitions are steered by integration teams. Appropriate resources are provided to support the integration processes.

#### **PRODUCT DEVELOPMENT RISKS**

The Bayer Group’s competitive position, sales and earnings depend significantly on the development of commercially viable new products and production technologies. We therefore devote substantial resources to research and development. Because of the lengthy development processes, technological challenges, regulatory requirements and intense competition, we cannot assure that all of the products we will develop in the future or are currently developing will actually reach the market and achieve commercial success as scheduled or at all.

Furthermore, adverse effects of our products that may be discovered after regulatory approval or registration despite thorough prior testing may lead to a partial or complete withdrawal from the market, due either to regulatory actions or our voluntary decision to stop marketing a product. Also litigations and associated claims for damages due to negative effects of our products may materially diminish our net income.

To ensure an effective and efficient use of resources, the Bayer Group has implemented an organizational structure and process organization comprising functional departments, working groups and reporting systems to monitor internal research and development projects.

#### **REGULATORY RISKS**

Our life science businesses, in particular, are subject to strict regulatory regimes relating to the testing, manufacturing and marketing of many of our products. In some countries regulatory controls have become increasingly demanding. We expect this trend to continue, particularly in the United States and the European Union. Increasing regulatory requirements, such as those governing clinical or (eco-)toxicological studies, may increase product development costs and/or delay product (re-)registration.

To counter risks arising from legal or other requirements, we make our decisions and engineer our business processes on the basis of comprehensive legal advice provided both by our own experts and by acknowledged external specialists. Projects have been initiated to coordinate the implementation of new regulatory controls and mitigate any negative implications for the business.

**PATENT RISKS**

A large proportion of our products, mainly in our life sciences businesses, is protected by patents. We are currently involved in lawsuits to enforce patent rights in our products. Generic manufacturers and others attempt to contest patents prior to their expiration. When a patent defense is unsuccessful, or if one of our patents expires, our prices are likely to come under pressure because of increased competition from generic products entering the market. Details of related litigation are provided as part of the description of legal risks in Note [32] to the consolidated financial statements.

In some areas of activity we may also be required to defend ourselves against charges that products infringe patent or proprietary rights of third parties. This could impede or even halt the development or manufacturing of certain products or require us to pay monetary damages or royalties to third parties.

Our life science businesses, in particular, have a comprehensive product life cycle management in place. In addition, our legal department, in conjunction with the relevant functional departments, regularly reviews the patent situation. Potential infringements of our patents by other companies are carefully monitored so that legal action can be taken if necessary.

**PRODUCTION, PROCUREMENT MARKET AND ENVIRONMENTAL RISKS**

Production capacities at some of our manufacturing facilities could be adversely affected by, for instance, technical failures, natural disasters, regulatory rulings or disruptions to supplies of key raw materials or intermediates, as in the case of dependence on a single source for critical materials. This applies particularly to our biotech products because of the highly complex manufacturing process. If in such cases we are unable to meet demand by shifting sufficient production to other plants or drawing on our inventories, we may suffer declines in sales revenues.

The supply of strategically important raw materials is ensured on the basis of long-term contracts with multiple suppliers wherever possible. Furthermore, all stages of our production processes and our material inputs are continuously monitored by the respective expert function within the company.

Moreover, the manufacturing of chemical products is subject to risks associated with the production, filling, storage and transportation of raw materials, products and wastes. These risks may result in personal injury, property damage, environmental contamination or business interruptions and liability for compensation payments.

Furthermore, the possibility of accidental cross-contamination among our crop protection products or the presence of unintended trace amounts of genetically modified organisms in agricultural products and/or foodstuffs cannot be completely excluded.

We address product and environmental risks by way of suitable quality assurance measures. An integrated quality, health, environmental and safety management system ensures process stability. In addition, we are committed to the international Responsible Care initiative of the chemical industry, have initiated a special Bayer Climate Program and report regularly on our own safety and environmental management system.



## IT RISKS

Business and production processes and the internal and external communications of the Bayer Group are increasingly dependent on information technology systems. Major disruptions or failure of global or regional business systems may result in loss of data and/or impairment of business and production processes.

The foundations for a continuous and sustainable IT risk management system have been laid by establishing a comprehensive organization, enacting rules and regulations that define the relevant roles and responsibilities, and implementing a periodic reporting system. Technical precautions such as data recovery and continuity plans have been established together with our internal IT service provider to address this risk.

## RISK TO PENSION OBLIGATIONS FROM CAPITAL MARKET DEVELOPMENTS

The Bayer Group has obligations to current and former employees related to pensions and other post-employment benefits. Changes in relevant valuation parameters such as interest rates, mortality and rates of increases in compensation may raise the present value of our pension obligations. This may lead to increased pension costs or diminish stockholders' equity due to actuarial losses being recognized directly in equity. A large proportion of our pension and other post-employment benefit obligations is covered by plan assets including fixed-income securities, shares, real estate and other investments. Declining or even negative returns on these investments may negatively impact the future fair value of plan assets. This again may diminish equity, and/or it may necessitate additional contributions by the company. Further details are given in Note [25] to the consolidated financial statements.

We address the risk of market-related fluctuations in the fair value of our plan assets through prudent strategic investment, and we constantly monitor investment risks in regard to our global pension obligations.

## FINANCIAL RISKS

### MANAGEMENT OF FINANCIAL AND COMMODITY PRICE RISKS

As a global enterprise, Bayer is exposed in the normal course of business to credit risk, liquidity risk and various market risks that could materially affect its net assets, financial position and results of operations.

It is company policy to use derivatives to minimize or eliminate the risks associated with operating activities and the resulting financing requirements. Derivatives are used almost exclusively to hedge realized or forecasted transactions. The use of derivatives is subject to strict internal controls based on centrally defined mechanisms and uniform guidelines. The derivatives used are mainly over-the-counter instruments, particularly forward exchange contracts, foreign currency options, interest-rate swaps, cross-currency interest-rate swaps, commodity swaps and commodity option contracts concluded with banks. We set counterparty limits for such banks depending on their creditworthiness.

The various risks associated with financial instruments are outlined below together with the relevant risk management systems.

### CREDIT RISKS

Credit risk arises from the possibility of the value of receivables or other financial assets being impaired because counterparties cannot meet their payment or other performance obligations. Since the Bayer Group does not conclude master netting arrangements with its customers, the total amounts recognized in assets plus the total potential contribution to the effective initial fund of Bayer-Pensionskasse represent the maximum exposure to credit risks. Thanks to comprehensive credit management, the Bayer Group so far has not registered an increase in defaults on trade receivables despite the current situation on the capital markets.

To effectively manage the credit risks from trade receivables, Bayer has put in place a standardized risk management system, which is the subject of a Group directive. Regular creditworthiness analysis takes place in relation to exposures; these receivables are partly secured. Credit limits are set for all customers. All credit limits for debtors where total exposure is €10 million or more are evaluated by operational credit management and submitted to the Group's Central Financial Risk Committee.

To minimize credit risks, financial instrument transactions are only conducted with banks and other partners of first-class credit standing in line with predefined exposure limits. All risk limits are based on methodical models and are continuously monitored.

Country risks relating to trade receivables and intra-Group loans are continuously monitored, systematically evaluated and centrally managed.

### LIQUIDITY RISKS

Liquidity risk, i.e. the risk of not being able to fulfill current or future payment obligations because insufficient cash is available, is centrally managed in the Bayer Group. Sufficient liquid assets are held to meet all of the Group's payment obligations when they fall due, thereby ensuring solvency at all times. Payment obligations result both from operating cash flows and from changes in current financial liabilities and are included in liquidity planning. In addition, a reserve is maintained for unbudgeted shortfalls in cash receipts or unexpected disbursements. For this purpose, budget deviation analyses are performed on the basis of historical time series, adjusted for variations in business structure. The liquidity reserve is then determined which, with a defined probability, will cover a negative deviation from budgeted cash flows. The size of this reserve is regularly reviewed and adjusted as necessary to current conditions. Liquid assets are kept mainly in the form of overnight and term deposits. Credit facilities also exist with banks. These include, in particular, a €3.5 billion syndicated credit facility, which is undrawn.

We intend to service the bonds maturing in 2009 out of liquidity and free operating cash flow. The maturation of the mandatory convertible bond in June 2009 will not result in a cash outflow because the bond will be converted into equity.

## MARKET RISKS

Market risks relate to the possibility that the fair value or future cash flows of a financial instrument could fluctuate due to variations in market prices. Market risks include currency risk, interest-rate risk and other price risks, especially commodity price risk.

Sensitivity analysis is a widely used risk measurement tool that allows our management to make judgments regarding the potential loss in future earnings, fair values or cash flows of market-risk-sensitive instruments resulting from one or more selected hypothetical changes in interest rates, foreign currency exchange rates, commodity prices or other relevant market rates or prices over a selected period of time. We use sensitivity analysis because it provides reasonable risk estimates using straightforward assumptions (for example, an increase in interest rates). The risk estimates we provide below assume:

- a simultaneous, parallel foreign exchange rates shift in which the euro depreciates against all currencies by 10%;
- a simultaneous, parallel commodity price increase of 20% in all relevant commodities with respect to which we hold derivatives; and
- a parallel shift of 100 basis points in the interest rate yield curves of all currencies.

We use market information and additional analytics to manage our risk exposure and mitigate the limitations of our sensitivity analysis. We have found sensitivity analysis to be a useful tool in achieving some of our specific risk management objectives. Sensitivity analysis offers an easy-to-understand risk exposure estimate that allows an approximation of the effect changing market conditions could have on our business. Additionally, it allows our management to take the necessary steps to address such risks.

We continually refine our risk measurement and reporting procedures. This includes periodically re-examining the underlying assumptions and parameters utilized.

The sensitivity analyses included in the following sections of this Risk Report present the hypothetical loss in cash flows of financial instruments and derivatives that we held as of December 31, 2008 and December 31, 2007. The range of sensitivities that we chose for these analyses reflects our view of changes in foreign exchange rates, commodity prices and interest rates that are reasonably possible over a one-year period.

## CURRENCY RISKS

Since the Bayer Group conducts a significant portion of its operations outside the euro currency zone, fluctuations in currency exchange rates can materially affect earnings. Currency risks from financial instruments exists with respect to receivables, payables, cash and cash equivalents that are not denominated in a company's functional currency. In the Bayer Group these risks are particularly significant for the U.S. dollar, the Japanese yen and the Canadian dollar.

Currency risks are identified, analyzed and managed centrally and systematically. The scope of hedging is evaluated regularly and defined in a corporate directive. Recorded foreign currency operating items, receivables and payables are normally fully hedged.

The anticipated foreign currency exposure from forecasted transactions in the next 24 months is hedged on a basis agreed between the Group Management Board, the central finance department and the operating units. A significant proportion of contractual and foreseeable currency risks is hedged, mainly through forward exchange contracts and currency options.

Our Board of Management has provided clear guidance on how to limit and monitor cash flow risks that result from this approach.

We applied a hypothetical adverse scenario in which all currencies simultaneously appreciate by 10% against the euro compared with their year-end exchange rates. Under this scenario the estimated hypothetical loss of cash flows from derivatives and non-derivatives as of December 31, 2008 would be €293 million (2007: €119 million). Of this €293 million, €236 million is related to the U.S. dollar, €36 million to the Japanese yen and €21 million to other currencies. Of the €293 million estimated hypothetical loss of cash flow, €296 million results from derivatives used to hedge anticipated exposure from planned sales denominated in foreign currencies. Such transactions qualify for hedge accounting, and the respective changes in value are recognized in other comprehensive income. The impact of exchange-rate fluctuations on our anticipated sales in foreign currencies is not included in this calculation. The offsetting position of €3 million is primarily attributable to unhedged currency derivatives embedded in supply contracts.

#### INTEREST-RATE RISKS

The Bayer Group's interest-rate risks arises primarily from financial assets and liabilities with maturities exceeding one year. In the case of fixed-rate financial instruments, such as fixed-rate bonds, the risk of fluctuations in capital-market interest rates results in a fair-value risk because the fair values fluctuate as a function of interest rates. In the case of floating-rate instruments, a cash flow risk exists because interest payments could increase in the future.

Interest-rate risks is analyzed centrally in the Bayer Group and managed by the central finance department. This is done in line with the duration set by the Board of Management, which implicitly also includes the ratio of fixed-rate to floating-rate debt. The duration is subject to regular review. Derivatives – mainly interest-rate swaps, cross-currency interest-rate swaps and interest options – are employed to preserve the target structure of the portfolio.

Financial debt including derivatives amounted to €16,647 million as of December 31, 2008 (December 31, 2007: €14,198 million). The sensitivity analysis was performed on the basis of our floating-rate debt position at year end 2008, taking into account the interest rates relevant to our liabilities in all principal currencies. A hypothetical increase of 100 basis points, or 1% per annum, in these interest rates (assuming constant currency exchange rates) as of January 1, 2008 would have raised our interest expense for the year ended December 31, 2008 by €75 million (2007 based on liabilities at year end 2007: €65 million).

#### OTHER PRICE RISKS (ESPECIALLY COMMODITY PRICE RISKS)

The Bayer Group requires significant quantities of petrochemical feedstocks and energy for its various production processes. The prices of these inputs may fluctuate considerably depending on market conditions. As in the past, there will be times when it is not possible for us to pass on increased raw material costs to customers through price adjustments. This applies particularly to our MaterialScience business.

We have addressed this risk by concluding long-term contracts with multiple suppliers. In addition, derivatives are employed where possible to hedge against commodity price risks by smoothing variations in income-statement items due to changes in commodity prices – and the resulting changes in stockholders' equity – over the long term. The procurement departments of the subgroups are responsible for managing these price risks on the basis of internal directives and centrally determined limits, which are subject to constant review.

Commodity swaps and commodity options, in particular, are employed to hedge changes in the prices of utilities, especially gas, and of crude oil, naphtha and benzene feedstocks. These instruments are also used in the case of long-term, fixed-price supply contracts.

We applied a hypothetical adverse scenario in which all commodity and energy prices simultaneously decrease by 20%. Under this scenario the estimated hypothetical loss of cash flows from derivatives as of December 31, 2008 would be €30 million (2007: €34 million). Of this €30 million, €1 million would be directly disclosed in the income statement and €29 million would be recognized as a value adjustment in other comprehensive income according to hedge accounting rules. In considering sensitivities for commodity futures and commodity option contracts, we have made a small allowance for the fact that forward rates are less volatile than spot rates. The stated long-term contract volumes are therefore based on somewhat smaller price changes. The derivatives used by the Bayer Group to mitigate the risk of changes in exchange rates, interest rates and commodity prices are described in Note [30.3] to the consolidated financial statements.

#### ASSESSMENT OF THE OVERALL RISK SITUATION

Compared with the previous year, the overall risk situation did not change significantly in the reporting period. The overall risk assessment is based on a consolidated view of all significant individual risks. At present, no potential risks have been identified that either individually or in combination could endanger the continued existence of the Bayer Group.

No risks that could endanger the company's existence

## Business Strategy

The Bayer Group is focusing on the fast-growing, innovation-driven health care, nutrition and high-tech materials businesses in line with its mission statement: "Bayer: Science For A Better Life." By strategically aligning ourselves to these attractive markets and concentrating on our core competencies, we are able to invest more intensively in growth areas and innovative technologies. We aim to achieve leadership roles and expand our already strong market positions. We will also press ahead with cost-containment and efficiency-improvement efforts in order to further increase the company's value over the long term.

#### BAYER HEALTHCARE

HealthCare's goal remains to grow with or above the market in both segments. We aim to further strengthen this subgroup and expand it into a world-leading diversified health care enterprise. For example, we plan to keep the business share outside of Pharmaceuticals at a minimum 30% for the long term, sharpen the focus on specialty pharmaceuticals, further increase the productivity of research and development and place even greater importance on the emerging markets.

As of January 1, 2009, the larger of our HealthCare segments, Pharmaceuticals, comprises four business units: General Medicine, Specialty Medicine, Women's Healthcare and Diagnostic Imaging. We intend to maintain a distinct focus on indications with major potential for the improvement of diagnosis and therapy.

Our General Medicine business unit focuses on products that are normally prescribed by general practitioners. We are well represented in this market with our established brands Avalox®/Avelox®, Levitra®, Adalat®, Glucobay® and Cipro®/Ciprobay®. In the United States, these products are marketed through the existing alliance with Schering-Plough. (Please note that Schering-Plough Corporation, New Jersey, and the company acquired by Bayer in June 2006, i. e. Bayer Schering Pharma AG (formerly named Schering AG), Berlin, Germany, are unaffiliated companies that have been entirely independent of each other for many years.) The Specialty Medicine unit possesses a promising portfolio in the areas of hematology, oncology and neurology, with products including Kogenate®, Nexavar® and Betaferon®/Betaseron®.

The Women's Healthcare and Diagnostic Imaging units offer market-leading products such as yAZ®/Yasmin® and Magnevist®.

Research and development (R&D) is an important growth driver for our Pharmaceuticals segment, which accounts for the greater part of R&D spending in the HealthCare subgroup. Life cycle management, inlicensing, alliances and collaborations are important elements in our strategy. Such business development activities supplement our own research efforts and are designed to strengthen our portfolio, which focuses on diseases with a high unmet medical need. Examples include the recombinant Factor VIIa protein MAXY-VII acquired from Maxygen, Inc., and the preclinical oncology program acquired from Nycomed GmbH.

Our Consumer Health segment comprises the Consumer Care, Medical Care and Animal Health divisions. The goal of our Consumer Care Division is to build a leading position in the global over-the-counter (OTC) medicines market. The strategy of Consumer Care is aimed at fully leveraging the growth potential of proven brands such as Aspirin®, Aleve®, Canesten®, Bepanthen®, One-A-Day®, Rennie® and Alka-Seltzer®. We are pursuing a clear course of expansion in fast-growing regions such as central and eastern Europe and Asia/Pacific, and we aim to further develop our business in new growth segments. Recent examples of these growth initiatives include the acquisition of the OTC business of Sagmel, Inc. in eastern Europe and the OTC cough and cold business of Chinese company Topsun Science and Technology Qidong Gaitianli Pharmaceutical Co., Ltd. We acquired these businesses in order to position ourselves successfully against competitors in the Commonwealth of Independent States (CIS) and China, respectively. We intend to continue exploiting external growth opportunities through strategically relevant acquisitions and in-licensing. Effective January 1, 2009, the Intendis dermatological business, formerly part of the Pharmaceuticals Division, is managed and reported within the Consumer Care Division.

Effective January 1, 2009, Bayer HealthCare's Diabetes Care Division and our Medrad medical devices business were combined in the Medical Care Division. Medical Care's goal is to strengthen its competitive position in the areas of blood glucose measurement, diabetes management and contrast injection systems used to diagnose cardiovascular and other diseases. To this end, we are expanding our product range by developing new measurement systems and test strips to facilitate even more user-friendly monitoring devices for people suffering from diabetes. At Medrad we are also continuing to develop a new generation of injection platforms for use in the diagnosis of cardiovascular diseases and in computed tomography and magnetic resonance imaging (MRI). We also intend to develop new IT platforms for MRI. Apart from these development activities, we aim to expand our portfolio by investing in additional business areas, the acquisitions of iSense Corporation and Possis Medical, Inc. being the most recent examples of such projects. iSense is a U.S.-based company developing a minimally invasive continuous system for monitoring glucose in intercellular tissue. Possis Medical is a leading provider of mechanical thrombectomy devices used to treat narrowed or blocked arteries and veins. We intend to continuously improve our products, contain costs and use our resources more efficiently. Our strategy also includes supplementing our own strengths with strategic partnerships in specific fields of expertise.

In the Animal Health Division, we aim to achieve global leadership positions in the livestock and companion animal markets and to become a preferred supplier and partner. Our strategy is directed toward achieving organic growth by focusing on countries and markets with long-term market sales potential and successfully managing the life cycles of existing core brands. In addition, we are pursuing external growth opportunities through acquisitions and in-licensing.

## BAYER CROPSCIENCE

Bayer CropScience is aligning its corporate planning to the long-term trends in agricultural markets. As a leading innovation-driven enterprise, comprising the Crop Protection, Environmental Science and BioScience business units, its aim is to provide products and integrated solutions that contribute to the production of high-quality agricultural raw materials. Against the background of limited arable land and a steadily increasing world population that places growing demands on the quality of food and clothing and consumes more energy, it is essential to safeguard and further increase agricultural yields. We manage our business responsibly in keeping with our commitment to sustainable development and our goal of profitable long-term growth.

Innovation forms the basis for CropScience to create value in the future. The development of new active ingredients and formulations along with high-quality seed enables us to replace older products and technologies with innovative products that have an improved performance spectrum, offer better environmental compatibility and user safety, and increase value-added for our customers. These new products also help us to boost sales and are an important prerequisite for meeting our profitability targets. Our strict cost management is making a further contribution. The initiative to optimize cost structures and raise efficiency that we launched in August 2006 should be largely completed by the end of 2009. By 2010 it should lead to annual savings of about €300 million compared with the start date of the initiative.

In Crop Protection, the largest business unit, CropScience intends to defend and further expand its leading market positions in the areas of insecticides, fungicides, herbicides and seed treatments, building on its broad regional presence and innovative, highly effective products.

We endeavor to achieve this strategic goal by steadily enhancing our product mix. This not only means regularly launching new active ingredients and products from our research and development pipeline and successfully managing product life cycles, but also carrying out research in new growth areas. Examples include projects aimed at making plants healthier and increasing yields by improving nutrient uptake and stress tolerance.

As part of our efforts to offer our customers comprehensive solutions, we develop integrated concepts for specific crops in the various regions. These efforts involve both the Crop Protection and BioScience business units.

The Environmental Science business unit makes use of the development and production capacities of Crop Protection and its innovative active ingredients. In terms of sales, it is among the world's leading suppliers of products for non-agricultural applications. Our strategy is to further expand this position by developing and marketing high-quality products for consumers and professional users. The focus here is on the development of innovative products and solutions that are individually tailored to customer needs, easy to use, safe to handle and satisfy society's increasing demands with regard to health, hygiene, growing and greening. The environmental compatibility and sustainability of such products are also important criteria.

Our BioScience business unit comprises the research, development and commercialization of seeds and solutions based on plant biotechnology and modern breeding methods. BioScience subsidiary Nunhems is a leading developer and supplier of high-quality vegetable seeds. Our activities for the agriculture market focus on three core crops – cotton, canola and rice. We market the technologies we develop not only in our own seed products, but also – with the help of our partners – for other crops such as corn and soybeans. CropScience intends to expand its activities in seeds and plant biotechnology with the aim of raising BioScience sales to approximately €1 billion by 2015.

## BAYER MATERIALSCIENCE

The strategy of MaterialScience is based on safeguarding its existing competitive position in its traditional markets and achieving profitable growth in emerging markets such as China and India, central and eastern Europe and Brazil. We aim to maintain our profitable position in the isocyanates market and attain earnings leadership in polycarbonates. We are therefore endeavoring to steadily raise the efficiency of production and administration processes and strengthen downstream business activities such as BaySystems® in the Polyurethanes business unit and compounding in the Polycarbonates business unit. By 2012 MaterialScience plans to further increase the proportion of differentiated business in relation to sales of its high-volume products such as TDI or polycarbonate resins. We also intend to drive forward our newly formed Functional Films and Carbon Nanotubes businesses and create efficient resources and competencies in the emerging markets. Investments in additional production capacities will be reviewed in light of the current financial and economic crisis.

Our goal in the Polyurethanes business unit is to expand our global market leadership in isocyanates and at the same time achieve cost leadership in all areas. Our 250,000 tons per year TDI plant in Shanghai, China, is due on stream in 2010, supporting our growth in Asia. We also intend to consolidate the production of isocyanates in Europe and increase our output depending on market development. Our polyether polyols will primarily support the isocyanates business to complement the solutions we offer to customers. In the BaySystems® business we aim to achieve profitable growth and further expand our global market share. We will therefore proceed with our successful systems house strategy.

The Coatings, Adhesives, Specialties business unit is seeking to defend and selectively expand its position in the market for basic and modified isocyanates. With this goal in mind, we plan to meet growing demand in the growth regions by increasing production capacities and expanding our technical centers. We aim to achieve higher profitability in our resins activities by narrowing the focus of our portfolio toward modern solutions such as waterborne and UV-curing systems. In addition, lean distribution structures at Vivero, based in Bitterfeld, Germany, are contributing to increased profitability in this business unit.

The polycarbonate industry faces increasing commoditization. We are addressing this trend with a differentiated strategy. On the one hand, we aim to achieve cost leadership by operating world-scale facilities. On the other, we intend to increasingly offer customized solutions and compounded products, selectively investing at existing and new sites. We are working to improve the profitability of our semi-finished products, such as those for polycarbonate sheet, by optimizing our product portfolio. We also plan to enhance the overall performance of the Polycarbonates business unit by increasing the efficiency of distribution in standard segments, focusing our research activities and optimizing our cost structures.

We have combined our activities in the area of innovative surfaces and carrier materials in the new "Functional Films and Specialties" unit. This area includes applications in cosmetics, medical technology, carbon nanotubes for improving the properties of plastics and metals, and the activities of the Functional Films unit, which include three-dimensionally formable electroluminescent films, LCD diffuser films for flat screens, formable coated films for electronic and automotive applications and Makrofol® soft-touch films used in automotive interior components and cellphone housings. We intend to strengthen and expand these activities by combining them and exploiting the resulting synergies.

As part of a strategic realignment of the Thermoplastic Polyurethanes (TPU) business unit, the TPU granules activities will be integrated into the Polyurethanes business unit and the TPU films activities into the Functional Films business of the Coatings, Adhesives, Specialties business unit. We believe we can raise efficiency in the manufacture and marketing of TPU granules by linking these activities into the global systems house network. We expect the integration of TPU films into the Functional Films business to strengthen our technological and applications capabilities and boost market prospects. The integration is to be completed by April 1, 2009.



The service functions Procurement and Trading, Technology Services, Health Safety Environment & Quality, Corporate Energy Policy & Reporting, along with site management at the multi-business-unit sites in Baytown and Shanghai, are combined within the Industrial Operations unit. In addition, the Basic Chemicals unit ensures the supply of chlorine, sodium hydroxide solution, hydrogen, carbon monoxide and nitric acid at the German plants on the Lower Rhine and at the multi-business-unit sites.

The New Business unit identifies and evaluates market and technology trends for all MaterialScience business units, translating business ideas into specific projects for the development of new products and applications beyond the company’s existing core business.

## Financial Strategy

The financial management of the Bayer Group is conducted by the strategic management holding company Bayer AG. Capital is a global resource, generally procured centrally and distributed within the Group. The foremost objectives of our financial management are to help bring about a sustained increase in corporate value and ensure the Group’s liquidity and creditworthiness. This involves reducing the cost of capital, improving the financing cash flow, optimizing the capital structure and effectively managing risk. The management of currency, interest rate, raw material price and default risks helps to reduce the volatility of our earnings.

The rating agencies contracted assess Bayer as follows:

	Long-term rating	Outlook	Short-term rating
Standard & Poor’s	A-	stable	A-2
Moody’s	A3	stable	P-2

These credit ratings reflect the company’s high solvency and ensure access to a broad investor base for financing purposes. Particularly in these days of turbulent credit markets, our strategy remains geared toward achieving a rating in the single-A category in order to maintain our financial flexibility. We therefore plan to use part of our operating cash flows to reduce net debt.

We pursue a prudent debt management strategy aimed at ensuring flexibility, drawing on a balanced financing portfolio. Chief among these resources are a multi-currency European Medium Term Note program, a syndicated acquisition financing, a syndicated credit facility, bilateral loan agreements and a global commercial paper program.

We use financial derivatives to hedge against risks arising from business operations or financial transactions, but do not employ contracts in the absence of an underlying transaction. It is our policy to diminish the default risk by selecting trading partners with a high credit standing. We closely monitor the execution of all transactions, which are conducted according to Group-wide guidelines.

Further details of our risk management objectives and the ways in which we account for all the major types of hedged transactions – along with price, credit and liquidity risks as they relate to the use of financial instruments – are given in the Risk Report, page 117ff.

## Sales and Earnings Forecast

### **BAYER GROUP**

The strategic alignment of the Bayer Group allows us to look forward to 2009 with relative confidence despite the current financial and economic crisis. The fact that the less cyclical life-science businesses account for more than 70% of our sales is paying off.

For the markets relevant to our HealthCare business we predict largely steady growth of between 3% and 5%. For the CropScience markets we are assuming moderate growth of 2% to 3%. In the main sectors of importance for our MaterialScience business, however, we anticipate a very difficult year marked by a great deal of uncertainty. We have budgeted for an exchange rate of US\$ 1.35 to the euro.

For HealthCare and CropScience we expect a gratifying trend in 2009, with growth in sales and EBITDA before special items. At MaterialScience the start to the year has been even weaker than expected, and we therefore anticipate an extremely difficult year for this subgroup, with a severe drop in sales and earnings. In this negative scenario for MaterialScience we are nevertheless confident of limiting the decline in Group EBITDA before special items to about 5%. Group sales would probably then be in the region of €32 billion.

Should there be a tangible recovery in our MaterialScience business in the short term, Group EBITDA before special items could match the very high level of 2008 or even post a slight increase.

We have budgeted for special charges in the region of €250 million related to our ongoing restructuring programs.

Our capital expenditure budget for 2009 is €1.5 billion. We expect to record some €2.8 billion in depreciation and amortization, including €1.3 billion in depreciation of property, plant and equipment. Research and development expenses are planned to rise to about €2.9 billion.

We expect to reduce net debt toward €10 billion in 2009, helped by the conversion of the mandatory convertible bond into equity upon maturation in June 2009 and an improvement in net cash flow. This forecast does not take into account any possible portfolio changes.

We are not currently issuing any sales or earnings guidance beyond 2009 in view of the considerable uncertainty as to the future development of the global economy.

### **BAYER HEALTHCARE**

In 2009 HealthCare plans to achieve currency-adjusted growth rates ahead of the market average in all divisions. We aim to further improve the EBITDA margin before special items toward 28%.

### **BAYER CROPSCIENCE**

CropScience plans to continue expanding sales in a generally favorable market environment. We aim to maintain the EBITDA margin before special items at the high level of about 25%.

### **BAYER MATERIALSCIENCE**

The MaterialScience business is greatly impeded by the global recession. We expect sales and EBITDA before special items to show a further decline in the first quarter of 2009 compared with the fourth quarter of 2008, which included a comparatively steady October. For the full year we predict a severe drop in sales and EBITDA before special items.



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## Bayer Group Consolidated Statements of Income

	Note	2007	2008
		€ million	€ million
<b>Net sales</b>	[7]	<b>32,385</b>	<b>32,918</b>
Cost of goods sold		(16,352)	(16,456)
<b>Gross profit</b>		<b>16,033</b>	<b>16,462</b>
Selling expenses	[8]	(7,782)	(8,105)
Research and development expenses	[9]	(2,578)	(2,653)
General administration expenses		(1,772)	(1,649)
Other operating income	[10]	822	907
Other operating expenses	[11]	(1,569)	(1,418)
<b>Operating result (EBIT)</b>		<b>3,154</b>	<b>3,544</b>
Equity-method loss	[13.1]	(45)	(62)
Non-operating income		834	589
Non-operating expenses		(1,709)	(1,715)
<b>Non-operating result</b>	[13]	<b>(920)</b>	<b>(1,188)</b>
<b>Income before income taxes</b>		<b>2,234</b>	<b>2,356</b>
Income taxes	[14]	72	(636)
<b>Income from continuing operations after taxes</b>		<b>2,306</b>	<b>1,720</b>
<b>Income from discontinued operations after taxes</b>	[6.3]	<b>2,410</b>	<b>4</b>
<b>Income after taxes</b>		<b>4,716</b>	<b>1,724</b>
of which attributable to non-controlling interest	[15]	5	5
of which attributable to Bayer AG stockholders (net income)		<b>4,711</b>	<b>1,719</b>
<b>Earnings per share (€)</b>			
<b>From continuing operations</b>	[16]		
Basic*		2.91	2.22
Diluted*		2.91	2.22
<b>From discontinued operations</b>	[16]		
Basic*		2.93	-
Diluted*		2.93	-
<b>From continuing and discontinued operations</b>	[16]		
Basic*		5.84	2.22
Diluted*		5.84	2.22

\*The ordinary shares to be issued upon conversion of the mandatory convertible bond are treated as already issued shares.

## Bayer Group Consolidated Balance Sheets

	Note	Dec. 31, 2007	Dec. 31, 2008
		€ million	€ million
<b>Noncurrent assets</b>			
Goodwill	[17]	8,215	8,647
Other intangible assets	[17]	14,555	13,951
Property, plant and equipment	[18]	8,819	9,492
Investments in associates	[19]	484	450
Other financial assets	[20]	1,127	1,197
Other receivables	[23]	667	458
Deferred taxes	[14]	845	1,156
		<b>34,712</b>	<b>35,351</b>
<b>Current assets</b>			
Inventories	[21]	6,217	6,681
Trade accounts receivable	[22]	5,830	5,953
Other financial assets	[20]	335	634
Other receivables	[23]	1,461	1,284
Claims for income tax refunds		208	506
Cash and cash equivalents	[36]	2,531	2,094
Assets held for sale and discontinued operations	[6.3]	84	8
		<b>16,666</b>	<b>17,160</b>
<b>Total assets</b>		<b>51,378</b>	<b>52,511</b>
<b>Stockholders' equity</b>			
	[24]		
Capital stock of Bayer AG		1,957	1,957
Capital reserves of Bayer AG		4,028	4,028
Other reserves		10,749	10,278
		<b>16,734</b>	<b>16,263</b>
Equity attributable to non-controlling interest		87	77
		<b>16,821</b>	<b>16,340</b>
<b>Noncurrent liabilities</b>			
Provisions for pensions and other post-employment benefits	[25]	5,501	6,347
Other provisions	[26]	1,166	1,351
Financial liabilities	[27]	13,081	10,614
Other liabilities	[29]	331	432
Deferred taxes	[14]	3,866	3,592
		<b>23,945</b>	<b>22,336</b>
<b>Current liabilities</b>			
Other provisions	[26]	3,754	3,163
Financial liabilities	[27]	1,336	6,256
Trade accounts payable	[28]	2,466	2,377
Income tax liabilities	[26.1]	56	65
Other liabilities	[29]	2,824	1,961
Liabilities directly related to assets held for sale and discontinued operations	[6.3]	176	13
		<b>10,612</b>	<b>13,835</b>
<b>Total stockholders' equity and liabilities</b>		<b>51,378</b>	<b>52,511</b>

2007 figures restated

## Bayer Group Consolidated Statements of Cash Flows

	Note	2007	2008
		€ million	€ million
Income from continuing operations after taxes		2,306	1,720
Income taxes		(72)	636
Non-operating result		920	1,188
Income taxes paid or accrued		(915)	(812)
Depreciation and amortization		2,712	2,722
Change in pension provisions		(369)	(292)
(Gains) losses on retirements of noncurrent assets		(13)	(75)
Non-cash effects of the remeasurement of acquired assets (inventory work-down)		215	208
<b>Gross cash flow</b>		<b>4,784</b>	<b>5,295</b>
Decrease (increase) in inventories		(347)	(692)
Decrease (increase) in trade accounts receivable		(183)	(134)
(Decrease) increase in trade accounts payable		189	(36)
Changes in other working capital, other non-cash items		(162)	(825)
<b>Net cash provided by (used in) operating activities (net cash flow), continuing operations</b>	[33]	<b>4,281</b>	<b>3,608</b>
Net cash provided by (used in) operating activities (net cash flow), discontinued operations	[6.3]	2	-
<b>Net cash provided by (used in) operating activities (net cash flow) (total)</b>		<b>4,283</b>	<b>3,608</b>
Cash outflows for additions to property, plant, equipment and intangible assets		(1,860)	(1,759)
Cash inflows from sales of property, plant, equipment and other assets		165	167
Cash inflows from (outflows for) divestitures		4,648	(41)
Cash inflows from (outflows for) noncurrent financial assets		70	(390)
Cash outflows for acquisitions less acquired cash		(491)	(1,617)
Interest and dividends received		636	553
Cash inflows from (outflows for) current financial assets		18	(2)
<b>Net cash provided by (used in) investing activities (total)</b>	[34]	<b>3,186</b>	<b>(3,089)</b>
Capital contributions		-	-
Dividend payments and withholding tax on dividends		(773)	(1,126)
Issuances of debt		2,155	2,277
Retirements of debt		(7,768)	(752)
Interest paid		(1,344)	(1,272)
<b>Net cash provided by (used in) financing activities (total)</b>	[35]	<b>(7,730)</b>	<b>(873)</b>
<b>Change in cash and cash equivalents due to business activities (total)</b>		<b>(261)</b>	<b>(354)</b>
<b>Cash and cash equivalents at beginning of year</b>		<b>2,915</b>	<b>2,531</b>
Change in cash and cash equivalents due to changes in scope of consolidation		(4)	3
Change in cash and cash equivalents due to exchange rate movements		(119)	(86)
<b>Cash and cash equivalents at end of year</b>	[36]	<b>2,531</b>	<b>2,094</b>



## Bayer Group Consolidated Statements of Recognized Income and Expense

	Note	2007	2008
		€ million	€ million
Changes in fair values of derivatives designated as hedges, recognized in stockholders' equity		180	(110)
<i>Changes in fair values of derivatives designated as hedges, recognized in the income statement</i>	[30.3]	(65)	(47)
Changes in fair values of available-for-sale financial assets, recognized in stockholders' equity		31	(32)
<i>Changes in fair values of available-for-sale financial assets, recognized in the income statement</i>		(8)	1
Changes in actuarial gains (losses) on defined benefit obligations for pensions and other post-employment benefits and effects of the limitation on pension plan assets, recognized in stockholders' equity		1,355	(1,067)
Exchange differences on translation of operations outside the euro zone, recognized in stockholders' equity		(825)	(413)
Deferred taxes on valuation adjustments offset directly against stockholders' equity	[14]	(677)	505
<i>Deferred taxes on valuation adjustments, removed from stockholders' equity and recognized in the income statement</i>		20	14
Changes due to changes in the scope of consolidation		42	1
Revaluation surplus (IFRS 3)		-	8
Non-controlling interest in partnerships, recognized in liabilities		(36)	(15)
<b>Valuation adjustments recognized directly in stockholders' equity</b>		<b>17</b>	<b>(1,155)</b>
of which attributable to non-controlling interest		(3)	3
<b>Income after taxes</b>		<b>4,716</b>	<b>1,724</b>
<b>Total income and expense recognized in the financial statements</b>		<b>4,733</b>	<b>569</b>
of which attributable to non-controlling interest		2	8
of which attributable to Bayer AG stockholders		4,731	561

# Notes to the Consolidated Financial Statements of the Bayer Group

## 1. Key data by segment and region

Segments	HealthCare			
	Pharmaceuticals		Consumer Health	
	2007	2008	2007	2008
	€ million	€ million	€ million	€ million
Net sales (external)	10,267	10,704	4,540	4,703
Change	+37.3%	+4.3%	+6.9%	+3.6%
Currency-adjusted change	+41.1%	+7.4%	+11.5%	+8.3%
Intersegment sales	97	75	11	6
<b>Net sales</b>	<b>10,364</b>	<b>10,779</b>	<b>4,551</b>	<b>4,709</b>
Other operating income	322	219	49	39
Operating result [EBIT]	741	1,294	823	887
Gross cash flow	1,685	2,220	704	825
Capital invested	17,885	18,977	3,601	4,296
CFROI	9.3%	12.0%	19.9%	20.9%
Net cash flow	1,451	1,627	559	632
Equity-method income (loss)	-	-	-	-
Equity-method investments	-	-	-	-
Assets	23,119	23,694	4,102	4,829
Capital expenditures	359	451	234	159
Depreciation, amortization and write-downs	1,367	1,363	134	148
of which write-downs	242	121	-	-
Liabilities	2,823	4,012	1,128	1,289
Research and development expenses	1,518	1,540	182	202
Number of employees (as of Dec. 31)	39,300	39,200	12,200	13,900

Regions	Europe		North America	
	2007	2008	2007	2008
	€ million	€ million	€ million	€ million
Net sales (external) – by market	14,353	14,549	8,161	8,026
Change	+13.4%	+1.4%	+4.9%	-1.7%
Currency-adjusted change	+13.5%	+2.1%	+13.6%	+5.3%
Net sales (external) – by point of origin	15,575	15,845	8,197	7,985
Change	+13.7%	+1.7%	+5.4%	-2.6%
Currency-adjusted change	+13.8%	+2.4%	+14.4%	+4.4%
Interregional sales	5,472	5,902	2,138	1,923
Other operating income	508	920	138	116
Operating result [EBIT]	1,947	2,230	798	914
Assets	34,002	33,180	9,066	9,637
Capital expenditures	709	945	489	385
Depreciation, amortization and write-downs	1,957	1,995	467	403
Liabilities	22,246	22,640	4,274	4,945
Research and development expenses	1,836	2,014	581	459
Number of employees (as of Dec. 31)	56,200	55,500	16,800	17,000

CropScience				MaterialScience							
Crop Protection		Environmental Science, BioScience		Materials		Systems		Reconciliation		Continuing Operations	
2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
4,781	5,339	1,045	1,043	3,041	2,608	7,394	7,130	1,317	1,391	32,385	32,918
+3.0%	+11.7%	-1.0%	-0.2%	+4.0%	-14.2%	+2.2%	-3.6%	-	-	+11.8%	+1.6%
+5.4%	+16.4%	+2.7%	+4.2%	+8.6%	-11.4%	+5.9%	-1.2%	-	-	+15.4%	+5.0%
50	40	6	10	16	13	182	131	(362)	(275)		
<b>4,831</b>	<b>5,379</b>	<b>1,051</b>	<b>1,053</b>	<b>3,057</b>	<b>2,621</b>	<b>7,576</b>	<b>7,261</b>	<b>955</b>	<b>1,116</b>	<b>32,385</b>	<b>32,918</b>
142	228	18	28	19	81	54	184	218	494	822	1,273
537	804	119	114	100	(99)	942	636	(108)	(92)	3,154	3,544
799	1,026	162	166	237	71	991	779	206	208	4,784	5,295
6,845	7,016	1,549	1,531	2,856	2,728	5,108	6,191	1,204	1,937	39,048	42,676
11.4%	14.8%	11.0%	10.8%	8.4%	2.5%	20.2%	13.8%	-	-	12.2%	13.0%
881	653	159	83	183	225	964	557	84	(169)	4,281	3,608
-	-	-	-	3	2	(48)	(64)	-	-	(45)	(62)
-	-	-	-	30	32	454	418	-	-	484	450
6,856	7,240	1,532	1,645	2,499	2,234	4,545	5,352	8,641	7,509	51,294	52,503
184	273	39	41	204	147	685	684	186	227	1,891	1,982
471	448	77	84	173	160	327	344	163	175	2,712	2,722
13	16	-	1	5	-	18	5	8	9	286	152
1,989	2,604	314	425	544	479	1,599	1,501	25,984	25,848	34,381	36,158
506	492	131	157	76	60	133	161	32	41	2,578	2,653
<b>14,700</b>	<b>15,000</b>	<b>3,100</b>	<b>3,300</b>	<b>5,200</b>	<b>4,300</b>	<b>10,200</b>	<b>10,800</b>	<b>21,500</b>	<b>22,100</b>	<b>106,200</b>	<b>108,600</b>

Asia/Pacific		Latin America/Africa/Middle East		Reconciliation		Continuing Operations	
2007	2008	2007	2008	2007	2008	2007	2008
€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
5,211	5,385	4,660	4,958	-	-	32,385	32,918
+13.0%	+3.3%	+19.0%	+6.4%	-	-	+11.8%	+1.6%
+20.0%	+6.2%	+23.2%	+12.2%	-	-	+15.4%	+5.0%
4,994	5,184	3,619	3,904	-	-	32,385	32,918
+13.2%	+3.8%	+17.7%	+7.9%	-	-	+11.8%	+1.6%
+20.4%	+6.8%	+22.6%	+15.1%	-	-	+15.4%	+5.0%
274	223	258	171	(8,142)	(8,219)		
30	40	146	197	-	-	822	1,273
235	143	359	427	(185)	(170)	3,154	3,544
4,772	5,500	2,525	2,855	929	1,331	51,294	52,503
613	525	80	127	-	-	1,891	1,982
160	196	72	70	56	58	2,712	2,722
2,687	3,724	950	1,192	4,224	3,657	34,381	36,158
126	144	35	36	-	-	2,578	2,653
<b>18,900</b>	<b>20,800</b>	<b>14,300</b>	<b>15,300</b>	<b>-</b>	<b>-</b>	<b>106,200</b>	<b>108,600</b>

## 2. General information

The consolidated financial statements of the Bayer Group as of December 31, 2008 have been prepared – pursuant to Article 315a of the German Commercial Code – according to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB), London, and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC), which are endorsed by the European Union, in effect at the closing date.

