

BASF AKTIENGESELLSCHAFT  
Form 20-F  
March 09, 2005

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As filed with the Securities and Exchange Commission on March 9, 2005

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

**FORM 20-F**

(Mark One)

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

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

**For the fiscal year ended December 31, 2004**

**OR**

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

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

**Commission file number: 1-15909**

**BASF AKTIENGESELLSCHAFT**

(Exact name of Registrant as specified in its charter)

**BASF CORPORATION\***

(Translation of Registrant's name into English)

**Federal Republic of Germany**  
(Jurisdiction of incorporation or organization)

**Carl Bosch Strasse 38  
Ludwigshafen, GERMANY 67056**  
(Address of principal executive offices)

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

**Title of each class**

**Name of each exchange on which registered**

American Depositary Shares representing  
BASF ordinary shares of no par value

New York Stock Exchange

BASF ordinary shares of no par value

New York Stock Exchange\*\*

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

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None  
(Title of Class)

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

None  
(Title of Class)

**Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the Annual Report.**

As of December 31, 2004, there were 540,440,410 BASF ordinary shares of no par value outstanding.

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

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\*  
BASF Corporation is also the name of a wholly owned subsidiary of the Registrant in the United States.

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

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BASF Aktiengesellschaft is incorporated as a stock corporation organized under the laws of the Federal Republic of Germany. As used in this Annual Report, "BASF Aktiengesellschaft" refers solely to the ultimate parent company of the BASF Group. "BASF" refers to BASF Aktiengesellschaft and its consolidated subsidiaries.

The Consolidated Financial Statements of BASF are based on the accounting and valuation principles of the German Commercial Code (*Handelsgesetzbuch*), the accounting standards issued by the German Accounting Standards Board (GASB) and the German Stock Corporation Act (*Aktiengesetz*), collectively known as "German GAAP."

The accounting principles conform to International Financial Reporting Standards (IFRS) to the extent permissible under the German Commercial Code. The reconciliation of significant deviations to U.S. generally accepted accounting principles (U.S. GAAP) is described in Note 3 to the Consolidated Financial Statements included in Item 18.

The translation of euros into dollars has been made solely for the convenience of the reader at the noon buying rate of the Federal Reserve Bank of New York (the "Noon Buying Rate") on December 31, 2004, which was U.S. \$1.3538 = €1.00. No representation is made that such amounts in euros could have been or could be converted into dollars at that or any other exchange rate on such date or any other dates.

### Forward-Looking Information May Prove Inaccurate

This Annual Report contains certain forward-looking statements and information relating to BASF that are based on the current expectations, estimates and projections of its management and information currently available to BASF. These statements include, but are not limited to, statements about BASF's strategies, plans, objectives, expectations, intentions, expenditures, and assumptions and other statements contained in this Annual Report that are not historical facts. When used in this document, the words "anticipate," "believe," "estimate," "expect," "intend," "plan" and "project" and other similar expressions are generally intended to identify forward-looking statements.

These statements reflect the current views of BASF with respect to future events. They are not guarantees of future performance and involve certain risks and uncertainties that are difficult to predict. In addition, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate.

Many factors could cause the actual results, performance or achievements of BASF to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. These factors include, among others:

/\*/

changes in general political, economic and business conditions in the countries or regions in which BASF operates;

/\*/

changes in the laws or policies of governments or other governmental or quasi-governmental activities in the countries in which BASF operates;

/\*/

changes in the composition of BASF Group companies, joint venture activities, divestitures, and the successful integration of acquisitions;

/\*/

increased price competition and the introduction of competing products by other companies;

/\*/

the ability to develop, introduce and market innovative products and applications;

/\*/

the length and depth of product and industry business cycles, particularly in the automotive, construction, electrical and textile industries;

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- /\*/  
changes in the demand for, supply of, and market prices of crude oil, refined products, natural gas and petrochemicals, including changes in production quotas in OPEC countries and the deregulation of the natural gas transmission industry in Europe;
- /\*/  
the cost and availability of feedstock and other raw materials, including naphtha, and the price of steam cracker products;
- /\*/  
the ability to pass increases in raw material costs on to customers;
- /\*/  
changes in the degree of patent and other legal protection afforded to BASF's products;
- /\*/  
regulatory approval, particularly in the areas of fine chemicals, agricultural products and plant biotechnology, and market acceptance of new products including genetically modified competitive products;
- /\*/  
unexpected negative results from research and development and testing of current product candidates;
- /\*/  
the ability to maintain plant utilization rates and to implement planned capacity additions and expansions;
- /\*/  
the ability to reduce production costs by implementing technological improvements to existing plants;
- /\*/  
the existence of temporary industry surplus production capacity resulting from the integration and start-up of new world-scale plants;
- /\*/  
potential liability resulting from pending or future litigation, including litigation and investigations relating to antitrust violations in the vitamins business until early 1999;
- /\*/  
potential liability for remedial actions under existing or future environmental regulations;
- /\*/  
changes in currency exchange rates, interest rates and inflation rates; and
- /\*/  
changes in business strategy and various other factors referenced in this Annual Report.

Many of these factors are macroeconomic in nature and are, therefore, beyond the control of BASF's management. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated, expected, intended, planned or projected. BASF does not intend, and does not assume any obligation, to update the forward-looking statements contained in this Annual Report.

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## **PART I**

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

**SELECTED FINANCIAL DATA**

The following selected financial data for each of the years in the five-year period ended December 31, 2004 are excerpted from the Consolidated Financial Statements of BASF, which have been audited by Deloitte & Touche GmbH, independent accountants during this period. These data are set forth in accordance with generally accepted accounting principles in Germany (German GAAP) and U.S. GAAP for all periods presented.

BASF's accounting and valuation methods conform to International Financial Reporting Standards to the extent permissible under the German Commercial Code based on the accounting standards issued by the German Accounting Standards Board (GASB). See Notes 1 and 2 to the Consolidated Financial Statements in Item 18 for further information. The selected financial data presented below in accordance with U.S. GAAP for the years 2002, 2003 and 2004 have been derived from the Consolidated Financial Statements included in Item 18. The reconciliation of the differences between German GAAP and U.S. GAAP is described in Note 3 to the Consolidated Financial Statements.

The translation of euros into U.S. dollars for 2004 has been made solely for the convenience of the reader at the noon buying rate of the Federal Reserve Bank of New York (the "Noon Buying Rate") on December 31, 2004, which was U.S. \$1.3538 = €1.00. No representation is made that such euro amounts could have been or could be converted into dollars at that or any other exchange rate on such date or any other dates.