Bayer Aktiengesellschaft (Bayer AG) is a global enterprise based in Germany. Its material business activities in the fields of health care, nutrition and high-tech materials take place in the Bayer HealthCare, Bayer CropScience and Bayer MaterialScience subgroups, respectively. The activities of the various segments are outlined in Note [5].

A Declaration of Conformity with the German Corporate Governance Code has been issued pursuant to Section 161 of the German Stock Corporation Act and made available to stockholders.

The Board of Management of Bayer AG prepared the consolidated financial statements of the Bayer Group on February 17 and 24, 2009. The Audit Committee of the Supervisory Board of Bayer AG discussed the consolidated financial statements of the Bayer Group at its meeting on February 26, 2009 and the Supervisory Board approved them at its meeting on February 27, 2009.

The consolidated financial statements of the Bayer Group are drawn up in euros. Amounts are stated in millions of euros (€ million) except where otherwise indicated. The financial statements of the individual consolidated companies are prepared as of the closing date for the Group statements.

In the income statement, balance sheet, cash flow statement and statement of recognized income and expense, certain items are combined for the sake of clarity. These are explained in the Notes. The income statement is prepared using the cost-of-sales method. Assets and liabilities are classified by maturity. They are regarded as current if they mature within one year or within the normal business cycle of the company or the Group, or are held for sale. The normal business cycle is defined for this purpose as beginning with the procurement of the resources necessary for the production process and ending with the receipt of cash or cash equivalents as consideration for the sale of the goods or services produced in that process. Trade accounts receivable and payable, claims for tax refunds, tax liabilities and inventories are always presented as current items, deferred tax assets and liabilities and pension provisions as noncurrent items.

In compliance with IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations), a distinction is made between continuing operations and discontinued operations or assets held for sale. The discontinued operations are recognized as separate line items in the income statement, balance sheet and cash flow statement. Depreciation of noncurrent assets allocable to discontinued operations and of assets held for sale ceased when the respective divestiture was announced. All data in these Notes refer to continuing operations, except where otherwise indicated. Discontinued operations are described in Note [6.3].

Changes in recognition and valuation principles are explained in the Notes. The retrospective application of new or revised standards requires – except as otherwise provided in the respective standard – that earnings for the preceding year and the opening balance sheet for the reporting year be restated as if the new recognition and valuation principles had been applied in the past.

### 3. Effects of new accounting pronouncements

#### Accounting standards applied for the first time in 2008

In 2008, the following accounting standards and interpretations were applied for the first time. None of the new standards had a material impact on the presentation of the Group's financial position or results of operations, or on earnings per share.

In October and November 2008 the IASB published amendments to IAS 39 (Financial Instruments: Recognition and Measurement) and IFRS 7 (Financial Instruments: Disclosures). The purpose of these amendments is to permit companies to reclassify certain financial assets that are held for trading from the "fair value through profit or loss" category to a different category in exceptional circumstances, and also to allow available-for-sale financial assets to be reclassified to loans and receivables if they meet the applicable recognition criteria. The Bayer Group did not reclassify any assets as a result of these amendments in 2008.

IFRIC 11 (IFRS 2 – Group and Treasury Share Transactions), endorsed by the European Union in June 2007, states that share-based payment for goods or services received (as from employees) must be accounted for as equity-settled regardless of whether the enterprise acquires the necessary equity instruments voluntarily or is forced to do so. IFRIC 11 also specifies the accounting treatment of the issuance of equity instruments in the parent company to employees of a subsidiary.

IFRIC 12 (Service Concession Arrangements), published in November 2006, addresses the recognition of service agreements between public-sector entities and private companies for the operation of public infrastructure such as swimming pools, freeways, electric and water utilities by private licensees.

In July 2007, the IFRIC issued IFRIC 14 (IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction) dealing with accounting for plan assets that exceed pension obligations. This interpretation provides details of how to determine the economic benefit of such assets to the enterprise. It also sets out specific rules on accounting for plan assets in light of statutory minimum funding requirements.

#### Published accounting standards that have not yet been applied

In November 2006, the IASB published IFRS 8 (Operating Segments), which will replace IAS 14 (Segment Reporting), the existing standard in this field. Under IFRS 8, segment reporting must be based on the information used internally by management to identify operating segments and to evaluate their performance. IFRS 8 is to be applied for the first time for annual periods beginning on or after January 1, 2009. The application of IFRS 8 will not have a material impact on the presentation of our segment reporting.

In March 2007, the IASB issued amendments to IAS 23 (Borrowing Costs) requiring the capitalization of interest on borrowings made to acquire, construct or produce a qualifying asset. The amendments are to be applied for annual periods beginning on or after January 1, 2009. Since the option to capitalize interest on borrowed capital that is directly attributable to qualifying assets was already utilized in the past, the amendments will have no impact on the consolidated financial statements of the Bayer Group.

In September 2007, the IASB issued amendments to IAS 1 (Presentation of Financial Statements). Apart from proposing the renaming of certain sections of the financial statements, these amendments mandate that in certain circumstances an opening balance sheet for the previous financial year be published along with a separate presentation of changes in equity arising from transactions with owners and with non-owners, and that the income tax effects of such transactions also be disclosed separately by component in the statement of recognized income and expense. The amendments are to be applied for the first time for annual periods beginning on or after January 1, 2009. They will not have a material impact on the presentation of the Group's financial position or results of operations.

In January 2008 the IASB published amendments to IFRS 2 (Share-based Payment) to clarify the definition of vesting conditions (exercisability) and cancellation of share-based payment. The revised standard is to be applied for the first time for annual periods beginning on or after January 1, 2009. The change will not have a material impact on the presentation of the Group's financial position or results of operations.

In January 2008, the IASB published the revised standards IFRS 3 (Business Combinations) and IAS 27 (Consolidated and Separate Financial Statements). Significant changes required by IFRS 3 (revised 2008) include:

- In future, a non-controlling interest may be measured either at fair value (i.e. including goodwill) or at the proportionate share of the identifiable net assets of the entity in which the non-controlling interest is held.
- In the case of a step acquisition, the acquirer must remeasure its previously held interest at fair value on the date on which it gains control of the acquiree and recognize the resulting gain or loss in income. The difference between the (remeasured) carrying amount of the interest in the subsidiary and the acquirer's remeasured proportionate share of the net assets of the subsidiary must be recognized as goodwill.
- Liabilities recognized as of the acquisition date for the purpose of future purchase price adjustments in light of future events can no longer be offset against goodwill in subsequent periods.
- Ancillary acquisition costs must be recognized in income.

The principal changes required by IAS 27 (revised 2008) are:

- A reduction in the equity interest held in a subsidiary that does not result in a loss of control by the parent is now to be accounted for as an equity transaction.
- If a reduction in the equity interest held in a subsidiary involves a loss of control, the assets and liabilities of the subsidiary must be derecognized in their entirety. The remaining interest in the company is to be recognized at fair value. The difference between the remaining carrying amounts and the fair values must be recognized in income.
- Non-controlling interests that become negative due to incurred losses must be recognized at their net negative amounts.

IFRS 3 (revised 2008) and IAS 27 (revised 2008) are applicable prospectively for annual periods beginning on or after July 1, 2009. Earlier application is permitted provided that both revised standards are applied simultaneously. The impact on the presentation of the Group's financial position and results of operations will depend on the scale of future business combinations or divestments. The revised standards have not yet been endorsed by the European Union.

In February 2008, the IASB issued amendments to IAS 32 (Financial Instruments: Presentation) and IAS 1 (Presentation of Financial Statements). These refer particularly to the distinction between equity and debt in accounting for company capital to which cancellation rights are attached (puttable financial instruments). Puttable financial instruments previously had to be

classified as a liability, whereas in the future such cancellable instruments are to be classified as equity in certain circumstances. The amendments are to be applied for the first time for annual periods beginning on or after January 1, 2009. Their application will not have a material impact on the presentation of the Group's financial position or results of operations.

In May 2008 the IASB published amendments – mainly of a terminological or editorial nature – to a number of International Financial Reporting Standards as part of its “Annual Improvements” project. The amendments are to be applied for the first time for annual periods beginning on or after January 1, 2009. They are not expected to have a material impact on the presentation of the Group's financial position or results of operations.

In July 2008 the IASB published amendments to IAS 39 (Financial Instruments: Recognition and Measurement) to clarify the circumstances in which a hedged risk or portion of cash flows is eligible for hedge accounting. It deals with one-sided risk hedging using options and with inflation hedging. The amendments are to be applied for the first time for annual periods beginning on or after July 1, 2009. They have not yet been endorsed by the European Union.

In June 2007 the IFRIC issued IFRIC 13 (Customer Loyalty Programmes), which addresses both revenue and expense recognition relating to “award credits” that are provided to customers as purchase incentives and can be exchanged for free or discounted goods or services in the future. This interpretation is to be applied for annual periods beginning on or after July 1, 2008. The application of IFRIC 13 to customer loyalty programs is not expected to have a material impact since the Bayer Group makes little use of such programs.

In July 2008 the IFRIC adopted IFRIC 15 (Agreements for the Construction of Real Estate), which addresses revenue recognition for real estate sold before completion. The interpretation defines the criteria for deciding whether IAS 11 (Construction Contracts) or IAS 18 (Revenue) is applicable. It is applicable for annual periods beginning on or after January 1, 2009. It has not yet been endorsed by the European Union. IFRIC 15 will not have a material impact on the presentation of the Group's financial position or results of operations.

In July 2008 IFRIC 16 (Hedges of a Net Investment in a Foreign Operation) was issued. It defines the risk to which hedge accounting may be applied in this context and which entity or entities within a group may hold the respective hedging instrument. This interpretation is to be applied for annual periods beginning on or after October 1, 2008. It has not yet been endorsed by the European Union. IFRIC 16 is not expected to have a material impact on the presentation of the Group's financial position or results of operations as the Group so far has not hedged net investments in foreign operations.

In November 2008 IFRIC 17 (Distributions of Non-cash Assets to Owners) was published. This interpretation defines when an obligation to distribute a non-cash dividend is to be recognized, that it must be measured at fair value, and that the difference between the dividend paid and the carrying amount of the net assets distributed must be recognized in profit or loss at the distribution date. This interpretation, which is to be applied prospectively for annual periods beginning on or after July 1, 2009, has not yet been endorsed by the European Union. It is not expected to have a material impact on the presentation of the Group's future financial position or results of operations.

In January 2009 the IFRIC issued IFRIC 18 (Transfers of Assets from Customers). This interpretation relates to agreements in which an entity receives from a customer an item of property, plant and equipment – or cash earmarked exclusively for its acquisition or construction – that the entity must then use either to connect the customer to a network or to provide the customer with ongoing access to a supply of goods or services. The interpretation specifies the circumstances and timing of asset recognition by the receiving entity and how the asset is to be measured. It also clarifies how to determine the receiving entity's obligation to render one or more separately identifiable services in exchange for the transferred asset and sets forth the conditions for revenue recognition. IFRIC 18 is to be applied prospectively to transfers of assets from customers on or after July 1, 2009. Earlier application is permitted on certain conditions. It has not yet been endorsed by the European Union. The Bayer Group is currently evaluating the impact that the application of the interpretation may have on the presentation of the Group's financial position or results of operations.

## 4. Basic principles, methods and critical accounting policies

The financial statements of the consolidated companies are prepared according to uniform accounting and valuation principles.

The consolidated financial statements of the Group are based on the principle of the historical cost of acquisition, construction or production, with the exception of the items reflected at fair value, such as available-for-sale financial assets and derivatives.

The preparation of the financial statements for the Bayer Group requires the use of estimates and assumptions that affect the classification and measurement of assets, liabilities, income, expenses and contingent liabilities. Estimates and assumptions mainly relate to the useful life of noncurrent assets, the discounted cash flows used for impairment testing or purchase price allocations, and the recognition of provisions, including those for litigation-related expenses, pensions and other benefits, taxes, environmental compliance and remediation costs, sales allowances, product liability and guarantees. Essential estimates and assumptions that may affect reporting in the various item categories of the financial statements are described in the following sections of this Note. Estimates are based on historical experience and other assumptions that are considered reasonable under given circumstances. They are continually reviewed but may vary from the actual values.

### Consolidation

Profits and losses, sales revenues, and income and expenses arising from transactions among the consolidated companies, along with receivables and payables existing between them, are eliminated. Deferred income tax effects are reflected in consolidation.

Joint ventures are included by proportionate consolidation according to the same principles.

Capital consolidation is performed according to IAS 27 (Consolidated and Separate Financial Statements) by offsetting the carrying amounts of subsidiaries in the balance sheet against their underlying equity. Equity of subsidiaries is valued at the respective acquisition dates, recognizing identifiable assets and liabilities (including contingent liabilities) at their fair values along with attributable deferred tax assets and liabilities. Any remaining difference to the purchase price is recognized as goodwill.



The cost of acquisition of a company included at equity in the consolidated financial statements is adjusted annually by a percentage of any change in its stockholders' equity corresponding to Bayer's percentage interest in the company. Differences arising upon first-time inclusion at equity are accounted for according to full-consolidation principles. Bayer's share of changes in these companies' stockholders' equities that are recognized in their income statements – including write-downs of goodwill – are recognized in the non-operating result. Intercompany profits and losses for these companies were not material in either 2008 or 2007.

### Foreign currency translation

In the financial statements of the individual consolidated companies, all receivables and payables in currencies other than the respective functional currency are translated at closing rates, irrespective of whether they are exchange-hedged. Exchange rate differences from valuation of balances in foreign currencies are recognized in income. Derivatives are stated at fair value. The majority of consolidated companies autonomously carry out their activities financially, economically and organizationally and their functional currencies are therefore the respective local currencies.

The assets and liabilities of foreign companies at the start and end of the year are translated into euros at closing rates. All changes occurring during the year and all income and expense items and cash flows are translated into euros at average rates for the year. Components of stockholders' equity are translated at the historical exchange rates prevailing at the respective dates of their first-time recognition in Group equity.

The differences between the resulting amounts and those obtained by translating at closing rates are reflected in other comprehensive income and stated separately in the tables in the Notes under "Exchange differences on translation of operations outside the euro zone" or "Exchange differences." When a company is deconsolidated, exchange differences recognized in stockholders' equity are removed from equity and recognized in the income statement.

The exchange rates for major currencies against the euro varied as follows:

		Closing rate		Average rate	
		2007	2008	2007	2008
ARS	Argentina	4.64	4.80	4.27	4.64
BRL	Brazil	2.61	3.25	2.67	2.67
CAD	Canada	1.44	1.70	1.47	1.56
CHF	Switzerland	1.65	1.49	1.64	1.59
CNY	China	10.75	9.50	10.42	10.23
GBP	U.K.	0.73	0.95	0.68	0.80
JPY	Japan	164.93	126.14	161.23	152.37
MXN	Mexico	16.08	19.23	14.97	16.31
USD	United States	1.47	1.39	1.37	1.47

### Net sales and other operating income

Revenues from the sale of products and the rendering of services are recognized when the significant risks and rewards of ownership of the goods have been transferred to the customer, the company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold, the amount of revenue and costs incurred or to be incurred can be measured reliably, and it is sufficiently probable that the economic benefits associated with the transaction will flow to the company.

Sales are stated net of sales taxes, other taxes and sales deductions at the fair value of the consideration received or to be received. Sales deductions are estimated amounts for rebates, cash discounts and product returns. They are deducted at the time the sales are recognized, and appropriate provisions are recorded. Sales deductions are estimated primarily on the basis of historical experience, specific contractual terms and future expectations of sales development in each strategic business entity. It is unlikely that estimation parameters other than these could affect sales deductions in a way that would be material to the Bayer Group's business operations. Adjustments to provisions for rebates, cash discounts or returns for sales made in prior periods were of secondary importance for income before income taxes in the years under report.

Provisions for rebates in 2008 amounted to 1.4% of total net sales, as in the previous year. In addition to rebates, Group companies offer cash discounts for prompt payment in some countries. Provisions for cash discounts as of December 31, 2008 and December 31, 2007 were less than 0.1% of total net sales for the respective year.

Sales are reduced for expected returns of defective goods or in respect of contractual arrangements to return saleable products on the date of sale or at the time when the amount of future returns can be reasonably estimated. Provisions for product returns as of December 31, 2008 were 0.2% of total net sales for the year (December 31, 2007: 0.3%). If future product returns cannot be reasonably estimated and are significant to the sale transaction, the revenues and the related cost of sales are deferred until an estimate may reasonably be made or when the right to return the goods has expired.

Some of the Bayer Group's revenues are generated on the basis of licensing agreements under which third parties are granted rights to its products and technologies. Payments relating to the sale or outlicensing of technologies or technological expertise – once the respective agreements have become effective – are recognized in income if all rights relating to the technologies and all obligations resulting from them have been relinquished under the contract terms and Bayer has no continuing obligation to perform under the agreement. However, if rights to the technologies continue to exist or obligations resulting from them have yet to be fulfilled, the payments received are recorded accordingly. Upfront payments and similar non-refundable payments received under these agreements are recorded as other liabilities and recognized in income over the estimated performance period stipulated in the agreement.

License or research and development collaboration agreements may consist of multiple elements and provide for varying consideration terms, such as upfront payments and milestone or similar payments. They therefore have to be assessed to determine whether separate delivery of the individual elements of such arrangements requires more than one unit of account. The delivered elements are separated if they have value to the customer on a stand-alone basis, there is objective and reliable evidence of the fair value of the undelivered element(s) and the arrangement includes a general right of return relative to the delivered element(s) and delivery or performance of the as yet undelivered element(s) is probable and substantially within the control of the company. If all three criteria are fulfilled, the appropriate revenue recognition rule is then applied to each separate accounting unit.

#### **Research and development expenses**

A substantial proportion of the Bayer Group's financial resources is invested in research and development. In addition to in-house research and development activities, especially in the health care business, various research and development collaborations and alliances are maintained with third parties involving the provision of funding and/or payments for the achievement of performance milestones.

For accounting purposes, research expenses are defined as costs incurred for current or planned investigations undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development expenses are defined as costs incurred for the application of research findings or specialist knowledge to production, production methods, services or goods prior to the commencement of commercial production or use.

According to IAS 38 (Intangible Assets), research costs cannot be capitalized; development costs must be capitalized if, and only if, specific, narrowly defined conditions are fulfilled. Development costs must be capitalized if it is sufficiently certain that the future economic benefits to the company will also cover the respective development costs. Since development projects are often subject to regulatory approval procedures and other uncertainties, the conditions for the capitalization of costs incurred before receipt of approvals are not normally satisfied.

The following costs in particular, by their very nature, constitute research and development expenses: the appropriate allocations of direct personnel and material costs and related overheads for application technology, engineering and other departments; costs for experimental and pilot facilities; costs for services purchased in connection with research and development activities; costs for clinical research; costs for the utilization of third parties' patents for research and development purposes; other taxes related to research facilities; and fees for the filing and registration of internally generated patents that are not capitalized.

Under IAS 38 (Intangible Assets), milestone payments must initially be capitalized to the extent that they are related to the acquisition of the related technology rights, even if uncertainties exist as to whether the research and development will ultimately be successful in producing a saleable product. Where research and development collaborations are embedded in contracts for a strategic alliance, it is necessary to assess whether milestone or advance payments constitute funding of research and development work or consideration for the acquisition of assets. Factors considered in reaching this determination are the reason for the payment (for example, whether it is related to a regulatory approval, the attainment of a sales target or outsourced research and development activities), and the ratio of the fair value of the planned research and development activities to the total amount of the payment.

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

Intangible assets are recognized at the cost of acquisition or generation. Those with a determinable useful life are amortized accordingly over a period of up to 30 years, except where their actual depletion demands a different amortization pattern. Determination of the expected useful lives of such assets and of amortization patterns is based on estimates of the period for which they will generate cash flows and the distribution of those cash flows over time.

Write-downs are made for impairment losses. Corresponding write-backs are made where the reasons for previous write-downs of intangible assets other than goodwill no longer apply, provided that the write-backs do not cause the carrying amount to exceed the amortized cost of acquisition.

Goodwill and other assets with an indefinite life are subject to annual impairment tests, which are explained under "Procedure used in global impairment testing and its impact."

### Property, plant and equipment

Property, plant and equipment is carried at the cost of acquisition or construction depreciated over its estimated useful life. A write-down (impairment loss) is recognized in addition if an asset's value falls below the depreciated cost of acquisition or construction.

The cost of acquisition comprises the acquisition price plus ancillary and subsequent acquisition costs, less any reduction received on the acquisition price. The cost of self-constructed property, plant and equipment comprises the direct cost of materials, direct manufacturing expenses and appropriate allocations of material and manufacturing overheads. Where an obligation exists to dismantle or remove an asset or restore a site to its former condition at the end of its useful life, the present value of the related future payments is capitalized along with the cost of acquisition or construction upon completion and a corresponding liability is recognized.

If the construction phase of property, plant or equipment extends over a long period, the interest incurred on borrowed capital up to the date of completion is capitalized as part of the cost of acquisition or construction in accordance with IAS 23 (Borrowing Costs).

Expenses for the repair of property, plant and equipment, such as ongoing maintenance costs, are normally recognized in income. The cost of acquisition or construction is capitalized if a repair (such as a complete overhaul of technical equipment) will result in future economic benefits.

Property, plant and equipment is depreciated by the straight-line method, except where depreciation based on actual depletion is more appropriate.

The following depreciation periods, based on the estimated useful lives of the respective assets, are applied throughout the Group:

Buildings	20 to 50 years
Outdoor infrastructure	10 to 20 years
Storage tanks and pipelines	10 to 20 years
Plant installations	6 to 20 years
Machinery and equipment	6 to 12 years
Furniture and fixtures	4 to 10 years
Vehicles	4 to 8 years
Computer equipment	3 to 5 years
Laboratory and research facilities	3 to 5 years

Declines in value that go beyond regular depreciation and are expected to be permanent are accounted for by write-downs. Corresponding write-backs are made where the reasons for previous write-downs no longer apply, provided that the write-backs do not cause the carrying amount to exceed the cost of acquisition less accumulated depreciation.

When assets are sold, closed down or scrapped, the difference between the net proceeds and the carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

### Leasing

A lease is an agreement whereby the lessor assigns to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments. Leases are classified as either finance or operating leases. Leasing transactions that transfer substantially all the risks and rewards incidental to ownership of the leased asset to the lessee are classified as finance leases. All other leasing agreements are classified as operating leases.

Where the Bayer Group is the lessee in a finance lease, the leased asset is capitalized at the lower of the fair value or present value of the minimum lease payments at the beginning of the lease term and simultaneously recognized under financial liabilities. The minimum lease payments essentially comprise financing costs and the principal portion of the remaining obligation. The leased asset is depreciated by the straight-line method. If subsequent transfer of title to the leased asset is uncertain, it is depreciated over the shorter of its estimated useful life or the lease term. The lease payments to be made are divided into the principal portion and the interest expense using the effective-interest method.

Where the Bayer Group is the lessor in a finance lease, the net investment in the lease is reflected in sales and a leasing receivable is recognized. The lease payments received are divided into the principal portion and the interest income using the effective-interest method.

Where the Bayer Group is the lessee in an operating lease, the lease payments are expensed. Where it is the lessor, the lease payments received are recognized in income. The leased asset remains on the balance sheet of the lessor.

### Financial Assets

Financial assets comprise loans and receivables, acquired equity and debt instruments, cash and cash equivalents, and derivatives with positive fair values.

They are recognized and measured in accordance with IAS 39 (Financial Instruments: Recognition and Measurement). Accordingly, financial assets are recognized in the consolidated financial statements if the Bayer Group has a contractual right to receive cash or other financial assets from another entity. Regular way purchases and sales of financial assets are generally posted on the settlement date. Financial assets are initially recognized at fair value plus transaction costs. The transaction costs incurred for the purchase of financial assets held at fair value through profit or loss are expensed immediately. Interest-free or low-interest receivables are initially reflected at the present value of the expected future cash flows. For purposes of subsequent measurement, financial assets are allocated to the following categories according to IAS 39, with different measurement rules applying to each category:

*Financial assets held at fair value through profit or loss* comprise those financial assets that are held for trading. This category also comprises receivables from forward commodity contracts and receivables from other derivatives, which are included in other financial assets, except where hedge accounting is used. Changes in the fair value of financial assets in this category are recognized in the income statement when the increase or decrease in value occurs.

*Loans and receivables* are non-derivative financial assets that are not quoted in an active market. They are carried at amortized cost. This category comprises trade accounts receivable, the financial receivables and loans included in other financial assets, the additional financial receivables and loans reflected in other receivables, and cash and cash equivalents. Interest income from items assigned to this category is determined using the effective interest method, insofar as such items are not classified as current receivables and the effect of discounting interest is not material.

*Held-to-maturity financial assets* are non-derivative financial assets, with fixed or determinable payments, that are to be held to maturity. They are accounted for at amortized cost by the effective-interest method. Held-to-maturity financial investments are recognized in other financial assets.

*Available-for-sale financial assets* are those non-derivative financial assets that are not assigned to any of the above categories. They mainly include equity instruments, such as shares, and debt instruments not to be held to maturity, which are included in other financial assets. Changes in the fair value of available-for-sale financial assets are recognized in stockholders' equity. Impairments are not recognized in income until the assets are sold, except where the fair value is substantially below the amortized cost and/or remains below the amortized cost for a prolonged period. Where possible, a fair value for equity and debt securities is derived from market data. Financial assets for which no market price is available and whose fair value cannot be reliably estimated are carried at cost less impairment charges.

If there are substantial, objective indications that loans and receivables, held-to-maturity financial assets or available-for-sale financial assets are impaired, their carrying amount is compared to the present value of the expected future cash flows, discounted by the current market rate of return on a comparable financial asset. If an impairment is confirmed, they are written down by the difference between the two amounts. Indications of impairment include the fact that a company has been making an operating loss for several years, a reduction in market value, a significant deterioration in credit standing, a material breach of contract, a high probability of insolvency or other financial restructuring of the debtor, or the disappearance of an active market for the asset.

Corresponding write-backs are made where the reasons for previous write-downs no longer apply, provided that the write-backs do not cause the carrying amount to exceed the amortized cost. No write-backs are made for available-for-sale equity instruments.

Financial assets are derecognized when contractual rights to receive cash flows from the financial assets expire or the financial assets are transferred together with all material risks and benefits.

### **Derivatives**

The Bayer Group uses derivatives to mitigate the risk of changes in exchange rates, interest rates and commodity prices. Many transactions constitute economic hedges but do not qualify for hedge accounting under IAS 39 (Financial Instruments: Recognition and Measurement).

Contracts concluded in order to receive or deliver non-financial goods for the company's own purposes are accounted for not as derivatives but as pending transactions. Where embedded derivatives are identified that are required to be separated from the pending transactions, they are accounted for separately. To take advantage of market opportunities or cover possible peak demand, non-material transactions may be entered into under which the possibility of immediate resale cannot be excluded. Such transactions are allocated to separate portfolios upon acquisition and accounted for as derivatives according to IAS 39. Changes in the fair values of these derivatives are recognized directly in the income statement.

Changes in the values of forward exchange contracts and currency options are reflected in exchange gains and losses, while changes in the values of interest-rate swaps and interest-rate options are recognized in interest income and expense. Changes in the fair values of commodity futures and commodity options and those arising from the hedging of forecasted transactions in foreign currencies are recognized in other operating income and expenses at the date of realization.

The fair values of derivatives are measured by the usual methods in light of the market data available at the measurement date. Currency and commodity contracts are measured individually at their forward rates or forward prices on the balance sheet date. These depend on spot rates or prices including time spreads. The fair values of interest-rate hedging instruments are determined by discounting future cash flows over the remaining terms of the instruments at market rates of interest. The present value of each interest-rate, currency or cross-currency interest-rate swap transaction is measured individually as of the balance sheet date. Interest income is recognized in the income statement at the date of payment or, in case of accrual, at the balance sheet date. Certain long-term commodity contracts to which fair values cannot be assigned are measured with the aid of valuation models based on internal fundamental data.

Changes in the fair values of derivatives designated as fair value hedges and the adjustments in the carrying amounts of the underlying transactions are recognized in the income statement. Changes in the fair values of the effective portion of derivatives designated as cash flow hedges are initially recognized not in the income statement, but in stockholders' equity under other comprehensive income. They are released to the income statement when the underlying transaction is realized. If a derivative is sold or ceases to qualify for hedge accounting, the amount reflected in other comprehensive income continues to be recognized in this item until the forecasted transaction is realized. If the forecasted transaction is no longer probable, the amount previously recognized in other comprehensive income is released to the income statement.

The income and expense reflected in the non-operating result pertaining to the derivatives and the underlying transactions are shown separately. Income and expense are not offset.

### **Inventories**

In accordance with IAS 2 (Inventories), inventories encompass assets held for sale in the ordinary course of business (finished goods and goods purchased for resale), in the process of production for such sale (work in process) or in the form of materials or supplies to be consumed in the production process or in the rendering of services (raw materials and supplies). Inventories are recognized at the lower of acquisition or production cost – calculated by the weighted-average method – and net realizable value which is the realizable sale proceeds under normal business conditions less estimated cost to complete and selling expenses.

## Taxes

Income taxes comprise the taxes levied on taxable income in the individual countries and the changes in deferred tax assets and liabilities. The income taxes recognized are reflected at the amounts likely to be payable under the statutory regulations in force, or already enacted in relation to future periods, as of the closing date.

The remaining taxes, such as property, electricity and other energy taxes, are included in the functional cost items.

In compliance with IAS 12 (Income Taxes), deferred taxes are calculated for temporary differences between the carrying amounts of assets and liabilities in the IFRS balance sheet and the balance sheet drawn up for tax purposes, for consolidation measures, and for tax loss carryforwards likely to be realizable.

Deferred tax assets relating to deductible temporary differences, tax credits and tax loss carryforwards are recognized where it is sufficiently probable that taxable income will be available in the future to enable the tax loss carryforwards to be utilized. Deferred tax liabilities are recognized on temporary differences taxable in the future. Deferred taxes are calculated at the rates which – on the basis of the statutory regulations in force, or already enacted in relation to future periods, as of the closing date – are expected to apply in the individual countries at the time of realization. Deferred tax assets and deferred tax liabilities are offset if they relate to income taxes levied by the same taxation authority.

Where gains or losses are recognized directly in stockholders' equity, this also applies to the related deferred tax assets or liabilities.

The probability that deferred tax assets resulting from temporary differences or loss carryforwards can be utilized in the future is the subject of forecasts by the individual consolidated companies regarding their future earnings situation and other parameters.

Deferred tax liabilities recognized on planned dividend payments by subsidiaries depend on the anticipated earnings situation of the subsidiaries concerned and on further assumptions regarding their future financing structure, for example. Such deferred taxes are subject to regular review with respect to the underlying assumptions. Changes in the assumptions or in circumstances may necessitate adjustments, possibly resulting in allocations to deferred taxes or reversals thereof.

## Stockholders' equity

Under the German Stock Corporations Act, the distributable dividend is based on the balance sheet profit recognized in the annual financial statements of Bayer AG, which are prepared in accordance with the German Commercial Code.

The proposed dividend is subject to approval by the company's stockholders at the Annual Stockholders Meeting and has not been recognized as a liability in the consolidated financial statements of the Bayer Group.

## Provisions for pensions and other post-employment benefits

Group companies provide retirement benefits for most of their employees, either directly or by contributing to privately or publicly administered funds. The way these benefits are provided varies according to the legal, fiscal and economic conditions of each country, the benefits generally being based on the employees' remuneration and years of service. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.



Group companies provide retirement benefits under defined contribution and/or defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension schemes on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute expenses for the year in which they are due and as such are included in the functional cost items, and thus in the operating result (EBIT). All other retirement benefit systems are defined benefit plans, which may be either unfunded, i. e. financed by provisions, or funded, i. e. financed through pension funds.

All income and expenses relating to defined benefit plans other than from interest cost and the expected return on plan assets are recognized in the operating result (EBIT). Interest cost and the expected return on plan assets are reflected in the non-operating result under other non-operating income and expense. Actuarial gains and losses from defined benefit plans and deductions in connection with asset limitation are reported net of taxes in the statement of recognized income and expense, without affecting the income statement, as well as being recognized in full in the respective provision. Early retirement and certain other benefits to retirees are also included in the provisions for pensions, since these obligations are similar in character to pension obligations.

The present value of provisions for defined benefit plans is calculated in accordance with IAS 19 (Employee Benefits) by the projected unit credit method. The future benefit obligations are valued by actuarial methods. This involves assumptions regarding life expectancy, staff fluctuation, and other parameters that depend partly on the economic situation in the respective country. The other main factors on which these calculations are based are assumptions regarding discount rate, expected return on plan assets, the rate of future compensation increases and variations in health care costs. Statistical information such as attrition and mortality rates is also used in estimating the expenses and liabilities under the plans. The effects of changes in important parameters are explained in Note [25].

The expenses for the benefits expected to be payable after retirement are spread over each employee's entire period of employment, also allowing for future changes in remuneration.

The fair value of plan assets is deducted from the present value of the defined benefit obligation for pensions and other post-employment benefits. The obligations and plan assets are valued at regular intervals of not more than three years. For all major plans, comprehensive actuarial valuations are performed annually as of December 31. The difference between the defined benefit obligation – after deducting the fair value of plan assets – and the net liability recognized in the balance sheet is attributable to unrecognized past service cost. Plan assets in excess of the benefit obligation are reflected in other receivables, subject to the asset limitation specified in IAS 19 (Employee Benefits).

The expected future cash outflows are discounted in order to recognize obligations for pensions and other post-employment benefits at their present value as of the reporting date. The discount rates used are calculated from the yields of high-quality corporate bond portfolios in specific currencies with cash flows approximately equivalent to the expected disbursements from the pension plans. The uniform discount rate that is used to discount pension and post-employment benefit obligations as part of the actuarial valuation is thus based on the yields, at the balance sheet date, of a portfolio of AA-rated corporate bonds whose weighted residual maturities approximately correspond to the duration necessary to cover the entire benefit obligation. If AA-rated corporate bonds of equal duration are not available, a discount rate equivalent to the effective interest rate for government bonds or interest-rate swaps at the balance sheet date is used instead but was increased by about 0.5 to 1.0 percentage points in previous years since corporate bonds generally provide higher yields by virtue of their risk structure. In light of current developments on the financial markets and the associated higher yields on corporate bonds and lower yields on government bonds, a spread premium of 2.0 to 2.5 percentage points has been taken into account.

The expected long-term return on plan assets, determined on the basis of published and internal capital market reports and forecasts for each asset class, is applied to the fair value of plan assets at each year end.

Because of changing market and economic conditions, the expenses and the obligations actually arising under the plans in the future may differ materially from the estimates made on the basis of these actuarial assumptions. The plan assets are mainly comprised of equity and fixed-income instruments. Therefore, declining returns on equity markets and markets for fixed-income instruments could necessitate additional contributions to the plans in order to cover future pension obligations. Higher or lower rates of employee fluctuation or longer or shorter life of participants may also affect the amount of pension income or expense recorded in the future.

#### **Other provisions**

Other provisions are recognized for present legal and constructive obligations arising from past events that will probably give rise to a future outflow of resources, provided that a reliable estimate can be made of the amount of the obligations.

Other provisions are measured in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) or, where applicable, IAS 19 (Employee Benefits). Where the cash outflow to settle an obligation is expected to occur after one year, the provision is recognized at the present value of the expected cash outflow. Claims for reimbursements from third parties are capitalized separately if their realization is virtually certain.

If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the resulting income recognized in the operating expense item(s) in which the original charge was recognized.

To enhance the information content of the estimates, certain provisions that could have a material effect on the financial position or results of operations of the Group are selected and tested for their sensitivity to changes in the underlying parameters. To reflect uncertainty about the likelihood of the assumed events actually occurring, the impact of a 5% change in the probability of occurrence is examined in each case. This analysis has not shown other provisions to be materially sensitive.

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate adjustments to tax income and expense in future periods. The Group establishes **provisions for taxes**, based on reasonable estimates, for liabilities to the tax authorities of the respective countries that are uncertain as to their amount and the probability of their occurrence. The amount of such provisions is based on various factors, such as experience with previous tax audits and differing legal interpretations by the taxable entity and the responsible tax authority.

**Provisions for environmental protection** are recorded if future cash outflows are likely to be necessary to ensure compliance with environmental regulations or to carry out remediation work, such costs can be reliably estimated and no future benefits are expected from such measures.

Estimating the future costs of environmental protection and remediation involves many uncertainties, particularly with regard to the status of laws, regulations and the information available about conditions in the various countries and at the individual sites. Significant factors in estimating the costs include previous experiences in similar cases, the conclusions in expert opinions obtained regarding the Group's environmental programs, current costs and new developments affecting costs, management's interpretation of current environmental laws and regulations, the number and financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods which are likely to be deployed. Changes in these assumptions could impact future reported results.

Taking into consideration experience gained to date regarding environmental matters of a similar nature, provisions are believed to be adequate based upon currently available information. There were no significant changes in assumptions or estimates that would have impacted the income statement in prior years. However, given the inherent difficulties in estimating liabilities in the businesses in which the Group operates, especially those for which the risk of environmental damage is relatively greater (CropScience and MaterialScience), it remains possible that material additional costs will be incurred beyond the amounts accrued. It may transpire during remediation work that additional expenditures are necessary over an extended period of time that exceed existing provisions and cannot be reasonably estimated. Management nevertheless believes that such additional amounts, if any, would not have a material adverse effect on the Group's financial position or results of operations.

**Provisions for restructuring** only cover expenses that arise directly from restructuring measures, are necessary for restructuring and are not related to future business operations, such as costs for real estate no longer utilized or severance payments to employees.

Restructuring measures may include the sale or termination of business units, site closures, relocation of business activities, changes in management structure or a fundamental reorganization of departments or business units.

The respective provisions are established when a detailed restructuring plan has been drawn up, resolved upon by the responsible decision-making level of management and communicated to the employees or their representatives. Provisions for restructuring are established at the present value of future disbursements.

**Trade-related provisions** are recorded mainly for the granting of rebates or discounts, the acceptance of product returns, or obligations in respect of services already received but not yet invoiced.

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax assessments and environmental matters. **Provisions for litigations** are recorded in the balance sheet in respect of pending or future litigation, subject to a case-by-case examination. Such legal proceedings are evaluated on the basis of the available information, including

that from legal counsel acting for the Group, to assess potential outcomes. Where it is more likely than not that a present obligation arising out of legal proceedings will result in an outflow of resources, a provision is recorded in the amount of the present value of the expected cash outflows if these are considered to be reliably measurable. These provisions cover the estimated payments to plaintiffs, court fees, attorney costs and the cost of potential settlements. The evaluation is based on the current status of litigation as of each reporting date and includes an assessment of whether the criteria for recording a provision are met and, if so, the amount of the provision to be recorded.

Litigations and other judicial proceedings generally raise complex issues and are subject to many uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, issues regarding the jurisdiction in which each suit is brought and differences in applicable law. The outcome of currently pending and future proceedings therefore cannot be predicted. Upon resolution of any pending legal matter, the Bayer Group may be forced to incur charges in excess of presently established provisions and related insurance coverage. If courts find against Bayer in patent suits and this results in other manufacturers being permitted to market products developed by the Bayer Group or its legal predecessors, this could adversely impact the Group's financial position or results of operations.

**Personnel-related provisions** are mainly those recorded for annual bonus payments, variable one-time payments, individual performance awards, long-service awards, surpluses on long-term accounts and other personnel costs. Obligations under stock-based compensation programs that provide for awards payable in cash are also included here.

#### **Financial liabilities**

Financial liabilities comprise primary financial liabilities and negative fair values of derivatives.

Primary financial liabilities are recognized in the balance sheet if the Bayer Group has a contractual obligation to transfer cash or other financial assets to another party. Such liabilities are initially recognized at the fair value of the consideration received or the value of payments received less any transaction costs. In subsequent periods, primary financial liabilities are measured at amortized cost using the effective-interest method.

Financial liabilities are derecognized when the contractual obligation is discharged or cancelled, or has expired.

Under IAS 32 (Financial Instruments: Presentation), financial instruments are only classified as equity if no contractual obligation exists to repay the capital or deliver other financial assets to the issuer. Where stockholders of Bayer AG or non-controlling interest are contractually entitled to terminate their participation and at the same time claim repayment of their capital contribution, such capital is recognized as a liability in the Group statements even if it is classified as equity in the respective jurisdiction. The redeemable capital of a non-controlling stockholder is recognized at the amount of such stockholder's pro-rated share of the subsidiary's net assets.

#### **Other receivables and liabilities**

Accrued items, advance payments and other non-financial assets and liabilities are carried at amortized cost. They are amortized to income by the straight-line method or according to performance of the underlying transaction.

In accordance with IAS 20 (Accounting for Government Grants and Disclosure of Government Assistance), grants and subsidies from third parties that serve to promote investment are reflected in the balance sheet under other liabilities and amortized to income over the useful lives of the respective assets.

**Noncurrent assets held for sale and discontinued operations, and liabilities directly related thereto**

Assets held for sale comprise noncurrent assets and disposal groups (net of any related liabilities), the carrying amounts of which will be realized primarily by way of a highly probable divestment transaction within the next twelve months or an already executed divestment transaction, and not through continued use. Such assets are recognized at the lower of the carrying amount and the fair value less costs to sell.

**Acquisition accounting**

Acquired businesses are accounted for using the purchase method, which requires that the assets acquired and liabilities assumed be recorded at their respective fair values on the date Bayer gains control.

The application of the purchase method requires certain estimates and assumptions especially concerning the determination of the fair values of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed at the date of the acquisition. Moreover, the useful lives of the acquired intangible assets, property, plant and equipment have to be determined.

Measurement is based to a large extent on anticipated cash flows. If actual cash flows vary from those used in calculating fair values, this may materially affect the Group's future results of operations. In particular, the estimation of discounted cash flows from intangible assets under development and developed technologies is based on assumptions concerning, for example:

- the outcomes of research and development activities regarding compound efficacy, results of clinical trials etc.,
- the probability of obtaining regulatory approval in individual countries,
- long-term sales trends,
- possible selling price erosion due to generic competition in the market following patent expirations,
- the behavior of competitors (launch of competing products, marketing initiatives etc.).

For significant acquisitions, the purchase price allocation is carried out with assistance from independent third-party valuation specialists. The valuations are based on information available at the acquisition date.

The effect of the revaluation of assets relating to acquisitions made in stages is recognized in equity in compliance with IFRS 3 (Business Combinations). If an enterprise is acquired in several stages, all assets and liabilities of the company have to be completely revalued on the date on which the acquiring company gains control and recognized at fair value. If the new fair value of the assets already held by the acquiring company exceeds their carrying amount, the carrying amount must be increased accordingly. This adjustment is recognized in a separate equity item (revaluation surplus) and thus has no effect on net income.

**Procedure used in global impairment testing and its impact**

In accordance with IFRS 3 (Business Combinations), in conjunction with the related revised versions of IAS 36 (Impairment of Assets) and IAS 38 (Intangible Assets), goodwill and other intangible assets with indefinite useful lives are tested regularly for impairment.

Where goodwill or other indefinite-lived intangible assets are allocated to a cash-generating unit, they must be tested for impairment annually, or more frequently if events or changes in circumstances indicate a possible impairment. This involves comparing the carrying amount of each cash-generating unit to the recoverable amount, which is the higher of the cash-generating unit's fair value less costs to sell or its value in use. In the Bayer Group, the strategic business entities – the financial reporting levels below the segments – are defined as the cash-generating units.

Where the carrying amount of a cash-generating unit exceeds the recoverable amount, an impairment loss is recognized for the difference. First, the goodwill of the relevant strategic business entity is written down accordingly. Any remaining impairment loss is allocated among the other assets of the strategic business entity in proportion to their carrying amounts. This value adjustment is recognized in the income statement under other operating expenses.

The recoverable amount is determined from the present value of future cash flows, based on continuing use of the asset by the strategic business entity and its retirement at the end of its useful life. Forecasts of future cash flows for the purpose of determining the recoverable amount are based on the current planning of the Bayer Group, generally for a planning horizon of three to five years, which involves assumptions, especially regarding future selling prices, sales volumes and costs. Cash flows beyond this planning period are extrapolated using individual growth rates derived from the respective market information. The assumed growth rates, depending on the businesses valued, are 0% to 2.0% (2007: 0% to 4.0%) for HealthCare, 1.7% to 6.4% (2007: 1.4% to 5.7%) for CropScience, and 0% to 1.0%, as in the previous year, for MaterialScience.

Bayer calculates the cost of capital on the basis of the debt/equity ratio. The underlying capital structure of each subgroup is determined by benchmarking against comparable companies in the same industry sector. The cost of equity corresponds to the return expected by stockholders, while the cost of debt is based on the conditions on which the company can obtain long-term financing. Both components are derived from capital market information.

To allow for the different risk and return profiles of the Bayer Group's principal businesses, the after-tax cost of capital is calculated separately for each subgroup. The discount rates used are 7.6% (2007: 8.1%) for HealthCare, 7.9% (2007: 8.1%) for CropScience and 7.0% (2007: 7.6%) for MaterialScience. The equivalent pre-tax interest rates are 7.9% (2007: 8.3%) for HealthCare, 8.3% (2007: 8.5%) for CropScience and 7.6% (2007: 8.0%) for MaterialScience. These rates are based on assumptions and estimates relating to business-specific costs of capital, which in turn depend on country risks, credit risks, and additional risks resulting from the volatility of certain businesses. The risk adjustment for each subgroup is determined by benchmarking against comparable companies in the same industry sector.

Sensitivity analysis is based on a 10% decline in future cash flows and a 10% increase in the weighted average cost of capital because changes up to this magnitude are reasonably possible. Based on the Group's experience, greater changes than this are unlikely. If the actual present value of future cash flows were 10% lower than the anticipated present value, the carrying amount of goodwill in the Systems segment would have to be impaired by €78 million. If the weighted average cost of capital used for the impairment test were increased by 10%, assets of the Systems segment would have to be impaired by €81 million. In 2008 as in 2007, however, no impairment losses were recorded on the basis of the global annual impairment tests.

Although the estimates of the useful lives of certain assets, assumptions concerning the macro-economic environment and developments in the industries in which the Bayer Group operates and estimates of the discounted future cash flows are believed to be appropriate, changes in assumptions or circumstances could require changes in the analysis. This could lead to additional impairment charges in the future or – except in the case of goodwill – to valuation write-backs should the expected trends reverse.

## 5. Segment reporting

In accordance with IAS 14 (Segment Reporting), separate breakdowns of certain data reported in the consolidated financial statements are given by business segment and geographical region. The segments and regions are the same as those used for internal reporting.

As of December 31, 2008 the Bayer Group comprised three subgroups with operations subdivided into strategic business entities known as divisions (HealthCare) or business units (CropScience and MaterialScience). Their activities are aggregated into the six reporting segments listed below according to economic characteristics, products, production processes, customer relationships and methods of distribution.

The segments' activities are as follows:

Subgroup/Segment	Activities
<b>HealthCare</b>	
Pharmaceuticals	Development, production and marketing of prescription pharmaceuticals, such as for the treatment of hypertension, cardiovascular diseases, infectious diseases, cancer and multiple sclerosis, and for contraception.
Consumer Health	Development, production and marketing of over-the-counter medications, diagnostic products, nutritional supplements for humans and animals, veterinary medicines and animal grooming products.
<b>CropScience</b>	
Crop Protection	Development, production and marketing of a comprehensive portfolio of fungicides, herbicides, insecticides and seed treatment products to meet a wide range of regional requirements.
Environmental Science, BioScience	Development, production and marketing of a wide range of products for the green industry, garden care, non-agricultural pest and weed control, plant biotechnology and conventional seeds.
<b>MaterialScience</b>	
Materials	Development, production and marketing of high-quality plastics granules, sheet and film.
Systems	Development, production and marketing of polyurethanes for a wide variety of applications and of coating and adhesive raw materials; production and marketing of inorganic basic chemicals.

The segment table presents continuing operations only. Details of the discontinued operations are given in Note [6.3].

The reconciliation eliminates intersegment and interregional sales and reflects income, expenses, assets and liabilities not allocable to segments. These include in particular the Corporate Center and the service companies.

The segment data are calculated as follows:

- The intersegment sales reflect intragroup transactions effected at transfer prices fixed on an arm's-length basis.
- The gross cash flow comprises income from continuing operations after taxes, plus income taxes, plus/minus non-operating result, minus income taxes paid or accrued, plus depreciation, amortization and write-downs, minus write-backs, plus/minus changes in pension provisions, minus gains/plus losses on retirements of noncurrent assets, plus non-cash effects of the remeasurement of acquired assets. The change in pension provisions includes the elimination of non-cash components of the operating result (EBIT). It also contains benefit payments during the year.
- The net cash flow is the cash flow from operating activities as defined in IAS 7 (Cash Flow Statements).
- The capital invested comprises all assets serving the respective segment that are required to yield a return on their cost of acquisition. Noncurrent assets are included at cost of acquisition or construction throughout their useful lives because the calculation of cash flow return on investment (CFROI) requires that depreciation and amortization be excluded. Interest-free liabilities are deducted. The capital invested is stated as of December 31 of the respective year.
- The CFROI is the ratio of the gross cash flow to the average capital invested for the year and is thus a measure of the return on capital employed.
- The equity items reflect the earnings and carrying amounts of companies recognized at equity (associates). They are allocated to the segments.
- Since financial management of Group companies is carried out centrally by Bayer AG, financial liabilities are not allocated directly to the respective segments. Consequently, the liabilities shown for the individual segments do not include financial liabilities.
- The number of employees is reported as full-time equivalents, with part-time employees included in proportion to their contractual working hours.

The table shows the regional breakdown of intangible assets and property, plant and equipment:

	2007	2008
	€ million	€ million
Germany	17,504	16,896
United States	4,916	5,466
Finland	2,040	1,903
China	1,269	1,902
France	1,296	1,243
Switzerland	1,130	917
Other	3,434	3,763
<b>Total</b>	<b>31,589</b>	<b>32,090</b>



## 6. Scope of consolidation; subsidiaries and affiliates

The consolidated financial statements include all subsidiaries, joint ventures and associates. Subsidiaries are those companies in which Bayer AG directly or indirectly has a majority of the voting rights or from which it is able to derive the greater part of the economic benefit and bears the greater part of the risk by virtue of its power to govern corporate financial and operating policies, generally through an ownership interest of more than 50%. Inclusion of such companies' accounts in the consolidated financial statements begins when Bayer AG starts to exercise control over the company and ceases when it is no longer able to do so.

Joint ventures are companies over which the Bayer Group exercises joint control with a third party. A company is generally deemed a joint venture if voting rights are divided equally between two stockholders or the company is established on the basis of a joint venture agreement.

Associates over which Bayer AG exerts significant influence, generally through an ownership interest between 20% and 50%, are accounted for by the equity method.

Subsidiaries that do not have a material impact on the Group's financial position or results of operations, either individually or in aggregate, are recognized at amortized cost in the consolidated financial statements.

## 6.1 Changes in the scope of consolidation

	Germany	Other countries	Total
<b>Bayer AG and consolidated companies</b>			
December 31, 2007	60	266	326
Changes in the scope of consolidation	2	7	9
Additions	3	3	6
Retirements	(2)	(23)	(25)
December 31, 2008	63	253	316
<b>Joint ventures</b>			
December 31, 2007	1	4	5
Changes in the scope of consolidation	-	-	-
Additions	-	1	1
Retirements	(1)	(1)	(2)
December 31, 2008	-	4	4

The decrease in the number of fully consolidated companies in 2008 is primarily due to mergers between Group companies in the course of the integration of the Schering group.

The four joint ventures included by proportionate consolidation in compliance with IAS 31 (Interests in Joint Ventures) affected the Group balance sheet and income statement as follows:

	2008		2008
	€ million		€ million
Current assets	28	Income	66
Noncurrent assets	77	Expenses	(50)
Current liabilities	(18)		
Noncurrent liabilities	(14)		
<b>Net assets</b>	<b>73</b>	<b>Income after taxes</b>	<b>16</b>

Also included in the consolidated financial statements are five associates – the same number as in the previous year – which are accounted for by the equity method. Details of their impact on the income statement and balance sheet are shown in Note [19].

A total of 91 subsidiaries and 24 associates or joint ventures that in aggregate are immaterial to the Bayer Group's financial position and results of operations are not consolidated but recognized at amortized cost. The subsidiaries account for less than 0.1% of Group sales, less than 0.5% of stockholders' equity and less than 0.3% of total assets.

The companies fully consolidated in the financial statements of the Bayer Group are listed in the following table:

Name of fully consolidated company	Place of business	Bayer's interest
		%
<b>Europe</b>		
A/O Bayer	Moscow, Russia	100
Bayer (Schweiz) AG	Zurich, Switzerland	100
Bayer 04 Immobilien GmbH	Leverkusen, Germany	100
Bayer 04 Leverkusen Fußball GmbH	Leverkusen, Germany	100
Bayer 04 Marketing GmbH	Leverkusen, Germany	100
Bayer 04 Mobillien GmbH	Leverkusen, Germany	100
Bayer A/S	Lyngby, Denmark	100
Bayer AB	Stockholm, Sweden	100
Bayer AEH Ltd.	Cambridge, U. K.	100
Bayer AGCO Ltd.	Cambridge, U. K.	100
Bayer Agriculture Ltd.	Cambridge, U. K.	100
Bayer Animal Health GmbH	Leverkusen, Germany	100
Bayer Antwerpen N.V.	Antwerp, Belgium	100
Bayer AS	Oslo, Norway	100
Bayer Austria Gesellschaft m. b. H.	Vienna, Austria	100
Bayer B.V.	Mijdrecht, Netherlands	100
Bayer Beteiligungsverwaltung Goslar GmbH	Leverkusen, Germany	100
Bayer Beteiligungsverwaltungsgesellschaft mbH	Leverkusen, Germany	100
Bayer Biologicals S. r. l.	Milan, Italy	100
Bayer BioScience GmbH	Potsdam, Germany	100
Bayer BioScience N.V.	Ghent, Belgium	100
Bayer Bitterfeld GmbH	Bitterfeld, Germany	100
Bayer Bulgaria EOOD	Sofia, Bulgaria	100
Bayer Business Services GmbH	Leverkusen, Germany	100
Bayer Capital Corporation B.V.	Mijdrecht, Netherlands	100
Bayer Chemicals AG	Leverkusen, Germany	100
Bayer Consumer Care AG	Basel, Switzerland	100
Bayer CropScience (Portugal)-Produtos para a Agricultura Lda.	Carnaxide, Portugal	100
Bayer CropScience AG	Monheim, Germany	100
Bayer CropScience B.V.	Mijdrecht, Netherlands	100
Bayer CropScience Beteiligungsgesellschaft mbH	Frankfurt, Germany	100
Bayer CropScience Germany GmbH	Langenfeld, Germany	100
Bayer CropScience France S. A. S.	Lyon, France	100
Bayer CropScience Holding S. A.	Lyon, France	100
Bayer CropScience Holdings Ltd.	Cambridge, U. K.	100
Bayer CropScience Ltd.	Cambridge, U. K.	100
Bayer CropScience Nufarm Ltd.	Cambridge, U. K.	75
Bayer CropScience Nufarm S. A.	Lyon, France	100
Bayer CropScience S. A.	Lyon, France	100
Bayer CropScience S. A.-N.V.	Brussels, Belgium	100
Bayer CropScience S.L.	Valencia, Spain	100
Bayer CropScience S. r. l.	Milan, Italy	100
Bayer CropScience Vermögensverwaltungsgesellschaft mbH	Leverkusen, Germany	100
Bayer d. o. o.	Belgrade, Serbia	100
Bayer d. o. o.	Ljubljana, Slovenia	100
Bayer d. o. o.	Zagreb, Croatia	100
Bayer Diagnostics Manufacturing Ltd.	Bridgend, U. K.	100
Bayer Direct Services GmbH	Leverkusen, Germany	100
Bayer Environmental Science S. A. S.	Lyon, France	100

Name of fully consolidated company	Place of business	Bayer's interest %
Bayer Gastronomie GmbH	Leverkusen, Germany	100
Bayer Gesellschaft für Beteiligungen mbH	Leverkusen, Germany	100
Bayer HealthCare AG	Leverkusen, Germany	100
Bayer Hellas AG	Athens, Greece	100
Bayer Hispania S. L.	Sant Joan Despi, Spain	100
Bayer Hungaria Kft.	Budapest, Hungary	100
Bayer Immobilier S. A. S.	Puteaux, France	100
Bayer Innovation GmbH	Düsseldorf, Germany	100
Bayer International S. A.	Fribourg, Switzerland	100
Bayer Ltd.	Dublin, Ireland	100
Bayer Ltd.	Kiev, Ukraine	100
Bayer MaterialScience AG	Leverkusen, Germany	100
Bayer MaterialScience Customer Services GmbH	Leverkusen, Germany	100
Bayer MaterialScience S. r. l.	Milan, Italy	100
Bayer Oy	Espoo, Finland	100
Bayer Polimeros S. L.	Sant Joan Despi, Spain	100
Bayer Polyols S. N. C.	Puteaux, France	100
Bayer Polyurethanes B.V.	Mijdrecht, Netherlands	100
Bayer Portugal S. A.	Lisbon, Portugal	100
Bayer Public Limited Company	Newbury, U.K.	100
Bayer Real Estate GmbH	Leverkusen, Germany	100
Bayer S. A.-N.V.	Brussels, Belgium	100
Bayer S. A. S.	Puteaux, France	100
Bayer S. p. A.	Milan, Italy	100
Bayer s. r. o.	Prague, Czech Republic	100
Bayer Santé Familiale S. A. S.	Gaillard, France	100
Bayer Santé S. A. S.	Puteaux, France	100
Bayer Schering Pharma AG	Berlin, Germany	100
Bayer Schering Pharma Oy	Turku, Finland	100
Bayer Sheet Europe GmbH	Darmstadt, Germany	100
Bayer Sheet Europe N.V.	Tielt, Belgium	100
Bayer Sheet Europe S. p. A.	Milan, Italy	90
Bayer Sp. Z. o. o.	Warsaw, Poland	100
Bayer spol. s. r. o.	Bratislava, Slovakia	100
Bayer Technology Services GmbH	Leverkusen, Germany	100
Bayer Vital GmbH	Leverkusen, Germany	100
Bayfin GmbH	Leverkusen, Germany	100
BaySystems a.s.	Prague, Czech Republic	100
BaySystems B.V.	Foxhol, Netherlands	100
BaySystems Büfa Polyurethane GmbH & Co. KG	Oldenburg, Germany	100
BaySystems Italia S. p. A.	Mussolente, Italy	100
BaySystems Northern Europe A/S	Otterup, Denmark	100
Berlimed S.A.	Madrid, Spain	51
Berlis AG	Zurich, Switzerland	100
BerliServe Professional Services GmbH	Berlin, Germany	100
Biotogenic Technologies B.V.	Rotterdam, Netherlands	100
Chemie-Beteiligungsaktiengesellschaft	Glarus, Switzerland	100
Chemion Logistik GmbH	Leverkusen, Germany	100
Currenta GmbH & Co. OHG	Leverkusen, Germany	60
Direvo Biotech AG	Cologne, Germany	100
Drugofa GmbH	Cologne, Germany	100
Dyvevo GmbH	Leverkusen, Germany	100
Epurex Films GmbH & Co. KG	Bomlitz, Germany	100
Erste K-W-A Beteiligungsgesellschaft mbH	Leverkusen, Germany	100
Euroservices Bayer GmbH	Leverkusen, Germany	100
Euroservices Bayer S. L.	Sant Joan Despi, Spain	100

Name of fully consolidated company	Place of business	Bayer's interest %
Generics Holding GmbH	Leverkusen, Germany	100
GP Grenzach Produktions GmbH	Grenzach, Germany	100
Hild Samen GmbH	Marbach am Neckar, Germany	100
Icon Genetics GmbH	Munich, Germany	100
Intendis Austria Handels GesmbH	Vienna, Austria	100
Intendis Dermatologie GmbH	Berlin, Germany	100
Intendis Farma S.A.	Madrid, Spain	100
Intendis GmbH	Berlin, Germany	100
Intendis Manufacturing S.p.A.	Milan, Italy	100
Intendis Polska Sp. Zo. o.	Warsaw, Poland	100
Intendis Portugal Sociedade Unipessoal Lda.	Mem Martins, Portugal	100
Intendis S.p.A.	Milan, Italy	100
Jenapharm GmbH & Co. KG	Jena, Germany	100
Justesa Imagen S.A.	Madrid, Spain	51
Kosinus Grundstücks-Verwaltungs-Gesellschaft mbH & Gamma OHG	Berlin, Germany	100
KVP Pharma+Veterinär-Produkte GmbH	Kiel, Germany	100
Lyttron Technology GmbH	Leverkusen, Germany	100
Marotrast GmbH	Jena, Germany	100
Mediwest Norway AS	Oslo, Norway	100
Medrad Belgium BVBA	Antwerp, Belgium	100
Medrad Denmark ApS	Glostrup, Denmark	100
Medrad Europe B.V.	Maastricht, Netherlands	100
Medrad France S.A.R.L.	Rungis Cedex, France	100
Medrad Italia S.r.l.	Cava Manara, Italy	100
Medrad Medizinische Systeme GmbH	Volkach, Germany	100
Medrad Sweden AB	Västra Frölunda, Sweden	100
Medrad UK Ltd.	Ely, U.K.	100
Menadier Heilmittel GmbH	Berlin, Germany	100
Nunhems B.V.	Nunhem, Netherlands	100
Nunhems France S.A.R.L.	Soucelles, France	100
Nunhems Hungary Kft.	Szolnok, Hungary	100
Nunhems Italy S.r.l.	St. Agata Bolognes, Italy	100
Nunhems Netherlands B.V.	Nunhem, Netherlands	100
Nunhems Poland Sp. Zo. o.	Poznan, Poland	100
Nunhems Spain S.A.	Valencia, Spain	100
Pallas Versicherung AG	Leverkusen, Germany	100
pbi Home & Garden Ltd.	Cambridge, U.K.	100
Pharma Verlagsbuchhandlung GmbH	Berlin, Germany	100
Plant Genetics System International N.V.	The Hague, Netherlands	100
Quimica Farmacéutica Bayer S.L.	Sant Joan Despi, Spain	100
SC Bayer S.r.l.	Bucharest, Romania	100
Schering AG	Berlin, Germany	100
Schering Agrochemicals Holdings Ltd.	Burgess Hill, U.K.	100
Schering Espana S.A.	Madrid, Spain	99.9
Schering GmbH und Co. Produktions KG	Weimar, Germany	100
Schering Health Care Ltd.	Burgess Hill, U.K.	100
Schering Holdings Ltd.	Burgess Hill, U.K.	100
Schering Industrial Products Ltd.	Burgess Hill, U.K.	100
Schering International Holding GmbH	Berlin, Germany	100
Schering Kahlbaum GmbH	Berlin, Germany	100
Schering ZAO	Moscow, Russia	100
Sportrechte Vermarktungs- und Verwertungs-GmbH & Co. oHG	Leverkusen, Germany	100
Tectrion GmbH	Leverkusen, Germany	100
Too Bayer KAZ	Astana, Kazakhstan	100

Name of fully consolidated company	Place of business	Bayer's interest %
TravelBoard GmbH	Leverkusen, Germany	100
UAB Bayer	Vilnius, Lithuania	100
Vivero GmbH	Bitterfeld, Germany	100
Zweite K-W-A Beteiligungsgesellschaft mbH	Leverkusen, Germany	100
<b>North America</b>		
Bayer Business and Technology Services LLC	Pittsburgh, U. S. A.	100
Bayer Canadian Holdings Inc.	Toronto, Canada	100
Bayer Corporation	Pittsburgh, U. S. A.	100
Bayer Cotton Seed International Inc.	Research Triangle Park, U. S. A.	51
Bayer CropScience Holding Inc.	Research Triangle Park, U. S. A.	100
Bayer CropScience Holdings Inc.	Calgary, Canada	100
Bayer CropScience Inc.	Calgary, Canada	100
Bayer CropScience Inc.	Research Triangle Park, U. S. A.	100
Bayer CropScience LLC	Research Triangle Park, U. S. A.	100
Bayer CropScience LP	Research Triangle Park, U. S. A.	100
Bayer HealthCare LLC	Tarrytown, U. S. A.	100
Bayer HealthCare Pharmaceuticals Inc.	Pine Brook, U. S. A.	100
Bayer HealthCare Pharmaceuticals LLC	Seattle, U. S. A.	100
Bayer Inc.	Toronto, Canada	100
Bayer MaterialScience LLC	Pittsburgh, U. S. A.	100
Bayer Pharma Chemicals Inc.	Pine Brook, U. S. A.	100
Bayer Puerto Rico Inc.	Guaynabo, Puerto Rico	100
Baypo I LLC	New Martinsville, U. S. A.	100
Baypo II LLC	New Martinsville, U. S. A.	100
Baypo LP	New Martinsville, U. S. A.	100
BHCP Holdings LLC	Wilmington, U. S. A.	100
Bippo Corporation	New Martinsville, U. S. A.	100
Collateral Therapeutics Inc.	San Diego, U. S. A.	100
Cooper Land Company of New Jersey Inc.	Tarrytown, U. S. A.	100
Deerfield Urethane Inc.	South Deerfield, U. S. A.	100
Guidance Interactive Healthcare Inc.	Tarrytown, U. S. A.	100
Intendis Inc.	Pine Brook, U. S. A.	100
iSense Corporation	Wilsonville, U. S. A.	100
iSense Development Corporation	Wilsonville, U. S. A.	100
iSense Hospital Care LLC	Wilsonville, U. S. A.	100
Medrad Inc.	Indianola, U. S. A.	100
Medrad Saxonburg Inc.	Saxonburg, U. S. A.	100
MTFP Inc.	Wilmington, U. S. A.	100
NippoNex Inc.	Springfield, U. S. A.	100
NOR-AM Agro LLC	Pine Brook, U. S. A.	100
NOR-AM Land Company	Pine Brook, U. S. A.	100
Nunhems USA Inc.	Morgan Hill, U. S. A.	100
Pallas North America Insurance Company Inc.	Burlington, U. S. A.	100
SB Capital Corporation	Pine Brook, U. S. A.	100
Schering Berlin Inc.	Pine Brook, U. S. A.	100
Schering Berlin Venture Corporation	Pine Brook, U. S. A.	100
SCIC Holdings LLC	Burlington, U. S. A.	100
Sheffield Plastics Inc.	Sheffield, U. S. A.	100
Stoneville Pedigreed Seed Company	Saint Louis, U. S. A.	100
STWB Inc.	Pittsburgh, U. S. A.	100
<b>Asia/Pacific</b>		
Bayer (Beijing) Sheet Co. Ltd.	Beijing, China	100
Bayer (China) Ltd.	Beijing, China	100
Bayer (Malaysia) Sdn. Bhd.	Petaling Jaya, Malaysia	100

Name of fully consolidated company	Place of business	Bayer's interest %
Bayer (Sichuan) Animal Health Co. Ltd.	Chengdu, China	70
Bayer (South East Asia) Pte. Ltd.	Singapore, Singapore	100
Bayer Australia Ltd.	Pymble, Australia	100
Bayer BioScience Pvt. Ltd.	Hyderabad, India	100
Bayer Co. (Malaysia) Sdn. Bhd.	Petaling Jaya, Malaysia	100
Bayer Coatings Systems Shanghai Co. Ltd.	Shanghai, China	100
Bayer CropScience (China) Co. Ltd.	Hangzhou, China	100
Bayer CropScience (Pvt) Ltd.	Karachi, Pakistan	100
Bayer CropScience Holdings Pty Ltd.	East Hawthorn, Australia	100
Bayer CropScience Inc.	Laguna, Philippines	100
Bayer CropScience K. K.	Tokyo, Japan	100
Bayer CropScience Ltd.	Mumbai, India	71.1
Bayer CropScience Ltd.	Seoul, South Korea	100
Bayer CropScience Pty Ltd.	East Hawthorn, Australia	100
Bayer CropScience Taiwan Ltd.	Taipei, Taiwan	100
Bayer Far East Service Co. Ltd.	Hong Kong, Hong Kong	100
Bayer Healthcare Co. Ltd.	Beijing, China	100
Bayer HealthCare Ltd.	Hong Kong, Hong Kong	100
Bayer Holding Ltd.	Tokyo, Japan	100
Bayer Jinling Polyurethane Co. Ltd.	Nanjing, China	55
Bayer Korea Ltd.	Seoul, South Korea	100
Bayer MaterialScience Ltd.	Hong Kong, Hong Kong	100
Bayer MaterialScience Ltd.	Tokyo, Japan	100
Bayer MaterialScience Pvt. Ltd.	Mumbai, India	100
Bayer MaterialScience Trading (Shanghai) Co. Ltd.	Shanghai, China	100
Bayer New Zealand Ltd.	Auckland, New Zealand	100
Bayer Pakistan (Pvt) Ltd.	Karachi, Pakistan	100
Bayer Pharmaceuticals Pvt. Ltd.	Mumbai, India	100
Bayer Philippines Inc.	Makati City, Philippines	100
Bayer Polychem (India) Ltd.	Thane, India	100
Bayer Polymers Shanghai Co. Ltd.	Shanghai, China	90
Bayer Polyurethanes (Shanghai) Co. Ltd.	Shanghai, China	100
Bayer Polyurethanes Taiwan Ltd.	Taipeh, Taiwan	94.9
Bayer Sheet Korea Ltd.	Kimhae City, South Korea	100
Bayer Taiwan Company Ltd.	Taipeh, Taiwan	100
Bayer Technology and Engineering (Shanghai) Co. Ltd.	Shanghai, China	100
Bayer Thai Company Ltd.	Bangkok, Thailand	100
Bayer TPU (Shenzhen) Co. Ltd.	Shenzhen, China	100
Bayer Uretech Ltd.	Yu Pu Village, Taiwan	100
Bayer Vietnam Ltd.	Bien Hoa City (Amata), Vietnam	100
Bayer Yakuhin Ltd.	Osaka, Japan	100
Bilag Industries Pvt. Ltd.	Andheri, India	100
Guangzhou Bayer MaterialScience Co. Ltd.	Guangzhou, China	100
Imaxeon Pty. Ltd.	Rydalmere, Australia	100
Intendis K.K.	Osaka, Japan	100
Laserlite Australia Pty. Ltd.	Pymble, Australia	100
Medipharm (Pvt) Ltd.	Lahore, Pakistan	100
Medrad Asia Pte. Ltd.	Singapore, Singapore	100
Nihon Medrad K.K.	Osaka, Japan	100
Nunhems Beijing Seed Co. Ltd.	Beijing, China	95
Nunhems India Pvt. Ltd.	Haryana, India	100
PT. Bayer Indonesia	Jakarta, Indonesia	99.8
PT. Bayer MaterialScience Indonesia	Jakarta, Indonesia	99.9
Sumika Bayer Urethane Co. Ltd.	Amagasaki, Japan	60
U I M Agrochemicals (Aust) Pty Ltd.	East Hawthorn, Australia	100

Name of fully consolidated company	Place of business	Bayer's interest %
<b>Latin America / Africa / Middle East</b>		
AgrEvo South Africa (Pty) Ltd.	Isando, South Africa	100
Bayer (Pty) Ltd.	Isando, South Africa	100
Bayer Boliviana Ltda.	Santa Cruz De La Sierra, Bolivia	100
Bayer Central America S.A.	San Jose, Costa Rica	100
Bayer Cropsience S.A.	Bogota, Colombia	100
Bayer de Mexico S.A. de C.V.	Mexico City, Mexico	100
Bayer East Africa Ltd.	Nairobi, Kenya	55
Bayer Israel Ltd.	Hod Hasharon, Israel	100
Bayer S. A.	Asuncion, Paraguay	100
Bayer S. A.	Bogotá, Colombia	100
Bayer S. A.	Buenos Aires, Argentina	100
Bayer S. A.	Caracas, Venezuela	100
Bayer S. A.	Casablanca, Morocco	100
Bayer S. A.	Colón, Panama	100
Bayer S. A.	Guatemala City, Guatemala	100
Bayer S. A.	Lima, Peru	89.3
Bayer S. A.	Managua, Nicaragua	100
Bayer S. A.	Montevideo, Uruguay	100
Bayer S. A.	Quito, Ecuador	100
Bayer S. A.	San Jose, Costa Rica	100
Bayer S. A.	San Salvador, El Salvador	100
Bayer S. A.	Santiago de Chile, Chile	100
Bayer S. A.	Santo Domingo, Dom. Republic	100
Bayer S. A.	São Paulo, Brazil	100
Bayer S. A. de C.V.	Tegucigalpa, Honduras	100
Bayer Türk Kimya Sanayi Limited Sirketi	Istanbul, Turkey	100
BaySystems Pearl FZCO	Dubai, United Arab Emirates	51
Corporación Bonima S.A. de C.V.	Ilopango, El Salvador	99.8
Cropsa Ltda.	Bogota, Colombia	100
Cropsa S. A. C.	Lima, Peru	100
Intendis do Brasil Farmaceutica Ltda.	Itapevi, Brazil	100
Intendis Ilac Ticaret Limited Sirketi	Istanbul, Turkey	100
Intendis Mexicana S. A. de C.V.	Mexico City, Mexico	100
Justesa Imagem do Brasil S. A.	Rio de Janeiro, Brazil	100
Justesa Imagen Argentina S. A.	Buenos Aires, Argentina	100
Justesa Imagen Mexicana S. A. de C.V.	Mexico City, Mexico	100
Mediterranean Seeds Ltd.	Einat, Israel	100
Medrad America Latina Ltda.	São Paulo, Brazil	100
Medrad Mexicana S. de R.L. de CV	Mexico City, Mexico	100
Nunhems Chile S.A.	Santiago de Chile, Chile	100
Nunhems do Brasil Comercio de Sementes Ltda.	Campinas, Brazil	100
Nunhems Mexico S. A. de C.V.	Queretaro, Mexico	99
Nunhems Tohumculuk Limited Sirketi	Antalya, Turkey	100
Proquina Productos Quimicos Naturales S. A. de C.V.	Orizaba, Mexico	100
Schering (Pty) Ltd.	Midrand, South Africa	100
Schering do Brasil Quimica e Farmaceutica Ltda.	São Paulo, Brazil	100



The following four joint ventures are included in the financial statements of the Bayer Group by proportionate consolidation:

Name of joint venture	Place of business	Bayer's interest
		%
Baulé S. A. S.	Romans-sur-Isere, France	50
Bayer IMSA, S. A. de C. V.	Leon, Mexico	50
BayOne Urethane Systems LLC	Saint Louis, U.S.A.	50
Indurisk Rückversicherung AG	Luxembourg, Luxembourg	50

The following associates are accounted for in the consolidated financial statements by the equity method:

Name of associate	Place of business	Bayer's interest
		%
DIC Bayer Polymer Ltd.	Tokyo, Japan	50
Lyondell Bayer Manufacturing Maasvlakte VOF	Rotterdam, Netherlands	50
Palthough Industries (1998) Ltd.	Kibbutz Ramat Yochanan, Israel	25
PO JV LP	Wilmington, U. S. A.	41.3
Polygal Plastics Industries Ltd.	Kibbutz Ramat Hashofer, Israel	25.8

The following subsidiaries are reflected in the consolidated financial statements at amortized cost due to immateriality:

Name of subsidiary	Place of business	Bayer's interest
		%
<b>Europe</b>		
1. BCrsV GmbH	Leverkusen, Germany	100
2. BHCV GmbH	Leverkusen, Germany	100
Agreva GmbH	Frankfurt, Germany	100
AgrEvo Verwaltungsgesellschaft mbH	Frankfurt, Germany	100
Ausbildungsinitiative Rheinland GmbH	Leverkusen, Germany	100
Bayer 04 Leverkusen Sportförderung gGmbH	Leverkusen, Germany	100
Bayer Bel IOOO	Minsk, Belarus	100
Bayer d. o. o. Sarajevo	Sarajevo, Bosnia-Herzegovina	100
Bayer Healthcare S. r. l.	Milan, Italy	100
Bayer Innovation Ventures GmbH	Düsseldorf, Germany	100
Bayer International Services GmbH	Leverkusen, Germany	100
Bayer OÜ	Tallinn, Estonia	100
Bayer Schering Pharma Medical S. L.	Sant Joan Despi, Spain	100
Bayer UK Ltd.	Newbury, U. K.	100
Bayer Unterstützungskasse GmbH	Leverkusen, Germany	100
Bayer Verwaltungsgesellschaft für Anlagevermögen mbH	Leverkusen, Germany	100
Bayer-Handelsgesellschaft mbH	Leverkusen, Germany	100
Bayer-Kaufhaus GmbH	Leverkusen, Germany	100
Bayhealth Comercializacao de Produtos Farmaceuticos Unipessoal Lda.	Lisbon, Portugal	100
Bayhealth S. L.	Sant Joan Despi, Spain	100
BayInvest GmbH	Leverkusen, Germany	100
BaySystems Büfa Polyurethane Verwaltungs GmbH	Oldenburg, Germany	100
BCS Romania S. r. l.	Bucharest, Romania	100

Name of subsidiary	Place of business	Bayer's interest %
Berlex Especialidades Farmaceuticas Lda.	Carnaxide, Portugal	100
Berlifarma Lda.	Carnaxide, Portugal	100
Berlimed-Especialidades Farmaceuticas Lda.	Carnaxide, Portugal	100
Berlipharm B. V.	Weesp, Netherlands	100
Centrofarma-Industria e Comercio de Prod. Farmaceuticos Lda.	Coimbra, Portugal	100
CIS (U. K.) Ltd.	Burgess Hill, U. K.	100
Currenta Geschäftsführungs-GmbH	Leverkusen, Germany	100
Ehrfeld Mikrotechnik BTS GmbH	Wendelsheim, Germany	100
Epurex Films Geschäftsführungs-GmbH	Walsrode, Germany	100
Farbenfabriken Bayer GmbH	Leverkusen, Germany	100
Fünfte Bayer VV GmbH	Leverkusen, Germany	100
Genus Grundstücks- und Vermietungsgesellschaft mbH & Co. KG	Düsseldorf, Germany	100
HTV Gesellschaft für Hochtemperaturverbrennung mbH	Bergkamen, Germany	100
Job@ctive GmbH	Leverkusen, Germany	100
Kosinus Grundstücks-Verwaltungs-Gesellschaft mbH	Berlin, Germany	100
Lusal Producao Quimico Farmaceutica Luso-Alema Lda.	Carnaxide, Portugal	100
Lusalfarma-Especialidades Farmaceuticas Lda.	Carnaxide, Portugal	100
Rhone Poulenc Plant S. A.	Brussels, Belgium	100
Schering Industrial Products Holdings	Burgess Hill, U. K.	100
Schering Romania S. r. l.	Bucharest, Romania	100
Schering Verwaltungsgesellschaft mbH	Weimar, Germany	100
Sechste Bayer VV GmbH	Leverkusen, Germany	100
SIA Bayer	Riga, Latvia	100
ZAO Rhone-Poulenc AO	Moscow, Russia	100
<b>North America</b>		
BayOne Canada Inc.	Niagara Falls, Canada	100
Berlex Canada Inc.	Pointe-Claire, Canada	100
Boston Poly Company	Wilsonville, U. S. A.	100
Delinting and Seed Treating Company	Maricopa, U. S. A.	100
Icon Genetics Inc.	Montmouth Junction, U. S. A.	100
The SDI Divestiture Corporation	Cincinnati, U. S. A.	100
Viterion TeleHealthcare LLC	Tarrytown, U. S. A.	100
<b>Asia/Pacific</b>		
AgrEvo (Thailand) Ltd.	Bangkok, Thailand	100
Bayer CropScience (OHQ) (Malaysia) Sdn Bhd	Kuala Lumpur, Malaysia	100
Bayer CropScience (Thailand) Company Ltd.	Bangkok, Thailand	99.9
Bayer CropScience Ltd.	Dhaka, Bangladesh	60
Bayer CropScience Seeds Pty Ltd.	Toowoomba, Australia	100
Bayer Environmental Health Singapore (Pvt) Ltd.	Singapore, Singapore	100
BCS (Pvt) Ltd.	Karachi, Pakistan	100
Chemdyes Pakistan (Pvt) Ltd.	Karachi, Pakistan	100
C-Qentec Diagnostics Pty. Ltd.	Epping, Australia	100
Medrad Medical Equipment Trading Company	Beijing, China	100
Myanmar Aventis CropScience Ltd.	Yangon, Myanmar	100
Schering (Hong Kong) Ltd.	Hong Kong, Hong Kong	100
Schering (Malaysia) Sdn Bhd	Kuala Lumpur, Malaysia	100
Schering (Singapore) (Pvt) Ltd.	Singapore, Singapore	100
Schering Asia/Pacific (Pvt) Ltd.	Singapore, Singapore	100
Schering China Ltd.	Hong Kong, Hong Kong	100
Schering Pty. Ltd.	Alexandria, Australia	100