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	2004	2004	2003	2002	2001	2000
	(Million € and Million \$, Except Per Share Data and Certain Other Data)					
<b>Income Statement Data</b>						
<b>German GAAP</b>						
Sales, net of natural gas taxes	\$50,817	€37,537	€33,361	€32,216	€32,500	€35,946
Gross profit on sales	16,109	11,899	10,028	10,400	10,312	12,691
Income from operations	6,574	4,856	2,658	2,641	1,217	3,070
<i>Thereof special items</i>	(50)	(37)	(335)	(240)	(1,076)	(330)
Income from ordinary activities	5,441	4,019	2,168	2,641	609	2,827
Extraordinary income before taxes					6,121	
Income before taxes and minority interests	5,441	4,019	2,168	2,641	6,730	2,827
Income before minority interests	2,726	2,014	976	1,599	5,826	1,282
Net income	2,549	1,883	910	1,504	5,858	1,240
Basic earnings per share	4.64	3.43	1.62	2.60	9.72	2.02
<b>Balance Sheet Data</b>						
<b>German GAAP</b>						
Fixed assets	23,954	17,694	19,463	20,458	21,493	21,769
Current assets including deferred taxes and prepaid expenses	21,961	16,222	14,139	14,628	15,382	16,788
<b>Total assets</b>	<b>45,915</b>	<b>33,916</b>	<b>33,602</b>	<b>35,086</b>	<b>36,875</b>	<b>38,557</b>
Stockholders' equity	21,343	15,765	15,879	16,942	17,522	14,295
<i>Thereof subscribed capital</i>	1,873	1,384	1,425	1,460	1,494	1,555
Provisions and Liabilities	24,572	18,151	17,723	18,144	19,353	24,262
<i>Thereof long-term</i>	12,326	9,105	10,285	9,211	9,955	9,059
<b>Total stockholders' equity and liabilities</b>	<b>45,915</b>	<b>33,916</b>	<b>33,602</b>	<b>35,086</b>	<b>36,875</b>	<b>38,557</b>
<b>Capital Expenditures and Depreciation</b>						
Additions to fixed assets	2,959	2,186	3,541	3,289	4,053	8,637
Depreciation and amortization of fixed assets.	4,193	3,097	2,682	2,501	2,945	2,921
<b>U.S. GAAP Reconciliation</b>						
Net income*	2,522	1,863	1,320	1,716	5,655**	1,520**
<i>Thereof from continuing operations*</i>	2,522	1,863	1,320	1,716	(265)**	1,365**
Basic earnings per share*	4.59	3.39	2.35	2.96	9.38**	2.45**
Income from continuing operations per share*.	4.59	3.39	2.35	2.96	(0.44)**	2.20**
Diluted earnings per share*	4.59	3.39	2.35	2.96	9.38**	2.43**
Stockholders' equity*	23,230	17,159	17,324	18,040	18,659**	15,387**
<b>Key Ratios</b>						
Return on sales (%) <sup>(1)</sup>	12.9	12.9	8.0	8.2	3.7	8.5
Return on assets (%) <sup>(2)</sup>	12.9	12.9	7.4	8.4	3.1	9.9
Return on equity after taxes (%) <sup>(3)</sup>	12.7	12.7	6.0	9.3	(1.0)	9.0

**Weighted Average of Shares Outstanding Used in Determining Earnings per Share:**

	2004	2003	2002	2001	2000
Basic earnings per share	548,714,243	561,886,993	579,118,368	602,586,176	612,806,123
Diluted earnings per share	548,714,243	561,886,993	579,118,368	602,586,176	621,581,022

\*

**Change in accounting policy for inventories** Amounts in accordance with U.S. GAAP for 2000 through 2003 restated for the change in accounting for inventories. BASF Group is required to comply with the International Financial Reporting Standards (IFRS) for the 2005 reporting year due to a mandate by the European Union. In order to capture this development in the 2004 reporting year, IFRS have been followed to the greatest extent permissible under German GAAP. As the LIFO method is not allowed under IFRS, inventory valuation has been changed to the average cost method, which has also been adopted for U.S. GAAP. A change from the LIFO method to another method requires a restatement of previously reported financial information. For further information please see Note 3 to the Consolidated Financial Statements in Item 18.

\*\*

unaudited

(1)

Return on sales (%) is calculated by dividing income from operations by net sales.

(2)

Return on assets (%) is calculated by dividing income from ordinary activities plus interest expenses by the average amount of total assets of the current and the previous year.

(3)

Return on equity after taxes (%) is calculated by dividing net income, excluding extraordinary income after taxes, by the average amount of stockholders' equity of the current and the previous year.

## REPORTABLE OPERATING SEGMENT DATA

	2004	2004	2003	2002	2001	2000
			(Million € and Million \$)			
<b>Chemicals</b>						
Sales	\$9,504	€7,020	€5,752	€5,317	€4,494	€4,504
Income from operations	1,680	1,241	393	635	362	640
<i>Thereof special items</i>	(126)	(93)	(107)	(41)	(63)	(5)
Assets	6,780	5,008	4,720	4,997	4,847	4,232
<b>Plastics</b>						
Sales	14,258	10,532	8,787	8,477	8,185	11,030
Income from operations	906	669	296	582	(2)	902
<i>Thereof special items</i>	(79)	(58)	(67)	(11)	(182)	101
Assets	8,182	6,044	5,598	6,174	6,344	6,086
<b>Performance Products</b>						
Sales	10,837	8,005	7,633	8,014	8,154	8,418
Income from operations	1,446	1,068	478	646	99	586
<i>Thereof special items</i>	376	278	(90)	(7)	(298)	(32)
Assets	5,992	4,426	4,656	5,218	6,048	6,266
<b>Agricultural Products and Nutrition<sup>(1)</sup></b>						
<i>Thereof Agricultural Products</i>						
Sales	4,541	3,354	3,176	2,954	3,478	2,428
Income from operations	666	492	234	61	18	(443)
<i>Thereof special items</i>	(87)	(64)	(60)	(38)	(182)	(341)
Assets	6,565	4,849	5,523	5,092	6,377	6,607
<i>Fine Chemicals</i>						
Sales	2,427	1,793	1,845	1,970	1,984	1,739
Income from operations	65	48	125	(6)	(210)	(5)
<i>Thereof special items</i>	(56)	(41)	(8)	(124)	(283)	(50)
Assets	1,718	1,269	1,303	1,392	1,488	1,368
<i>Pharmaceuticals discontinued operations</i>						
Sales					364	2,526
Income from operations					30	243
<i>Thereof special items</i>					29	(62)
Assets						2,228
<b>Oil &amp; Gas</b>						
Sales	7,125	5,263	4,791	4,199	4,516	3,957
Income from operations	2,216	1,637	1,365	1,210	1,308	1,310
<i>Thereof special items</i>	(14)	(10)				44
Assets	5,247	3,876	3,711	3,648	3,149	3,540
<b>Others</b>						
Sales	2,125	1,570	1,377	1,285	1,325	1,344
Income from operations	(405)	(299)	(233)	(487)	(388)	(163)
Assets	11,431	8,444	8,091	8,565	8,622	8,230
<b>BASF Group</b>						
Sales	50,817	37,537	33,361	32,216	32,500	35,946
Income from operations	6,574	4,856	2,658	2,641	1,217	3,070
<i>Thereof special items</i>	(50)	(37)	(335)	(240)	(1,076)	(330)
Assets	45,915	33,916	33,602	35,086	36,875	38,557