Name of subsidiary	Place of business	Bayer's interest
		%
<b>Latin America / Africa / Middle East</b>		
AgrEvo Middle East (Cyprus) Ltd.	Limassol, Cyprus	100
Aventis CropScience Malawi Ltd.	Blantyre, Malawi	100
Bayer Algerie S. P.A.	Algiers, Algeria	100
Bayer CropScience Zimbabwe (Pvt) Ltd.	Harare, Zimbabwe	99.9
Bayer Distribuidora de Produtos Quimicos e Farmaceuticos Ltda.	São Paulo, Brazil	100
Bayer Iranchemie AG	Teheran, Iran	100
Bayer Middle East FZE	Dubai, United Arab Emirates	100
Bayer Namibia Pty. Ltd.	Windhoek, Namibia	100
Bayer Schering Pharma Moçambique Lda.	Maputo, Mozambique	100
Bayer Zimbabwe (Pvt) Ltd.	Harare, Zimbabwe	100
Centro Estrategico Canada Latinoamerica S. A. de C. V.	Mexico City, Mexico	100
Comercial Interamericana S. A.	Guatemala City, Guatemala	100
Farmaco Ltda.	São Paulo, Brazil	100
Indhorm Sociedad Anonima, Industrial, Comercial y Financiera	Buenos Aires, Argentina	99.5
Junta Comercializadora de Productos de Latinoamerica S. A. de C. V.	Mexico City, Mexico	100
Kyrgyz Agra Investment Company Ltd.	Nicosia, Cyprus	57.1
Laboratorio Berlimed S. A.	Santiago de Chile, Chile	100
Miles S. A. Guatemala Branch	Guatemala City, Guatemala	100
Quimicas Unidas S. A.	Havana, Cuba	100
Schering Peruana S. A.	Lima, Peru	100

The following associates and joint ventures are accounted for at amortized cost in light of their secondary importance:

Name of associate or joint venture	Place of business	Bayer's interest
		%
<b>Europe</b>		
Axxam S. r. l.	Milan, Italy	24.5
BaySecur GmbH	Leverkusen, Germany	49
BaySports-Travel GmbH	Leverkusen, Germany	50
BBB Management GmbH Campus Berlin-Buch	Berlin, Germany	20
Byometric Systems AG	Ainring, Germany	26
Disalfarm S. A.	Barcelona, Spain	33.3
EMP-Estrusione Materiali Plastici S. A.	Stabio, Switzerland	42.1
Faserwerke Hüls GmbH	Marl, Germany	50
Gigas Grundstücks-Vermietungsgesellschaft mbH	Düsseldorf, Germany	20
Pyco S. A.	Mont de Marsan, France	47
Sauerstoff- und Stickstoffrohrleitungsgesellschaft mbH	Krefeld, Germany	50
Societe Immobiliere de Gaillard d'Economie Mixte (SIGEM)	Gaillard, France	48
Solavista GmbH & Co. KG	Potsdam, Germany	50
Solavista Verwaltungs GmbH	Potsdam, Germany	50
SuNyx GmbH	Düsseldorf, Germany	41.8
<b>North America</b>		
Burrill Nutraceuticals Capital Fund LP	Wilmington, U. S. A.	33
Chromatin Inc.	Chicago, U. S. A.	26.3

Name of associate or joint venture	Place of business	Bayer's interest
		%
Schein Pharmaceutical Canada Inc.	Ontario, Canada	50
<b>Asia / Pacific</b>		
Bayer DAS (Pvt) Ltd.	Karachi, Pakistan	50
Cotton Growers Services Pty. Ltd.	Wee Waa, Australia	50
Teijin-Bayer Polytec Ltd.	Tokyo, Japan	50
<b>Latin America / Africa / Middle East</b>		
Alimtec S. A.	Santiago, Chile	40
Coopers Environmental Health Pty Ltd.	Pomona Gardens, South Africa	26
Wenkem SA (Pty) Ltd.	Midrand, South Africa	24.9

The Bayer Group holds between 5% and 20% of the voting rights of the following “large companies” as defined in Section 267, paragraphs 2 and 3 of the German Commercial Code:

Company Name	Place of business	Bayer's interest
		%
Baywoge GmbH	Leverkusen, Germany	5.1
CuraGen Corporation	New Haven, U. S. A.	5.6
Hokkai Sankyo Co. Ltd.	Tokyo, Japan	19.8
OncoGenex Pharmaceuticals Inc.	Bothell, U. S. A.	10.6
Salzgewinnungsgesellschaft Westfalen mbH & Co. KG	Ahaus, Germany	10

The following domestic subsidiaries availed themselves in 2008 of certain exemptions granted under Section 264, paragraph 3 and Section 264 b of the German Commercial Code regarding the preparation, auditing and publication of financial statements:

Name of exempt subsidiary	Place of business	Bayer's interest
		in %
Bayer 04 Immobilien GmbH	Leverkusen, Germany	100
Bayer 04 Leverkusen Fußball GmbH	Leverkusen, Germany	100
Bayer 04 Marketing GmbH	Leverkusen, Germany	100
Bayer 04 Mobilien GmbH	Leverkusen, Germany	100
Bayer Animal Health GmbH	Leverkusen, Germany	100
Bayer Beteiligungsverwaltungsgesellschaft mbH	Leverkusen, Germany	100
Bayer Bitterfeld GmbH	Bitterfeld, Germany	100
Bayer BioScience GmbH	Potsdam, Germany	100
Bayer Business Services GmbH	Leverkusen, Germany	100
Bayer Chemicals AG	Leverkusen, Germany	100
Bayer CropScience AG	Monheim, Germany	100
Bayer Direct Services GmbH	Leverkusen, Germany	100
Bayer Gastronomie GmbH	Leverkusen, Germany	100
Bayer Gesellschaft für Beteiligungen mbH	Leverkusen, Germany	100
Bayer HealthCare AG	Leverkusen, Germany	100
Bayer Innovation GmbH	Düsseldorf, Germany	100
Bayer MaterialScience AG	Leverkusen, Germany	100
Bayer MaterialScience Customer Services GmbH	Leverkusen, Germany	100
Bayer Real Estate GmbH	Leverkusen, Germany	100
Bayer Schering Pharma AG	Berlin, Germany	100
Bayer Technology Services GmbH	Leverkusen, Germany	100
Bayer Vital GmbH	Leverkusen, Germany	100
Bayfin GmbH	Leverkusen, Germany	100

Name of exempt subsidiary	Place of business	Bayer's interest
		in %
BaySystems Büfa Polyurethane GmbH & Co. KG	Oldenburg, Germany	100
BerliServe Professional Services GmbH	Berlin, Germany	100
Chemion Logistik GmbH	Leverkusen, Germany	100
Currenta GmbH & Co. OHG	Leverkusen, Germany	60
Direvo Biotech AG	Cologne, Germany	100
Drugofa GmbH	Cologne, Germany	100
Dyvevo GmbH	Leverkusen, Germany	100
Epurex Films GmbH & Co. KG	Bomlitz, Germany	100
Erste K-W-A Beteiligungsgesellschaft mbH	Leverkusen, Germany	100
Euroservices Bayer GmbH	Leverkusen, Germany	100
Generics Holding GmbH	Leverkusen, Germany	100
GP Grenzach Produktions GmbH	Grenzach, Germany	100
Icon Genetics GmbH	Munich, Germany	100
Intendis GmbH	Berlin, Germany	100
Intendis Dermatologie GmbH	Berlin, Germany	100
Jenapharm GmbH & Co. KG	Jena, Germany	100
Kosinus Grundstücks-Verwaltungs-Gesellschaft mbH & Gamma OHG	Berlin, Germany	100
KVP Pharma+Veterinär-Produkte GmbH	Kiel, Germany	100
Lyttron Technology GmbH	Leverkusen, Germany	100
Marotrast GmbH	Jena, Germany	100
Menadier Heilmittel GmbH	Berlin, Germany	100
Pharma Verlagsbuchhandlung GmbH	Berlin, Germany	100
Schering AG	Berlin, Germany	100
Schering GmbH und Co. Produktions KG	Weimar, Germany	100
Schering International Holding GmbH	Berlin, Germany	100
Schering Kahlbaum GmbH	Berlin, Germany	100
Sportrechte Vermarktungs- und Verwertungs-GmbH & Co. oHG	Leverkusen, Germany	100
Tectrion GmbH	Leverkusen, Germany	100
TravelBoard GmbH	Leverkusen, Germany	100
Viverso GmbH	Bitterfeld, Germany	100
Zweite K-W-A Beteiligungsgesellschaft mbH	Leverkusen, Germany	100

## 6.2 Business combinations and other acquisitions

Acquisitions were accounted for by the purchase method in accordance with IFRS 3 (Business Combinations), the results of the acquired businesses therefore being included in the consolidated financial statements as from the respective dates of acquisition. The purchase prices of acquisitions of companies domiciled outside the euro zone were translated at the exchange rates in effect at the respective dates of acquisition.

Acquisition costs in 2008 amounted to €932 million (2007: €482 million). The purchase prices of the acquired companies or businesses were settled mainly in cash. Goodwill arising on these acquisitions totaled €380 million (2007: €210 million) and related principally to the following transactions:

Bayer subsidiary Medrad Inc. acquired the remaining shares of Possis Medical Inc. through its subsidiary Phoenix Acquisition Corp. in March 2008 for €227 million. By virtue of the merger of Phoenix Acquisition Corp. with Possis Medical Inc., the latter became a wholly owned subsidiary of Medrad. The main components of the difference between the value of the acquired net assets and the purchase price are €99 million pertaining to patented technologies, trademarks and research and development projects, €40 million in deferred taxes and €125 million of goodwill.

The acquisition of the over-the-counter (OTC) medicines business of U.S.-based Sigmel Inc. for €265 million was completed at the beginning of June 2008. The OTC business of Sigmel Inc. is now integrated into the operations of Bayer HealthCare in Russia, Ukraine, Kazakhstan, the Baltic states and several countries of the Caucasus and Central Asia regions. The main components of the difference between the value of the acquired net assets and the purchase price are €161 million pertaining to trademarks and €70 million of goodwill.

In July 2008 the over-the-counter (OTC) cough and cold medicines business of the Chinese company Topsun Science and Technology Qidong Gaitianli Pharmaceutical Co. Ltd. was acquired for €109 million. The main components of the difference between the value of the acquired net assets and the purchase price are €50 million pertaining to trademarks and €48 million of goodwill.

The protein engineering specialist Direvo Biotech AG, Cologne, Germany, was acquired at the end of September 2008 for €185 million. The main components of the difference between the value of the acquired net assets and the purchase price are €150 million pertaining to patented research and development technologies, €45 million in deferred taxes and €106 million of goodwill.

The acquired businesses named above contributed €109 million to Bayer Group sales in 2008. These portfolio changes had an effect on the operating result (EBIT) for 2008 of -€14 million, whereas a total after-tax result of -€27 million was recorded for the acquired businesses since the respective dates of their first-time consolidation. This includes the financing costs incurred since the dates of acquisition.

If these acquisitions had already been made as of January 1, 2008, the Bayer Group would have had sales of €32,978 million in 2008. Income after taxes would have amounted to €1,690 million, taking into account the effects of the revaluation of acquired net assets and hypothetical financing costs for the full year. Earnings per share from continuing and discontinued operations would not have been materially affected.

With the entry of the squeeze-out of the remaining minority stockholders of Bayer Schering Pharma AG in the commercial register on September 25, 2008, all the shares of the minority stockholders of Bayer Schering Pharma AG were transferred by operation of law to Bayer Schering GmbH, a wholly owned subsidiary of Bayer AG. The remaining minority stockholders received cash compensation of €98.98 per share pursuant to the resolution of the stockholders' meeting of Bayer Schering Pharma AG held on January 17, 2007. The required sum of €695 million, which had been held in escrow accounts for this purpose, was paid out to the stockholders at the beginning of October 2008.

The effects of these and other, smaller acquisitions on the Group's assets and liabilities as of the respective acquisition dates are shown in the table. Net of acquired cash and cash equivalents, they resulted in the following cash outflow:

	Pre-acquisition carrying amount	Fair-value adjustment	Fair value at the acquisition date
	€ million	€ million	€ million
<b>Acquired assets and assumed liabilities</b>			
Goodwill	-	380	380
Patents	-	222	222
Trademarks	-	232	232
R&D projects	-	67	67
Other intangible assets	-	60	60
Property, plant and equipment	25	-	25
Other noncurrent assets	23	-	23
Inventories	31	7	38
Other current assets	56	(2)	54
Cash and cash equivalents	10	-	10
Provisions for pensions and other post-employment benefits	(1)	-	(1)
Other provisions	(10)	-	(10)
Financial liabilities	(12)	-	(12)
Other liabilities	(57)	1	(56)
Deferred taxes	15	(115)	(100)
<b>Net assets</b>	<b>80</b>	<b>852</b>	<b>932</b>
Non-controlling interest	-	-	-
<b>Purchase prices</b>			<b>932</b>
of which ancillary acquisition costs			6
Acquired cash and cash equivalents			10
Compensation of non-controlling interest			695
<b>Net cash outflow for the acquisitions</b>			<b>1,617</b>

The fair-value adjustment reflects the differences between the balance-sheet values of the assets and liabilities prior to their acquisition and the fair values in the acquirer's balance sheet at the acquisition date.

The goodwill arising after the purchase price allocation on the above acquisitions made in 2008 is due to a number of factors, including acquired distribution networks and marketing synergies. The goodwill arising on the acquisition of Direvo Biotech AG is largely attributable to the expected high earnings potential of the products it is intended to develop using the protein engineering platform that forms part of the acquisition.

In May 2007 Bayer CropScience signed an agreement to acquire the U.S. cotton seed producer Stoneville Pedigreed Seed Company from Monsanto. This company was included in full effective June 1, 2007 in the consolidated financial statements of the Bayer Group. The purchase price including ancillary acquisition costs was €232 million. The goodwill remaining after the purchase price allocation was mainly attributable to technology and distribution synergies. The acquisition strengthened the position of Bayer's BioScience business unit in the U.S. cotton seed market.

In July 2007 Bayer MaterialScience completed the acquisition of the Ure-Tech Group of Taiwan, the largest producer of thermoplastic polyurethanes (TPU) in the Asia/Pacific region, for €63 million.

In September 2007 Bayer HealthCare completed the acquisition of a biologics production facility in Emeryville, California, from Novartis. Bayer HealthCare is continuing the production of Betaferon®/Betaseron® in Emeryville and has taken over the entire manufacturing and process technology and the facility's employees. Novartis received about €137 million for the acquisition of the production facility, including the Biologics License Application (BLA), the transfer of the related equipment and inventories, and the leasing of certain buildings.

The effects of these and other, smaller acquisitions made in 2007 on the Group's assets and liabilities in that year as of the respective acquisition dates are shown in the table. Net of acquired cash and cash equivalents, they resulted in the following cash outflow:

	Pre-acquisition carrying amount	Fair-value adjustment	Fair value at the acquisition date
	€ million	€ million	€ million
<b>Acquired assets and assumed liabilities</b>			
Goodwill	6	204	210
Other rights	77	52	129
Production rights	-	24	24
Other intangible assets	13	13	26
Property, plant and equipment	51	18	69
Other noncurrent assets	5	-	5
Inventories	83	(14)	69
Other current assets	32	(1)	31
Cash and cash equivalents	1	-	1
Provisions for pensions and other post-employment benefits	-	(4)	(4)
Other provisions	-	(17)	(17)
Financial liabilities	-	(6)	(6)
Other liabilities	(31)	(7)	(38)
Deferred taxes	-	(1)	(1)
<b>Net assets</b>	<b>237</b>	<b>261</b>	<b>498</b>
Non-controlling interest	-	-	(16)
<b>Purchase prices</b>			<b>482</b>
of which ancillary acquisition costs			4
Acquired cash and cash equivalents			1
<b>Net cash outflow for the acquisitions</b>			<b>481</b>



### 6.3 Divestitures and discontinued operations

Divestitures and the sale of discontinued operations led to the following cash flows in 2008:

	2008
	€ million
<b>Divestiture proceeds</b>	<b>39</b>
Prepayments and outstanding payments	-
Divestiture costs	-
Divested cash and financial loans	-
Tax payments	(79)
Other cash flows	(1)
<b>Net cash outflow from the divestitures</b>	<b>(41)</b>

The diagnostics activities, along with H. C. Starck and Wolff Walsrode, were recognized as discontinued operations in 2007. Tax payments made in connection with the divestiture of the diagnostics business and a subsequent purchase price payment are therefore recognized in discontinued operations in 2008 as well. The information on discontinued operations, which is provided from the standpoint of the Bayer Group, is to be regarded as part of the reporting for the entire Bayer Group by analogy with our segment reporting and is not intended to portray either the discontinued operations or the remaining operations of Bayer as separate entities. The presentation is thus in line with the principles for reporting discontinued operations.

A breakdown of the results of discontinued operations is given below:

	Diagnostics		H.C. Starck		Wolff Walsrode		Total	
	2007	2008	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
<b>Net sales</b>	-	-	74	-	172	-	246	-
Cost of goods sold	-	-	(51)	-	(109)	-	(160)	-
Selling expenses	(1)	-	(4)	-	(22)	-	(27)	-
Research and development expenses	-	-	(2)	-	(4)	-	(6)	-
General administration expenses	(1)	-	(2)	-	(9)	-	(12)	-
Other operating income (expenses) - net	2,821	6	90	-	246	-	3,157	6
<b>Operating result (EBIT)</b>	<b>2,819</b>	<b>6</b>	<b>105</b>	<b>-</b>	<b>274</b>	<b>-</b>	<b>3,198</b>	<b>6</b>
Non-operating result	-	-	(1)	-	(3)	-	(4)	-
<b>Income before income taxes</b>	<b>2,819</b>	<b>6</b>	<b>104</b>	<b>-</b>	<b>271</b>	<b>-</b>	<b>3,194</b>	<b>6</b>
Income taxes	(766)	(2)	(5)	-	(13)	-	(784)	(2)
<b>Income after taxes</b>	<b>2,053</b>	<b>4</b>	<b>99</b>	<b>-</b>	<b>258</b>	<b>-</b>	<b>2,410</b>	<b>4</b>
of which:								
Current income (loss) (before taxes)	(16)	-	11	-	26	-	21	-
Income taxes	4	-	(3)	-	(7)	-	(6)	-
<b>Current income (loss) (after taxes)</b>	<b>(12)</b>	<b>-</b>	<b>8</b>	<b>-</b>	<b>19</b>	<b>-</b>	<b>15</b>	<b>-</b>
Income from divestitures (before taxes)	2,835	6	93	-	245	-	3,173	6
Income taxes	(770)	(2)	(2)	-	(6)	-	(778)	(2)
<b>Income from divestitures (after taxes)</b>	<b>2,065</b>	<b>4</b>	<b>91</b>	<b>-</b>	<b>239</b>	<b>-</b>	<b>2,395</b>	<b>4</b>

The separate asset and liability line items in the balance sheet reflect the following amounts pertaining to the discontinued operations as of December 31 of the respective year:

	Diagnostics		H.C. Starck		Wolff Walsrode		Total	
	2007	2008	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Current assets	76	3	-	-	8	-	84	3
<b>Assets held for sale and discontinued operations</b>	<b>76</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>-</b>	<b>84</b>	<b>3</b>
Other current provisions	129	13	-	-	-	-	129	13
Other current liabilities	47	-	-	-	-	-	47	-
<b>Liabilities directly related to assets held for sale and discontinued operations</b>	<b>176</b>	<b>13</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>176</b>	<b>13</b>

Discontinued operations affected the Group cash flow statements as follows:

	Diagnostics		H.C. Starck		Wolff Walsrode		Total	
	2007	2008	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Net cash provided by (used in) operating activities	(34)	-	23	-	13	-	2	-
Net cash provided by (used in) investing activities	3,292	(52)	927	-	429	8	4,648	(44)
Net cash provided by (used in) financing activities	(3,258)	52	(950)	-	(442)	(8)	(4,650)	44
<b>Change in cash and cash equivalents</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

## NOTES TO THE STATEMENTS OF INCOME

### 7. Net sales

Net sales are derived primarily from product deliveries. Total reported net sales increased by €533 million or 1.6% from 2007 to €32,918 million. While volumes increased by €898 million, or 2.8%, adverse shifts in exchange rates trimmed sales by €1,086 million, or 3.4%. Changes in selling prices contributed €534 million, or 1.6%, to the growth in business. Portfolio changes boosted sales by €187 million, or 0.6%.

Portfolio changes led to the following changes in sales compared with the previous year:

	2008
	€ million
<b>Acquisitions</b>	
Sagmel Inc. (OTC business)	54
Possis Medical Inc.	41
BaySystems B.V.	30
Others	141
	<b>266</b>
<b>Divestitures</b>	
Hennecke GmbH	(61)
Others	(18)
	<b>(79)</b>
<b>Net effect of portfolio changes</b>	<b>187</b>

Breakdowns of net sales by segment and by region are given in the table in Note [1].

## 8. Selling expenses

Selling expenses comprise all expenses incurred in the reporting period through the sale, storage and transportation of saleable products, advertising, the provision of advice to customers and market research activities. They include €1,024 million (2007: €957 million) for the physical distribution and warehousing of finished products, €2,720 million (2007: €2,665 million) in marketing expenses and €4,361 million (2007: €4,160 million) in other selling expenses.

## 9. Research and development expenses

Research and development expenses and their accounting treatment are closely defined in Note [4]. Breakdowns of research and development expenses by segment and region are given in Note [1].

## 10. Other operating income

	2007	2008
	€ million	€ million
Gains from sales of noncurrent assets and from divestitures	80	98
Write-backs of receivables and other assets	76	88
Reversals of unutilized provisions	101	38
Recognition of exchange rate hedges	192	263
Miscellaneous operating income	373	420
<b>Total</b>	<b>822</b>	<b>907</b>

As in the previous year, miscellaneous operating income is composed of a large number of individually immaterial items at the subsidiaries.

## 11. Other operating expenses

	2007	2008
	€ million	€ million
Losses from sales of noncurrent assets and from divestitures	(52)	(23)
Write-downs of receivables	(98)	(113)
Expenses related to significant legal risks	(139)	(106)
Recognition of exchange rate hedges	(57)	(193)
Miscellaneous operating expenses	(1,223)	(983)
<b>Total</b>	<b>(1,569)</b>	<b>(1,418)</b>

The principal restructuring expenses included in miscellaneous operating expenses for 2008 amount to €404 million (2007: €709 million), including €157 million related to the integration of the Schering Group (2007: €506 million). Further details of restructuring expenses are given in Note [26.3].

Miscellaneous operating expenses for 2008 included €62 million in write-downs of intangible assets. In the previous year, other operating expenses principally comprised a write-down of €152 million necessitated by the findings of the BEYOND study on Betaferon®/Betaseron®.

An amount of €517 million (2007: €362 million) relates to a large number of individually immaterial items within the subsidiaries.

## 12. Personnel expenses/employees

Personnel expenses declined by €80 million to €7,491 million in 2008 (2007: €7,571 million). Changes in exchange rates diminished personnel expenses by €175 million.

	2007	2008
	€ million	€ million
Wages and salaries	5,960	5,978
Social expenses and expenses for pensions and other benefits	1,611	1,513
of which for defined-contribution pension plans	410	431
of which for defined-benefit pension plans	294	195
<b>Total</b>	<b>7,571</b>	<b>7,491</b>

The personnel expenses shown here do not contain the interest portion of the allocation to personnel-related provisions, which is included in the non-operating result as other non-operating expense. These personnel-related provisions are mainly for employee pensions (see Note [13.3]).

The average number of employees classified by corporate functions is shown in the table below.

	2007	2008
Production	48,250	48,384
Marketing	35,849	38,006
Research and development	11,732	11,914
General administration	9,791	8,995
<b>Total</b>	<b>105,622</b>	<b>107,299</b>
of which trainees	2,631	2,623

The employees of joint ventures are included in the above figures in proportion to Bayer's interests in the respective companies. The total number of people employed by joint ventures in 2008 was 60 (2007: 66).

The average number of employees is stated in full-time equivalents, with part-time employees included on a pro-rata basis in line with their contractual working hours.

## 13. Non-operating result

The non-operating result for 2008 was minus €1,188 million (2007: minus €920 million), comprising an equity-method loss of €62 million (2007: €45 million), non-operating expenses of €1,715 million (2007: €1,709 million) and non-operating income of €589 million (2007: €834 million). Details on the individual categories of the non-operating result are provided below.

### 13.1 Income (loss) from investments in affiliated companies

This comprised the following:

	2007	2008
	€ million	€ million
Net loss from investments in associates (equity-method loss)	(45)	(62)
<b>Expenses</b>		
Write-downs of investments in affiliated companies	(27)	(13)
Losses from the sale of investments in affiliated companies	-	(7)
<b>Income</b>		
Dividends from affiliated companies and income from profit and loss transfer agreements (net)	-	-
Gains from the sale of investments in affiliated companies	3	12
<b>Total</b>	<b>(69)</b>	<b>(70)</b>

The income from investments in affiliated companies mainly comprised an equity-method loss of €64 million (2007: €48 million) from two production joint ventures with Lyondell.

Further details of the companies included at equity in the consolidated financial statements are given in Note [19].

### 13.2 Interest expense

This comprised the following:

	2007	2008
	€ million	€ million
<b>Expenses</b>		
Interest and similar expenses	(1,320)	(948)
Interest expenses for derivatives (held for trading)	(107)	(295)
<b>Income</b>		
Other interest and similar income	612	171
Interest income from derivatives (held for trading)	114	370
<b>Total</b>	<b>(701)</b>	<b>(702)</b>

This item includes interest expense of €31 million (2007: €32 million) relating to non-financial liabilities and interest income of €13 million (2007: €1 million) from non-financial assets.

The portion of net income or loss attributable to non-controlling interest to which the company has a repayment obligation out of total assets is reflected in net interest expense. In this context pro-rated income of €18 million was recognized in interest expense for the year under report (2007: €2 million).

### 13.3 Other non-operating income and expense

Other non-operating income and expense comprised the following:

	2007	2008
	€ million	€ million
<b>Expenses</b>		
Interest portion of interest-bearing provisions	(246)	(300)
Exchange loss	-	(79)
Miscellaneous non-operating expenses	(9)	(73)
<b>Income</b>		
Exchange gain	88	-
Miscellaneous non-operating income	17	36
<b>Total</b>	<b>(150)</b>	<b>(416)</b>

The interest portion of noncurrent interest-bearing provisions mainly relates to pension provisions.

## 14. Income taxes

The breakdown of income taxes by region and origin is as follows:

	2007	2008
	€ million	€ million
<b>Income taxes paid or accrued</b>		
Germany	(185)	(161)
other countries	(730)	(651)
	<b>(915)</b>	<b>(812)</b>
<b>Deferred taxes</b>		
from temporary differences	1,469	323
from interest carryforwards	-	11
from tax loss carryforwards	(517)	(168)
from tax credits	35	10
	<b>987</b>	<b>176</b>
<b>Total</b>	<b>72</b>	<b>(636)</b>

In 2007 the Bayer Group recognized deferred tax income of €921 million due to changes in tax rates, including one-time deferred tax income of €912 million arising in connection with the corporate tax reform in Germany. The latter amount resulted mainly from the remeasurement of the deferred tax liabilities accrued in connection with the Schering acquisition, particularly in order to reflect the lower nominal rates of corporate income tax applicable in Germany from 2008.

The deferred tax assets and liabilities are allocable to the various balance sheet items as follows:

	Dec. 31, 2007		Dec. 31, 2008	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
	€ million	€ million	€ million	€ million
Intangible assets	464	3,946	470	3,766
Property, plant and equipment	59	696	67	632
Financial assets	45	293	78	228
Inventories	392	247	324	85
Receivables	52	459	64	511
Other assets	5	26	150	74
Provisions for pensions and other post-employment benefits	797	523	1,170	462
Other provisions	674	404	301	318
Liabilities	487	66	524	44
Interest carryforwards	-	-	11	-
Tax loss carryforwards	589	-	429	-
Tax credits	75	-	96	-
	<b>3,639</b>	<b>6,660</b>	<b>3,684</b>	<b>6,120</b>
of which noncurrent	2,092	5,707	2,644	5,354
Set-off	(2,794)	(2,794)	(2,528)	(2,528)
<b>Total</b>	<b>845</b>	<b>3,866</b>	<b>1,156</b>	<b>3,592</b>

The recognition in stockholders' equity of actuarial gains and losses relating to defined benefit pension plans and similar commitments resulted in a €460 million increase (2007: €611 million decrease) in stockholders' equity due to the related deferred taxes. Similarly, changes in fair values of available-for-sale financial assets and derivatives designated as hedges resulted in the recognition in stockholders' equity of deferred tax assets of €45 million (2007: deferred tax liabilities of €66 million).

Utilization of tax loss carryforwards from previous years diminished the amount of income taxes paid or accrued in 2008 by €287 million (2007: €353 million).

Tax credits and tax loss carryforwards expire as follows:

	Tax credits		Tax loss carryforwards	
	Dec. 31, 2007	Dec. 31, 2008	Dec. 31, 2007	Dec. 31, 2008
	€ million	€ million	€ million	€ million
One year	-	-	4	58
Two years	-	-	42	10
Three years	-	-	33	58
Four years	-	-	32	51
Five years	-	1	83	113
Thereafter	75	95	2,096	1,566
<b>Total</b>	<b>75</b>	<b>96</b>	<b>2,290</b>	<b>1,856</b>

Deferred tax assets of €11 million were recognized for interest expense of €36 million that is not currently tax-deductible in Germany, in the expectation that the interest carryforward can be utilized in the future.

Of the total tax loss carryforwards of €1,856 million in 2008 (2007: €2,290 million), an amount of €1,455 million (2007: €1,896 million) can probably be utilized within a reasonable period. Deferred tax assets of €429 million (2007: €589 million) were recognized for these tax loss carryforwards, including €15 million (2007: €14 million) that could not be recognized in income.

The utilization of €401 million (2007: €394 million) of loss carryforwards is subject to legal or economic restrictions. Consequently, no deferred tax assets were recognized for these amounts. However, if the utilizability of the loss carryforwards had been probable, theoretical deferred tax assets of €113 million (2007: €113 million) would have had to be recognized.

Tax credits of €96 million (2007: €75 million) were recognized as deferred tax assets, including €3 million (2007: €0 million) that could not be recognized in income.

Deferred taxes were not recognized for temporary differences of €6,651 million (2007: €3,830 million) relating to earnings of subsidiaries, either because these profits are not subject to taxation or because they are to be reinvested for an indefinite period. If deferred taxes were recognized for these temporary differences, the liability would be based on the respective withholding tax rates only, taking into account the local and German tax rates on corporate dividends where applicable. Deferred tax liabilities are recognized for €19 million (2007: €73 million) in planned dividend payments by subsidiaries.

The reported tax expense of €636 million for 2008 (2007: tax income of €72 million) differs by €62 million (2007: €867 million) from the expected tax expense of €698 million (2007: €795 million) that would result from applying an anticipated weighted average tax rate to the pre-tax income of the Group. This average rate is derived from the theoretical tax rates of individual Group companies and was 29.6% in 2008 (2007: 35.6%). The effective tax rate was 27.0% (2007: minus 3.2%).

The reconciliation of theoretical to reported income tax expense (income) for the Group is as follows:

	2007		2008	
	€ million	%	€ million	%
<b>Theoretical income tax expense (income)</b>	<b>795</b>	<b>100</b>	<b>698</b>	<b>100</b>
Reduction in taxes due to tax-free income				
Tax-free income from affiliated companies and divestiture proceeds	(2)	-	(10)	(1)
Other	(47)	(6)	(51)	(7)
First-time recognition of previously unrecognized deferred tax assets on loss carryforwards	(1)	-	(50)	(7)
Use of tax loss carryforwards without prior recognition of deferred tax assets	-	-	(11)	(2)
Increase in taxes due to non tax-deductible expenses				
Write-downs of investments	2	-	29	4
Expenses related to litigations	10	1	18	2
Other	85	11	107	15
Tax income and expenses relating to other periods	4	1	(42)	(6)
Tax effects of changes in tax rates	(921)	(116)	7	1
Other tax effects	3	-	(59)	(8)
<b>Actual income tax expense (income)</b>	<b>(72)</b>	<b>(9)</b>	<b>636</b>	<b>91</b>



## 15. Income/losses attributable to non-controlling interest

Income attributable to non-controlling interest amounted to €12 million (2007: €16 million), while losses attributable to non-controlling interest amounted to €7 million (2007: €11 million).

## 16. Earnings per share from continuing and discontinued operations

Earnings per share are determined according to IAS 33 (Earnings per Share) by dividing net income by the weighted average number of shares. The number of ordinary shares to be taken into account for this purpose is increased by the potential shares that would be issued upon exercise of the rights under the mandatory convertible bond issued in April 2006. The financing expenses for the mandatory convertible bond are added back to net income. In computing earnings per share, the ordinary shares to be issued upon exercise of the conversion rights from this bond issue are counted along with the already issued shares, so basic and diluted earnings per share are identical. Further details of the convertible bond can be found in Note [27].

	2007	2008
	€ million	€ million
Income after taxes	4,716	1,724
of which attributable to non-controlling interest	5	5
of which attributable to Bayer AG stockholders (net income)	4,711	1,719
Income from discontinued operations after taxes	2,410	4
Financing expenses for the mandatory convertible bond, net of tax effects	98	112
Adjusted net income from continuing operations	2,399	1,827
Adjusted net income from continuing and discontinued operations	4,809	1,831
Weighted average number of issued ordinary shares	764,341,920	764,342,029
Potential shares to be issued upon conversion of the mandatory convertible bond	59,565,383	59,893,122
Adjusted weighted average total number of issued and potential ordinary shares	823,907,303	824,235,151
Basic earnings per share	€	€
from continuing operations	2.91	2.22
from discontinued operations	2.93	-
from continuing and discontinued operations	5.84	2.22
Diluted earnings per share	€	€
from continuing operations	2.91	2.22
from discontinued operations	2.93	-
from continuing and discontinued operations	5.84	2.22

## NOTES TO THE BALANCE SHEETS

In compliance with IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations), the information in the Notes to the Balance Sheets refers to continuing operations.

### 17. Goodwill and other intangible assets

Changes in intangible assets in 2008 were as follows:

	Acquired goodwill	Patents	Trade-marks	Marketing and distribution rights	Production rights	R&D projects	Other rights and advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
<b>Cost of acquisition or generation</b>								
<b>December 31, 2007</b>	<b>8,215</b>	<b>10,008</b>	<b>3,726</b>	<b>819</b>	<b>2,012</b>	<b>1,345</b>	<b>1,888</b>	<b>28,013</b>
Changes in scope of consolidation	1	-	-	-	3	-	-	4
Acquisitions	380	222	232	33	9	67	18	961
Capital expenditures	4	28	-	94	-	52	118	296
Retirements	-	(7)	-	-	-	-	(93)	(100)
Transfers	-	-	(7)	47	123	(120)	(40)	3
Changes from revaluation (IFRS 3)	-	-	-	5	2	-	-	7
Exchange differences	47	14	34	6	(7)	15	34	143
<b>December 31, 2008</b>	<b>8,647</b>	<b>10,265</b>	<b>3,985</b>	<b>1,004</b>	<b>2,142</b>	<b>1,359</b>	<b>1,925</b>	<b>29,327</b>
<b>Accumulated amortization and write-downs,</b>								
<b>December 31, 2007</b>	<b>-</b>	<b>1,811</b>	<b>662</b>	<b>295</b>	<b>987</b>	<b>155</b>	<b>1,333</b>	<b>5,243</b>
Changes in scope of consolidation	-	-	-	-	-	-	-	-
Retirements	-	(6)	-	-	-	-	(86)	(92)
Amortization and write-downs in 2008	-	962	173	87	174	20	134	1,550
Amortization	-	930	161	87	174	-	134	1,486
Write-downs	-	32	12	-	-	20	-	64
Write-backs	-	-	-	-	-	-	-	-
Transfers	-	-	(2)	3	10	(2)	(9)	-
Exchange differences	-	(1)	-	1	(5)	-	33	28
<b>December 31, 2008</b>	<b>-</b>	<b>2,766</b>	<b>833</b>	<b>386</b>	<b>1,166</b>	<b>173</b>	<b>1,405</b>	<b>6,729</b>
<b>Carrying amount, December 31, 2008</b>	<b>8,647</b>	<b>7,499</b>	<b>3,152</b>	<b>618</b>	<b>976</b>	<b>1,186</b>	<b>520</b>	<b>22,598</b>
<b>Carrying amount, December 31, 2007</b>	<b>8,215</b>	<b>8,197</b>	<b>3,064</b>	<b>524</b>	<b>1,025</b>	<b>1,190</b>	<b>555</b>	<b>22,770</b>

Costs of €20 million for internally generated software incurred during the application development phase were capitalized in 2008. The carrying amount of internally generated software is €31 million (2007: €27 million) and is recognized in other rights and advance payments.

Write-downs of intangible assets totaled €64 million. These were mainly attributable to the following two events: negative study results rendered the Spheramine® development project worthless, leading to a €20 million impairment charge; furthermore, the global marketing rights for the contrast agent Vasovist® were returned to the cooperation partner, resulting in a €42 million asset write-down.

Details of acquisitions and divestitures are contained in Notes [6.2] and [6.3]. Further details of the impairment testing procedure for goodwill are given in Note [4].

Changes in intangible assets in 2007 were as follows:

	Acquired goodwill	Patents	Trade-marks	Marketing and distribution rights	Production rights	R&D projects	Other rights and advance payments	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
<b>Cost of acquisition or generation</b>								
<b>December 31, 2006</b>	<b>8,227</b>	<b>10,115</b>	<b>3,688</b>	<b>818</b>	<b>1,994</b>	<b>1,317</b>	<b>2,039</b>	<b>28,198</b>
Changes in scope of consolidation	-	-	-	-	-	-	-	-
Acquisitions	210	16	4	6	24	-	129	389
Capital expenditures	-	5	130	24	6	61	85	311
Retirements	(28)	(15)	(2)	(3)	(10)	(41)	(215)	(314)
Transfers	58	(66)	15	(2)	-	27	(14)	18
Exchange differences	(252)	(47)	(109)	(24)	(2)	(19)	(136)	(589)
<b>December 31, 2007</b>	<b>8,215</b>	<b>10,008</b>	<b>3,726</b>	<b>819</b>	<b>2,012</b>	<b>1,345</b>	<b>1,888</b>	<b>28,013</b>
<b>Accumulated amortization and write-downs, December 31, 2006</b>	<b>-</b>	<b>1,021</b>	<b>526</b>	<b>230</b>	<b>828</b>	<b>41</b>	<b>1,518</b>	<b>4,164</b>
Changes in scope of consolidation	-	-	-	-	-	-	-	-
Retirements	-	(10)	(1)	(2)	(7)	(41)	(208)	(269)
Amortization and write-downs in 2007	-	810	152	77	167	155	133	1,494
Amortization	-	810	152	77	165	3	131	1,338
Write-downs	-	-	-	-	2	152	2	156
Write-backs	-	-	-	-	-	-	(1)	(1)
Transfers	-	(1)	2	4	-	-	(3)	2
Exchange differences	-	(9)	(17)	(14)	(1)	-	(106)	(147)
<b>December 31, 2007</b>	<b>-</b>	<b>1,811</b>	<b>662</b>	<b>295</b>	<b>987</b>	<b>155</b>	<b>1,333</b>	<b>5,243</b>
<b>Carrying amount, December 31, 2007</b>	<b>8,215</b>	<b>8,197</b>	<b>3,064</b>	<b>524</b>	<b>1,025</b>	<b>1,190</b>	<b>555</b>	<b>22,770</b>
<b>Carrying amount, December 31, 2006</b>	<b>8,227</b>	<b>9,094</b>	<b>3,162</b>	<b>588</b>	<b>1,166</b>	<b>1,276</b>	<b>521</b>	<b>24,034</b>

Over the next five years, amortization of the intangible assets recognized in 2008 is expected to be as follows:

	€ million
2009	1,457
2010	1,277
2011	1,188
2012	1,109
2013	1,079

Possible future acquisitions and/or divestments of intangible assets are not taken into account in computing these amounts and may therefore cause them to vary.

The residual carrying amounts of goodwill for our operating subgroups and reporting segments are as follows:

	Pharmaceuticals	Consumer Health	HealthCare	Crop Protection	Environmental Science/BioScience	Crop-Science
	€ million	€ million	€ million	€ million	€ million	€ million
<b>Carrying amounts, January 1, 2007</b>	<b>5,727</b>	<b>863</b>	<b>6,590</b>	<b>1,136</b>	<b>389</b>	<b>1,525</b>
Changes in scope of consolidation	-	-	-	-	-	-
Acquisitions	8	4	12	4	152	156
Capital expenditures	-	-	-	-	-	-
Retirements	-	-	-	(9)	(19)	(28)
Amortization and write-downs in 2007	-	-	-	-	-	-
Transfers	58	-	58	-	-	-
Exchange differences	(154)	(42)	(196)	(17)	(36)	(53)
<b>Carrying amounts, December 31, 2007</b>	<b>5,639</b>	<b>825</b>	<b>6,464</b>	<b>1,114</b>	<b>486</b>	<b>1,600</b>
Changes in scope of consolidation	1	-	1	-	-	-
Acquisitions	232	128	360	-	-	-
Capital expenditures	1	-	1	-	-	-
Retirements	-	-	-	-	-	-
Amortization and write-downs in 2008	-	-	-	-	-	-
Transfers	-	-	-	3	(3)	-
Exchange differences	63	(13)	50	(29)	23	(6)
<b>Carrying amounts, December 31, 2008</b>	<b>5,936</b>	<b>940</b>	<b>6,876</b>	<b>1,088</b>	<b>506</b>	<b>1,594</b>

	Materials	Systems	Material-Science	Reconciliation	Bayer Group
	€ million	€ million	€ million	€ million	€ million
<b>Carrying amounts, January 1, 2007</b>	<b>91</b>	<b>21</b>	<b>112</b>	<b>-</b>	<b>8,227</b>
Changes in scope of consolidation	-	-	-	-	-
Acquisitions	33	9	42	-	210
Capital expenditures	-	-	-	-	-
Retirements	-	-	-	-	(28)
Amortization and write-downs in 2007	-	-	-	-	-
Transfers	-	-	-	-	58
Exchange differences	(2)	(1)	(3)	-	(252)
<b>Carrying amounts, December 31, 2007</b>	<b>122</b>	<b>29</b>	<b>151</b>	<b>-</b>	<b>8,215</b>
Changes in scope of consolidation	-	-	-	-	1
Acquisitions	-	20	20	-	380
Capital expenditures	3	-	3	-	4
Retirements	-	-	-	-	-
Amortization and write-downs in 2008	-	-	-	-	-
Transfers	-	-	-	-	-
Exchange differences	2	1	3	-	47
<b>Carrying amounts, December 31, 2008</b>	<b>127</b>	<b>50</b>	<b>177</b>	<b>-</b>	<b>8,647</b>

Goodwill and other intangible assets with an indefinite useful life that are of material significance for the Bayer Group are allocated to the following strategic business entities or cash-generating units:

Reporting segment	Cash-generating unit	Goodwill	Intangible assets with indefinite useful life
		€ million	€ million
Pharmaceuticals	Women's Healthcare	2,821	644
Pharmaceuticals	Diagnostic Imaging	1,192	643
Pharmaceuticals	Specialized Therapeutics	1,196	214
Pharmaceuticals	Oncology	459	221
Consumer Health	Consumer Care	915	22

Since it is uncertain whether acquired research and development projects or capitalized milestone payments will eventually result in the production of saleable products, the period over which the corresponding asset is expected to generate an economic benefit for the company cannot be determined. Development projects in the amount of €1,186 million were capitalized as of the end of 2008.

The Bayer Cross, which was reacquired for the North America region in 1994, having been awarded to the United States and Canada under the reparations agreements at the end of the First World War, is recognized as an intangible asset with an indefinite useful life. The company names "Schering" and "Medrad," which passed to Bayer with the acquisition of Schering AG, Berlin, Germany, in 2006, also have an indefinite useful life. The period for which the Bayer Group will derive an economic benefit from these names cannot be determined as it intends to make continued use of them. The Bayer Cross is capitalized at €107 million, while the "Schering" and "Medrad" names are carried at €405 million and €293 million respectively.

### Patents

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

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

The protection that a patent provides varies from country to country, depending on the type of claim granted, the scope of the claim's coverage and the legal remedies available for enforcement.

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

We currently hold thousands of patents, and have applications pending for a significant number of new patents. Although the patents on Avalox®/Avelox®, Betaferon®/Betaseron®, Kogenate®, Levitra®, Magnevist®, Mirena®, Nexavar®, Ultravist®, Xarelto®, YAZ®, Yasmin® and Yasminelle® are particularly important to our business, we believe that no single patent (or group of related patents) is material to our business as a whole.

### Term and expiration of patents

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

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

Patent protection in our major markets for some of our key products is scheduled to expire in the near term. Although the expiration of a patent for an active ingredient often results in the loss of market exclusivity, we may continue to reap protection provided by:

- patents on processes and intermediates used in manufacturing an active ingredient,
- patents relating to specific uses for an active ingredient,
- patents relating to novel compositions and formulations, and
- in certain markets (including the United States), market exclusivity under laws other than patent laws.

The following table sets forth the expiration dates in our major markets of the most important patents covering Avalox<sup>®</sup>/Avelox<sup>®</sup>, Betaferon<sup>®</sup>/Betaseron<sup>®</sup>, Kogenate<sup>®</sup>, Levitra<sup>®</sup>, Magnevist<sup>®</sup>, Mirena<sup>®</sup>, Nexavar<sup>®</sup>, Ultravist<sup>®</sup>, Xarelto<sup>®</sup>, YAZ<sup>®</sup>, Yasmin<sup>®</sup> and Yasminelle<sup>®</sup>.

	Germany	France	U.K.	Italy	Spain	Japan	U.S.A.	Market Canada
<b>Products</b>								
<b>Avalox<sup>®</sup>/Avelox<sup>®</sup></b>								
Active ingredient	2014	2014	2014	2014	2014	2014	2014	2015
Active ingredient monohydrate	2016	2016	2016	2016	2016	2016	2016	2016
Tablets	2019	2019	2019	2019	2019	2019	2019	2019
<b>Betaferon<sup>®</sup>/Betaseron<sup>®</sup></b>								
active ingredient	2008	2008	2008	2008	-	2008	-	2016
<b>Kogenate<sup>®</sup></b>								
Active ingredient	2009	-	2009	-	-	-	2014	2019
Formulation	2017	2017	2017	2017	2017	2017	2017	2017
Levitra <sup>®</sup> active ingredient	2018	2018	2018	2018	2018	2020	2018	2018
<b>Magnevist<sup>®</sup></b>								
Active ingredient	-	-	-	-	-	-	2011	-
Formulation	-	-	-	-	-	-	2009	2010
Process	-	-	-	-	-	-	2013	-
<b>Mirena<sup>®</sup></b>								
Applicator	2015	2015	2015	2015	2015	-	2015	2015
Process	2013	2013	2013	2013	2013	2013	2013	2013
Nexavar <sup>®</sup> active ingredient	2020 <sup>a</sup>	2021	2021	2021	2021	2020 <sup>a</sup>	2022	2020
Ultravist <sup>®</sup> active ingredient	-	-	-	2009	-	-	-	-
Xarelto <sup>®</sup> active ingredient	2020	2020	2020	2020	2020	2020	2021	2020
<b>Yasmin<sup>®</sup></b>								
Formulation	2020	2020	2020	2020	2020	2020 <sup>b</sup>	2020 <sup>c</sup>	2020
Production process	2025	2025	2025	2025	2025	2026 <sup>b</sup>	2025	2026 <sup>b</sup>
<b>Yasminelle<sup>®</sup></b>								
Formulation	2020	2020	2020	2020	2020	2020 <sup>b</sup>	2020 <sup>c</sup>	2020
Production process	2025	2025	2025	2025	2025	2026 <sup>b</sup>	2025	2026 <sup>b</sup>
<b>YAZ<sup>®</sup></b>								
Formulation	2020	2020	2020	2020	2020	2020 <sup>b</sup>	2020 <sup>c</sup>	2020
Dosage regimen	2014	2014	2014	2014	2014	2014 <sup>b</sup>	2014	2014 <sup>b</sup>
Production process	2025	2025	2025	2025	2025	2026 <sup>b</sup>	2025	2026 <sup>b</sup>

a An application has been submitted to extend patent protection through 2021.

b Patent pending.

c Patent invalidated, appeal by Bayer against this ruling is pending. See Note [32].

Information on specific patent disputes is given in Note [32].

### Trademarks

We seek to obtain extensive trademark protection for our products in all jurisdictions in which they are marketed or are to be marketed in the near future. As well as product names, we also register particularly distinctive slogans, logos, graphic elements and designs as global trademarks.

Wherever possible, trademarks are registered through supranational trademark protection systems, for example as European Community Trademarks or international trademarks, and additionally with the national trademark registration offices. The protection actually provided by a trademark may vary considerably from one country to another depending on the distinctiveness of the trademark.

Our trademarks include:

Bayer HealthCare: Adalat<sup>®</sup>, Aleve<sup>®</sup>, Alka-Seltzer<sup>®</sup>, Aspirin<sup>®</sup>, Avalox<sup>®</sup>/Avelox<sup>®</sup>, Bepanthen<sup>®</sup>, Betaferon<sup>®</sup>/Betaseron<sup>®</sup>, Canesten<sup>®</sup>, Ciprobay<sup>®</sup>/Cipro<sup>®</sup>, Contour<sup>®</sup>, Kogenate<sup>®</sup>, Levitra<sup>®</sup>, Magnevist<sup>®</sup>, Nexavar<sup>®</sup>, Rennie<sup>®</sup>, Xarelto<sup>®</sup> and Yasmin<sup>®</sup>.

Bayer CropScience: Basta<sup>®</sup>/Liberty<sup>®</sup>, Confidor<sup>®</sup>/Gaucho<sup>®</sup>/Admire<sup>®</sup>/Merit<sup>®</sup>, Flint<sup>®</sup>, Folicur<sup>®</sup> and Puma<sup>®</sup>.

Bayer MaterialScience: Bayblend<sup>®</sup>, BaySystems<sup>®</sup>, Desmodur<sup>®</sup>, Desmopan<sup>®</sup>, Desmophen<sup>®</sup>, Makrolon<sup>®</sup> and Vulkollan<sup>®</sup>.

We currently have many thousands of registered and pending trademarks. Trademarks are particularly important for those products that are not protected by patents and are exposed to strong competitive pressure from generics. However, with the exception of the company name “Bayer” and the “Bayer Cross” logo, we do not believe that any single trademark is crucial to our business as a whole.

## 18. Property, plant and equipment

Changes in property, plant and equipment in 2008 were as follows:

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
<b>Cost of acquisition or construction</b>					
<b>December 31, 2007</b>	<b>6,999</b>	<b>12,448</b>	<b>1,599</b>	<b>1,362</b>	<b>22,408</b>
Changes in scope of consolidation	45	3	(2)	1	47
Acquisitions	12	8	3	2	25
Capital expenditures	231	554	136	765	1,686
Retirements	(169)	(267)	(137)	(33)	(606)
Transfers	252	637	(59)	(841)	(11)
Changes from revaluation (IFRS 3)	-	-	1	-	1
Exchange differences	101	229	(7)	54	377
<b>December 31, 2008</b>	<b>7,471</b>	<b>13,612</b>	<b>1,534</b>	<b>1,310</b>	<b>23,927</b>
<b>Accumulated depreciation and write-downs,</b>					
<b>December 31, 2007</b>	<b>3,577</b>	<b>8,914</b>	<b>1,069</b>	<b>29</b>	<b>13,589</b>
Changes in scope of consolidation	30	-	1	1	32
Retirements	(120)	(249)	(122)	(17)	(508)
Depreciation and write-downs in 2008	278	732	157	5	1,172
Depreciation	226	705	153	-	1,084
Write-downs	52	27	4	5	88
Write-backs	-	-	-	-	-
Transfers	4	23	(31)	-	(4)
Exchange differences	40	118	(5)	1	154
<b>December 31, 2008</b>	<b>3,809</b>	<b>9,538</b>	<b>1,069</b>	<b>19</b>	<b>14,435</b>
<b>Carrying amounts, December 31, 2008</b>	<b>3,662</b>	<b>4,074</b>	<b>465</b>	<b>1,291</b>	<b>9,492</b>
<b>Carrying amounts, December 31, 2007</b>	<b>3,422</b>	<b>3,534</b>	<b>530</b>	<b>1,333</b>	<b>8,819</b>

Write-downs of property, plant and equipment totaled €88 million, including €61 million related to the subgroups' restructuring programs. A further material write-down consists of a €10 million impairment of property, plant and equipment that was utilized for the production of Trasylo1®.

Further capital expenditures were made for the expansion of the production facilities in Shanghai, China. The total capital expenditures of €1,686 million include approximately €400 million for this major project alone.

In 2008, borrowing costs of €29 million (2007: €9 million) were capitalized as components of the cost of acquisition and construction of qualifying assets, applying an average financing cost factor of 6.2% (2007: 5%).



Capitalized property, plant and equipment includes assets with a total net value of €454 million (2007: €237 million) held under finance leases. The cost of acquisition and construction of these assets as of the balance sheet date totaled €989 million (2007: €719 million). They comprise plant installations and machinery with a carrying amount of €266 million, buildings with a carrying amount of €103 million and other assets with a carrying amount of €85 million. For information on the liabilities arising from finance leases see Note [27].

Also included are assets with a carrying amount of €15 million (2007: €51 million) leased to other parties under operating leases as defined in IAS 17 (Leases). The cost of acquisition of assets classified as operating leases is €33 million (2007: €70 million); their depreciation in 2008 amounted to €4 million (2007: €4 million).

In 2008 rental payments of €291 million (2007: €204 million) were made for assets leased under operating leases as defined in IAS 17 (Leases).

Changes in property, plant and equipment in 2007 were as follows:

	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
	€ million	€ million	€ million	€ million	€ million
<b>Cost of acquisition or construction</b>					
<b>December 31, 2006</b>	<b>7,267</b>	<b>12,514</b>	<b>1,566</b>	<b>971</b>	<b>22,318</b>
Changes in scope of consolidation	2	10	1	4	17
Acquisitions	28	36	-	5	69
Capital expenditures	117	273	144	1,046	1,580
Retirements	(413)	(290)	(167)	(23)	(893)
Transfers	189	277	93	(577)	(18)
Exchange differences	(191)	(372)	(38)	(64)	(665)
<b>December 31, 2007</b>	<b>6,999</b>	<b>12,448</b>	<b>1,599</b>	<b>1,362</b>	<b>22,408</b>
<b>Accumulated depreciation and write-downs,</b>					
<b>December 31, 2006</b>	<b>3,670</b>	<b>8,703</b>	<b>1,049</b>	<b>29</b>	<b>13,451</b>
Changes in scope of consolidation	(2)	3	-	-	1
Retirements	(356)	(274)	(142)	(2)	(774)
Depreciation and write-downs in 2007	370	711	184	5	1,270
Depreciation	278	681	181	-	1,140
Write-downs	92	30	3	5	130
Write-backs	(3)	(8)	(1)	-	(12)
Transfers	(28)	26	-	-	(2)
Exchange differences	(74)	(247)	(21)	(3)	(345)
<b>December 31, 2007</b>	<b>3,577</b>	<b>8,914</b>	<b>1,069</b>	<b>29</b>	<b>13,589</b>
<b>Carrying amounts,</b>					
<b>December 31, 2007</b>	<b>3,422</b>	<b>3,534</b>	<b>530</b>	<b>1,333</b>	<b>8,819</b>
<b>Carrying amounts,</b>					
<b>December 31, 2006</b>	<b>3,597</b>	<b>3,811</b>	<b>517</b>	<b>942</b>	<b>8,867</b>

The following tables provide an overview of the main sites operated by each subgroup:

Location	Principal use
<b>Bayer HealthCare</b>	
Leverkusen, Germany	Headquarters, administration, formulation and packaging of pharmaceutical products
Bergkamen, Germany	Active ingredient production
Berkeley, U. S. A	Production, formulation and packaging of recombinant Factor VIII
Wuppertal, Germany	Production of active ingredients for pharmaceutical products, research and development
Berlin, Germany	Production and packaging of contrast media, packaging of solids, research and development, administration
Emeryville, U. S. A	Production and formulation of Betaferon®/Betaseron®
Myerstown, U. S. A	Formulation and packaging of Consumer Care products
Mishawaka, U. S. A	Production of instruments and test strips (Diabetes Care Division)
Bitterfeld, Germany	Formulation and packaging of Consumer Care products
Turku, Finland	Production of gynecological and andrological products, solids (oncology), research and development
<b>Bayer CropScience</b>	
Monheim, Germany	Headquarters, administration, research and development for fungicides and insecticides
Dormagen, Germany	Development of new production processes and manufacture of products for Crop Protection and Environmental Science
Frankfurt, Germany	Research and development for herbicides, manufacture of products for Crop Protection and Environmental Science
Haelen, Netherlands	Research, development and production of vegetable seeds
Kansas City, U. S. A	Manufacture of products for Crop Protection and Environmental Science
Vapi, India	Development of new production processes and manufacture of products for Crop Protection and Environmental Science
<b>Bayer MaterialScience</b>	
Leverkusen, Germany	Headquarters, administration
Krefeld, Germany	Production of polycarbonates, diphenylmethane diisocyanate, chlorine, sodium hydroxide solution, hydrochloric acid and hydrogen
Baytown, U. S. A.	Production of base and modified isocyanates, polycarbonates, diphenylmethane diisocyanate, toluene diisocyanate, chlorine, sodium hydroxide solution, hydrochloric acid and hydrogen
Dormagen, Germany	Production of modified isocyanates, coating resins, polycarbonate film, toluene diisocyanate, polyether, thermoplastic polyurethanes, chlorine, sodium hydroxide solution, hydrochloric acid and hydrogen
Antwerp, Belgium	Production of polycarbonates, aniline, nitrobenzene and polyether
Brunsbüttel, Germany	Production of diphenylmethane diisocyanate, toluene diisocyanate, chlorine, hydrochloric acid and hydrogen
Shanghai, China	Production of base and modified isocyanates, polycarbonates, diphenylmethane diisocyanate, toluene diisocyanate (under construction)

## 19. Investments in associates

Changes in the carrying amounts of the Group's interests in associates included at equity were as follows:

	2007	2008
	€ million	€ million
<b>Carrying amounts, January 1</b>	<b>532</b>	<b>484</b>
Acquisitions	-	-
Other additions	28	14
Divestitures	-	-
Miscellaneous retirements	-	(15)
Equity-method loss after taxes	(45)	(47)
Exchange differences	(31)	14
<b>Carrying amounts, December 31</b>	<b>484</b>	<b>450</b>

For strategic reasons, the Bayer MaterialScience subgroup holds interests in companies that are included at equity in the consolidated financial statements of the Bayer Group.

In 2000, Bayer acquired the polyols business and parts of the propylene oxide (PO) production operations of Lyondell Chemicals. The strategic objective is to ensure access to patented technologies and safeguard the long-term supply of PO, a starting product for polyurethane, at reasonable prices. As part of this strategy, two joint ventures have been established to produce PO (PO JV Delaware U.S.A., Bayer's interest 41%, and Lyondell Bayer Manufacturing Maasvlakte vof, Netherlands, Bayer's interest 50%). The production facilities of both companies are operated by Lyondell. Bayer benefits from fixed long-term supply quotas/volumes of PO based on fixed price components.

The following tables present a summary of the aggregated income statement and balance sheet data for the associates included at equity in the consolidated financial statements of the Bayer Group.

<b>Aggregated income statement data of associates included at equity</b>	<b>2007</b>	<b>2008</b>
	€ million	€ million
Sales	1,072	919
Gross profit	(18)	(25)
Net loss	(92)	(95)
Share of pre-tax loss	(45)	(47)
Other	-	-
<b>Pre-tax loss from interests in associates included at equity</b>	<b>(45)</b>	<b>(47)</b>
Pre-tax loss upon derecognition of other interests	-	(15)
<b>Pre-tax loss from interests in associates included at equity (equity-method loss)</b>	<b>(45)</b>	<b>(62)</b>

<b>Aggregated balance sheet data of associates included at equity</b>	<b>Dec. 31, 2007</b>	<b>Dec. 31, 2008</b>
	€ million	€ million
Noncurrent assets	962	944
Current assets	260	238
Noncurrent liabilities	11	13
Current liabilities	191	178
Stockholders' equity	1,020	991
Share of stockholders' equity	463	430
Other	21	20
<b>Carrying amount of associates included at equity</b>	<b>484</b>	<b>450</b>

The item "other" mainly comprises differences arising from adjustments of data to Bayer's uniform accounting policies, purchase price allocations and their amortization in income, and impairment losses.

## 20. Other financial assets

Other financial assets are as follows:

	Dec. 31, 2007		Dec. 31, 2008	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Loans and receivables	347	126	633	142
Available-for-sale financial assets	325	7	288	4
of which debt instruments	59	5	62	3
of which equity instruments	266	2	226	1
Held-to-maturity financial investments	179	9	167	57
Receivables from forward commodity contracts	246	38	81	57
Receivables from other derivatives	339	154	635	373
Receivables under lease agreements	26	1	27	1
<b>Total</b>	<b>1,462</b>	<b>335</b>	<b>1,831</b>	<b>634</b>

The increase in loans is principally due to the granting of loan capital of €310 million to Bayer-Pensionskasse VVaG (Bayer-Pensionskasse) for its effective initial fund.

In 2008, impairment losses of €1 million (2007: €9 million) were recognized on loans and receivables and an impairment charge of €14 million (2007: €27 million) was recognized on available-for-sale financial assets. No unimpaired other financial assets were overdue on the closing date.

Available-for-sale financial assets include equity instruments in the amount of €84 million (2007: €86 million) whose fair value could not be determined from a stock exchange or other market price or by discounting reliably determined future cash flows. These equity instruments are recognized at amortized cost.

Further information on the accounting for receivables from derivatives is given in Note [30].

Receivables under lease agreements relate to finance leases where Bayer is the lessor and the lessee is the economic owner of the leased assets. These receivables comprise expected lease payments of €32 million (2007: €32 million), including an interest component of €5 million (2007: €6 million). €2 million of the expected lease payments is due within one year (2007: €2 million), €28 million is due in the following four years (2007: €7 million) and €2 million is due after five years (2007: €23 million).

## 21. Inventories

Inventories comprised:

	Dec. 31, 2007	Dec. 31, 2008
	€ million	€ million
Raw materials and supplies	1,012	1,253
Work in process, finished goods and goods purchased for resale	5,197	5,409
Advance payments	8	19
<b>Total</b>	<b>6,217</b>	<b>6,681</b>

The changes in the inventory reserve, which are reflected in the cost of goods sold, were as follows:

	2007	2008
	€ million	€ million
<b>January 1</b>	<b>(311)</b>	<b>(318)</b>
Changes in scope of consolidation	(3)	-
Additions expensed	(149)	(236)
Deductions due to reversal or utilization	130	186
Exchange differences	15	-
<b>December 31</b>	<b>(318)</b>	<b>(368)</b>

## 22. Trade accounts receivable

Trade accounts receivable less write-downs amounted to €5,953 million on the reporting date (2007: €5,830 million), including €5,936 million (2007: €5,775 million) maturing within one year and €17 million (2007: €55 million) maturing after one year. Write-downs in 2008 amounted to €256 million (2007: €295 million).

The following unimpaired trade accounts receivable were overdue on the reporting date:

	Carrying amount	Of which neither impaired nor overdue at the balance sheet date	Of which not impaired but overdue at the balance sheet date			
			up to 3 months*	3-6 months	6-12 months	more than 12 months
	€ million	€ million	€ million	€ million	€ million	€ million
December 31, 2008	5,953	4,699	739	156	142	100
December 31, 2007	5,830	4,493	638	119	84	103

\* The figures in the column "up to three months" also include receivables due immediately.

Trade accounts receivable not yet due as of the reporting date are deemed to be collectible on the basis of established credit management processes such as regular analyses of the creditworthiness of our customers and selective use of credit insurance.

## 23. Other receivables

Other receivables, after write-downs of €9 million (2007: €13 million), are comprised as follows:

	Dec. 31, 2007		Dec. 31, 2008	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Benefit plan assets in excess of obligations	533	-	351	-
Payroll receivables	32	32	41	41
Other tax receivables	326	322	403	399
Interest receivables	164	163	5	4
Miscellaneous receivables	1,073	944	942	840
<b>Total</b>	<b>2,128</b>	<b>1,461</b>	<b>1,742</b>	<b>1,284</b>

Interest receivables consist mainly of interest earned or accrued that is not due to be received until after the balance sheet date.

Miscellaneous receivables include €174 million (2007: €169 million) in accrued income, of which €156 million (2007: €149 million) represents current receivables.

The following unimpaired other receivables were overdue on the reporting date:

	Carrying amount	Of which neither impaired nor overdue at the balance sheet date	Of which not impaired but overdue at the balance sheet date			
			up to 3 months*	3–6 months	6–12 months	more than 12 months
	€ million	€ million	€ million	€ million	€ million	€ million
December 31, 2008	1,742	520	126	13	13	35
December 31, 2007	2,128	611	74	15	17	22

\* The figures in the column "up to three months" also include receivables due immediately.

## 24. Stockholders' equity

The foremost objectives of our financial management are to help bring about a sustained increase in the value of the Bayer Group for the benefit of all stakeholders, and ensure the Group's creditworthiness and liquidity. The pursuit of these goals means reducing our cost of capital, optimizing our capital structure, improving our financing cash flow and effectively managing risk.

The rating agencies commissioned by Bayer assess the financial risks of the Bayer Group as follows:

	Long-term rating	Outlook	Short-term rating
Standard & Poor's	A-	stable	A-2
Moody's	A3	stable	P-2

These investment-grade ratings reflect the company's good creditworthiness and ensure access to a broad investor base for financing purposes. Bayer's capital management strategy is based on the debt ratios published by the rating agencies, which – by somewhat differing methods – look at the cash flow for a given period in relation to debt. The financial strategy of the Bayer Group focuses on upholding our "A" rating and maintaining our financial flexibility. Apart from utilizing cash inflows from our operating business to reduce net debt, we are implementing our financial strategy by way of vehicles such as the subordinated hybrid bond issued in July 2005, the mandatory convertible bond issued in April 2006, which will be converted to equity in 2009, the authorized (conditional) capital created by resolutions of the Annual Stockholders' Meeting and our share buyback program. Bayer's Articles of Incorporation do not stipulate capital ratios.

The components of stockholders' equity and their changes during 2007 and 2008 are shown in the following table.

	Capital stock of Bayer AG	Capital reserves of Bayer AG	Other reserves	Equity attributable to Bayer AG stockholders	Equity attributable to non-controlling interest	Stockholders' equity
	€ million	€ million	€ million	€ million	€ million	€ million
<b>December 31, 2006</b>	<b>1,957</b>	<b>4,028</b>	<b>6,782</b>	<b>12,767</b>	<b>84</b>	<b>12,851</b>
Capital contributions	-	-	-	-	-	-
Other changes	-	-	3,967	3,967	3	3,970
<b>December 31, 2007</b>	<b>1,957</b>	<b>4,028</b>	<b>10,749</b>	<b>16,734</b>	<b>87</b>	<b>16,821</b>
Capital contributions	-	-	-	-	-	-
Other changes	-	-	(471)	(471)	(10)	(481)
<b>December 31, 2008</b>	<b>1,957</b>	<b>4,028</b>	<b>10,278</b>	<b>16,263</b>	<b>77</b>	<b>16,340</b>

The capital stock of Bayer AG totals €1,957 million, as in the previous year, and is divided into 764,343,225 (2007: 764,341,920) no-par bearer shares. Each share confers one voting right.

Authorized capital of €465 million was approved by the Annual Stockholders' Meeting on April 28, 2006. It expires on April 27, 2011. It can be used to increase the capital stock by issuing new no-par bearer shares against cash contributions and/or contributions in kind, but capital increases against contributions in kind may not exceed a total of €370 million (Authorized Capital I). Stockholders must normally be granted subscription rights. However, subject to the approval of the Supervisory Board, the Board of Management is authorized to exclude subscription rights for the stockholders with respect to any excess shares remaining after rights have been allocated (fractional amounts) and also to the extent necessary to grant subscription rights for new shares to holders of convertible bonds or bonds with attached warrants or mandatory convertible bonds issued by Bayer AG or its Group companies, who would be entitled to subscription rights upon exercise of the conversion rights or warrants. In addition, the Board of Management is authorized to exclude stockholders' subscription rights, subject to the approval of the Supervisory Board, in cases where an increase in capital against contributions in kind is carried out for the purpose of acquiring companies, parts of companies, participating interests in companies or other assets.

Further authorized capital was approved by the Annual Stockholders' Meeting on April 27, 2007. The Board of Management is authorized until April 26, 2012 to increase the capital stock, subject to the approval of the Supervisory Board, by up to a total of €195 million in one or more installments by issuing new no-par bearer shares against cash contributions (Authorized Capital II). Under the resolution adopted by the Annual Stockholders' Meeting, stockholders must normally be granted subscription rights. However, the Board of Management is authorized to exclude subscription rights for stockholders with respect to one or more capital increases out of the Authorized Capital II, subject to the approval of the Supervisory Board, provided that such capital increase does not exceed 10% of the capital stock existing at the time this authorization becomes effective or the time this authorization is exercised, for purposes of issuing new shares against cash contributions at a price that is not significantly below the market price of shares in the company that are already listed on the stock exchange at the time the issue price is finally determined. Shares acquired on the basis of an authorization of the Stockholders' Meeting and sold pursuant to Section 71, Paragraph 1, No. 8, Sentence 5 of the German Stock Corporation Act in conjunction with Section 186, Paragraph 3, Sentence 4 of that Act during the term of this authorization shall count toward the above 10% limit. Shares issued or to be issued to service bonds with conversion rights, attached warrants or mandatory conversion rights shall also count toward this limit where such bonds were issued during the term of this authorization and stockholders' subscription rights were excluded by application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act.

Conditional capital of €186.88 million, corresponding to 72,998,695 shares, exists to service the conversion rights contained in a mandatory convertible bond issued by Bayer Capital Corporation B.V., Netherlands, on April 6, 2006. Based on the conversion prices valid as of December 31, 2008, the number of issued shares would increase in 2009 by at least 60,040,823 and at most 70,238,509 as a result of the conversion of the mandatory convertible bond issued in 2006. The conditional capital declined by €3,341 in 2008 due to conversion of part of the mandatory convertible bond.

The Annual Stockholders' Meeting on April 25, 2008 approved the creation of Conditional Capital 2008 I and Conditional Capital 2008 II and authorized a conditional increase in the capital stock in each case of €195.58 million through the issue of 76,400,000 shares. This conditional capital increase may be used to grant shares to the holders of bonds with warrants or convertible bonds, profit-sharing rights or profit participation bonds (or combinations of these instruments) with option or conversion rights or obligations, issued on or before April 24, 2013 in accordance with the authorizations granted by the Annual Stockholders' Meeting of April 25, 2008 by Bayer AG or a Group company in which Bayer AG has a direct or indirect interest of at least 90%. The authorization to issue such instruments is limited to a total nominal value of €6 billion. In principle, stockholders have a statutory right to be granted subscription rights to such instruments. However, the Board of Management is authorized to exclude subscription rights, subject to the approval of the Supervisory Board, if the instruments are issued at a price that is not significantly below the market price. The limit of 10% of the capital stock set analogously with Section 186 Paragraph 3 Sentence 4 of the German Stock Corporation Act for the exclusion of stockholders' subscription rights may not be exceeded. Both shares and other such instruments shall count towards this limit if they were issued under exclusion of subscription rights in direct or analogous application of Section 186, Paragraph 3, Sentence 4 of the German Stock Corporation Act.

The individual components of other reserves and their changes during 2007 and 2008 are shown in the following table.



	Retained earnings			Accumulated other comprehensive income			Other reserves
	Revaluation surplus	Other retained earnings	Net income	Exchange differences	Fair-value measurement of securities	Cash flow hedges	
	€ million	€ million	€ million	€ million	€ million	€ million	€ million
<b>December 31, 2006</b>	<b>58</b>	<b>6,536</b>	<b>1,683</b>	<b>(1,495)</b>	<b>18</b>	<b>(18)</b>	<b>6,782</b>
<b>Changes in stockholders' equity not recognized in net income</b>							
Changes in fair value of securities and cash flow hedges					31	157	188
Changes in actuarial gains/losses on defined benefit obligations for pensions and other post-employment benefits		1,406					1,406
Exchange differences on translation of operations outside the euro zone				(822)			(822)
Deferred taxes on valuation adjustments offset directly against stockholders' equity		(627)			(11)	(41)	(679)
Other changes in stockholders' equity	(4)	4					-
Transfer of changes recognized in income					(6)	(67)	(73)
	<b>54</b>	<b>7,319</b>	<b>1,683</b>	<b>(2,317)</b>	<b>32</b>	<b>31</b>	<b>6,802</b>
Dividend payments			(764)				(764)
Allocations to retained earnings		919	(919)				-
		<b>919</b>	<b>(1,683)</b>				<b>(764)</b>
<b>Changes in stockholders' equity recognized in net income</b>							
Net income 2007			4,711				4,711
			<b>4,711</b>				<b>4,711</b>
<b>December 31, 2007</b>	<b>54</b>	<b>8,238</b>	<b>4,711</b>	<b>(2,317)</b>	<b>32</b>	<b>31</b>	<b>10,749</b>
<b>Changes in stockholders' equity not recognized in net income</b>							
Changes in fair value of securities and cash flow hedges					(32)	(110)	(142)
Changes in actuarial gains/losses on defined benefit obligations for pensions and other post-employment benefits		(1,085)					(1,085)
Exchange differences on translation of operations outside the euro zone				(416)			(416)
Deferred taxes on valuation adjustments offset directly against stockholders' equity		459			9	40	508
Other changes in stockholders' equity	4	4					8
Transfer of changes recognized in income					1	(32)	(31)
	<b>58</b>	<b>7,616</b>	<b>4,711</b>	<b>(2,733)</b>	<b>10</b>	<b>(71)</b>	<b>9,591</b>
Dividend payments			(1,032)				(1,032)
Allocations to retained earnings		3,679	(3,679)				-
		<b>3,679</b>	<b>(4,711)</b>				<b>(1,032)</b>
<b>Changes in stockholders' equity recognized in net income</b>							
Net income 2008			1,719				1,719
			<b>1,719</b>				<b>1,719</b>
<b>December 31, 2008</b>	<b>58</b>	<b>11,295</b>	<b>1,719</b>	<b>(2,733)</b>	<b>10</b>	<b>(71)</b>	<b>10,278</b>

The revaluation surplus of €58 million reported under stockholders' equity is due to the acquisition in 2005 of the remaining 50% interest in an OTC joint venture with Roche in the United States that was established in 1996 and the acquisition of the remaining 50% interest in BaySystems, Oldenburg, Germany, in 2008. In addition, an amount of €4 million (2007: €4 million) that constitutes scheduled amortization/depreciation of the respective assets and is recognized in income was transferred in 2008 from the revaluation surplus to retained earnings.

The retained earnings contain prior years' undistributed income of consolidated companies.

Retained earnings also include all actuarial gains and losses related to defined benefit pension plans that are not recognized in income. Changes in fair values of cash flow hedges and available-for-sale financial assets are recognized in other comprehensive income.

The dividend paid for the 2007 fiscal year was €1.35 per share, compared with €1.00 for 2006. The proposed dividend for fiscal year 2008 is €1.40 per share, which would result in a total dividend payment of €1.070 million.

The components of non-controlling interest in Group equity and their changes during 2008 and 2007 are shown in the following table.

	Equity attributable to non-controlling interest	
	2007	2008
	€ million	€ million
<b>January 1</b>	<b>84</b>	<b>87</b>
<b>Changes in stockholders' equity not recognized in net income</b>		
Changes in fair value of securities and cash flow hedges	-	-
Changes in actuarial gains/losses on defined benefit obligations for pensions and other post-employment benefits	-	-
Exchange differences on translation of operations outside the euro zone	(3)	3
Deferred taxes on valuation adjustments offset directly against stockholders' equity	-	-
Other changes in stockholders' equity	12	(9)
Dividend payments	(11)	(9)
<b>Changes in stockholders' equity recognized in net income</b>	<b>5</b>	<b>5</b>
<b>December 31</b>	<b>87</b>	<b>77</b>

Non-controlling interest mainly comprise the equity of Sumika Bayer Urethane Co. Ltd., Japan; Bayer CropScience Ltd., India; Berlimed, s.A., Spain; BaySystems Pearl, Dubai; Bayer CropScience Nufarm Ltd., United Kingdom; Justesa Imagen, s.A., Spain; Bayer East Africa Ltd., Kenya, and Bayer Jinling Polyurethane Company Ltd., China.

## 25. Provisions for pensions and other post-employment benefits

The provisions for pensions and other post-employment benefits in Germany and other countries as of the reporting date are as shown in the following table:

	Pensions		Other post-employment benefit obligations		Total	
	Dec 31, 2007	Dec 31, 2008	Dec 31, 2007	Dec 31, 2008	Dec 31, 2007	Dec 31, 2008
	€ million	€ million	€ million	€ million	€ million	€ million
Germany	4,538	4,557	141	109	4,679	4,666
Other countries	438	1,197	384	484	822	1,681
<b>Total</b>	<b>4,976</b>	<b>5,754</b>	<b>525</b>	<b>593</b>	<b>5,501</b>	<b>6,347</b>

The expenses for defined benefit pension plans and other post-employment benefit obligations for the continuing and discontinued operations are comprised as follows:

Expenses for defined benefit pension plans	Germany		Other countries		Total	
	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million
Current service cost	186	134	66	48	252	182
Past service cost	40	(9)	3	(2)	43	(11)
Interest cost	523	567	234	232	757	799
Expected return on plan assets	(315)	(307)	(272)	(267)	(587)	(574)
Plan curtailments	-	-	(27)	(3)	(27)	(3)
Plan settlements	-	-	4	1	4	1
<b>Total</b>	<b>434</b>	<b>385</b>	<b>8</b>	<b>9</b>	<b>442</b>	<b>394</b>

Expenses for other post-employment benefit obligations	Germany		Other countries		Total	
	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million
Current service cost	10	9	27	17	37	26
Past service cost	-	-	(1)	-	(1)	-
Interest cost	6	6	50	47	56	53
Expected return on plan assets	-	-	(28)	(28)	(28)	(28)
Plan curtailments	-	-	(14)	-	(14)	-
Plan settlements	-	-	-	-	-	-
<b>Total</b>	<b>16</b>	<b>15</b>	<b>34</b>	<b>36</b>	<b>50</b>	<b>51</b>

The status of unfunded and funded defined benefit obligations is as follows:

	Germany			
	Pension obligations		Other post-employment benefit obligations	
	2007	2008	2007	2008
	€ million	€ million	€ million	€ million
<b>Defined benefit obligation as of January 1</b>	<b>11,357</b>	<b>10,458</b>	<b>139</b>	<b>141</b>
Acquisitions	-	-	-	-
Divestitures/changes in the scope of consolidation	(41)	(22)	(1)	-
Current service cost	186	134	10	9
Interest cost	523	567	6	6
Employee contributions	25	25	-	-
Past service cost	40	(9)	-	-
Plan settlements	-	-	-	-
Net actuarial (gain) loss	(1,095)	(287)	-	-
Benefits paid	(537)	(547)	(48)	(47)
Plan curtailments	-	-	-	-
Other reclassifications	-	-	35	-
Exchange differences	-	-	-	-
<b>Defined benefit obligation as of December 31</b>	<b>10,458</b>	<b>10,319</b>	<b>141</b>	<b>109</b>
<b>Fair value of plan assets as of January 1</b>	<b>6,053</b>	<b>6,165</b>	-	-
Acquisitions	-	-	-	-
Divestitures/changes in scope of consolidation	(28)	(16)	-	-
Expected return on plan assets	315	307	-	-
Net actuarial gain (loss)	(78)	(213)	-	-
Plan settlements	-	-	-	-
Employer contributions	415	311	48	47
Employee contributions	25	25	-	-
Benefits paid	(537)	(547)	(48)	(47)
Exchange differences	-	-	-	-
<b>Fair value of plan assets as of December 31</b>	<b>6,165</b>	<b>6,032</b>	-	-
<b>Funded status</b>	<b>(4,293)</b>	<b>(4,287)</b>	<b>(141)</b>	<b>(109)</b>
Unrecognized past service cost	-	-	-	-
Asset limitation due to uncertainty of obtaining future benefits	-	-	-	-
<b>Net recognized liability as of December 31</b>	<b>(4,293)</b>	<b>(4,287)</b>	<b>(141)</b>	<b>(109)</b>
<b>Amounts recognized in the balance sheet</b>				
Prepaid benefit assets	245	270	-	-
Provisions for pensions and other post-employment benefits	(4,538)	(4,557)	(141)	(109)
<b>Net recognized liability as of December 31</b>	<b>(4,293)</b>	<b>(4,287)</b>	<b>(141)</b>	<b>(109)</b>

		Other countries				Total			
		Pension obligations		Other post-employment benefit obligations		Pension obligations		Other post-employment benefit obligations	
		2007	2008	2007	2008	2007	2008	2007	2008
		€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
		<b>4,348</b>	<b>3,705</b>	<b>864</b>	<b>718</b>	<b>15,705</b>	<b>14,163</b>	<b>1,003</b>	<b>859</b>
		-	5	-	-	-	5	-	-
		-	1	-	-	(41)	(21)	(1)	-
		66	48	27	17	252	182	37	26
		234	232	50	47	757	799	56	53
		1	3	-	-	26	28	-	-
		-	(2)	-	-	40	(11)	-	-
		(74)	22	-	-	(74)	22	-	-
		(270)	138	(97)	(26)	(1,365)	(149)	(97)	(26)
		(264)	(216)	(40)	(34)	(801)	(763)	(88)	(81)
		(27)	(3)	(14)	-	(27)	(3)	(14)	-
		-	11	-	(11)	-	11	35	(11)
		(309)	(192)	(72)	19	(309)	(192)	(72)	19
		<b>3,705</b>	<b>3,752</b>	<b>718</b>	<b>730</b>	<b>14,163</b>	<b>14,071</b>	<b>859</b>	<b>839</b>
		<b>3,804</b>	<b>3,568</b>	<b>357</b>	<b>339</b>	<b>9,857</b>	<b>9,733</b>	<b>357</b>	<b>339</b>
		-	5	-	-	-	5	-	-
		-	-	-	-	(28)	(16)	-	-
		272	267	28	28	587	574	28	28
		(9)	(893)	(1)	(137)	(87)	(1,106)	(1)	(137)
		(71)	21	-	-	(71)	21	-	-
		139	100	33	35	554	411	81	82
		1	3	-	-	26	28	-	-
		(264)	(216)	(40)	(34)	(801)	(763)	(88)	(81)
		(304)	(204)	(38)	20	(304)	(204)	(38)	20
		<b>3,568</b>	<b>2,651</b>	<b>339</b>	<b>251</b>	<b>9,733</b>	<b>8,683</b>	<b>339</b>	<b>251</b>
		<b>(137)</b>	<b>(1,101)</b>	<b>(379)</b>	<b>(479)</b>	<b>(4,430)</b>	<b>(5,388)</b>	<b>(520)</b>	<b>(588)</b>
		4	3	(5)	(5)	4	3	(5)	(5)
		(17)	(18)	-	-	(17)	(18)	-	-
		<b>(150)</b>	<b>(1,116)</b>	<b>(384)</b>	<b>(484)</b>	<b>(4,443)</b>	<b>(5,403)</b>	<b>(525)</b>	<b>(593)</b>
		288	81	-	-	533	351	-	-
		(438)	(1,197)	(384)	(484)	(4,976)	(5,754)	(525)	(593)
		<b>(150)</b>	<b>(1,116)</b>	<b>(384)</b>	<b>(484)</b>	<b>(4,443)</b>	<b>(5,403)</b>	<b>(525)</b>	<b>(593)</b>

Of the defined benefit obligation for pensions, €4,799 million (2007: €4,762 million) relates to unfunded benefit obligations while €9,272 million (2007: €9,401 million) relates to funded benefit obligations. Of the defined benefit obligation for other post-employment benefits, €185 million (2007: €235 million) relates to unfunded benefit obligations while €654 million (2007: €624 million) relates to funded benefit obligations.