(1) Until 2001 including the pharmaceuticals business.

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### Dividends

The Board of Executive Directors and the Supervisory Board of BASF Aktiengesellschaft propose dividends based on BASF Aktiengesellschaft's year-end unconsolidated financial statements. The proposal is then voted on at BASF's Annual Meeting, which is usually held at the end of April of the following year. Official invitation to the Annual Meeting is issued about six weeks in advance.

Since all BASF Shares are in bearer form, dividends are either remitted to the custodian bank on behalf of the stockholder, generally within two business days following the Annual Meeting, or, in the case of stockholders personally possessing certificates, available immediately following the Annual Meeting upon submission of the dividend coupon at the offices of BASF Aktiengesellschaft in Ludwigshafen, Germany, or the offices of BASF Aktiengesellschaft's appointed paying agents. On the dividend record date, record holders of BASF's American Depositary Receipts (ADRs) will be entitled to receive payment in full of the declared dividend in respect of the year for which it is declared. Cash dividends payable to ADR holders will be paid to The Bank of New York, as depository, in euros and, subject to certain exceptions, will be converted by the depository into U.S. dollars. The amount of dividends received by holders of ADRs may be affected by fluctuations in exchange rates. See "Exchange Rate Information" for further information.

The following table lists the annual dividends payable per BASF Share in euros and the U.S. dollar equivalent for each of the years indicated. The table also discloses the dividend amount per BASF Share for 2004 proposed by the Supervisory Board and the Board of Executive Directors for approval at the Annual Meeting to be held on April 28, 2005. The table does not reflect the related tax credits available to eligible taxpayers. See "Item 10. Additional Information Taxation of Dividends" for further information.

Year Ended December 31,	Dividend Paid For Each BASF Share	
	Euro	Dollar
2004	1.70	2.30
2003	1.40	1.76
2002	1.40	1.47
2001	1.30	1.16
2000	2.00 <sup>(1)</sup>	1.88

(1) Thereof special dividend of €0.70 per qualifying share to distribute in full equity charged with 45% corporation tax.

The euro dividend amounts are translated solely for the convenience of the reader into U.S. dollars (rounded to the nearest cent) at the Noon Buying Rate on the dividend payment date. For the dividend proposed to be paid in 2005 for the year ended December 31, 2004, the euro amount is translated into U.S. dollars (rounded to the nearest cent) on the basis of the Noon Buying Rate on December 31, 2004 of \$1.3538 = €1.00.

### Exchange Rate Information

On January 1, 2002, the euro became the sole legal tender for business transactions in Germany and the other eleven countries participating in the European Monetary Union.

Since January 4, 1999, BASF Shares have been quoted in euros on the Frankfurt Stock Exchange. Fluctuations in the exchange rate between the euro and the U.S. dollar will affect, among other things, the U.S. dollar amount received by holders of BASF's ADRs upon conversion by the depository of any cash dividends paid in euros on BASF Shares. It will also affect the U.S. dollar equivalent of the euro price of BASF Shares on the Frankfurt Stock Exchange, which will affect the market price of the ADRs on the New York Stock Exchange.

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The table below sets forth, for the periods and dates indicated, the high, low, period-average and period-end Noon Buying Rates for euros expressed in U.S. dollars for one euro. No representation is made that the euro or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or euros, as the case may be, at any particular rate.

Year	U.S. Dollar For One Euro			Period End
	High	Low	Period Average <sup>(1)</sup>	
2004	1.3625	1.1801	1.2478	1.3538
2003	1.2597	1.0361	1.1411	1.2597
2002	1.0485	0.8594	0.9495	1.0485
2001	0.9520	0.8370	0.8909	0.8901
2000	1.0335	0.8270	0.9207	0.9388

(1) The average of the Noon Buying Rates on the last business day of each full month during the relevant period.

The high and low exchange rates for the euro for each month during the previous six months is set forth below:

Month	U.S. Dollar For One Euro	
	High	Low
February, 2005	1.3274	1.2773
January, 2005	1.3476	1.2954
December, 2004	1.3625	1.3224
November, 2004	1.3288	1.2703
October, 2004	1.2783	1.2271
September, 2004	1.2417	1.2052

The Noon Buying Rate for the euro on March 1, 2005 was quoted by the Federal Reserve Bank of New York at 1.3189 U.S. dollars for one euro.

As of January 4, 1999, the commencement date of euro trading, the Noon Buying Rate for the euro was quoted at \$1.1812 = €1.00.

Because a substantial portion of the BASF Group's revenues and expenses are denominated in currencies other than the euro, results of operations and cash flows may be materially affected by movements in the exchange rate between the euro and the respective currencies to which the Group is exposed. For a discussion of the effect exchange rate fluctuations have on the BASF Group's business and operations and also the hedging techniques used to manage the Group's exposure to such fluctuations, see "Item 5. Operating and Financial Review and Prospects Exchange Rate Exposure and Risk Management" and "Item 11. Quantitative and Qualitative Disclosures about Market Risk."

### Risk Factors

BASF's business, financial condition or results of operations could suffer adverse material effects due to any of the following risks. While all the risks considered material are described below, these are not the only risks BASF faces. Additional risks not known by BASF or not presently considered material might also impair BASF's business operations.