Of the funded pension plans, total overfunding of individual plans amounts to €366 million (2007: €546 million) while underfunding amounts to €955 million (2007: €214 million). Similarly, other funded post-employment benefit obligations of individual funds are underfunded by €404 million (2007: €285 million). Other unfunded post-employment benefit obligations relate mainly to early retirement benefits in Germany.

The Bayer Group has set up funded pension plans for its employees in many countries. Since the legal and tax requirements and economic conditions may vary considerably between countries, assets are managed according to country-specific principles.

Bayer-Pensionskasse VVaG (Bayer-Pensionskasse) in Germany is by far the most significant of the pension funds. This legally independent fund is a private insurance company and is therefore subject to the German Law on the Supervision of Private Insurance Companies. Bayer guarantees the commitments of Bayer-Pensionskasse under German law on secondary liability. Bayer-Pensionskasse is classified as a defined benefit plan for IFRS purposes. The fair value of the plan assets includes real estate leased by Bayer which is recognized at a fair value of €74 million (2007: €51 million).

The investment policy of Bayer-Pensionskasse is geared to compliance with regulatory provisions and to the risk structure resulting from its obligations. In light of capital market movements, Bayer-Pensionskasse has therefore developed a strategic target investment portfolio aligned to its risk structure. Its investment strategy focuses principally on stringent management of downside risks rather than on maximizing absolute returns. It is anticipated that this investment policy can generate a return that enables it to meet its long-term commitments.

A large proportion of the benefit obligations of Bayer Schering Pharma AG, Berlin, Germany, which was acquired in 2006, is covered by Schering Altersversorgung Treuhand Verein. Here too, the investment strategy is geared to the structure of the corresponding obligations. It permits the use of derivatives; nearly all currency risks are fully hedged. With the aid of a risk management system, stress scenarios are simulated and other risk analyses are undertaken (e. g. value at risk).

For plan assets in other countries as well, the key investment strategy criteria are the structure of the benefit obligations and the risk profile. Other determinants are risk diversification, portfolio efficiency and a country-specific and global balance of opportunity and risk capable of ensuring the payment of all future benefits.

The weighted parameters used to value the plan assets to cover pensions and other post-employment benefit obligations were allocated as follows at year-end:

Plan assets to cover pension obligations as of December 31	Germany		Other countries	
	2007	2008	2007	2008
	%	%	%	%
Equity securities	26.01	17.68	45.72	37.94
Debt securities	47.16	60.73	44.61	50.17
Real estate and special real estate funds	8.66	8.83	3.12	1.80
Other	18.17	12.76	6.55	10.09
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Plan assets to cover other post-employment benefit obligations as of December 31	Germany		Other countries	
	2007	2008	2007	2008
	%	%	%	%
Equity securities	-	-	51.73	39.38
Debt securities	-	-	41.04	44.53
Real estate and special real estate funds	-	-	-	-
Other	-	-	7.23	16.09
<b>Total</b>	<b>-</b>	<b>-</b>	<b>100.00</b>	<b>100.00</b>

At the closing dates, plan assets included roughly the same weightings of Bayer shares as the major stock indices. The other plan assets principally comprise mortgage loans granted, other receivables, fixed-term deposits and cash and cash equivalents.

The major pension funds in the United States and the United Kingdom posted a negative performance in fiscal 2008 because stocks make up a higher proportion of their investments. Bayer-Pensionskasse, however, which is Bayer's most significant German pension plan, reported a positive return on assets in 2008.

The following weighted parameters were used to value the pension obligations as of December 31 and the expense of pensions and other post-employment benefits in the respective year:

Parameters for pension and other post-employment benefit obligations	Germany		Other countries		Total	
	2007	2008	2007	2008	2007	2008
	%	%	%	%	%	%
<b>Pension obligations</b>						
Discount rate	5.50	6.00	6.45	6.30	5.75	6.10
Projected future remuneration increases	2.85	3.00	4.65	4.00	3.10	3.25
Projected future benefit increases	1.75	2.00	3.25	2.95	1.95	2.25
<b>Other post-employment benefit obligations</b>						
Discount rate	5.10	6.40	6.85	6.45	6.55	6.45

Parameters for benefit expense	Germany		Other countries		Total	
	2007	2008	2007	2008	2007	2008
	%	%	%	%	%	%
<b>Pension benefit obligations</b>						
Discount rate	4.60	5.50	5.65	6.45	4.90	5.75
Projected future remuneration increases	2.60	2.85	4.10	4.65	2.85	3.10
Projected future benefit increases	1.50	1.75	2.45	3.25	1.60	1.95
Expected return on plan assets	5.25	4.75	7.85	7.45	6.20	5.55
<b>Other post-employment benefit obligations</b>						
Discount rate	4.30	5.10	6.25	6.85	6.00	6.55
Expected return on plan assets	-	-	8.25	8.25	8.25	8.25

Altering individual parameters by 0.5 percentage points while leaving the other parameters unchanged would impact pension and other post-employment benefit obligations as of year end 2008 as follows:

	Germany		Other countries		Total	
	0.5 percentage point increase	0.5 percentage point decrease	0.5 percentage point increase	0.5 percentage point decrease	0.5 percentage point increase	0.5 percentage point decrease
	€ million	€ million	€ million	€ million	€ million	€ million
<b>Pension benefit obligations</b>						
Change in discount rate	(623)	697	(217)	240	(840)	937
Change in projected future remuneration increases	65	(58)	27	(25)	92	(83)
Change in projected future benefit increases	445	(413)	37	(15)	482	(428)
<b>Other post-employment benefit obligations</b>						
Change in discount rate	(1)	1	(38)	42	(39)	43

Altering individual parameters by 0.5 percentage points while leaving the other parameters unchanged would impact pension expense in 2009 as follows:

	Germany		Other countries		Total	
	0.5 percentage point increase	0.5 percentage point decrease	0.5 percentage point increase	0.5 percentage point decrease	0.5 percentage point increase	0.5 percentage point decrease
	€ million	€ million	€ million	€ million	€ million	€ million
<b>Pension benefit obligations</b>						
Change in discount rate	(5)	5	(3)	3	(8)	8
Change in projected future remuneration increases	8	(7)	3	(3)	11	(10)
Change in projected future benefit increases	33	(31)	2	(1)	35	(32)
Change in expected return on plan assets	(30)	30	(13)	13	(43)	43
<b>Other post-employment benefit obligations</b>						
Change in discount rate	-	-	(1)	1	(1)	1
Change in expected return on plan assets	-	-	(1)	1	(1)	1



Provisions are also set up for the obligations of Group companies, particularly in the United States, to provide post-employment benefits in the form of health care cost payments to retirees. The valuation of health care costs is based on the assumption that they will increase at a rate of 11% (assumption in 2007: 11%), which should decline to 5% by 2016 (assumption in 2007: 5% by 2015). The table shows the impact of a one percentage point change in the assumed rate of cost increases:

	Increase of one percentage point	Decrease of one percentage point
	€ million	€ million
Impact on other post-employment benefit obligations	80	(67)
Impact on pension expense	8	(7)

The following payments were made in 2008 and 2007, and are expected to be made in 2009, for employer contributions to funded and unfunded pension plans that provide pensions and other post-employment benefits:

	Germany			Other countries		
	2007	2008	2009 projected	2007	2008	2009 projected
	€ million	€ million	€ million	€ million	€ million	€ million
Pension obligations	415	311	306	139	100	80
Other post-employment benefit obligations	48	47	47	33	35	44
<b>Total</b>	<b>463</b>	<b>358</b>	<b>353</b>	<b>172</b>	<b>135</b>	<b>124</b>

Pensions and other post-employment benefits payable in the future are estimated as follows:

	Germany		Other countries		Total	
	Pension obligations	Other post-employment benefit obligations	Pension obligations	Other post-employment benefit obligations	Pension obligations	Other post-employment benefit obligations
	€ million	€ million	€ million	€ million	€ million	€ million
2009	564	47	194	44	758	91
2010	579	35	182	45	761	80
2011	600	12	188	48	788	60
2012	623	3	203	49	826	52
2013	647	3	207	51	854	54
2014–2018	3,615	9	1,242	285	4,857	294

The actuarial gains and losses related to defined benefit obligations and plan assets, recognized in a separate statement of recognized income and expense outside of profit or loss, are as follows:

	Pension obligations Germany					Pension obligations Other countries				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
Defined benefit obligation	8,866	10,256	11,357	10,458	10,319	3,807	4,269	4,348	3,705	3,752
Fair value of plan assets	4,373	4,599	6,053	6,165	6,032	2,841	3,485	3,804	3,568	2,651
<b>Funded status</b>	<b>(4,493)</b>	<b>(5,657)</b>	<b>(5,304)</b>	<b>(4,293)</b>	<b>(4,287)</b>	<b>(966)</b>	<b>(784)</b>	<b>(544)</b>	<b>(137)</b>	<b>(1,101)</b>
<b>Accumulated actuarial gains (losses) relating to benefit obligation as of</b>										
January 1	(1,119)	(1,682)	(2,842)	(2,293)	(1,197)	(304)	(421)	(692)	(657)	(403)
Changes due to divestitures and changes in scope of consolidation	-	-	1	1	-	-	-	-	-	-
Newly arisen during the year due to changes in actuarial parameters	(575)	(1,122)	441	1,097	450	(161)	(265)	46	299	40
Newly arisen during the year due to experience adjustments	12	(38)	46	(2)	(163)	19	3	(45)	(29)	(178)
Allocations to discontinued operations	-	-	61	-	-	-	-	34	-	-
Exchange differences	-	-	-	-	-	25	(9)	-	(16)	28
<b>December 31</b>	<b>(1,682)</b>	<b>(2,842)</b>	<b>(2,293)</b>	<b>(1,197)</b>	<b>(910)</b>	<b>(421)</b>	<b>(692)</b>	<b>(657)</b>	<b>(403)</b>	<b>(513)</b>
<b>Accumulated actuarial gains (losses) relating to plan assets as of</b>										
January 1	(735)	(786)	(693)	(846)	(920)	(315)	(204)	(125)	15	7
Changes due to divestitures and changes in the scope of consolidation	-	-	-	4	-	-	-	-	-	-
Newly arisen during the year	(51)	93	(154)	(78)	(213)	100	84	159	(9)	(893)
Allocations to discontinued operations	-	-	1	-	-	-	-	(19)	-	-
Exchange differences	-	-	-	-	-	11	(5)	-	1	-
<b>December 31</b>	<b>(786)</b>	<b>(693)</b>	<b>(846)</b>	<b>(920)</b>	<b>(1,133)</b>	<b>(204)</b>	<b>(125)</b>	<b>15</b>	<b>7</b>	<b>(886)</b>

In Germany, no unrealized gains/losses exist in relation to other post-employment benefit obligations.

	Other post-employment benefit obligations Other countries					Pension obligations Total					Other post-employment benefit obligations Total				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
	724	878	864	718	730	12,673	14,525	15,705	14,163	14,071	908	1,036	1,003	859	839
	286	359	357	339	251	7,214	8,084	9,857	9,733	8,683	286	359	357	339	251
	(438)	(519)	(507)	(379)	(479)	(5,459)	(6,441)	(5,848)	(4,430)	(5,388)	(622)	(677)	(646)	(520)	(588)
	(222)	(259)	(259)	(311)	(221)	(1,423)	(2,103)	(3,534)	(2,950)	(1,600)	(222)	(259)	(259)	(311)	(221)
	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
	(38)	(31)	(71)	33	(10)	(736)	(1,387)	487	1,396	490	(38)	(31)	(71)	33	(10)
	(17)	31	17	64	36	31	(35)	1	(31)	(341)	(17)	31	17	64	36
	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-
	18	-	2	(7)	-	25	(9)	-	(16)	28	18	-	2	(7)	-
	(259)	(259)	(311)	(221)	(195)	(2,103)	(3,534)	(2,950)	(1,600)	(1,423)	(259)	(259)	(311)	(221)	(195)
	(49)	(36)	(41)	(24)	(25)	(1,050)	(990)	(818)	(831)	(913)	(49)	(36)	(41)	(24)	(25)
	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
	11	(5)	17	(1)	(137)	49	177	5	(87)	(1,106)	11	(5)	17	(1)	(137)
	-	-	-	-	-	-	-	(18)	-	-	-	-	-	-	-
	2	-	-	-	-	11	(5)	-	1	-	2	-	-	-	-
	(36)	(41)	(24)	(25)	(162)	(990)	(818)	(831)	(913)	(2,019)	(36)	(41)	(24)	(25)	(162)

## 26. Other provisions

The various categories of provisions changed as follows in 2008:

	Taxes	Environmental protection	Restructuring	Trade-related commitments	Litigations	Personnel commitments	Miscellaneous	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
<b>December 31, 2007</b>	<b>863</b>	<b>270</b>	<b>154</b>	<b>742</b>	<b>404</b>	<b>1,825</b>	<b>662</b>	<b>4,920</b>
Changes in the scope of consolidation	(2)	-	-	1	-	2	14	15
Additions	817	80	88	728	245	1,086	518	3,562
Utilization	(819)	(34)	(49)	(537)	(227)	(1,154)	(599)	(3,419)
Reversal	(94)	(15)	(16)	(134)	(57)	(100)	(134)	(550)
Interest cost	12	5	-	1	5	24	3	50
Exchange differences	(41)	(8)	(2)	5	(29)	6	5	(64)
<b>December 31, 2008</b>	<b>736</b>	<b>298</b>	<b>175</b>	<b>806</b>	<b>341</b>	<b>1,689</b>	<b>469</b>	<b>4,514</b>

The expected disbursements out of the provisions recognized in the 2008 balance sheets are as follows:

	Taxes	Environmental protection	Restructuring	Trade-related commitments	Litigations	Personnel commitments	Miscellaneous	Total
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
2009	633	53	101	801	141	1,097	337	3,163
2010	18	8	65	1	82	77	43	294
2011	-	14	4	-	17	82	19	136
2012	-	2	1	-	-	31	12	46
2013	-	3	-	-	1	27	25	56
2014 or later	85	218	4	4	100	375	33	819
<b>Total</b>	<b>736</b>	<b>298</b>	<b>175</b>	<b>806</b>	<b>341</b>	<b>1,689</b>	<b>469</b>	<b>4,514</b>

The provisions are partly offset by claims for refunds in the amount of €69 million (2007: €59 million), which are recognized as receivables. They relate principally to environmental measures.

### 26.1 Taxes

Provisions for taxes comprise provisions for income taxes amounting to €676 million (2007: €774 million) and provisions for other types of taxes amounting to €60 million (2007: €89 million).

Further income tax commitments according to IAS 12 existed at year-end in the amount of €65 million (2007: €56 million), recognized on the balance sheet as income tax liabilities.

### 26.2 Environmental protection

Provisions for environmental remediation mainly relate to the rehabilitation of contaminated land, recultivation of landfills, and redevelopment and water protection measures.

## 26.3 Restructuring

Provisions for restructuring included €139 million for severance payments and €36 million for other expenses, which mainly comprised demolition and other costs related to the closure of production facilities.

The principal restructuring charges in 2008 related to four major projects.

The “Transforming Human Resources” (THR) project initiated in 2005 is designed to harmonize the human resources function worldwide by introducing an innovative operating model. The new structures provide better, and at the same time more efficient, support for employees and thus make a greater contribution to the company’s performance. The new operating model and the related organizational units have been gradually introduced at 162 Bayer Group companies worldwide starting in October 2006. According to current planning, the project will be completed during 2010. Total restructuring expenses related to the THR project in 2008 came to €32 million, including €1 million in severance payments and €31 million in other restructuring expenses. Provisions for restructuring amounted to €1 million on December 31, 2008.

The “RIVER” restructuring project initiated by the Bayer MaterialScience subgroup in fall 2007 to optimize cost structures and achieve a lasting improvement in efficiency was continued as planned in 2008. The central focus was on North America and Europe. In North America, in addition to many individual projects, efficiency was improved significantly at the facilities in Pittsburgh, Pennsylvania, and in the administrative functions. The reduction of capacity for methylenediphenyl diisocyanate at the facility in New Martinsville, West Virginia, proceeded on schedule. In Germany, the optimization mainly affected administrative functions at the Leverkusen site. Total restructuring expenses for this project amounted to €49 million in 2008, comprising €21 million in severance payments, €2 million in write-downs and €26 million in other restructuring expenses. Restructuring provisions amounted to €30 million as of December 31, 2008.

The implementation of the “NEW” restructuring program, instigated in August 2006 to ensure a sustained improvement in the efficiency of the Bayer CropScience subgroup, continued as planned in 2008. This resulted in restructuring expenses of €166 million in 2008, including €51 million for personnel-related measures, €13 million for write-downs and €102 for other restructuring expenses. The restructuring provisions amounted to €73 million as of December 31, 2008.

Important measures were implemented in the United States, France and Germany. These included, in particular, the concentration of U.S. production capacity at the facilities in Kansas City, Missouri, and Institute, West Virginia. In addition, consolidation of the global research activities continued, leading to restructuring expenses in France. In Germany, restructuring as part of the “NEW” project mainly comprised the divestment of the formulating and packaging facility and the logistics center in Wolfenbüttel.

In 2008 the Bayer Schering Pharma Division continued the restructuring program introduced following the acquisition of Schering AG, Berlin, Germany, in 2006. The aim is to consolidate Bayer’s pharmaceutical activities in parallel with the integration progress and ensure uniform management of the business in the interests of the Bayer Group as a whole. Restructuring provisions of €54 million were recognized as of December 31, 2008 for these and other measures.

The integration of local subsidiaries of Bayer Schering Pharma AG into existing Bayer subsidiaries was very largely completed. Sales forces and marketing functions at the Bayer and former Schering companies were merged, facilities were amalgamated and IT systems harmonized. The consolidation of the global research and development activities at the Berlin and Wuppertal sites in Germany and at Berkeley, California, United States, continued.

Total expenses for the integration of Schering amounted to €157 million in 2008, including €53 million in severance payments, €46 million in accelerated depreciation and write-downs and €58 million in other restructuring expenses.

## 26.4 Trade-related commitments

Provisions for trade-related commitments comprise provisions for rebates, discounts and other price adjustments, provisions for product returns, outstanding invoices, pending losses and onerous contracts.

## 26.5 Litigations

The legal risks currently considered to be material are described in Note [32].

## 26.6 Personnel commitments

Provisions for personnel commitments mainly include those for variable and individual one-time payments, credit balances on long-term accounts, service awards and other personnel costs. Also reflected here are the obligations under the stock-based compensation programs.

Stock-based compensation in the Bayer Group is granted primarily under standard programs and also on an individual agreement basis. Individual agreements enable the company to link remuneration components to the stock price or future stock price movements. Awards under such agreements may be contingent upon the attainment of agreed targets, or may be based solely on the length of service. Standard programs exist for different groups of employees. The program offered to members of the Board of Management and other senior executives from 2001 through 2004 was essentially a stock option program with variable stock-based awards. This program provides for cash payments. Middle management was offered a stock incentive program, while other groups of employees were offered a stock participation program. A stock-based compensation program for top and middle management known as "Aspire" was introduced in 2005. It comprises two variants, which are described on the following pages. For other managers and non-managerial employees, an annual stock participation program has been offered since 2005 ("ABP 2008" in the year under report), under which Bayer subsidizes employee purchases of shares in the company.

As with other remuneration systems involving cash settlement, awards to be made under the stock-based programs are covered by provisions in the amount of the fair value of the obligations existing as of the date of the financial statements vis-à-vis the respective employee group. Adjustments to provisions relating to all existing stock-based compensation programs are recognized in the income statement.

The table below shows the change in provisions for the various programs:

	Stock Option Program	Stock Incentive Program	Stock Participation Program	Aspire I	Aspire II	Total
	€ million	€ million	€ million	€ million	€ million	€ million
<b>December 31, 2007</b>	<b>11</b>	<b>4</b>	<b>17</b>	<b>58</b>	<b>60</b>	<b>150</b>
Allocations	2	-	1	12	3	18
Utilization	(8)	(1)	(6)	(27)	(29)	(71)
Reversal	(3)	(1)	(3)	(3)	(2)	(12)
Exchange differences	-	-	-	1	1	2
<b>December 31, 2008</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>41</b>	<b>33</b>	<b>87</b>

Provisions of €10 million existed at the end of 2008 (2007: €11 million) for obligations entered into under individual stock-based compensation agreements. The obligations were measured in the same way as those incurred under the standard programs.

The fair value of obligations under the standard stock-based compensation programs and individual agreements has been calculated using the Monte Carlo simulation method based on the following key parameters:

	2007	2008
Dividend yield	1.91%	3.80%
Risk-free interest rate	4.06%	1.93%
Volatility of Bayer stock	22.19%	31.56%
Volatility of the EURO STOXX 50 <sup>SM</sup>	13.83%	25.72%
Correlation between Bayer stock price and the EURO STOXX 50 <sup>SM</sup>	0.54	0.68

The expected exercise period is three to five years.

#### Long-term incentive program for members of the Board of Management and other senior executives (Aspire I)

To participate in Aspire I, members of the Board of Management and other senior executives are required to purchase a certain number of Bayer shares that is predetermined according to specific guidelines and to retain them for the full term of the program. A percentage of the executive's annual base salary – based on his/her position – is defined as a target for variable payments (Aspire target opportunity). Depending on the performance of Bayer stock, both in absolute terms and relative to the Dow Jones EURO STOXX 50<sup>SM</sup> benchmark index over a three-year performance period, participants are granted an award of up to 200% of their individual Aspire target opportunity at the end of the program.

#### Long-term incentive program for middle management (Aspire II)

Other senior managers are offered Aspire II, a variant of Aspire I that does not require a personal investment in Bayer shares. In this case the amount of the award is based entirely on the absolute performance of Bayer stock. The maximum award is 150% of each manager's Aspire target opportunity.

#### Stock Participation Program (2008) for other managers and non-managerial employees

Under this program, Bayer offered employees the opportunity to purchase shares at a discount of 15% on the lowest stock price on August 11, 2008. Employees could invest a maximum of €10,000 in discounted shares, depending on their base salary and salary grade. The shares purchased under the 2008 Stock Participation Program may not be sold prior to December 31, 2009. In 2008, employees subscribed for a total of 632,117 Bayer shares under the Stock Participation Program.

### Stock-based compensation programs 2000-2004

The stock-based compensation programs offered to the different employee groups in 2000 through 2004 were all similar in their respective structures. Provisions for the obligations under these programs are recorded in the balance sheet and recognized in the income statement at fair value. Entitlement to awards under these programs is conditioned on retention of the Bayer stock designated under the program for a certain time period.

The following table shows the programs applicable through December 31, 2004:

	Stock Option Programs	Stock Incentive Programs	Stock Participation Programs
Year of issue	2002–2004	2000–2004	2000–2004
Original term in years	5	10	10
Retention period/distribution date in years from issue date	3	2/6/10	2/6/10
Reference price	0	0	0
Performance criteria	Yes	Yes	No

### Stock Option Program (2002-2004)

A maximum personal investment in Bayer stock was defined for each Board of Management member or other senior executive who wished to participate in the Stock Option Program.

The Stock Option Program contained a three-year retention condition. The retention period is followed by a two-year exercise period, after which any option rights not exercised expire. Eligibility to exercise option rights and the award to which the holder is entitled depend on the absolute and relative performance of Bayer stock.

For the tranches issued in 2003 and 2004 participants received up to three options per share for every share of their personal investments placed in the special account. For each option, a cash payment – equivalent to the market price of one Bayer share – and an outperformance premium are awarded at the exercise date subject to the attainment of certain performance and outperformance targets, respectively.

All stock options under the 2003 tranche, which expired on August 31, 2008, were exercised. Stock options under the 2004 tranche were partially exercised and are currently still exercisable. As of December 31, 2008 their intrinsic value was €2 million.

### Stock Incentive Program (2000-2004)

This program was offered to middle management. Each participant was required to deposit shares up to a maximum number defined on the basis of his/her individual performance-related bonus and the share price at the start of the program. Unlike the Stock Option Program, participants are permitted to sell their shares during the term of the program, although any shares sold no longer count for purposes of calculating the incentive awards on subsequent distribution dates. The Stock Incentive Program runs for a ten-year period, during which there are three incentive payment dates.



Incentive payments under the program are only made if Bayer stock has outperformed the EURO STOXX 50<sup>SM</sup> index on the respective incentive payment dates. For every ten Bayer shares originally placed in their special account and retained until the incentive payment date, participants receive payments equal to the value of two shares after two years, the value of four shares after six years, and the value of an additional four shares after ten years.

#### Stock Participation Program (2000-2004)

This program was for all other managerial employees and non-managerial employees. The incentive payments made on the three incentive payment dates amount to one half of those under the Stock Incentive Program. Payments are not contingent upon the performance of Bayer stock.

## 26.7 Miscellaneous

Miscellaneous provisions comprise those for guarantees, product liability, asset retirement obligations (other than those included in environmental provisions), contingent liabilities relating to acquisitions, and provisions for miscellaneous liabilities.

## 27. Financial liabilities

Financial liabilities comprise the following:

	Dec. 31, 2007		Dec. 31, 2008	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Bonds and notes	10,411	190	10,729	4,355
Liabilities to banks	3,032	887	4,438	1,409
Liabilities under finance leases	358	30	535	44
Liabilities from forward commodity contracts	219	49	223	77
Liabilities from other derivatives	235	23	612	104
Other financial liabilities	162	157	333	267
<b>Total</b>	<b>14,417</b>	<b>1,336</b>	<b>16,870</b>	<b>6,256</b>

The increase in current bonds is partly attributable to a mandatory convertible bond with a nominal value of €2,300 million issued by Bayer Capital Corp. B.V. in April 2006, which matures in June 2009. In addition to a €460 million Eurobond issued by Bayer Corporation under the EMTN program, which matured in January 2009, a floating rate Eurobond with a nominal value of €1,600 million issued by Bayer AG in May 2006 under the EMTN program matures in May 2009. Both bonds are recognized as current financial liabilities.

Liabilities from commodity forward contracts are reflected in financial liabilities for the first time in 2008. In the past they were included in other liabilities. The previous year's figures are restated accordingly.

The maturities of financial liabilities were as follows:

Maturity	Dec. 31, 2007	Maturity	Dec. 31, 2008
	€ million		€ million
Up to 2008	1,336	Up to 2009	6,256
Up to 2009	4,742	Up to 2010	771
Up to 2010	518	Up to 2011	1,967
Up to 2011	1,566	Up to 2012	2,740
Up to 2012	2,455	Up to 2013	1,465
Up to 2013 or later	3,800	Up to 2014 or later	3,671
<b>Total</b>	<b>14,417</b>	<b>Total</b>	<b>16,870</b>

Bayer sold a registered usufructuary right to real estate with a residual carrying amount of €164 million to a leasing company and leased it back immediately under an agreement that includes a right of repurchase upon expiration of the lease. This transaction, which is accounted for as a secured loan, does not restrict the operational use of the real estate. The Bayer Group's other financial liabilities are mostly unsecured and – with the exception of the subordinated mandatory convertible bond with a nominal value of €2,300 million and a subordinated hybrid bond with a nominal value of €1,300 million – are of equal priority.

Further information on the accounting for liabilities from derivatives is given in Note [30].

The Bayer Group has issued the following bonds and notes:

Effective interest rate	Stated rate		Nominal volume	Dec. 31, 2007	Dec. 31, 2008
				€ million	€ million
<b>Bayer AG</b>					
6.075%	6.000%	Eurobonds 2002/2012	EUR 2,000 million	1,971	2,025
5.155%	5.000%	Hybrid bonds 2005/2105 (2015)	EUR 1,300 million	1,237	1,245
Floating	Floating	Eurobonds 2006/2009	EUR 1,600 million	1,598	1,599
4.621%	4.500%	Eurobonds 2006/2013	EUR 1,000 million	994	995
5.774%	5.625%	Eurobonds 2006/2018	GBP 250 million	337	259
5.541%	5.625%	Eurobonds 2006/2018 (increase)	GBP 100 million	137	106
Floating	Floating	Eurobonds 2007/2010	EUR 300 million	300	300
4.464%	4.375%	Eurobonds 2007/2011	EUR 200 million	199	200
4.038%	4.000%	Eurobonds (private placement) 2008/2011	EUR 200 million	-	200
3.502%	3.490%	Eurobonds (private placement) 2004/2008	EUR 20 million	20	-
<b>Bayer Capital Corp. B.V.</b>					
7.117%	6.625%	Mandatory convertible bonds 2006/2009	EUR 2,300 million	2,285	2,296
<b>Bayer Corporation</b>					
7.180%	7.125%	Notes 1995/2015	US\$ 200 million	135	162
6.670%	6.650%	Notes 1998/2028	US\$ 350 million	236	249
6.210%	6.200%	Notes 1998/2008	US\$ 250 million	170	-
4.043%	3.750%	Eurobonds 2004/2009	EUR 460 million	459	460
<b>Bayer Holding Ltd.</b>					
1.654%	1.585%	Eurobonds 2007/2010	JPY 10 billion	61	79
2.006%	1.955%	Eurobonds 2007/2012	JPY 15 billion	91	119
Floating	Floating	Eurobonds 2007/2012	JPY 30 billion	181	237
Floating	Floating	Eurobonds 2008/2013	JPY 10 billion	-	79
3.654%	3.575%	Eurobonds 2008/2018	JPY 15 billion	-	119
<b>Total</b>				<b>10,411</b>	<b>10,729</b>

In December 2008 Bayer AG issued a bond with a nominal value of €200 million under the multi-currency European Medium Term Note (EMTN) program. It has a coupon of 4% and matures on January 27, 2011.

In June 2008 Bayer Holding Ltd. issued a floating-rate bond with a nominal value of JPY 10 billion under the EMTN program. The bond matures in five years and has a variable coupon comprising the three-month JPY Libor plus 56 basis points. In December Bayer Holding Ltd. also issued a bond with a nominal value of JPY 15 billion under this program. This bond has a coupon of 3.575% and matures on December 19, 2018.

In June 2007 Bayer Holding Ltd. launched bond issues under the EMTN program. These comprised a three-year bond with a nominal value of JPY 10 billion and a coupon of 1.585%, a five-year bond with a nominal value of JPY 15 billion and a coupon of 1.955%, and a floating-rate note with a nominal value of JPY 30 billion. The latter has a maturity of five years and a coupon comprising the three-month JPY Libor plus 26 basis points.

In April 2007, Bayer AG issued a floating rate bond with a maturity of three years and a nominal value of €300 million under the EMTN program. The coupon is the three-month EURIBOR rate plus 10 basis points. At the same time, a four-year bond with a nominal value of €200 million and a coupon of 4.375% was issued.

In May 2006 Bayer AG launched three further bond issues under its multi-currency EMTN program as part of the financing of the Schering acquisition. The first of these was a three-year floating rate note in a nominal amount of €1,600 million which bears interest at 22.5 basis points above the 3-month EURIBOR rate. The second issue, which has a nominal value of €1,000 million, has a coupon of 4.5% and a maturity of seven years. A third bond, denominated in sterling (GBP), was also issued with a nominal value of GBP 250 million. A second tranche of GBP 100 million was issued in the same year. This bond has a coupon of 5.625% and matures in 2018. The entire issue has been swapped into euros.

In April 2006, Bayer Capital Corp. B.V. issued a subordinated mandatory convertible bond with a nominal value of €2,300 million as part of the financing of the acquisition of Schering AG, Berlin, Germany. This issue carries a 6.625% coupon and matures on June 1, 2009. Unless the issue has been converted, repurchased or canceled before the expiration date of June 1, 2009, all outstanding bonds will be converted into the corresponding number of Bayer AG shares at the mandatory conversion ratio on the maturity date. If the mandatory conversion ratio is within the band set for the fluctuation of the stock price, the number of shares per bond will be issued on the basis of this mandatory conversion ratio. If the share price exceeds or falls below the band, the bond will be converted into a fixed number of shares. Investors may convert the bond into shares before the maturity date as provided in the issue conditions. This bond is treated entirely as equity by Moody's and Standard & Poor's and therefore improves the Bayer Group's rating-specific debt indicators.

In July 2005, Bayer AG issued a 100-year subordinated hybrid bond with a volume of €1,300 million. This issue matures in 2105 and has a fixed coupon of 5% in the first ten years. Thereafter, interest is calculated quarterly at a floating rate (three-month EURIBOR plus 280 basis points). After the first ten years, Bayer AG has a quarterly option to redeem the bonds at nominal value. The coupon is payable in arrears. This bond is treated as 75% equity by Moody's and as 50% equity by Standard & Poor's and therefore improves the Bayer Group's rating-specific debt indicators.

In January 2004 Bayer Corporation issued a five-year bond with a nominal value of €460 million and a coupon of 3.75% under the EMTN program. In February 1998 Bayer issued notes with a total nominal value of US\$600 million for eligible institutional investors. This comprised two separate issues. The first issue, with a nominal value of US\$350 million, has a maturity of 30 years and a coupon of 6.65% with half-yearly interest payments. The second issue, with a nominal

value of US\$ 250 million, had combined call and put options, giving the lead manager the right to repurchase the notes, and the investors the right to cash them, after ten years. As contractually agreed with the lead manager in September 2007, it exercised its right to repurchase the notes from the investors in February 2008 and sold them back to Bayer Corporation.

The long-term liabilities to banks principally comprise a syndicated loan raised in 2006 of now €1.25 billion, in connection with the acquisition of Schering AG, Berlin, Germany. This credit facility is provided by a syndicate of eleven banks and bears a variable interest rate (EURIBOR plus a margin, which has been fixed at 20 basis points since July 2007). This credit facility has a fixed term until March 2011 but can be repaid in full or in part at any time on Bayer's request.

Bayer AG guarantees all the bonds issued by its subsidiaries.

As of December 31, 2008 the Group had credit facilities at its disposal totaling €9.9 billion (2007: €7.9 billion), of which €4.4 billion (2007: €3.0 billion) was used and €5.5 billion (2007: €4.9 billion) was unused and thus available for borrowing on an unsecured basis.

Lease payments totaling €707 million (2007: €458 million), including €172 million (2007: €100 million) in interest, are to be made to the respective lessors in future years.

Leasing liabilities mature as follows:

Maturity	Dec. 31, 2007			Maturity	Dec. 31, 2008		
	Lease pay-ments	Interest compo-nent	Liabilities under finance leases		Lease pay-ments	Interest compo-nent	Liabilities under finance leases
	€ million	€ million	€ million		€ million	€ million	€ million
2008	47	17	30	2009	70	26	44
2009	48	17	31	2010	60	25	35
2010	37	15	22	2011	59	23	36
2011	33	14	19	2012	51	22	29
2012	32	13	19	2013	207	18	189
2013 or later	261	24	237	2014 or later	260	58	202
<b>Total</b>	<b>458</b>	<b>100</b>	<b>358</b>	<b>Total</b>	<b>707</b>	<b>172</b>	<b>535</b>

## 28. Trade accounts payable

Trade accounts are payable mainly to third parties. Trade accounts payable as of December 31, 2008 include €2,376 million (2007: €2,455 million) due within one year and €1 million (2007: €11 million) due after one year.

## 29. Other liabilities

Other liabilities comprised:

	Dec. 31, 2007		Dec. 31, 2008	
	Total	Of which current	Total	Of which current
	€ million	€ million	€ million	€ million
Accrued interest on liabilities	451	439	321	304
Payroll liabilities	172	126	171	138
Liabilities for social expenses	159	150	143	133
Other tax liabilities	275	265	276	275
Advance payments received	40	40	87	87
Liabilities to non-controlling interest	794	721	101	-
Miscellaneous liabilities	1,264	1,083	1,294	1,024
<b>Total</b>	<b>3,155</b>	<b>2,824</b>	<b>2,393</b>	<b>1,961</b>

Liabilities for social expenses include, in particular, social insurance contributions that had not been paid by the closing date.

Based on the takeover offer made in connection with the domination agreement with Bayer Schering Pharma AG, a total obligation of €721 million existed in 2007 toward the remaining minority stockholders to purchase their shares. This was reflected in other current liabilities and not in equity attributable to non-controlling interest. This obligation comprised a guaranteed dividend for the minority stockholders of Bayer Schering Pharma AG and an appropriate cash compensation payment to be made in exchange for their shares. Following the entry of the squeeze-out in the Commercial Register on September 25, 2008, a cash compensation payment was made to the minority stockholders of Bayer Schering Pharma AG. The sum of €695 million held in escrow accounts for this purpose was disbursed to the stockholders in October 2008.

Liabilities to non-controlling interest also include an amount of €101 million (2007: €73 million) representing the third-party share of the capital of Currenta GmbH & Co. OHG.

Miscellaneous liabilities include €376 million (2007: €399 million) in accrued expenses, of which €200 million (2007: €248 million) are to be regarded as current. The accrued expenses include €49 million (2007: €44 million) in grants and subsidies received from governments. The amount reversed and recognized in income was €13 million (2007: €7 million). The miscellaneous liabilities also include a large number of individually immaterial amounts pertaining to subsidiaries such as guarantees, commissions to customers and reimbursements of expenses.

## 30. Financial instruments

The system used by the Bayer Group to manage credit risk, liquidity risk and the various types of market risks (interest-rate risk, currency risk and other price risks), together with its objectives, methods and procedures, is outlined in the Risk Report, which forms part of the Management Report.

	Dec. 31, 2007				
	Carried at amortized cost		Carried at fair value	Non-financial assets/liabilities	
	Carrying amount Dec. 31, 2007	Fair value (for information)	Carrying amount	Carrying amount	Carrying amount on balance sheet
	€ million	€ million	€ million	€ million	€ million
Trade accounts receivable	5,830				5,830
Loans and receivables	5,830	5,825			5,830
Other financial assets	638		824		1,462
Loans and receivables	373	370			373
Available-for-sale financial assets	86		239		325
Held-to-maturity financial investments	179	177			179
Derivatives that qualify for hedge accounting			134		134
Derivatives that do not qualify for hedge accounting			451		451
Other receivables	1,085			1,043	2,128
Loans and receivables	1,085	1,084			1,085
Non-financial assets				1,043	1,043
Cash and cash equivalents	2,531				2,531
Loans and receivables	2,531	2,531			2,531
<b>Total financial assets</b>	<b>10,084</b>		<b>824</b>		
of which loans and receivables	9,819				9,819
Financial liabilities	13,963		454		14,417
Carried at amortized cost	13,963	15,312			13,963
Derivatives that qualify for hedge accounting			99		99
Derivatives that do not qualify for hedge accounting			355		355
Trade accounts payable	2,466				2,466
Carried at amortized cost	2,466	2,465			2,466
Other liabilities	2,229		38	888	3,155
Carried at amortized cost	2,229	2,228			2,229
Derivatives that qualify for hedge accounting			7		7
Derivatives that do not qualify for hedge accounting			31		31
Non-financial liabilities				888	888
<b>Total financial liabilities</b>	<b>18,658</b>		<b>492</b>		
of which carried at amortized cost	18,658				18,658
of which derivatives that qualify for hedge accounting			106		106
of which derivatives that do not qualify for hedge accounting			386		386

### 30.1 Information on financial instruments by category

The following table shows the carrying amounts and fair values of financial assets and liabilities by category of financial instrument and a reconciliation to the corresponding line item in the balance sheet. Since the line items “Other receivables” and “Other liabilities” contain both financial instruments and non-financial assets and liabilities (such as other tax receivables or advance payments for services to be received in the future), the reconciliation is shown in the column headed “Non-financial assets/liabilities.”

Dec. 31, 2008					
	Carried at amortized cost		Carried at fair value	Non-financial assets/liabilities	
	Carrying amount Dec. 31, 2008	Fair value (for information)	Carrying amount	Carrying amount	Carrying amount on balance sheet
	€ million	€ million	€ million	€ million	€ million
	5,953				5,953
	5,953	5,953			5,953
	911		920		1,831
	660	682			660
	84		204		288
	167	168			167
			248		248
			468		468
	676			1,066	1,742
	676	671			676
				1,066	1,066
	2,094				2,094
	2,094	2,094			2,094
	9,634		920		
	9,383				9,383
	16,035		835		16,870
	16,035	16,706			16,035
			308		308
			527		527
	2,377				2,377
	2,377	2,377			2,377
	1,357		100	936	2,393
	1,357	1,356			1,357
			87		87
			13		13
				936	936
	19,769		935		
	19,769				19,769
			395		395
			540		540

Loans and receivables and liabilities carried at amortized cost also include receivables and liabilities under finance leases where Bayer is the lessor or lessee and which therefore have to be measured in accordance with IAS 17.

The fair value stated for receivables, loans, held-to-maturity financial investments and primary liabilities is the present value of the respective future cash flows. This is determined by discounting the cash flows at a closing-date interest rate that takes into account the term of the assets or liabilities and the creditworthiness of the counterparty. If a market price is available, however, this is deemed to be the fair value.

Because of the short maturities of most trade accounts receivable and payable, other receivables and liabilities, and cash and cash equivalents, their carrying amounts at the balance sheet date do not differ significantly from the fair values.

Income, expense, gains and losses on financial instruments can be assigned to the following categories:

	2008					
	Loans and receivables	Held-to-maturity investments	Available-for-sale financial assets	Held for trading (derivatives only)	Liabilities carried at amortized cost	Total
	€ million	€ million	€ million	€ million	€ million	€ million
Interest income	123	10	1	370	24	528
Interest expense	-	-	-	(295)	(917)	(1,212)
Income from affiliated companies	-	-	-	-	-	-
Changes in fair value	-	-	-	12	-	12
Impairment charges	(114)	(27)	(14)	-	-	(155)
Income from write-backs	92	-	-	-	-	92
Gains/losses from retirements	-	-	(7)	-	-	(7)
Other non-operating income and expense	17	-	-	-	(22)	(5)
<b>Net result</b>	<b>118</b>	<b>(17)</b>	<b>(20)</b>	<b>87</b>	<b>(915)</b>	<b>(747)</b>



						2007
	Loans and receivables	Held-to-maturity investments	Available-for-sale financial assets	Held for trading (derivatives only)	Liabilities carried at amortized cost	Total
	€ million	€ million	€ million	€ million	€ million	€ million
Interest income	243	9	9	114	350	725
Interest expense	-	-	-	(107)	(1,288)	(1,395)
Income from affiliated companies	-	-	-	-	-	-
Changes in fair value	-	-	-	1	-	1
Impairment charges	(107)	-	(27)	-	-	(134)
Income from write-backs	83	-	-	-	-	83
Gains/losses from retirements	-	-	1	-	-	1
Other non-operating income and expense	12	-	(1)	-	1	12
<b>Net result</b>	<b>231</b>	<b>9</b>	<b>(18)</b>	<b>8</b>	<b>(937)</b>	<b>(707)</b>

The column headed “Held for trading” consists almost entirely of interest income and expenses relating to interest-rate and cross-currency interest-rate hedges that do not qualify for hedge accounting. Further information is provided in Note [13.2].

### 30.2 Maturity analysis

As of the reporting date, the liquidity risk to which the Bayer Group was exposed from its financial instruments comprises obligations relating to future interest and repayment installments for financial liabilities and the liquidity risk arising from derivatives, as shown in the table in Note [30.3].

The carrying amount of bonds includes €2,296 million (2007: €2,285 million) for the mandatory convertible bond. The future interest payments on this bond are stated. There will be no repayments because the bond will be converted into equity.

As of the reporting date, there was an unpaid portion of the effective initial fund of Bayer-Pensionskasse amounting to €490 million, which may result in further payments by Bayer AG in subsequent years.

	Dec. 31, 2008	Cash flows January–March 2009		Cash flows April–December 2009	
	Carrying amount	Interest	Repayment	Interest	Repayment
	€ million	€ million	€ million	€ million	€ million
<b>Financial liabilities</b>					
Bonds and notes	10,729	48	460	462	1,600
Liabilities to banks	4,438	34	610	82	799
Remaining liabilities	868	4	185	22	126
Trade accounts payable	2,377	-	2,280	-	97
<b>Other liabilities</b>					
Accrued interest on liabilities	321	202	-	102	-
Remaining liabilities	1,036	2	633	10	197
<b>Liabilities from derivatives</b>					
Derivatives that qualify for hedge accounting	395	5	2	13	31
Derivatives that do not qualify for hedge accounting	540	(51)	64	92	181
<b>Receivables from derivatives</b>					
Derivatives that qualify for hedge accounting	248	-	148	1	-
Derivatives that do not qualify for hedge accounting	468	(56)	171	81	92

	Dec. 31, 2007	Cash flows January–March 2008		Cash flows April–December 2008	
	Carrying amount	Interest	Repayment	Interest	Repayment
	€ million	€ million	€ million	€ million	€ million
<b>Financial liabilities</b>					
Bonds and notes	10,411	45	170	514	20
Liabilities to banks	3,032	58	386	41	501
Remaining liabilities	520	2	153	15	34
Trade accounts payable	2,466	-	2,333	-	123
<b>Other liabilities</b>					
Accrued interest on liabilities	451	346	-	93	-
Remaining liabilities	1,778	30	734	2	992
<b>Liabilities from derivatives</b>					
Derivatives that qualify for hedge accounting	106	14	8	(3)	-
Derivatives that do not qualify for hedge accounting	386	8	42	(1)	57
<b>Receivables from derivatives</b>					
Derivatives that qualify for hedge accounting	134	10	41	(6)	30
Derivatives that do not qualify for hedge accounting	451	9	90	7	22

	Cash flows 2010		Cash flows 2011		Cash flows 2012		Cash flows 2013		Cash flows 2014–2018		Cash flows after 2018	
	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
	309	379	305	400	286	2,356	163	1,079	359	1,929	159	251
	106	274	55	1,433	43	121	31	131	52	1,067	-	3
	25	35	24	75	23	31	19	219	45	182	15	22
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	17	-	-	-	-	-	-	-	-	-
	10	42	2	20	1	19	-	1	-	4	-	120
	3	24	4	27	76	24	5	-	39	150	-	-
	55	47	27	59	-	41	11	47	9	27	-	-
	1	3	-	-	87	-	-	-	11	-	-	-
	77	75	27	-	-	-	7	-	3	-	-	-

	Cash flows 2009		Cash flows 2010		Cash flows 2011		Cash flows 2012		Cash flows 2013–2017		Cash flows after 2017	
	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment
	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million	€ million
	500	2,055	301	361	296	200	285	2,272	482	2,436	193	714
	88	270	78	63	41	1,347	24	72	46	385	1	8
	18	31	15	23	14	20	13	20	20	223	4	16
	-	9	-	1	-	-	-	-	-	-	-	-
	-	-	9	-	3	-	-	-	-	-	-	-
	-	11	-	27	-	1	-	2	-	6	-	5
	10	-	10	-	10	-	(16)	69	(6)	-	(1)	29
	11	100	12	72	11	1	3	51	15	63	-	-
	14	-	3	-	2	-	2	-	(1)	-	-	-
	18	130	17	103	16	2	3	1	3	5	-	5

### 30.3 Information on derivatives

Fair value hedges are used to eliminate the risk of fluctuations in market value, especially on fixed-interest borrowings, by obtaining a variable interest rate. Essentially these fair value hedges relate to the €2 billion bond issued in 2002 and the €1.3 billion bond issued in 2005.

The ineffective portion of fair value hedges amounts to €2 million (2007: €1 million).

Fluctuations in future cash flows resulting from forecasted foreign currency transactions are avoided by designating cash flow hedges. Cash flow hedges may also be used to reduce exposure to fluctuations in future cash flows resulting from price changes on procurement markets. The notional volumes in these two categories are €2,948 million and €140 million (2007: €1,294 million and €293 million), respectively.

Other comprehensive income decreased by €64 million after taxes in 2008 due to negative changes in the fair values of derivatives designated as cash flow hedges (2007: increased by €124 million due to positive changes). In 2008, an amount of €47 million (2007: €65 million) representing changes in the fair values of derivatives designated as cash flow hedges, having originally been recognized in other comprehensive income, was released to the income statement. Similarly, pro-rated deferred taxes of €14 million (2007: €19 million) previously reflected in other comprehensive income were recognized as deferred tax expenses. No ineffective portions of hedges had to be recognized in the income statement in 2008 or 2007.

An amount of €15 million (2007: €22 million) is expected to be reclassified from other comprehensive income to the income statement during 2009. The realization of all forecasted transactions is considered highly probable.

The market values of contracts existing at year end in the major categories were as follows:

	Dec. 31, 2007			Dec. 31, 2008		
	Notional amount	Fair value		Notional amount	Fair value	
		Positive fair value	Negative fair value		Positive fair value	Negative fair value
	€ million	€ million	€ million	€ million	€ million	€ million
<b>Currency hedging of recorded transactions</b>	<b>5,523</b>	<b>136</b>	<b>(54)</b>	<b>7,498</b>	<b>240</b>	<b>(421)</b>
Forward exchange contracts	4,572	77	(24)	5,342	193	(169)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	-	-	-	340	-	(52)
Currency options	34	2	(1)	-	-	-
of which FV hedges	-	-	-	-	-	-
of which CF hedges	-	-	-	-	-	-
Cross-currency interest-rate swaps	917	57	(29)	2,156	47	(252)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	874	57	(29)	1,535	41	(161)
<b>Currency hedging of forecasted transactions</b>	<b>1,294</b>	<b>69</b>	<b>(7)</b>	<b>2,948</b>	<b>152</b>	<b>(87)</b>
Forward exchange contracts	1,294	69	(7)	2,948	152	(87)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	1,273	68	(7)	2,948	147	(87)
Currency options	-	-	-	-	-	-
of which FV hedges	-	-	-	-	-	-
of which CF hedges	-	-	-	-	-	-
<b>Interest-rate hedging of recorded transactions</b>	<b>8,703</b>	<b>99</b>	<b>(183)</b>	<b>10,937</b>	<b>214</b>	<b>(191)</b>
Interest-rate swaps	7,703	95	(183)	8,937	211	(188)
of which FV hedges	1,719	7	(69)	1,510	59	-
of which CF hedges	-	-	-	-	-	-
Interest-rate options	1,000	4	-	2,000	3	(3)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	-	-	-	-	-	-
<b>Commodity price hedging</b>	<b>293</b>	<b>247</b>	<b>(219)</b>	<b>140</b>	<b>81</b>	<b>(223)</b>
Forward commodity contracts	208	86	(70)	94	37	(180)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	8	2	(1)	31	1	(95)
Commodity option contracts	85	161	(149)	46	44	(43)
of which FV hedges	-	-	-	-	-	-
of which CF hedges	-	-	-	-	-	-
<b>Total</b>	<b>15,813</b>	<b>551</b>	<b>(463)</b>	<b>21,523</b>	<b>687</b>	<b>(922)</b>
of which short-term derivatives	6,071	180	(79)	8,962	410	(268)
for currency hedging	5,878	142	(30)	8,853	306	(190)
for interest-rate hedging	-	-	-	27	47	(1)
for commodity hedging	193	38	(49)	82	57	(77)

## 31. Contingencies and other financial commitments

Contingent liabilities relate to potential future events which, although regarded as improbable on the reporting date, cannot be ruled out and would create an obligation if they occurred.

Contingent liabilities result entirely from commitments entered into on behalf of third parties and comprise:

	Dec. 31, 2007	Dec. 31, 2008
	€ million	€ million
Issuance and endorsement of bills	10	-
Warranties	51	114
Miscellaneous	82	591
<b>Total</b>	<b>143</b>	<b>705</b>

As of the reporting date, there was an unpaid portion of the effective initial fund of Bayer-Pensionskasse amounting to €490 million, which could result in further payments by Bayer AG in future years.

Under the German Transformation Act, Bayer AG and Lanxess AG are jointly and severally liable for all obligations of Bayer AG that existed on January 28, 2005. To the extent that certain obligations were not assigned to Bayer AG under the Spin-off and Acquisition Agreement, dated September 22, 2004, between Bayer AG and Lanxess AG, Bayer AG ceases to be liable for such obligations after a five-year period. The Master Agreement, entered into between the same parties contemporaneously with the Spin-Off and Acquisition Agreement, includes corresponding indemnification obligations of Bayer AG and Lanxess AG. It also contains provisions dealing with the apportionment of liabilities arising from product liability claims, environmental claims and antitrust violations as between the contracting parties.

In addition to provisions, other liabilities and contingent liabilities, there are also other financial commitments. These mainly relate to leasing agreements and long-term rentals.

Minimum non-discounted future payments relating to operating leases total €685 million (2007: €479 million). The respective payment obligations mature as follows:

Maturing in	Dec. 31, 2007	Maturing in	Dec. 31, 2008
	€ million		€ million
2008	124	2009	205
2009	104	2010	145
2010	81	2011	113
2011	63	2012	81
2012	52	2013	65
2013 or later	55	2014 or later	76
<b>Total</b>	<b>479</b>	<b>Total</b>	<b>685</b>

Financial commitments resulting from orders already placed under purchase agreements related to planned or ongoing capital expenditure projects total €300 million (2007: €256 million).

In addition, the Group has entered into research agreements with a number of third parties under which Bayer has agreed to fund various research projects or has assumed other commitments based on the achievement of certain milestones or other specific conditions. The total amount of such funding and other commitments is €915 million (2007: €932 million). At December 31, 2008, the remaining payments expected to be made to these parties, assuming the milestones or other conditions are met, were as follows:

Maturing in	Dec. 31, 2007	Maturing in	Dec. 31, 2008
	€ million		€ million
2008	159	2009	127
2009	181	2010	93
2010	59	2011	110
2011	83	2012	133
2012	69	2013	71
2013 or later	381	2014 or later	381
<b>Total</b>	<b>932</b>	<b>Total</b>	<b>915</b>

## 32. Legal risks

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, patent disputes, tax assessments, and environmental matters. The outcome of any current or future proceedings cannot be predicted with certainty. It is therefore possible that legal or regulatory judgments could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect our revenues and earnings.

Legal proceedings currently considered to involve material risks are outlined below. The legal proceedings referred to do not necessarily represent an exhaustive list.

### Bayer HealthCare

#### Product-related litigation

**Lipobay/Baycol:** As of February 2, 2009, approximately 236 Lipobay/Baycol cases, 200 of them in the United States, remain pending against Bayer worldwide, claiming economic loss, medical monitoring, and personal injury. We are currently aware of fewer than five pending cases in the United States that in our opinion meet our criteria for potential settlement.

The class-action lawsuit which had been filed by shareholders in connection with Lipobay/Baycol has been resolved for a payment by Bayer of a total of US\$ 18.5 million.

**Magnevist®:** As of February 2, 2009, Bayer has been served in a total of 241 lawsuits in the United States involving the gadolinium-based contrast agent Magnevist®. Three other manufacturers of gadolinium-based contrast agents in the United States also have been named party to the same or similar lawsuits. Additional cases are anticipated.

In the lawsuits, plaintiffs allege that patients developed nephrogenic systemic fibrosis (NSF) as a result of the use of Magnevist® during medical imaging procedures. NSF is a rare, severe condition that can be debilitating and in some cases fatal. Plaintiffs seek compensatory and punitive damages under theories of strict liability and negligence and/or breach of warranty, claiming that the product is defective and unreasonably dangerous, that Bayer knew or should have known of the risks associated with Magnevist®, and has failed to disclose or adequately warn its users.

All cases pending in federal courts have been consolidated in a multidistrict litigation (MDL) proceeding for common pre-trial management. Bayer believes that it has meritorious defenses and intends to defend itself vigorously. Based on the information currently available, Bayer has taken accounting measures for anticipated defense costs.

**Trasylol®** (aprotinin) is a drug approved for use in managing bleeding in patients undergoing coronary artery bypass graft surgery. As of February 2, 2009, there were 470 lawsuits pending in the United States served upon Bayer on behalf of persons alleging personal injuries, including renal failure and death, and economic loss from the use of Trasylol®. Bayer also has been served with a class action in Canada. Plaintiffs in both the U.S. and Canadian cases seek compensatory and punitive damages, claiming that Bayer knew or should have known of these risks and is liable for having failed to disclose or adequately warn users of Trasylol®. All cases pending in U.S. federal courts have been consolidated in a multidistrict litigation (MDL) proceeding for common pre-trial management. Additional cases are anticipated.

In 2006 and 2007 observational studies reported on a possible correlation between the administration of Trasylol® and severe renal dysfunction, myocardial infarction, stroke and an increase in mortality. In November 2007, Bayer temporarily suspended worldwide marketing of Trasylol® after preliminary results from an independent clinical study in Canada raised concerns about a possible increased risk of mortality in patients who had received Trasylol®. The marketing suspension will remain in effect until the final results from the Canadian study have been analyzed and the benefit-risk assessment for Trasylol® can be re-evaluated together with the health authorities. In some countries, including the United States, Trasylol® continues to be available to certain surgical patients with an established medical need. We are closely cooperating with health authorities to resolve the questions that have arisen.

Bayer believes it has meritorious defenses and intends to defend itself vigorously. Based on the information currently available, Bayer has taken accounting measures for anticipated defense costs.

**HIV/HCV:** Numerous actions are pending against Bayer in the United States and other countries seeking damages for plaintiffs resident outside of the United States who claim to have become infected with HIV or HCV (hepatitis C virus) through use of blood plasma products sold by Bayer. Additional actions are pending by U.S. residents who claim to have been infected with HCV. Bayer believes it has meritorious defenses.

#### **Competition law proceedings**

**Diabetes Care investigation:** The United States Department of Justice had conducted an investigation into Bayer HealthCare's Diabetes Care Division regarding the manner in which Bayer provided business development funds from 1998 to 2003 to certain customers who marketed and sold Bayer blood glucose meters and test strips to patients. In November 2008, Bayer agreed to a settlement with the U.S. Department of Justice in order to avoid the time, uncertainty and expense of litigation. Without acknowledging liability, Bayer agreed to pay US\$ 97.5 million to the U.S. government, and to enter into a Corporate Integrity Agreement with the Office of Inspector General for the Department of Health and Human Services.



**Cipro®:** 39 putative class action lawsuits and one individual lawsuit against Bayer involving the medication Cipro® have been pending in the United States since 2000. The plaintiffs are suing Bayer and other companies also named as defendants, alleging that a settlement to end patent litigation reached in 1997 between Bayer and Barr Laboratories, Inc. violated antitrust regulations. The plaintiffs claim the alleged violation prevented the marketing of generic ciprofloxacin as of 1997. In particular, they are seeking triple damages under U.S. law. After the settlement with Barr the patent was the subject of a successful re-examination by the U.S. Patent and Trademark Office and of successful defenses in U.S. federal courts. It has since expired.

All the actions pending in federal courts were consolidated in federal district court in New York in a multidistrict litigation (MDL) proceeding. In October 2008, the Court of Appeals for the Federal Circuit in Washington D.C. affirmed the 2005 ruling of the United States District Court in New York dismissing all lawsuits filed in federal court. The recent appellate decision affirmed the dismissal of various lawsuits brought by indirect purchaser plaintiffs in federal courts. Another appeal remains pending concerning the claims brought by direct purchasers of Cipro®. These claims also were dismissed by the federal district court, but the appellate court in New York has jurisdiction for the appeal of these lawsuits. Further cases are pending before various state courts. Bayer believes that it has meritorious defenses and intends to defend itself vigorously.

#### Patent disputes

**Yasmin®:** In April 2005, Bayer filed suit against Barr Pharmaceuticals Inc. and Barr Laboratories Inc. in U.S. federal court alleging patent infringement by Barr for the intended generic version of Bayer's Yasmin® oral contraceptive product in the United States. In June 2005, Barr filed its counterclaim seeking to invalidate Bayer's patent. In March 2008, the U.S. federal court invalidated Bayer's '531 patent for Yasmin®. Bayer has appealed this ruling.

In June 2008, Bayer and Barr Laboratories Inc. signed a supply and licensing agreement for Yasmin® covering the United States. Bayer supplies Barr with a generic version of Yasmin® which Barr markets solely in the United States. Barr pays Bayer a fixed percentage of the revenues from the product sold by Barr. Bayer continues to pursue its appeal of the court decision that invalidated Bayer's U.S. patent '531 for Yasmin®. If Bayer prevails in its appeal, Bayer will receive a larger share of Barr's revenues from sales of its generic version of Yasmin® in the United States.

In March 2008 Bayer received two notices of an Abbreviated New Drug Application with a Paragraph IV certification (an "ANDA IV") pursuant to which Watson Laboratories Inc. and Sandoz Inc. each seek approval to market a generic version of Bayer's oral contraceptive Yasmin® in the United States. Bayer has filed suit against Watson and Sandoz in U.S. federal court alleging patent infringement by Watson and Sandoz for the intended generic version of Yasmin®. In reply, Sandoz has filed its answer and counterclaim alleging, among other things, the invalidity of various Bayer patents and that the agreement reached with Barr is anticompetitive and violates the Sherman Act antitrust law.

**YAZ®:** In January 2007, Bayer received notice from Barr Laboratories Inc. that it has filed an ANDA paragraph IV application with the U.S. FDA seeking approval of a generic version of Bayer's YAZ® oral contraceptive. In October 2007 Bayer also received notice from Watson Laboratories Inc. that it has filed an ANDA IV with the U.S. FDA seeking approval of a generic version of YAZ®. In June/July 2008 Bayer further received notice from Sandoz Inc. that it has filed an ANDA IV with the U.S. FDA seeking approval of a generic version of YAZ®. All three applications claim that Bayer's patents are invalid and/or that the respective generic product does not infringe them. Bayer has filed patent infringement suits against Watson and Sandoz claiming that certain of Bayer's patents have been infringed. Originally, Bayer included the '531 patent in its first suit against Watson. After the court decision in the suit against Barr regarding Yasmin®, Bayer had to exclude the '531 patent from the suit against Watson. If Bayer prevails in its appeal against the

court decision regarding Yasmin<sup>®</sup>, Bayer will evaluate its options to use the '531 patent. However, regardless of these patent disputes, Bayer retains data exclusivity for YAZ<sup>®</sup> as an oral contraceptive in the U.S. until March 16, 2009. No generic manufacturer can lawfully market a generic version of YAZ<sup>®</sup> for an oral contraceptive indication in the United States until after March 16, 2009.

In June 2008, Bayer and Barr agreed that Bayer will grant Barr a license to market a generic version of YAZ<sup>®</sup> in the United States starting July 2011. Bayer will supply Barr with the product for this purpose. Should Bayer lose patent lawsuits in the United States against other companies concerning YAZ<sup>®</sup>, at that time Bayer will begin supplying the product to Barr and Barr will begin marketing generic YAZ<sup>®</sup> in the United States. Barr will pay Bayer a fixed percentage of the revenues from the product sold by Barr.

**Blood glucose monitoring devices:** In 2005, Abbott Laboratories commenced a lawsuit in the United States against Bayer and another party alleging infringement of two of Abbott's patents relating to blood glucose monitoring devices. The devices concerned are sold by Bayer as part of its Ascensia<sup>®</sup> Contour<sup>®</sup> system and its DEX<sup>®</sup> and Autodisc<sup>®</sup> system. The Ascensia<sup>®</sup> Contour<sup>®</sup> system is supplied to Bayer by a Japanese manufacturer, who originally designed the product and is contractually obligated to indemnify Bayer. Abbott added a separate claim of infringement against the devices sold by Bayer as part of its DEX<sup>®</sup> and Autodisc<sup>®</sup> system. Bayer is not entitled to indemnification on this separate claim. In 2008 the court granted summary judgment in favor of Bayer with regard to one of the two patents and held the patent claims at issue invalid. After a trial on the issue of invalidity, the court also held the second patent invalid. Abbott has appealed both decisions.

In 2007, Roche Diagnostics Operations and Corange International commenced a lawsuit in the United States against Bayer and several other parties alleging infringement of two of Roche's patents relating to blood glucose monitoring devices. Two of the accused devices are sold by Bayer as part of its Breeze<sup>®</sup> 2 and Contour<sup>®</sup> systems. Bayer believes that these patents are covered by an existing license agreement between the parties, and the litigation has been dismissed in favor of an arbitration under this earlier license agreement. The arbitration proceeding is currently pending. Roche has added to the arbitration four additional patents which Roche alleges the Bayer Contour<sup>®</sup> systems infringe.

**Kogenate<sup>®</sup>:** In 2008, Novartis Vaccines and Diagnostics Inc. and Novo Nordisk A/S commenced a patent infringement suit in the United States alleging that Bayer's manufacturing and marketing of the recombinant Factor VIII product Kogenate<sup>®</sup> infringe a substance patent granted in 2006. The suit primarily seeks damages. Bayer does not believe that it has infringed any valid patent.

Bayer believes it has meritorious defenses in these patent disputes and intends to defend itself vigorously.

#### Further legal proceedings

**Wholesale prices in the u.s.:** Bayer and a number of pharmaceutical companies in the United States are defendants in pending lawsuits in which plaintiffs, including states, are alleging manipulation in the reporting of wholesale prices and/or best prices for their prescription pharmaceutical products. The plaintiffs seek damages, including disgorgement of profits and punitive damages. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

**Bayer Schering Pharma AG former shareholder litigation:** In September 2008, the squeeze-out of the former minority shareholders of Bayer Schering Pharma AG became effective. As usual in such cases, several shareholders have initiated special court proceedings to review the adequacy of the compensation payments made by Bayer for the transfer of the shares in the squeeze-out. The adequacy of the compensation and the guaranteed dividend paid by Bayer in connection with the Bayer Schering Pharma AG profit and loss transfer agreement made in 2006 is also being reviewed by the courts. (Please note that Bayer Schering Pharma AG and Schering-Plough Corporation, New Jersey, are unaffiliated companies that have been independent of each other for many years. The names "Bayer Schering Pharma" or "Schering" as used in this Annual Re-

port always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively).

## Bayer CropScience

**Proceedings involving genetically modified rice:** Since August 2006, Bayer CropScience has been party to multiple lawsuits, including putative class actions, filed in U.S. federal and state courts by rice farmers and resellers. Plaintiffs allege that they have suffered economic losses after traces of genetically modified rice were identified in samples of conventional long-grain rice grown in the U.S. This is alleged to have led to various commercial damages, including a decline in the commodity price for long-grain rice, costs associated with restrictions on imports and exports, and costs to secure alternative supplies. All the actions pending in federal court were consolidated in December 2006 in federal district court in Missouri in a multidistrict litigation (MDL) proceeding. In 2008, this court denied plaintiffs' request to certify a class action. Plaintiffs' subsequent request for interim appeal was denied by the appellate court.

In development of the genetically modified rice, field testing was conducted in cooperation with third parties, including a breeding research institute in the U.S. The genetically modified rice was never commercialized.

The USDA and the FDA have stated that the genetically modified rice does not present a health risk and is safe for use in food and feed and for the environment. Additionally, in October 2007, the USDA released its report concerning its investigation into how the genetically modified rice entered the commercial rice supply. The USDA was unable to determine a cause and indicated it would not pursue any enforcement actions against Bayer CropScience or any other party.

Bayer believes it has meritorious defenses in these actions and intends to continue to defend itself vigorously. Bayer has taken accounting measures for anticipated defense costs based on the information currently available.

**Limagrain:** In France, Limagrain had filed suit against Bayer for indemnity against liabilities to third parties arising from an alleged breach of a 1986 contract. In March 2008 the Commercial Court in Paris as the court of first instance dismissed all claims of Limagrain. Limagrain did not appeal and the court decision has become final.

**Asbestos:** A further risk may arise from asbestos litigation in the United States. In many cases, the plaintiffs allege that Bayer and co-defendants employed third parties on their sites in past decades without providing them with sufficient warnings or protection against the known dangers of asbestos. Additionally, a Bayer affiliate in the United States is the legal successor to companies that sold asbestos products until 1976. Union Carbide has agreed to indemnify Bayer for this liability. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

**Premise®:** Bayer, among others, had been named as a defendant in a putative nationwide class action filed in federal court in North Carolina, United States, which alleges violations of antitrust laws in the marketing of a certain pest control product (Premise®). In 2007, the court granted summary judgment in favor of the defendants and plaintiffs have appealed. Bayer believes it has meritorious defenses and intends to continue to defend itself vigorously.

## Bayer MaterialScience

### Antitrust proceedings in connection with polymers

All proceedings by authorities reported in the past relating to rubber, polyester polyols, polyether polyols, urethanes, urethane chemicals and other primary products for urethane end products in which fines were expected have since been terminated.

In addition, subject to few exceptions, all civil law suits for damages relating to proceedings by authorities in North America have been settled. Bayer no longer considers the remaining risks to be material.

In Europe, the European Commission imposed fines upon Bayer or granted Bayer full amnesty in antitrust investigations concerning the products rubber chemicals, butadiene rubber, emulsion styrene butadiene rubber, polychloroprene rubber and nitrile butadiene rubber. However, civil law lawsuits for damages have been filed. In February 2008, a group of plaintiffs who are primarily producers of tires brought an action for damages before the High Court of Justice in the United Kingdom against Bayer and other producers of butadiene rubber and emulsion styrene butadiene rubber based on alleged violations of antitrust law. In June 2008, Bayer filed its defense with the High Court. Due to a parallel proceeding initiated before a court in Milan, to which Bayer joined as intervenient, the question arises as to which jurisdiction is competent to judge the case. In August 2008, The Goodyear Tire & Rubber Company filed an amended complaint in a U.S. federal court alleging that Bayer and other producers of butadiene rubber and styrene butadiene rubber violated antitrust law. The complaint seeks, among other things, treble damages. In September 2008, Bayer filed a motion asking the court to dismiss Goodyear's complaint for failure to state a cause of action. A class action alleging antitrust violations in connection with rubber products was filed in Australia in 2008. While the Australian action was struck out in October 2008, the plaintiffs filed an amended claim in November 2008. This proceeding is still at a very early stage.

Bayer is defending itself in the European, U.S. and Australian litigation. The financial risk from these proceedings cannot currently be quantified. Therefore, Bayer is unable to take any accounting measures in this regard.

It remains possible that further civil antitrust lawsuits for damages may be filed concerning these products.

### Proceedings involving propylene oxide

In 2006, a U.S. arbitration panel issued a final award in favor of Lyondell Chemical Co. in respect of a dispute with Bayer over interpretation of their Joint Venture Agreement for the manufacture of propylene oxide. Subsequently, Bayer sought to vacate the final award and filed additional claims against Lyondell.

In December 2008, Bayer and Lyondell concluded a settlement agreement which disposed of all previous claims among the parties.

**Personal injury litigation**

**MDI:** In the United States, Bayer, together with other manufacturers, resellers and applicators, is a defendant in multiple cases, including a putative class action, that seek damages for personal injuries allegedly resulting from exposure to diphenylmethane diisocyanate (MDI) based products used in coal mines. In one case the plaintiffs allege that they were also exposed to TDI and HDI based products. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

**Baytown:** In 2006, a high pressure rupture of a holding tank interrupted operation of the toluene diisocyanate II unit at the Baytown, Texas facility. After the rupture, 61 contractor employees filed a lawsuit against Bayer in Texas state court seeking damages for personal injuries. The claims of 57 of the plaintiffs have been settled. Bayer believes the legal risks remaining are no longer material.

**Liability considerations following the Lanxess spin-off**

The liability situation following the spin-off of the Lanxess subgroup is governed by both statutory and contractual provisions. Under the German Transformation Act, all entities that are parties to a spin-off are jointly and severally liable for obligations of the transferor entity that are established prior to the spin-off date. Bayer AG and Lanxess AG are thus jointly and severally liable for a time period of five years for all obligations of Bayer AG that existed on January 28, 2005.

## NOTES TO THE STATEMENTS OF CASH FLOWS

The cash flow statement shows how the liquidity of the Bayer Group was affected by the inflow and outflow of cash and cash equivalents during the year. The effects of changes in the scope of consolidation are stated separately. Cash flows are classified by operating, investing and financing activities in accordance with IAS 7 (Cash Flow Statements). The cash and cash equivalents shown in the cash flow statement comprise cash, checks and balances with banks and public-sector entities. Also included are financial instruments with an original maturity of up to three months.

The amounts reported by consolidated companies outside the euro zone are translated at average exchange rates for the year, with the exception of cash and cash equivalents, which are translated at closing rates as in the balance sheet. The effect of changes in exchange rates on cash and cash equivalents is shown separately.

Cash and cash equivalents contain both the proceeds from divestitures of discontinued operations and the cash inflows from these operations prior to the divestitures. In principle, therefore, the statement of cash flows must account for all cash inflows and outflows from continuing and discontinued operations. However, IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations) specifies that cash flows from operating, investing and financing activities be classified by continuing and discontinued operations. The discontinued operations' shares of the cash flows from operating, investing and financing activities are stated separately in Note [6.3].

In both the balance sheet and the income statement, however, the amounts corresponding to the components of the net operating cash flow are shown for continuing operations only. This is the case, for example, with the amounts of inventories, receivables and payables recognized in the balance sheet that determine the changes in working capital shown in the cash flow statement. The income from continuing operations after taxes that is recognized in the income statement forms the starting point for the cash flow statement. To ensure that the operating activities are consistently presented in the cash flow statement, income statement and balance sheet, the net operating cash flow from continuing operations is stated first on the face of the cash flow statement. The total net operating cash flow from discontinued operations is shown in the next line, by analogy with the presentation of the income statement. The cash flows from continuing and discontinued operations are added together to give the net operating cash flow (total) for the entire business.

### 33. Net cash provided by (used in) operating activities

The gross cash flow for 2008 of €5,295 million (2007: €4,784 million) is the cash surplus from operating activities before any changes in working capital. The cash flows by segment are shown in the table in Note [1].

The net operating cash flow from continuing operations of €3,608 million (2007: €4,281 million) takes into account the changes in working capital and other non cash-relevant transactions. The €2 million net cash flow from discontinued operations in 2007 comprised operating cash flows from the H. C. Starck and Wolff Walsrode business units and the diagnostics business. The total net cash flow for 2008 was €3,608 million (2007: €4,283 million).

The line "Non-cash effects of the remeasurement of acquired assets (inventory work-down)" has been inserted in the cash flow statement in order to eliminate the effects of the Schering purchase price allocation from gross cash flow. Thus, the non-cash effect of the work-down of the step-up from the remeasurement of Schering inventories to fair value as of June 23, 2006, the date of acquisition, on the gross cash flow is reversed. In 2008, €208 million (2007: €215 million) was transferred to this line from "Decrease/Increase in inventories."

Income-tax-related cash flows of €1,073 million are reflected in the net cash flow for 2008 (2007: €1,151 million). The changes in income tax liabilities, income tax provisions and claims for reimbursement of income taxes are shown in the line “Changes in other working capital, other non-cash items.”

### 34. Net cash provided by (used in) investing activities

Net cash outflow for investing activities in 2008 amounted to €3,089 million (2007: €3,186 million net inflow).

Cash outflows for additions to property, plant and equipment and intangible assets in 2008 came to €1,759 million (2007: €1,860 million). Disbursements for property, plant and equipment and intangible assets included those for the expansion of the production site for polymer products in Shanghai, China, and the acquisition of the hematology portfolio of Maxygen Inc. Receipts from the sale of property, plant and equipment and other assets amounted to €167 million (2007: €165 million).

The net cash outflow relating to divestitures amounting to €41 million in 2008 principally includes tax payments in connection with the divestment of the diagnostics business and a subsequent purchase price payment from the sale of Wolff Walsrode.

In addition, acquisitions resulted in cash outflows of €1,617 million (2007: €491 million). The main acquisitions were those of Possis Medical Inc., United States, the eastern European OTC business of Sagemel Inc., the OTC business of the Topsun group, China, and of Direvo Biotech AG, Germany. Cash outflows for acquisitions also included €695 million related to the acquisition of the remaining shares of Bayer Schering Pharma AG. Following registration of the squeeze-out, the remaining minority stockholders received a cash compensation payment of €98.98 per share. Further details of acquisitions and divestitures are given in Notes [6.2] and [6.3], respectively.

Cash outflows for noncurrent financial assets amounted to €390 million (2007: inflow of €70 million).

### 35. Net cash provided by (used in) financing activities

In fiscal 2008 there was a net cash outflow of €873 million (2007: €7,730 million) for financing activities. Net borrowings amounted to €1,525 million.

Cash outflows for dividend payments amounted to €1,126 million (2007: €773 million), including €84 million in withholding tax on intragroup dividends. Interest expense decreased to €1,272 million (2007: €1,344 million).

## 36. Cash and cash equivalents

Cash and cash equivalents comprise cash, checks and balances with banks and public-sector entities. In accordance with IAS 7 (Cash Flow Statements) this item also includes securities with original maturities of up to three months, reflecting their high liquidity. Cash and cash equivalents amounted to €2,094 million as of December 31, 2008 (2007: €2,531 million). Cash of €57 million (2007: €755 million) has been deposited in escrow accounts for payments relating to civil law settlements in antitrust proceedings.

### OTHER INFORMATION

## 37. Audit fees

The following fees for the services of the auditor of the consolidated financial statements, PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Essen, Germany, were recognized as expenses:

	2007	2008
	€ million	€ million
Financial statements auditing	9	6
Audit-related services and other audit work	2	2
Tax consultancy	-	-
Other services rendered to Bayer AG or subsidiaries	-	-
<b>Total</b>	<b>11</b>	<b>8</b>

The fees for the auditing of financial statements mainly comprise those for the audits of the consolidated financial statements of the Bayer Group and the financial statements of Bayer AG and its German subsidiaries. Fees for audit-related services and other audit work primarily relate to audit work in connection with acquisitions and divestitures, audits of the internal control system including project audits in connection with the implementation of new IT systems, and auditor reviews of interim financial statements.

## 38. Related parties

Related parties as defined in IAS 24 (Related Party Disclosures) are those legal entities and natural persons that are able to exert influence on Bayer AG and its subsidiaries or over which Bayer AG or its subsidiaries exercise control or have a significant influence. They include, in particular, non-consolidated subsidiaries, joint ventures, associates and post-employment benefit plans, and also the corporate officers of Bayer AG whose remuneration is reported in Note [39].

Transactions with non-consolidated subsidiaries, joint ventures, associates and post-employment benefit plans are carried out on an arm's-length basis.



The following table shows the volume of transactions with related parties that are included in the consolidated financial statements of the Bayer Group at equity or amortized cost and with post-employment benefit plans:

	Income		Receivables		Liabilities	
	2007	2008	2007	2008	2007	2008
	€ million	€ million	€ million	€ million	€ million	€ million
Non-consolidated subsidiaries	12	14	10	10	(53)	(67)
Joint ventures	54	37	10	3	(2)	-
Associates	123	22	37	15	(58)	(18)
Post-employment benefit plans	-	-	150	460	-	-

Bayer AG has undertaken to provide profit-sharing capital in the form of an interest-bearing loan totaling €150 million for the Bayer-Pensionskasse. The entire amount was drawn as of December 31, 2007 and 2008. In addition, loan capital of €310 million was provided in 2008 to Bayer-Pensionskasse for its effective initial fund.

No write-downs were made in either 2008 or 2007 on receivables from related parties.

### 39. Total remuneration of the Board of Management and the Supervisory Board and loans

The remuneration of the Supervisory Board amounted to €2,295 thousand (2007: €2,347 thousand), including €765 thousand (2007: €782 thousand) in variable components.

The following table shows the remuneration components of the individual members of the Board of Management in 2008.

		Werner	Klaus	Wolfgang	Richard	Total
		Wenning	Kühn	Plischke	Pott	
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Base salary	2008	794	437	437	437	2,105
	2007	749	413	412	412	1,986
Fixed supplement	2008	344	336	181	181	1,042
	2007	325	316	171	171	983
Remuneration in kind and other benefits	2008	61	36	38	33	168
	2007	51	36	25	33	145
<b>Non-performance-related remuneration</b>	2008	1,199	809	656	651	3,315
	2007	1,125	765	608	616	3,114
Short-term incentive	2008	2,105	1,305	1,044	1,044	5,498
	2007	2,169	1,380	1,110	1,110	5,769
<b>Directly effected remuneration</b>	2008	3,304	2,114	1,700	1,695	8,813
	2007	3,294	2,145	1,718	1,726	8,883
Fair value of newly granted stock-based compensation as of grant date	2008	352	240	191	191	974
	2007	299	203	162	162	826
<b>Aggregate benefits (according to the German Commercial Code)</b>	2008	3,656	2,354	1,891	1,886	9,787
	2007	3,593	2,348	1,880	1,888	9,709

The award entitlements earned in 2008 – both from the 2008 tranche and from previous years' tranches on which the entitlements were only partially earned – are shown separately in the following table along with the changes in the value of entitlements from previous years' tranches based on the performance of Bayer stock in 2008. The fair value of the award entitlement already earned in 2008 from the 2008 tranche is included under "Stock-based compensation entitlements earned in the respective year." Since certain components of the award entitlements are included in both tables, the figures in the following and the preceding table should not be added together.

		Werner Wenning	Klaus Kühn	Wolfgang Plischke	Richard Pott	Total
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Long-term incentive (stock-based compensation entitlements earned in the respective year)	2008	569	364	267	309	1,509
	2007	1,150	699	359	631	2,839
Change in value of existing entitlements	2008	(195)	(135)	(97)	(106)	(533)
	2007	890	510	101	492	1,993

The current service cost for the pension entitlements of the members of the Board of Management was as follows:

		Werner Wenning	Klaus Kühn	Wolfgang Plischke	Richard Pott	Total
		€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Current service cost for pension entitlements earned in the respective year	2008	-	505	182	197	884
	2007	-	588	187	224	999

The aggregate remuneration of the Board of Management according to IFRS does not include the fair value of newly granted stock-based compensation, but rather the stock-based compensation entitlements earned in the year under report plus the change in the value of stock-based compensation entitlements from previous years that have not yet been paid out. The current service cost for pension entitlements must also be added.

The following table summarizes the various components of the compensation of the Board of Management.

	2007	2008
	€ thousand	€ thousand
Directly effected remuneration	8,883	8,813
Long-term incentive (stock-based compensation entitlements earned in the respective year)	2,839	1,509
Change in value of existing entitlements	1,993	(533)
Current service cost for pension entitlements earned in the respective year	999	884
<b>Aggregate benefits (according to IFRS)</b>	<b>14,714</b>	<b>10,673</b>

Further details are provided in the Compensation Report, which forms part of the Management Report.

The pensions paid to retired members of the Board of Management and their surviving dependents amounted to €11,697 thousand (2007: €10,997 thousand). Pension provisions for members of the Board of Management amount to €107,863 thousand (2007: €115,104 thousand).

There were no loans to members of the Board of Management or the Supervisory Board outstanding as of December 31, 2008, nor any repayments of such loans during the year.

Leverkusen, February 17/24, 2009  
Bayer Aktiengesellschaft

Board of Management

## Management's Statement of Responsibility for Financial Reporting

The consolidated financial statements of the Bayer Group have been prepared by the management, which is responsible for the substance and objectivity of the information contained therein. The same applies to the management report, which is consistent with the financial statements.

Our financial reporting takes place according to the rules issued by the International Accounting Standards Board, London.

Effective internal monitoring procedures instituted by Group management at the consolidated companies along with appropriate staff training ensure the propriety of our reporting and its compliance with legal provisions. Integrity and social responsibility form the basis of our corporate principles and of their application in areas such as environmental protection, quality, product safety, plant safety and adherence to local laws and regulations. The worldwide implementation of these principles and the reliability and effectiveness of the monitoring procedures are continuously verified by our Corporate Auditing Department.

The Board of Management conducts the business of the Group in the interests of the stockholders and in awareness of its responsibilities toward employees, communities and the environment in all the countries in which we operate. Our declared aim is to deploy the resources entrusted to us in order to increase the value of the Bayer Group as a whole.