#### *Certain developments in the global economy generally may adversely affect BASF's sales and earnings*

Four major economic factors may pose risks affecting BASF's sales and earnings: 1. Oil price developments could be different from estimated tendency to decline, 2. The U.S. dollar may further

devalue against the euro and Asian currencies, 3. China's economy might experience a significantly reduced growth rate compared with expectations, and 4. U.S. interest rates could increase faster or more drastically than anticipated.

Decreasing demand for chemical products in the United States and Asia, as well as ongoing economic weakness in Europe, could consequently have an adverse effect on both sales and earnings. Those areas that are subject to commoditization, such as BASF's basic inorganic chemicals, petrochemicals, intermediates and plastics operations are particularly vulnerable, whereas BASF's agricultural, nutrition and cosmetics operations and natural gas trading are less likely to suffer. BASF is also regionally diversified, and therefore less likely to suffer from weakness in a specific region.

***Changes in regulatory controls could reduce the profitability of BASF's current products and could delay BASF's introduction of new products***

BASF must comply with a broad range of regulatory controls on the testing, manufacturing and marketing of many of its products. BASF expects that regulatory controls worldwide, and especially in the European Union (E.U.), will become increasingly more demanding. The proposed new E.U. chemicals policy (REACH) could require a significant increase in testing for chemical products. These tests could be very cost intensive and time consuming, and could lead to increased costs and reduced operating margins for BASF's chemical products. The new legislation is not expected to be in force before 2007 in the respective countries in Europe.

Under the E.U. Directive on Emission Trading, governments have to impose total CO<sub>2</sub> (carbon dioxide) caps on specific energy intensive installations. These caps aim to enable E.U. member states to meet their Kyoto targets. The National Allocation Plans (NAPs) have been assigned in 2004 for the first period from 2005 until 2007. BASF expects to comply with these targets during the next years. BASF does not anticipate specific capital expenditure exceeding the general administration and adjustment costs that the European industry is facing. Significant capital expenditure and possible limitations of BASF's growth strategy could occur, if the allocation situation changes dramatically after 2007.

***BASF is exposed to foreign currency and interest rate risks***

BASF conducts a significant portion of its operations outside of Europe and is therefore exposed to risks associated with the fluctuations of foreign currencies. BASF is subject to interest rate risks in the ordinary course of its business.

Risk management is centralized at BASF Aktiengesellschaft and BASF Group companies designated for that purpose. BASF hedges against financial risks through derivative instruments such as forward exchange contracts, currency options, interest rate and currency swaps and combined instruments. There can be no assurance, however, that BASF's hedging strategy will be effective and that foreign currency and interest rate fluctuations will not adversely affect BASF's results of operations. See "Item 11. Quantitative and Qualitative Disclosures About Market Risk" and Note 27 to the Consolidated Financial Statements for additional information about the nominal value and market value of BASF's financial instruments.

BASF is also subject to credit risks to the extent that counterparties to transactions may not be able to perform their contractual obligations. Although BASF aims to limit the risk of default by entering into transactions only with top-rated financial institutions and by adhering to fixed limits, defaults with respect to significant contracts may adversely affect BASF's operating results.

***Significant variations in the cost and availability of raw materials, energy, precursors and intermediates may adversely affect BASF's operating results***

BASF uses significant amounts of raw materials and energy in manufacturing a wide variety of products. Significant variations in the cost and availability of raw materials, energy, precursors and intermediates may

adversely affect BASF's operating results. To control these price and supply risks, BASF purchases raw materials through negotiated long-term contracts, with prices that periodically float. Additionally required purchases on spot markets are made using optimized procedures. Supply contracts for the most strategically important raw materials are negotiated and concluded centrally for the BASF Group. For more information, see "Item 4. Information on the Company Supplies and Raw Materials."

BASF's individual business units constantly monitor changes in their relevant supply markets and take action to minimize their risks accordingly.

***Cyclicalities may adversely affect BASF's operating margins***

The results of BASF's Chemicals, Plastics and Performance Products segments are affected by cyclicalities and migration of various industries in which they operate, including the automotive, construction, electrical and electronics as well as the textile industries. BASF's strategy to deal with these risks is to constantly expand its cyclically resilient businesses, such as agrochemicals, active ingredients for pharmaceuticals and nutrition, and trading and transmission of natural gas. In cyclical businesses, BASF seeks to maintain cost leadership. BASF strives to anticipate customer migration tendencies and adjusts to customer industries by continued investment activities in emerging growth markets.

***The results of BASF's crop protection business are dependent on weather conditions and can be affected by local and regional economic circumstances***

Sales volumes of BASF's crop protection products are subject to the agricultural sector's dependency on weather conditions. Adverse weather conditions in a particular growing region could materially negatively affect the results of operations of BASF's crop protection business. Demand for crop protection products is further influenced by the agricultural policies of governments and multinational organizations. In addition, BASF's crop protection products are typically sold pursuant to contracts with long payment terms. These extended payment periods make BASF's crop protection business susceptible to losses from receivables during local or regional economic crises and may adversely affect BASF's operating results.

***Exploration risk may adversely affect the business of BASF's Oil & Gas segment***

The future growth of the exploration and production unit of our Oil & Gas segment is dependent on successful findings. The search for new oil and natural gas reserves involves certain geological risks that relate to the availability of hydrocarbon products and the quality thereof. The exploration and production industries are experienced in dealing with these risks diligently. We diversify our risks through a balanced exploration portfolio.

***Failure to develop new products and production technologies may harm BASF's competitive position and operating results***

BASF's operating results depend on the development of commercially viable new products and production technologies. BASF devotes substantial resources to research and development. Because of the lengthy development process, technological challenges and intense competition, there can be no assurance that any of the products BASF is currently developing, or may begin to develop in the future, will become market-ready and achieve substantial commercial success.

***Negative developments in equity and bond markets may make extraordinary contributions to pension funds necessary***

The fund assets required to cover future pension obligations are actuarially determined using assumptions concerning the expected return on plan assets. The plan assets are partially comprised of equity investments. Declining returns on equity and bond markets could trigger additional contributions to

the pension plans to cover future pension obligations. The amortization of additional contributions that are deferred as prepaid pension assets increase future pension expenses.

***BASF is dependent upon hiring and retaining highly qualified management and technical personnel***

Competition for highly qualified management and technical personnel is intense in the industries in which BASF operates. BASF's future success depends in part on its continued ability to hire, integrate and retain highly skilled employees.

***BASF is subject to the risks associated with the use of information technology***

BASF is dependent upon technology for the distribution of information within the BASF Group and to customers and suppliers. This information technology is subject to risks associated with defects, errors, failures and computer viruses. To control potential risks relating to information technology, BASF uses the latest hardware and software and has integrated uniform information technology infrastructures, backup systems, replicated databases, virus and access protection, encoding systems and a high degree of internal networking. There can be no assurance, however, that BASF's information technology systems will not fail and cause material disruptions to BASF's business.

***BASF is subject to security risks***

Assessing security risks on a worldwide basis and determining their potential impact on BASF has become an extremely difficult undertaking since the terrorist attacks in the United States. BASF's corporate security is in close contact with local security offices through its group-wide network, and takes controlled precautionary steps with the help of constantly updated security measures and recommendations (e.g., travel restrictions, tighter access controls for production plants, up-dating of rescue and evacuation plans, emergency services, etc.) to protect the company and its employees.

***Litigation could harm BASF's operating results and cash flows***

For further information see "Item 8. Financial Information - Legal Proceedings" and Note 25 to the Consolidated Financial Statements.

Item 4. Information on the Company

**HISTORY AND DEVELOPMENT OF THE COMPANY**

BASF Aktiengesellschaft was incorporated as a stock corporation under the laws of the Federal Republic of Germany on January 30, 1952 under the name "Badische Anilin- und Soda-Fabrik AG." In 1973, the company changed its name to BASF Aktiengesellschaft. BASF Aktiengesellschaft's headquarters are located in Ludwigshafen, Germany; its registered office is located at Carl Bosch Strasse 38, 67056 Ludwigshafen, Federal Republic of Germany, telephone 011-49-621-60-0. The company's agent for U.S. federal securities law purposes is BASF Corporation, located at 100 Campus Drive, Florham Park, New Jersey 07932, telephone (973) 245-6000.

Major recent acquisitions and divestitures include the following: BASF divested the printing systems business to CVC Capital Partners on November 30, 2004. On July 20, 2004, BASF divested the 30% share in DyStar to Platinum Equity. In 2003, BASF purchased the worldwide engineering plastics business from and sold its worldwide nylon fibers business to Honeywell International. BASF also acquired the insecticide fipronil, and certain fungicides for seed treatment from Bayer CropScience in 2003.

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Major recent capital expenditures included:

Segment	Location	Project	Projected Annual Capacity at Completion of Project (metric tons)	Start-Up/Projected Start-Up of Operations
<b>Chemicals</b>	Caojing, China	Tetrahydrofuran / polytetrahydrofuran	80,000 / 60,000	2005
	Nanjing, China	Integrated production site; major products include: /*/ ethylene	600,000 <sup>(1)</sup>	2005
		/*/ ethylene glycol	300,000	
		/*/ aromatics	300,000	
		/*/ oxo alcohols	250,000	
		/*/ organic acids	80,000	
Port Arthur, Texas	Butadiene	410,000 <sup>(2)</sup>	2004	
<b>Plastics</b>	Altamira, Mexico	EPS expansion	150,000 <sup>(3)</sup>	2005
	Antwerp, Belgium	Terluran (ABS)	200,000	2004
	Antwerp, Belgium	Propylene oxide	300,000 <sup>(4)</sup>	2008
	Antwerp, Belgium	Hydrogen peroxide	200,000 <sup>(5)</sup>	2008
	Caojing, China	MDI (diphenylmethane diisocyanate)	240,000 <sup>(6)</sup>	2006
	Caojing, China	TDI (toluene diisocyanate)	160,000 <sup>(7)</sup>	2006
	Kuantan, Malaysia	Ultradur (PBT)	60,000 <sup>(8)</sup>	2006
	Pudong, China	Polyurethanes specialties		2007
<b>Performance Products</b>	Nanjing, China	Acrylic monomers	160,000 <sup>(1)</sup>	2005

(1) Conducted through a joint venture between Sinopec Corp., China (50%) and BASF (50%), (capacity reflects total joint venture capacity).

(2) Conducted through a joint venture between Shell Chemical Company, Texas (60%), BASF (24%) and Total Petrochemicals USA, Inc., Texas (16%) (capacity reflects total joint venture capacity).

(3) Conducted through the joint venture Polioles S.A. de C.V., Mexico (capacity reflects total joint venture capacity of which BASF has a 50% share).

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- (4) Conducted through a joint venture with The Dow Chemical Company, Michigan (capacity reflects total joint venture capacity).
- (5) Conducted through a joint venture with Solvay S.A., Belgium (capacity reflects total joint venture capacity).
- (6) Conducted through a joint venture with Sinopec Shanghai Gao Qiao Petrochemical Corporation, China; Shanghai Chlor-Alkali Chemical Co. Ltd., China and the Shanghai Hua Yi (Group) Company, China as well as Huntsman China Investments B.V., Netherlands (capacity reflects total joint venture capacity of which BASF has a 35% share).
- (7) Conducted through a joint venture with Sinopec Shanghai Gao Qiao Petrochemical Corporation, China and the Shanghai Hua Yi (Group) Company, China (capacity reflects total joint venture capacity of which BASF has a 70% share).
- (8) Conducted through a joint venture with Toray Industries Inc., Japan (capacity reflects total joint venture capacity of which BASF has a 50% share).

## BUSINESS OVERVIEW

### Introduction

BASF is a transnational chemical company that comprises the parent company, BASF Aktiengesellschaft of Ludwigshafen, Germany, and 159 consolidated subsidiaries. The company has customers in more than 160 countries and operates production sites in 41 countries.

For the year ended December 31, 2004, BASF reported sales of €37,537 million, income from operations of €4,856 million, and net income after taxes and minority interests of €1,883 million. Based on customer location, BASF's activities in Europe accounted for 55.9% of BASF's total sales in 2004; North America (which includes the United States, Mexico and Canada) accounted for 21.8% of sales; the Asia, Pacific Area, Africa region accounted for 16.8% of sales; and South America accounted for 5.5% of sales.

### Structure

BASF has five separate business segments: Chemicals, Plastics, Performance Products, Agricultural Products & Nutrition and Oil & Gas. These business segments encompass BASF's 12 operating divisions. For financial reporting purposes, the two operating divisions of BASF's Agricultural Products & Nutrition business segment are separate reportable operating segments: Agricultural Products and Fine Chemicals.

BASF's operations are linked with what is referred to as the "Verbund" structure. Verbund loosely translates as "integration", but the meaning encompasses far more than what is traditionally associated with backward or forward integration. In production processes, BASF does not simply look forward and backward to find potential efficiencies, but rather examines every input and every output of these processes. At Verbund sites, BASF uses byproducts of chemical reactions that might otherwise have to be disposed of as raw materials for other processes. In addition, many chemical processes release heat energy, which BASF converts into steam and then uses to drive other processes within a Verbund site. This allows our Verbund sites to consume less fossil fuel than would otherwise be required. The closely linked plants at a Verbund site also allow the use of pipelines to transport intermediate products, instead of railcars, barges or trucks, thus resulting in further savings. By reusing byproducts and residual materials, using energy and other raw materials efficiently, and keeping the distances that substances need to be transported to a minimum, BASF reduces the impact on the environment and saves money. This concept of benefiting from interconnectivity is applied to other areas as well, such as R&D, purchasing and managing customer relationships, where globally interactive teams maximize BASF's productivity.

### Group Strategy

Chemistry offers enormous opportunities. It is the key to a future that we actively shape. We help our customers to be more successful with a variety of products, applications and intelligent system solutions. Our business activities are governed by innovation and sustainability to ensure that we will still be the world's leading chemical company in 2015 and beyond.

We are concentrating on and expanding our strengths in our chemical businesses, in agricultural products and nutrition, and in oil and gas. In doing so, we aim to make our portfolio more resilient toward cyclicity and oil price fluctuations.

In addition, we are consistently utilizing technological change to create advantages for BASF. We are using the opportunities provided by biotechnology, nanomaterials, material sciences and energy-management technologies to offer our customers products and system solutions with cutting-edge properties. In doing so, we open up attractive business opportunities for them and us.

***Four guidelines for our future***

Four strategic guidelines describe BASF's path to the future:

- /\*/* earn a premium on our cost of capital,
- /\*/* help our customers to be more successful,
- /\*/* form the best team in industry, and
- /\*/* ensure sustainable development.

***Earn a premium on our cost of capital***

We earn a premium on our cost of capital to increase the value of BASF. To achieve this goal, we have been expanding on our value-based management strategy since 2003. EBIT (earnings before interest and taxes) after cost of capital is now the key performance and management indicator for our operating divisions and business units. We measure every business decision and our performance on the basis of how it influences earnings after cost of capital in the short and long term. As a result, all of our employees help us to improve cost structures, to use our capital more economically and to grow profitably.

The BASF Group must achieve an EBIT of 10% on its operating assets to satisfy the returns expected by providers of equity and debt, and to cover tax expenses. The cost of capital percentage before interest and taxes of 10% corresponds to a weighted average cost of capital (WACC) of approximately 6% after taxes.

The WACC calculation is an internationally recognized method of determining a company's cost of capital. The return desired by shareholders and the interest rates on debt capital are determined and weighted according to their share of total capital. We calculate our cost of equity on the basis of the market value of BASF shares. The cost of capital percentage is reviewed annually. EBIT after cost of capital is calculated by subtracting income taxes for oil production that are noncompensable with German taxes (see Note 8 of Item 18) and the cost of capital from BASF Group's EBIT. Finally, EBIT for activities not assigned to the segments is added, since this is already provided for in the cost of capital percentage.

We achieve profitable growth through long-term value-adding investments, but above all through innovation. These include successful new products as well as more competitive processes. They are generated by an efficient innovation process in an environment that supports creativity and entrepreneurship. To obtain the best results from our funds, BASF is concentrating its resources even more closely on those business areas that show the greatest potential for profitable growth.

***Help our customers to be more successful***

We are there wherever our customers are. We invested in good time in growth markets, and are now active in all important markets worldwide. In order to grow profitably, we aim to focus even more closely on our customers' needs in the future, and develop and apply the best business models for our customers and for us. Our goal is to increase the benefit of our products and system solutions throughout the value-adding chain. We are therefore looking harder at what our customers, markets and consumers want. In a close dialogue, we also aim to identify requirements that offer our customers and ourselves potential for growth as well as unique selling propositions. The systematic dialogue with our customers plays an important role in this effort: In joint teams, we look at how we can use our entire knowledge more efficiently to create intelligent solutions that will support our customers' success. To do this, we want to develop innovative business models that are oriented to the needs of our customers and their markets.

Through our Marketing & Sales Academy, we are working to increase the enthusiasm and expertise of our employees worldwide, and thus sharpen the customer focus. By supporting this process with networks to enhance knowledge transfer, we will also become more attractive for the best management trainees.

***Form the best team in industry***

Our highly qualified, motivated and committed team of employees are crucial for BASF's success in the global market. Attracting and developing the best talent therefore has top priority at our company.

We aim to enhance our employee's opportunities for self-learning and learning on the job. In doing so, we utilize novel integrated training concepts as well as new personnel development and qualification systems. To be an attractive employer, we have long used performance-related pay to encourage entrepreneurial thinking and acting. In the future, we will increasingly link pay at all levels to individual performance and the success of the company.

We are taking steps to broaden the international nature of our management team and also develop more women for management positions. By becoming more diverse, we will increase mutual understanding and our ability to tackle problems faster and more creatively. In the area of executive and professional development, we are paying greater attention to specific leadership skills in addition to technical ability. The Leadership Compass we published in 2004 clearly states what our senior executives undertake to achieve: clarity and a sense of reality, performance and speed, enthusiasm and inspiration, as well as strategic and operational leadership.

***Ensure sustainable development***

For BASF, sustainable development means combining long-term economic success with environmental protection and social responsibility. This is how we understand our contribution to ensure a better future for us and coming generations. The strategies needed to achieve this are developed and monitored by BASF's Sustainability Council and implemented with the support of regional networks in Asia, the Americas and Europe. In our view, our social responsibility lies in offering our employees performance-related compensation, investing in their education and life-long learning, and providing flexible, family-oriented arrangements for working hours.

The most important sustainability tools for our customers are our eco-efficiency analysis and our Expert Services Sustainability. The eco-efficiency analysis helps customers to decide which products and processes are best suited to their specific application from both economic and environmental viewpoints. Our Expert Services Sustainability combines our know-how in the fields of Responsible Care and sustainability to provide applications for our customers. Together with marketing and sales, we can thus offer services as well as products. As a result, sustainability pays off in the form of a better market position for our customers and BASF.

**CHEMICALS**

**Segment Overview**

The Chemicals segment produces a wide range of products, from basic petrochemicals and inorganic chemicals to higher-value intermediates, allowing BASF to exploit fully the benefits of its Verbund approach to integration. The segment is further organized into the Inorganics, Petrochemicals, and Intermediates divisions. Key information is provided in the following table:

	2004	2003	2002
	(Million €)		
Sales to third parties	7,020	5,752	5,317
Percentage of total BASF sales	19%	17%	17%
Intersegmental transfers	3,395	2,680	2,598
Income from operations	1,241	393	635
Capital expenditures	555	527	495

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The Chemicals segment produces a wide variety of chemicals that are sold to a multitude of industries including the chemical, construction, automotive, electrical, electronics, detergents, colorants, coatings, health and nutrition industries.

The Chemicals segment forms the basis of BASF's Verbund because its divisions both intensively consume and manufacture products along the company's core value-adding chains. Virtually all products that the segment sells to external customers are produced within this integrated network. Although most of the segment's sales are to external customers, 32.6% of the segment's total sales are intersegmental transfers to other BASF operations for the manufacture of higher-value products. The products manufactured for captive use include many basic and intermediate chemicals.

The principal raw materials used in the Chemicals segment are sulfur, salt, propane, butane, naphtha and natural gas. The segment purchases approximately 5% of its raw materials from other BASF operations. Natural gas, a key raw material for the Chemicals segment, is acquired both through BASF's joint venture WINGAS GmbH, and from external sources. All other principal raw materials are purchased from external sources. BASF does not rely on any dominant supplier for the raw materials of its Chemicals segment.

### Segment Strategy

The Chemicals segment focuses on the supply of cost-efficient standard chemicals for internal demand and on offering a broad range of intermediate and higher-value products for external customers. Success factors for the chemicals segment in a competitive environment are cost leadership, including competitively priced raw materials, economies of scale, leading technology and efficient production processes. The high and steady internal demand for the basic chemical building blocks produced by the Chemicals segment ensures a high capacity utilization of BASF's world-scale plants, e.g., steam crackers, ammonia plants, etc. BASF's capital expenditures and research and development efforts are focused on building world-scale plants, as well as on developing new technologies, improved processes and new products.

The Chemicals segment's global strategy is to maintain its leading market position in Europe, improve its cost structure and market position in North America, and expand its operations in Asia. In Europe, BASF modernized production plants and reduced fixed costs, such as changing over part of the chlorine plant in Ludwigshafen to the more cost-efficient membrane process in 2003.

In North America, the Chemicals segment operates one of the world's largest naphtha steam crackers in Port Arthur, Texas, in conjunction with its 40% partner, Total Petrochemicals USA, Inc., Texas. This steam cracker supplies propylene, ethylene and other products to BASF's Verbund sites in Geismar, Louisiana, and Freeport, Texas. In 2004, the C<sub>4</sub> complex that is integrated into the steam cracker in Port Arthur, Texas started operation. It includes an extraction unit for butadiene and an inalkylation unit owned jointly by BASF and its partners Shell and Total Petrochemicals as well as a metathesis unit owned by our joint venture with Total Petrochemicals. The latter will produce an additional 300,000 tons of propylene per year. In 2004, BASF acquired the plasticizer business of Sunoco, Inc., within North America to strengthen BASF's market position in this region.

In Asia, BASF has a number of major projects underway. These include the expansion of the Verbund site in Kuantan, Malaysia with our joint venture partner PETRONAS. The new butanediol complex in Kuantan, Malaysia started operation in 2004. The output of this plant will also be a precursor for our new polybutyleneterephthalate (PBT) plant, which we are constructing with our joint venture partner Toray, Japan. BASF is also constructing a new Verbund site in Nanjing, China with its joint venture partner SINOPEC. BASF expects all plants at the Nanjing site to be operational in 2005. In addition, in 2003 BASF started the construction of a new plant for tetrahydrofuran (THF) and polytetrahydrofuran (PolyTHF®) in Caojing, China, which will also start operations in 2005.

## Research and Development

In 2004, the Chemicals segment invested approximately €104 million in research and development. Research activities are focused on the development of improved or new production processes as well as on the development of innovative products.

Within the process development area, we aim to develop improved synthesis of organic and inorganic intermediates and industrial chemicals to strengthen our value-adding production chains. One example of this is BASF's new and proprietary technology for the synthesis of THF and subsequently PolyTHF®. Our new plant for THF and PolyTHF® that will start operations in 2005 will use this new technology, which eliminates the intermediary step of 1,4-Butanediol (BDO) that was previously necessary, thereby saving energy and reducing costs.

Within the product development area, we are concentrating on extending our product range with new, customer-oriented products and applications. We must understand our customers' products and processes and find the best solutions for their problems. A recent example in this area comes from the wood products industry. In 2004, we developed a new impregnating resin that reduces the electrostatic charging of a person walking on laminate flooring, thus lowering the risk of sparks, such as when touching a door handle. This product is currently being introduced into the market. Another example of the Chemicals segment's product innovations is our portfolio of ionic liquids. In 2004, BASF gained the process innovation award from European Chemical News for the first commercial application of this new and versatile product class.

## Products

The Chemicals segment has the following major product lines:

### *Inorganic Specialties and Electronic Grade Chemicals (Inorganics division)*

BASF offers a wide range of inorganic specialties which includes carbonyl iron powder, hydroxylamine free base, hydroxylammonium sulfate, boron specialties and BASF's innovative Catamold® line of products for powder injection molding of metal and ceramic components. The Catamold® line is especially suited for manufacturing tiny, intricate devices such as watch casings and orthodontic appliances. BASF sells these products globally to manufacturers in the automotive, construction and medical sectors, among other industries. BASF also produces some inorganic specialties in electronic grade, such as hydroxylamine free base for use in manufacturing semiconductors, light-emitting diodes, and flat and plasma screen displays.

### *Inorganic Chemicals (Inorganics division)*

BASF produces inorganic chemicals through value-adding chains of production based on nitrogen, sulfur and sodium chloride. Some of these are starting materials for superabsorbers, fertilizers, and other high-value chemicals. The products range from basic chemicals such as chlorine, sodium hydroxide, nitric acid and sulfuric acid to inorganic salts such as sodium and potassium alcoholates to ammonium salts. More than half of these products are for captive use within BASF's Verbund. The remaining products are sold primarily to other chemical companies.

### *Glues and Impregnating Resins (Inorganics division)*

BASF offers a wide variety of tailor-made adhesives for the wood products industry. These adhesives are used to bind together the particles, fibers and strands found in all types of particleboards, and are also used for surface bonding of wooden components. In addition, BASF produces impregnating resins, which are used to manufacture decorative paper and laminated flooring. BASF is also a producer of glues and impregnating resin raw materials such as ammonia, formaldehyde, methanol, urea and melamine. Europe is the primary market for this group of products.

***Cracker Products (Petrochemicals division)***

BASF produces the entire range of cracker products from ethylene and propylene to benzene and C<sub>4</sub> cuts. Of these, propylene is the most important starting product for BASF's value-adding chains, especially acrylic monomers, oxo alcohols and propylene oxide. Benzene is used captively, while the residues from benzene extraction are sold as gasoline components. Butadiene is used captively to produce dispersions and ABS (acrylonitrile-butadiene-styrene) and is also sold in the merchant market. Isobutene (a C<sub>4</sub> hydrocarbon) serves as the starting material for the polyisobutene value-adding chain of gasoline additives as well as the basic building block in vitamin synthesis. In Europe, all n-butenes are used in the synthesis of plasticizers and detergent alcohols. Higher olefins are marketed to the adhesives industry.

***Alkyene Oxides and Glycols (Petrochemicals division)***

Ethylene oxide derived from ethylene is used mainly to produce surfactants, ethanolamines, glycols and glycol ethers. Ethylene glycol is a product used in antifreeze by the automotive industry. BASF also supplies ethylene glycol to polyester manufacturers for the production of fibers, films and PET (polyethylene terephthalate) plastic bottles. Propylene oxide is synthesized from propylene and serves as a base for a wide variety of products, including surfactants, hydraulic fluids, solvents and propylene glycol.

***Solvents (Petrochemicals division)***

BASF offers a wide range of oxygenated, halogen-free solvents that are used to dissolve other chemicals and facilitate chemical reactions. BASF is the world's largest producer of oxo alcohols and is also a major producer of acetates, glycol ethers and glycol ether acetates, as well as the specialty solvents such as cyclohexanone. BASF sells most of these products globally, primarily to the coatings, pharmaceuticals and cosmetics industries.

***Plasticizers and Plasticizer Raw Materials (Petrochemicals division)***

BASF manufactures standard and specialty plasticizers, which are used in chemical processes to make rigid plastics flexible. BASF also sells the plasticizer precursor phthalic anhydride for use in dyestuffs and unsaturated polyester resins, and markets plasticizers based on higher alcohols. With our new specialty plasticizer Hexamoll DINCH, we offer an innovative alternative to our customers; this product was especially developed for sensitive human-contact applications like medical devices, toys, or food contact applications.

***Amines (Intermediates division)***

BASF is among the world's top three producers of amines, which are principally used to make detergents and cleaning products, process chemicals and agricultural products as well as pharmaceuticals. BASF offers approximately 140 different amines worldwide. Key products include ethanolamines, ethyleneamines, alkylamines, alkylalkanolamines and several specialty and aromatic amines.

***Butanediol and its derivatives (Intermediates division)***

BASF produces and sells these products globally: BASF is the world's largest manufacturer of 1,4-butanediol, which is a chemical building block for products such as polyesters and polyurethanes. Its derivatives are used to produce products ranging from fibers to paints, and include tetrahydrofuran, PolyTHF®, gamma-butyrolactone and N-methylpyrrolidone.

***Polyalcohols and Specialties (Intermediates division)***

The polyalcohols such as 1,6-hexanediol and neopentylglycol (Neol®) are mainly used as raw materials for a wide range of coatings. In addition, BASF offers specialties like carbonates and various special acetylenics such as vinylmonomers and alkylpyrrolidones.

*Acids and Specialty Intermediates (Intermediates division)*

This product group comprises both commodity acid products and specialty intermediate products. Carbon acids such as formic acid, propionic acid and 2-ethylhexanoic acid can be used to manufacture preservatives for the feed and food industries, as well as auxiliaries for textile and leather applications. Specialty intermediates, such as derivatives of phosgene like acid chlorides and chloroformates, glyoxal and its derivatives, glutaraldehyde and various other chemicals such as formamide, triphenylphosphine and several chiral intermediates are often used in the manufacture of paper, polymers, textiles and leather products, and are of increasing importance for pharmaceuticals and agricultural products.

**Division Information**

**Inorganics**

BASF's Inorganics division sells about 750 products of which approximately 55% are allocated for captive use. These internal transfers include large amounts of chlorine, sodium hydroxide, ammonia, formaldehyde, methanol and nitric acid as precursors to create higher-value products. The remaining amount is sold to external customers worldwide in a broad range of industries.

In 2004, the Inorganics division's sales to third parties were €844 million. Thereof, Europe accounted for 76%; the Asia, Pacific Area, Africa region for 13%; North America (NAFTA) for 9%; and South America for 2%.

The most important production site for the Inorganics division is BASF's Verbund site in Ludwigshafen, Germany, where the division produces the majority of its product range. The division also produces basic inorganic chemicals such as ammonia, formaldehyde, nitric acid and sulfuric acid at the company's Verbund site in Antwerp, Belgium.

The Inorganics division's portfolio includes high margin inorganic specialties such as alcoholates as well as boron and potassium specialties, with customers in the important non-cyclical life science markets. Offering customers inorganic specialties and innovative products, especially in the areas of electronic grade chemicals, catalysts and powder injection molding products, allows BASF to maintain a competitive edge and thus contributes to the division's profitability. BASF aims to expand its business in inorganic specialties and catalysts for which the company can obtain higher margins.

The Inorganics division competes on the basis of strong customer relationships, comprehensive product service and price. In the market for specialty products, the division also competes based on its ability to offer innovative products, such as catalysts. The Inorganics division sells its products primarily through BASF's own sales force.

The Inorganics division's main competitors include Arkema, Norsk Hydro and Gentek. In the market for catalysts, the division's main competitors include Süd-Chemie, Criterion Catalyst & Technology Company and Procatalyse, while in the market for glues and impregnating resins, Nordkemi and Arkema are among BASF's competitors.

**Petrochemicals**

The Petrochemicals division sells more than 200 products and represents the first step in BASF's Verbund approach to integration for the company's petrochemical-based, high-value products.

In 2004, the Petrochemicals division's sales to third parties were €4,189 million. Thereof, North America (NAFTA) accounted for 49