In accordance with the resolution of the Annual Stockholders' Meeting, the Supervisory Board appointed PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft as the independent auditor of the consolidated financial statements and of the statements' compliance with the International Financial Reporting Standards. The scope of the auditor's report, which appears on the following page, also includes Bayer's risk management system, audited in light of the German Law on Corporate Supervision and Transparency. The consolidated financial statements, the management report and the auditor's report were discussed in detail, in the presence of the auditor, by the Audit Committee of the Supervisory Board and at a plenary meeting of the Supervisory Board. The Supervisory Board reports on this separately in the Report of the Supervisory Board in the Bayer Annual Report 2008.

The Board of Management

### RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the management report of the Group includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Leverkusen, February 24, 2009  
Bayer Aktiengesellschaft

The Board of Management



WERNER WENNING



KLAUS KÜHN



DR. WOLFGANG PLISCHKE



DR. RICHARD POTT

## Auditor's Report

We have audited the consolidated financial statements prepared by Bayer Aktiengesellschaft, Leverkusen, comprising the income statement, the balance sheet, cash flow statement, statement of recognized income and expenses and the notes to the consolidated financial statements, together with the group management report for the business year from January 1, 2008 to December 31, 2008. The preparation of the consolidated financial statements and the group management report in accordance with the IFRS, as adopted by the E.U., and the additional requirements of German commercial law pursuant to § (Article) 315a Abs. (paragraph) 1 HGB ("Handelsgesetzbuch": German Commercial Code) are the responsibility of the parent Company's Board of Management. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW) and additionally observed the International Standards on Auditing (ISA). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of the entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the Company's Board of Management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion based on the findings of our audit the consolidated financial statements comply with the IFRS as adopted by the E.U., the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Essen, February 27, 2009

PricewaterhouseCoopers  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

(ARMIN SLOTTA)  
Wirtschaftsprüfer

(VOLKER LINKE)  
Wirtschaftsprüfer

# Further Information

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# Governance Bodies

## HERMANN JOSEF STRENGER

Honorary Chairman of the Supervisory Board of Bayer AG, Leverkusen

## Supervisory Board

Members of the Supervisory Board held offices as members of the supervisory board or a comparable supervising body of the corporation listed (as at December 31, 2008 or the date on which they ceased to be members of the Supervisory Board of Bayer AG):

### DR. MANFRED SCHNEIDER

Chairman of the Supervisory Board of Bayer AG, Leverkusen (born December 21, 1938)

Daimler AG

Linde AG (Chairman)

Metro AG (until April 3, 2008)

RWE AG

TUI AG

### THOMAS DE WIN

Vice Chairman of the Supervisory Board of Bayer AG, Leverkusen

Chairman of the Bayer Central Works Council

(born November 21, 1958)

Bayer MaterialScience AG

### DR. PAUL ACHLEITNER

Member of the Board of Management of Allianz SE, Munich (born September 28, 1956)

Allianz Deutschland AG

Allianz Elementar Lebensversicherungs-AG (Chairman) (until February 7, 2008)

Allianz Elementar Versicherungs-AG (Chairman) (until February 7, 2008)

Allianz Global Investors AG

Allianz Investment Bank

(Vice Chairman) (until February 7, 2008)

Allianz Lebensversicherungs-AG (until May 7, 2008)

Henkel AG & Co. KGaA (Shareholders' Committee)

RWE AG

### WILLY BEUMANN

Chairman of the Works Council of the Wuppertal site of Bayer AG (born April 12, 1956)

Bayer HealthCare AG (Vice Chairman) (until December 30, 2008)

### DR. CLEMENS BÖRSIG

Chairman of the Supervisory Board of Deutsche Bank AG, Frankfurt am Main (born July 27, 1948)

Daimler AG

Deutsche Bank AG (Chairman)

Deutsche Lufthansa AG

(until April 29, 2008)

Linde AG

### KARL-JOSEF ELLRICH

Chairman of the Dormagen Works Council of Bayer AG

Chairman of the Bayer Group Works Council

(born October 5, 1949)

Bayer CropScience AG (Vice Chairman)

### DR.-ING. THOMAS FISCHER

Chairman of the Group Managerial Employees' Committee of Bayer AG (born August 27, 1955)

Bayer MaterialScience AG

### PETER HAUSMANN

North Rhine District Secretary of the German Mining, Chemical and Energy Industrial Union, Düsseldorf (born February 13, 1954)

Evonik Services GmbH

### PROF. DR.-ING. E.H. HANS-OLAF HENKEL

Honorary Professor at the University of Mannheim, Berlin (born March 14, 1940)

Continental AG

Daimler Luft- und Raumfahrt Holding AG

EPG AG

Ringier AG

SMS GmbH

### REINER HOFFMANN

Deputy General Secretary of the European Trade Union Confederation (ETUC), Brussels (born May 30, 1955)

SASOL Germany GmbH

### DR. RER. POL. KLAUS KLEINFELD

Chief Executive Officer of ALCOA Inc., New York, USA

(born November 6, 1957)

### ANDRÉ KREJCIK

Member of the Works Council of Bayer Schering Pharma AG

(born February 17, 1969)

### PETRA KRONEN

Chairwoman of the Uerdingen Works Council of Bayer AG

(born August 22, 1964)

Bayer MaterialScience AG

### DR. RER. NAT. HELMUT PANKE

Member of various supervisory boards, Munich

(born August 31, 1946)

Microsoft Corporation

UBS AG

### HUBERTUS SCHMOLDT

Chairman of the German Mining, Chemical and Energy Industrial Union, Hannover (born January 14, 1945)

Deutsche BP AG (Vice Chairman)

DOW Olefinverbund GmbH (Vice Chairman)

E.ON AG (Vice Chairman)

RAG AG (Vice Chairman)

### DR.-ING. EKKEHARD D. SCHULZ

Chairman of the Executive Board of ThyssenKrupp AG, Duisburg/Essen (born July 24, 1941)

AXA Konzern AG

MAN AG (Vice Chairman)

RWE AG

ThyssenKrupp Services AG (Chairman)

ThyssenKrupp Steel AG (Chairman)

ThyssenKrupp Technologies AG (Chairman)

**DR. KLAUS STURANY**

Member of various supervisory boards,  
Dortmund  
(born October 23, 1946)

Commerzbank AG (until May 15, 2008)

Hannover Rückversicherung AG

Heidelberger Druckmaschinen AG

Österreichische Industrieholding AG

**DIPL.-ING. DR.-ING. E.H. JÜRGEN WEBER**

Chairman of the Supervisory Board of  
Deutsche Lufthansa AG, Cologne  
(born October 17, 1941)

Allianz Lebensversicherungs-AG

Deutsche Bank AG (until May 29, 2008)

Deutsche Lufthansa AG (Chairman)

Deutsche Post AG (Chairman)

(until December 31, 2008)

Loyalty Partner Holding GmbH (Chairman)

Tetra Laval Group

Voith AG

Willy Bogner GmbH & Co. KGaA

**PROF. DR. DR. H.C. ERNST-LUDWIG WINNACKER**

Secretary General of the European  
Research Council, Brussels  
(born July 26, 1941)

Medigene AG (Chairman)

Wacker Chemie AG

**OLIVER ZÜHLKE**

Vice Chairman of the Works Council  
of Bayer AG

(born December 11, 1968)

Bayer HealthCare AG

(until December 30, 2008)

Standing Committee of the Supervisory  
Board of Bayer AG (as at Dec. 31, 2008)

**PRESIDIAL COMMITTEE / MEDIATION  
COMMITTEE**

Schneider (Chairman), Achleitner,  
Schmoltd, de Win

**AUDIT COMMITTEE**

Sturany (Chairman), Fischer, Hausmann,  
Henkel, Schneider, de Win

**HUMAN RESOURCES COMMITTEE**

Schneider (Chairman), Ellrich,  
Kronen, Weber

**NOMINATIONS COMMITTEE**

Schneider (Chairman), Achleitner

## Board of Management

Members of the Board of Management held offices as members of the supervisory board or a comparable supervising body of the corporations listed (as at December 31, 2008):

**WERNER WENNING**

Chairman of the Board  
of Management  
(born October 21, 1946)

Bayer Schering Pharma AG  
(Chairman)

Deutsche Bank AG

(effective May 29, 2008)

E.ON AG

(effective April 30, 2008)

Evonik Industries AG

(until September 16, 2008)

Henkel AG & Co. KGaA

Supervisory Board

(until April 14, 2008)

Shareholders' Committee

(effective April 14, 2008)

**KLAUS KÜHN**

(born February 11, 1952)

Bayer Business Services GmbH  
(Chairman)

Bayer CropScience AG  
(Chairman)

Bayer Schering Pharma AG

Symrise AG

(until December 31, 2008)

**DR. WOLFGANG PLISCHKE**

(born September 15, 1951)

ARK Therapeutics,  
Non-Executive Director

Bayer Innovation GmbH,  
Shareholders' Committee  
(Chairman)

Bayer MaterialScience AG  
(Chairman)

Bayer Technology Services  
GmbH (Chairman)

**DR. RICHARD POTT**

Labor Director

(born May 11, 1953)

Bayer Chemicals AG (Chairman)

Bayer HealthCare AG  
(Chairman)

Bayer Innovation GmbH, Share-  
holders' Committee

Currenta Geschäftsführungs-  
GmbH (Chairman)



# Organization Chart

as of February 1, 2009



# Group Leadership Circle

as of February 1, 2009

The Group Leadership Circle consists of managers in the holding company, subgroups and service companies whose functions are particularly important for the Bayer Group as a whole.

## A

Abreu, Claudio  
Achenbaum, Jon  
Allen, Christopher  
Amling, Andreas  
Angerbauer, Rolf  
Apel, Daniel  
Applegate, Jacqueline  
Arnold, Markus  
Asadullah, Khusru  
Asboth, Christian  
Atzor, Michael

## B

Babe, Gregory  
Bachlechner, Guenter  
Backhaus, Dirk  
Baldus, Berthold  
Balkema, Gary  
Baltzer, Markus  
Baumann, Werner  
Bechem, Martin  
Beck, Carlos-Alberto  
Becker, Ludger  
Behrens, Jens  
Beier, Andreas  
Benecke, Lars  
Bernhardt, Michael  
Berschauer, Friedrich  
Bertram, Frank  
Bey, Alexander  
Bielfeldt, Tim  
Bier, Bernd-Peter  
Bieringer, Thomas  
Binda, Maria-Luisa  
Bishop, Hans  
Blake, Philip  
Bohne, Gerhard  
Bomann, Werner  
Bostian, Arlin  
Brocks, Dietrich  
Broué, Jean  
Brüll, Ludger  
Bruhn, Burghardt  
Buckner, William  
Buehner, Klaus  
Burck, Alexander  
Busch, Andreas

## C

Cardinal von Widdern, Lutz  
Cetnarowski, Wes  
Chenet, Thierry  
Cherny, Margaret  
Chiassarini, Mauro  
Chisholm, Ian

Chrise, James  
Condon, Liam  
Coppens, Ernst  
Cremers, Hans Josef  
Crosby, Adrian  
Cunitz, Olaf

## D

Dannapel, Bruno  
Dawkins, Martin  
De Cleyn, Rene  
De Jonge, Maarten  
De Prins, Werner  
De Ruwe, Kurt  
Deall, Michael  
Decker-Conradi, Jörg  
Deege, Rolf  
DeLong, James  
Devoy, Michael  
Dietrich, Frank  
Dietsch, Johannes  
Dini, Alain  
Dinter, Harald  
Döllinger, Lothar  
Doerholt, Hermann-Josef  
Dollinger, Markus  
Dorison, Dominique  
Du Puy, Jacques  
Dumont, Christophe  
Dumont, Philippe

## E

Echterhoff, Ralf  
Ehemann-Schneider, Christel  
Eiki, Norikazu  
Eilers, Peter  
Eldem, Cenk  
Engels, Hans-Wilhelm  
Evans, Christopher

## F

Fairhurst, Margaret Mary  
Fenu, Giovanni  
Fey, Claus  
Fibig, Andreas  
Fieseler, Norbert  
Firl, Rolf-Reiner  
Fischer, Meredith

Flechtner, Helmut  
Font, Jean-Christophe  
Franzen, Reinhard  
Fraser, Shona  
Freytag, Michael  
Friel, John  
Fritz, Reinhard  
Funk, Rolf

## G

Garnier, Franck  
Gasche, Hans-Erich  
Gause, Friedrich  
Gellert, Martin  
Gerlach, Martin  
Decker-Conradi, Jörg  
Geyer, Edgar  
Gilbert, Michael  
Graney, Robert  
Gray, John  
Gross, Dietmar  
Große Entrup, Wolfgang  
Gruber, Friedrich  
Grunert, Frank  
Günther, Andreas  
Guth, Sebastian

## H

Habenicht, Ursula-Friederike  
Hakert, Hubertus  
Hansen, Ralf  
Hartert, Daniel  
Hartmann, Jens  
Hartwig, Roland  
Hauck, Ulrich  
Haug, Matthias  
Haug, Michael  
Haumesser, Winfried  
Hausner, Hans-Dieter  
Hayes, Timothy  
Heiden, Paul-Gerd  
Heider, Wilfried  
Heidrich, Joerg  
Held, Christian  
Higgins, Arthur  
Hilken, Günter  
Hinderer, Jürgen  
Höhl, Hans-Walter  
Hoever, Franz-Peter  
Hotop, Reiner  
Housset, Pascal  
Houston, John  
Humby, Stephen  
Hummel, Donald

## I

Inamdar, Kumar  
Inkmann-Koch, Anette

## J

Jahn, Alexander  
Jelich, Klaus  
Jesse, Ralf Rüdiger  
Jonsson, Haakan  
Juhnke, Andreas

## K

Kastner, Thomas Karl  
Katz, Nancy  
Kaushik, Vidya Sagar  
Klausener, Alexander  
Klebert, Ulrich  
Klusik, Hartmut  
Knapp, Frank  
Kneen, Geoffrey  
Knights, Ian  
Knors, Armin  
Köhler, Gregor  
Köhler, Jürgen  
König, Michael  
Köplin, Wilfried  
Koersvelt, Adri  
Köstlin, Ulrich  
Kolpon, Jay  
Kopp, Wilfried  
Krause, Rainer  
Krauskopf, Birgit  
Krell, Jörg  
Kremer, Mathias  
Kreuzburg, Christa  
Krüger, Bernd-Wieland  
Krüger, Gerd  
Kühling, Steffen  
Kumpf, Robert-Joseph  
Kurzawa, Steffen  
Kuschnerus, Norbert

## L

Läpple, Horstfried  
Lafeuille, Marc  
Lee, Chris  
Leidemann, Burkhard  
Leidinger, Walter  
Leroux, Bernard

Leucker, Hermann  
Liedtke, Harald  
Löwer, Hartmut  
Lohkamp, Gudrun  
Londershausen, Michael  
Louvel, Erik  
Lowinski, Jean-Luc  
Lukas, Frank  
Lykos, George

**M**

MacCleary, Gerald  
Mackintosh, Bruce  
Maier, Hans  
Main, Alan  
Malik, Kemal  
Mangold, Matthias  
Marchand, Gerhart  
Marchand, Tobias  
Marchant, Gavin  
Mathews, Michael  
Maul, Jürgen  
McCahon, Peter  
McCullough, Dennis  
Metzner, Bernd  
Meuten, Hans-Peter  
Meyer, Rainer  
Michaelis, Johannes  
Miebach, Wolfgang  
Milon, Jean-Philippe  
Mirgel, Volker  
Möller, Jörg  
Moritz, Matthias  
Moscho, Alexander  
Mothes, Helmut  
Müller, Michael  
Müller, Peter  
Murek, Udo

**N**

Naaf, Bernd  
Nagy, Paul  
Nehoda-Hahn, Vera  
Nellshen, Stefan  
Nestler, Andrew  
Noack, Achim

**O**

Oehlschläger, Gabriele  
Oehlschläger, Wilhelm  
Oelrich, Stefan  
Ohle, Jörg

Ohst, Holger  
Orme, Andrew  
Ostertag, Ulrich  
Ott, Jürgen  
Ottow, Eckhard  
Owlia, Azita

**P**

Parotelli, Roberto  
Pascoletti, Karl-Heinz  
Paterson, Ian  
Pegg, Clive John  
Percy, Adrian  
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# Glossary

## A

**Adalat®** Drug product for the treatment of hypertension; active ingredient: nifedipine

**Adengo®** Herbicide; active ingredients: thien carbazonemethyl, isoxaflutole; main application: corn

**Admire®** Insecticide; active ingredient: imidacloprid; main applications: vegetables, rice, fruit, potatoes

**Advantage®** Flea control product for dogs and cats; active ingredient: imidacloprid

**Alemtuzumab** Humanized monoclonal antibody, currently being tested in the indication multiple sclerosis (MS)

**Aleve®** Analgesic; active ingredient: naproxen

**Alka-Seltzer®** Drug product that binds excess gastric acid and reduces pain and fever

**Amikacin** Antibiotic for inhalation treatment of pneumonia caused by gram-negative bacteria; active ingredient: amikacin sulfate

**Arize®** Seed for hybrid rice

**Aspirin®** World-famous analgesic; active ingredient: acetylsalicylic acid

**Aspirin® Cardio** Drug product for protection against heart attack; active ingredient: acetylsalicylic acid

**Asset-backed securities (ABS)** ABS are (debt) securities collateralized by a pool of receivables

**Atlantis®** Herbicide; active ingredients: mesosulfuron and others; main applications: wheat, triticale, rye

**Avalox®/Avelox®** Drug product for the treatment of respiratory tract infections; active ingredient: moxifloxacin

## B

**Basta®** Herbicide; active ingredient: glufosinate-ammonium; main applications: plantation crops, potatoes and vegetables

**Bayblend®** Brand name for polymer blends based on polycarbonate and acrylonitrile-butadiene-styrene

**BaySystems®** Global umbrella brand for the polyurethane systems business

**Baytril®** Drug for the treatment of severe veterinary infectious diseases; active ingredient: enrofloxacin

**Baytubes®** Brand name for multi-wall carbon nanotubes

**BayVision®** Competence brand for automotive glazing

**Belt®** Insecticide; active ingredient: flubendiamide; main applications: vegetables, cotton, rice, grapes, apples

**Bepanthen®** Range of skin care and wound-healing products; active ingredient: dexpanthenol

**Bepanthol®** Range of care products to treat dry, irritated skin; active ingredient: panthenol

**Betaferon®/Betaseron®** Drug product for the treatment of multiple sclerosis; active ingredient: interferon beta-1b

**Breeze®** Blood glucose measurement device for people with diabetes for simple, safe and rapid use at home or while traveling

## C

**Campath®/MabCampath®** Humanized monoclonal antibody for the treatment of patients with chronic lymphocytic leukemia

**Canesten®** Antifungal drug for infections of the skin; active ingredient: clotrimazole or bifonazole

**Capital invested (CI)** Capital invested comprises the assets on which the company must obtain a return by generating an appropriate cash inflow; in some cases the cost of ultimately reproducing the assets must be earned in addition.

**Cash flow return on investment (CFROI)** The cash flow return on investment is the ratio of the gross cash flow earned in a period to the capital invested. It is thus a measure of profitability in that period.

**Cash value added (CVA)** This is the difference between the gross cash flow and gross cash flow hurdle. It is therefore the portion of the gross cash flow that exceeds the return and reproduction requirements. If CVA is positive, the company has created value.

**Cipro®/Ciprobay®** Drug product for the treatment of infectious diseases; active ingredient: ciprofloxacin

**Citracal®** Dietary supplement

**Confidor®** Insecticide; active ingredient: imidacloprid; main applications: vegetables, rice, fruit, potatoes

**Connect®** Insecticide; active ingredients: imidacloprid, beta-cyfluthrin; main applications: soybeans, corn, cotton

**Contour®** Blood glucose measurement device for people with diabetes for simple, safe and rapid use at home or while traveling

**Core earnings per share (core EPS)** Core earnings per share comprises adjusted core net income divided by the weighted average number of issued ordinary shares (taking into account the potential number of shares resulting from the conversion of the mandatory convertible bond). The adjusted core net income is computed from EBIT plus amortization of intangible assets and write-downs of property, plant and equipment, plus/minus special items, plus/minus non-operating result, plus/minus income taxes, plus/minus tax adjustments, minus income after taxes attributable to non-controlling interests, plus financing costs relating to the mandatory bond after tax effects. Core earnings per share is not an indicator defined in the International Financial Reporting Standards and should therefore be regarded as supplementary information only. The company believes that this indicator gives readers a clearer picture of the results of operations and ensures greater comparability of data over time.

**Corporate compliance** Corporate compliance comprises the observance of statutory and company regulations on lawful and responsible conduct by the company, its employees and its management and supervisory bodies.

**Corporate governance** Corporate governance comprises the long-term management and oversight of the company in accordance with the principles of responsibility and transparency.

ency. The German Corporate Governance Code sets out basic principles for the management and oversight of publicly listed companies.

**Corvus®** Herbicide; active ingredients: thien carbazole-methyl, isoxaflutole; main applications: corn, cereals

**Credit default swaps (CDS)**  
Credit default swaps are financial instruments that permit the trading of credit risks. They are essentially tradable insurance contracts used to hedge against the default of a borrower or similar credit instruments.

**CropStar®** Insecticide; active ingredients: imidacloprid and thiodicarb; main application: seed treatment in corn

**D**

**Decis®** Insecticide; active ingredient: deltamethrin; main applications: cotton, vegetables, cereals

**Delta cash value added**  
Delta CVA is an indicator of the change in the cash value added between two periods. A positive delta CVA shows that a unit has created more value or destroyed less value compared with the reference period.

**Desmodur®** Brand name for various isocyanates

**Desmopan®** Brand name for thermoplastic polyurethanes

**Desmophen®** Brand name for various polyesters and polyols used in the formulation of polyurethanes

**Diane®** Acne therapy with additional contraceptive action; active ingredients: cyproterone acetate and ethinyl estradiol

**Drontal® product line**  
Dewormers for dogs and cats; active ingredients: combinations of praziquantel, pyrantel and febantel

**E**

**Earnings before interest and taxes (EBIT)** EBIT comprises the operating profit of a company before deduction of the non-operating result and taxes. In Bayer's Annual Report EBIT is the operating result shown in the income statement.

**Earnings before interest, taxes, depreciation and amortization (EBITDA)** EBIT plus amortization of intangible assets and depreciation of property, plant and equipment. EBITDA, underlying EBITDA and the underlying EBITDA margin are not defined in the International Financial Reporting Standards. The company considers EBITDA before special items to be a more suitable indicator of operating performance since it is not affected by depreciation, amortization, write-downs/write-backs or special items. The company also believes that this indicator gives readers a clearer picture of the results of operations and ensures greater comparability of data over time.

**(Underlying) EBITDA margin**  
The (underlying) EBITDA margin is calculated by dividing EBITDA (before special items) by sales

**EMTN and multi-currency EMTN program** The Euro Medium Term Note (EMTN) program is a documentation platform that enables Bayer to raise capital by quickly issuing debt on the European capital market. Securities issued under this program may be listed in Luxembourg or unlisted. Their maturities, currencies and conditions may vary considerably.

**Earnings per share (EPS)**  
EPS is calculated by dividing Group net income by the weighted average number of shares as defined in IAS 33.

**F**

**Fandango®** Fungicide; active ingredients: fluoxastrobin and prothioconazole; main application: cereals

**Flint®** Fungicide; active ingredient: trifloxystrobin; main applications: cereals, soybeans, fruit

**Folicur®** Fungicide; active ingredient: tebuconazole; main applications: cereals, soybeans, canola, peanuts

**G**

**Gadovist®** Contrast agent for MRI of the central nervous system that enables the number and location of lesions to be displayed in patients with brain metastases or multiple sclerosis (MS); active ingredient: gadobutrol

**Gauche®** Insecticide; active ingredient: imidacloprid; main applications: seed treatment for sugar beet, corn, cereals, cotton, canola

**Global commercial paper program** Commercial paper is a short-term unsecured debt instrument normally issued at a discount and redeemed at nominal value. It is a flexible way of obtaining short-term funding on the capital markets. Bayer's commercial paper program allows the company to issue commercial paper on both the U.S. market and the European market.

**Glucobay®** Drug product for the treatment of diabetes; active ingredient: acarbose

**Gross cash flow** The gross cash flow comprises income from continuing operations after taxes, plus income taxes, plus/minus non-operating result, minus income taxes paid or accrued, plus depreciation, amortization and write-downs, minus write-backs, plus/minus changes in pension provisions, minus gains/plus losses on retirements of noncurrent

assets, plus non-cash effects of the remeasurement of acquired assets. The change in pension provisions includes the elimination of non-cash components of the operating result (EBIT). It also contains benefit payments during the year.

**Gross cash flow hurdle** The GCF hurdle is the cash amount that must be generated in light of the respective asset situation in order to satisfy investors' return and reproduction requirements.

**H**

**HD1** Hexamethylene diisocyanate, a raw material for polyurethane coatings

**Huskie®** Herbicide; active ingredients: pyrasulfotole; main application: cereals

**Hussar®** Herbicide; active ingredient: iodosulfuron; main application: cereals

**Hybrid bond** A hybrid bond is an equity mezzanine corporate bond, usually with either no or very long maturity. Due to its subordination, issuer bankruptcy can lead to a complete financial loss.

**I**

**Infinity®** Herbicide; active ingredient: pyrasulfotole; main application: cereals

**Input®** Fungicide; active ingredients: prothioconazole, spiroxamine; main application: cereals

**InVigor®** Seed for summer canola

**Iopamiron®** Non-ionic intravascular contrast agent for all common X-ray analyses

## K

**Key performance indicators (KPI)** Central indicators used to evaluate the attainment of targets in the company.

**Kid Way®** Herbicide; active ingredients: diflufenican, glyphosate, oxadiazon; main application: landscaping

**Kontos®** Insecticide; active ingredient: spirotetramat; main application: cultivation of ornamental plants by breeders and garden centers

**K-Othrine®** Insecticide; active ingredient: deltamethrin; main applications: insects that transmit malaria, sleeping sickness and Chagas' disease

**Kogenate®** Drug product for the treatment of hemophilia; active ingredient: recombinant Factor VIII

## L

**Laudis®** Herbicide; active ingredient: tembotrione; main application: corn

**Levitra®** Drug product for the treatment of erectile dysfunction; active ingredient: vardenafil

**Liberty®** Herbicide; active ingredient: glufosinate-ammonium; main applications: corn, canola, cotton, soybeans, rice in conjunction with herbicide-tolerant technology

**Life sciences** Field of activities comprising particularly health care and nutrition; at Bayer this refers to the activities of the Bayer HealthCare and Bayer CropScience subgroups.

**Lyttron®** Subsidiary of Bayer MaterialScience that develops, produces and markets electroluminescent polycarbonate films

## M

**Magnevist®** Contrast agent for diagnosis in the central nervous system and body; active ingredient: dimeglumine gadopentetate

**Makroblend®** Brand name for polymer blends made from polycarbonate and polybutylene terephthalate or polyethylene terephthalate

**Makrofol®** Brand name for films made from Makrolon®

**Makrolon®** Brand name for polycarbonate

**MDI** Diphenylmethane diisocyanate, an important raw material for polyurethane rigid foam used in thermal insulation

**Merit®** Insecticide; active ingredient: imidacloprid; main applications: broad-spectrum insecticide for non-agricultural grass lawns

**Mirena®** Intrauterine contraceptive; active ingredient: levonorgestrel

**Movovento®** Insecticide; active ingredient: spirotetramat; main applications: vegetables, fruit, grapes, cotton and soybeans

## N

**Nativo®** Fungicide; active ingredients: trifloxystrobin, tebuconazole; main applications: soybeans, corn, rice, cereals

**Net cash flow** The net cash flow is the cash flow from operating activities as defined in IAS 7.

**Nexavar®** Drug product to treat kidney and liver cancer; active ingredient: sorafenib

## O

**Oberon®** Insecticide; active ingredient: spiromesifen; main applications: fruit, vegetables, cotton

**One-A-Day®** Multivitamin product

**Over the counter (OTC)** The trading of securities outside of an organized exchange. OTC transactions are still subject to the statutory provisions on securities trading. In the Health-Care business, OTC refers to non-prescription medication.

## P

**PET** Abbreviation for polyether, one of the two main components used in the production of polyurethane along with isocyanates

**Pistol®** Herbicide; active ingredients: diflufenican, glyphosate; main application: landscaping

**Poncho®** Insecticide; active ingredient: clothianidine; main applications: seed treatment for corn, canola, sugar beet, cereals

**PPA** Purchase price allocation

**Premise®** Insecticide; active ingredient: imidacloprid; main application: termite control

**Price/cash flow ratio** The price/cash flow ratio is the ratio of the share price to gross cash flow per share. It shows how long it would take for the company's cash flow to cover the share price.

**Price/EPS** This is the ratio of the current share price to earnings per share. A high price/EPS ratio indicates that the market assigns a high value to the stock in the expectation of future earnings growth.

**Proline®** Fungicide; active ingredient: prothioconazole; main applications: cereals, canola

**Prosaro®** Fungicide; active ingredients: prothioconazole, tebuconazole; main applications: cereals, canola

**Puma®** Herbicide; active ingredient: fenoxaprop-P-ethyl; main applications: cereals, rice, soybeans, canola

## R

**Raxil®** Fungicide; active ingredient: tebuconazole; main applications: seed treatment for wheat and barley

**Recothrom™** A recombinant form of human thrombin applied topically to stop bleeding during surgery; active ingredient: recombinant human thrombin

**Rely®** Herbicide; active ingredient: glufosinate ammonium; main applications: canola, soybeans, corn, cotton, fruit, nuts

**Renalzin®** Dietary supplement to support kidney function in cats with chronic kidney failure; active ingredients: Lantharenol® (lanthanum carbonate octahydrate), kaolin, vitamin E

**Rennie®** Medicine to treat heartburn and acid-related stomach disorders; active ingredients: calcium carbonate and magnesium carbonate

**Riociguat** Drug product from a new class of vasodilative substances; stimulates the enzyme soluble guanylate cyclase and is currently being tested in a Phase III program to determine its efficacy and safety in the treatment of chronic thromboembolic pulmonary hypertension and pulmonary arterial hypertension; active ingredient: soluble guanylate cyclase stimulator

S

**Soberan®** Herbicide; active ingredient: tembotrione; main application: corn

**Sphere®** Fungicide; active ingredients: trifloxystrobin and cyproconazole; main applications: soybeans, cereals, sugar beet, coffee

**Squeeze-out** Transfer of the shares held by minority stockholders in a stock corporation to the majority stockholder in return for a compensation payment. In Germany, a majority stockholder with an interest of 95 percent can request a squeeze-out.

**Stratego®** Fungicide; active ingredients: trifloxystrobin, propiconazole; main applications: soybeans, cereals, rice, corn

**Supradyn®** Vitamin and mineral supplement with trace elements

**Syndicated credit facility** Credit line agreed with a group of banks. Generally used for extensive financing requirements, such as when making an acquisition, to increase the available liquidity reserves or as security for the issuance of debt instruments. The credit facility can be utilized and repaid flexibly, either in full or in portions, during its term.

T

**TDI** Toluene diisocyanate, an important raw material for polyurethane flexible foam used in upholstery, mattresses and car seats

**Temprid®** Insecticide; active ingredients: imidacloprid, beta-cyfluthrin; main application: ant and pest control in non-agricultural settings

U

**Ultravist®** Contrast agent for X-ray examinations including computed tomography; active ingredient: iopromide

V

**VEGF Trap-Eye** VEGF (vascular endothelial growth factor) is a natural growth factor that is also involved in the pathological formation of new blood vessels in the eyes, which leads to wet age-related macular degeneration (AMD). VEGF Trap-Eye specifically inhibits this process and other growth factors and is currently undergoing Phase III clinical testing.

**Visanne®** Drug product for the treatment of endometriosis; active ingredient: dienogest

**Vulkollan®** Brand name for a high-performance polyurethane elastomer

W

**Weighted average cost of capital (WACC)** The weighted average cost of capital (WACC) represents the return required by investors on the capital invested in the company. It is computed as a weighted average of the cost of equity and debt. The cost of equity correlates with the return expectations of stockholders while the cost of debt comprises the conditions obtained by the company for its long-term financing.

**World-scale production facility** Extremely large production plant whose capacity allows the realization of substantial economies of scale.

X

**Xarelto®** Direct Factor Xa inhibitor in tablet form. The active ingredient rivaroxaban is used to prevent and treat thrombosis in a wide range of indications and is registered in the European Union and other regions as Xarelto® for the prophylaxis of venous thromboembolism (VTE) in adults following elective hip and knee joint replacement surgery.

Y

**YAZ®/Yasmin®/Yasminelle®** Oral contraceptives; active ingredients: ethinyl estradiol and drospirenone

Z

**Zetia®** Cholesterol-lowering drug from Schering-Plough marketed jointly in Japan with Bayer; active ingredient: ezetimib

**Zevalin®** An yttrium-90 labeled monoclonal antibody for treatment of non-Hodgkin's lymphoma; active ingredient: ibritumomab tiuxetan

INTERNET

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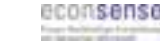
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## Global Commitment to Sustainability



Social responsibility and sustainability are integral to Bayer's corporate policy. This commitment is also evidenced by the company's participation in numerous initiatives and projects around the world. Logos relating to a selection of these activities appear in the left margin in the order in which the respective activities are described below.

Bayer has long practiced the concept of Responsible Care and was one of the first companies to sign the new Responsible Care Global Charter in 2006. A member of the World Business Council for Sustainable Development since 1997, Bayer is also among the founding members of German industry's sustainable development forum "econsense."

Bayer is represented in major sustainability indices and investment funds that focus on companies pursuing responsible and sustainable corporate strategies. For example, Bayer is listed in the Dow Jones Sustainability Index World, the FTSE4Good index series, the Store-brand Principal Funds and the Advanced Sustainable Performance Indices (ASPI) Eurozone. Our sustainability reporting is based on the guidelines of the Global Reporting Initiative, which Bayer supports as an organizational stakeholder.

The company places maximum importance on climate protection. For example, in 2008 Bayer was again included in the Climate Disclosure Leadership Index published by the Carbon Disclosure Project, run on behalf of institutional investors and other organizations. Bayer is also one of the 17 founding members of the climate protection initiative "3c: Combat Climate Change."

Bayer is a founding member of the Global Compact initiative of the United Nations, actively promoting its principles through numerous projects. In Brazil, for example, Bayer supports the Abrinq Foundation in its efforts to combat child labor and cooperates with the non-governmental organization Agência Mandalla in the fight against hunger and poverty. Bayer's partnership with the United Nations Environment Programme (UNEP) has set new standards in public-private partnerships. One of the joint activities is the "Bayer Young Environmental Envoy" program, which has now been extended to 18 countries on four continents.

Bayer set up the Global Exploration Fund together with National Geographic, the world's largest non-profit scientific organization. Further progress was made in 2008 with nine research projects aimed at safeguarding global drinking water supplies.

For years, Bayer has also been an active member of the Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria, which is committed to the fight against these three epidemic diseases. For example, the company is cooperating with the Global Alliance for TB Drug Development, a U.S. non-profit organization, to develop a new tuberculosis drug that could reduce treatment times.

# The Bayer Group

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## Bayer

Bayer AG defines common values, goals and strategies for the entire Group. The subgroups and service companies operate independently, led by the management holding company. The Corporate Center supports the Bayer AG Board of Management in its task of strategic leadership.

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## Bayer HealthCare

Bayer HealthCare is among the world's foremost innovators in the field of pharmaceutical and medical products. This subgroup's mission is to research, develop, manufacture and market innovative products that improve the health of people and animals throughout the world. Read more starting on page 59.

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## Bayer CropScience

Bayer CropScience, with its highly effective products, pioneering innovations and keen customer focus, holds global leadership positions in crop protection and non-agricultural pest control. The company also has major activities in seeds and crop plants with genetically optimized properties. Read more starting on page 65.

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## Bayer MaterialScience

Bayer MaterialScience is a renowned supplier of high-performance materials such as polycarbonates and polyurethanes, and innovative system solutions such as coatings, for a wide range of everyday uses. Products holding leading positions on the world market account for a large proportion of its sales. Read more starting on page 70.

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## SERVICE COMPANIES

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**Bayer Business Services** is the Bayer Group's international competence center for IT-based services. The focus of this company's offering is on integrated services in the core areas of IT infrastructure and applications, procurement and logistics, human resources and management services, and finance and accounting.

**Bayer Technology Services**, the global technological backbone and a major innovation driver of the Bayer Group, is engaged in process development and in process and plant engineering, construction and optimization.

**Currenta** offers services for the chemical industry including utility supply, waste management, infrastructure, safety, security, analytics and vocational training.

# At Home Throughout The World

## NORTH AMERICA

In North America (United States and Canada), Bayer is represented by a total of 46 consolidated subsidiaries in all strategic business areas. In 2008 Bayer's 17,000 employees in this region generated sales of €8 billion, which was 24.4% of the Group total.

## EUROPE

In 2008 Bayer achieved sales of €14.5 billion on the European market, which accounted for 44.2% of the Group total. A comprehensive distribution network, numerous major production facilities and 55,500 employees (of whom 37,400 are based in Germany) give the company a strong presence in this region.



## LATIN AMERICA/AFRICA/MIDDLE EAST

Bayer has been represented in Latin America for more than 110 years. In 2008 the company's 15,300 employees in the Latin America/Africa/Middle East region generated €5 billion in sales – 15% of the Group total.

## ASIA/PACIFIC

With its tremendous growth potential, this economic region is one of the most important markets of the future. In 2008 Bayer generated €5.4 billion in sales here – 16.4% of the Group total – with 20,800 employees.

## Five-Year Financial Summary

Bayer Group	2004	2005	2006	2007	2008
	€ million	€ million	€ million	€ million	€ million
Sales	23,278	24,701	28,956	32,385	32,918
Sales outside Germany	86.9%	84.4%	84.4%	85.1%	85.4%
EBIT*	1,875	2,514	2,762	3,154	3,544
Income before income taxes	1,222	1,912	1,980	2,234	2,356
Income after taxes	682	1,595	1,695	4,716	1,724
<b>Noncurrent assets</b>	<b>16,859</b>	<b>20,130</b>	<b>35,897</b>	<b>34,712</b>	<b>35,351</b>
of which goodwill and other intangible assets	5,952	7,688	24,034	22,770	22,598
of which property, plant and equipment	7,662	8,321	8,867	8,819	9,492
<b>Current assets</b>	<b>15,972</b>	<b>16,592</b>	<b>17,069</b>	<b>16,582</b>	<b>17,152</b>
Inventories	4,738	5,504	6,153	6,217	6,681
Receivables and other current assets	7,664	7,798	8,001	7,834	8,377
Cash and cash equivalents	3,570	3,290	2,915	2,531	2,094
<b>Financial liabilities</b>	<b>9,191</b>	<b>8,952</b>	<b>19,801</b>	<b>14,417</b>	<b>16,870</b>
Noncurrent	7,025	7,185	14,723	13,081	10,614
Current	2,166	1,767	5,078	1,336	6,256
Interest expense – net	(229)	(338)	(728)	(701)	(702)
Return on stockholders' equity	6.1%	14.4%	14.1%	31.8%	10.4%
Gross cash flow**	2,885	3,114	3,913	4,784	5,295
Capital expenditures (total)	1,275	1,400	1,939	1,905	1,982
Depreciation and amortization	1,933	1,758	2,086	2,478	2,570
Personnel expenses (including pension expenses)	6,026	5,318	6,630	7,571	7,491
Number of employees*** (Dec. 31)	91,700	82,600	106,000	106,200	108,600
Research and development expenses	1,927	1,729	2,297	2,578	2,653
<b>Stockholders' equity including non-controlling interest (total)</b>	<b>10,943</b>	<b>11,157</b>	<b>12,851</b>	<b>16,821</b>	<b>16,340</b>
Capital stock	1,870	1,870	1,957	1,957	1,957
Reserves	8,227	9,287	10,894	14,864	14,383
Net income	685	1,597	1,683	4,711	1,719
Non-controlling interest	111	80	84	87	77
<b>Liabilities (total)</b>	<b>26,645</b>	<b>25,565</b>	<b>43,040</b>	<b>34,557</b>	<b>36,171</b>
<b>Total assets</b>	<b>37,588</b>	<b>36,722</b>	<b>55,891</b>	<b>51,378</b>	<b>52,511</b>
<b>Equity ratio</b>	<b>29.1%</b>	<b>30.4%</b>	<b>23.0%</b>	<b>32.7%</b>	<b>31.1%</b>
<b>BAYER AG</b>					
Net income	274	613	1,250	1,928	1,161
Allocation to (from) retained earnings	(128)	(81)	486	896	91
Total dividend payment	402	694	764	1,032	1,070
Dividend per share (€)	0.55	0.95	1.00	1.35	1.40

figures for 2004-2006 as reported, 2007 figures restated

\* EBIT as shown in the income statement

\*\* for definition see chapter "Liquidity and Capital Resources" on page 78

\*\*\* 2004: headcount; 2005-2008: full-time equivalents

# Financial Calendar

2008 Annual Report	<b>MARCH 3, 2009</b>
Q1 2009 Interim Report	<b>APRIL 29, 2009</b>
Annual Stockholders' Meeting 2009	<b>MAY 12, 2009</b>
Payment of Dividend	<b>MAY 13, 2009</b>
Q2 2009 Interim Report	<b>JULY 29, 2009</b>
Q3 2009 Interim Report	<b>OCTOBER 27, 2009</b>
Annual Stockholders' Meeting 2010	<b>APRIL 30, 2010</b>
Payment of Dividend	<b>MAY 3, 2010</b>

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### Forward-Looking Statements

This Annual Report contains forward-looking statements based on current assumptions and forecasts made by Bayer Group or subgroup management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual assets, financial position, earnings, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports, which are available on the Bayer website at [www.bayer.com](http://www.bayer.com). The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

### Important Information

The names "Bayer Schering Pharma" or "Schering" as used in this publication always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively.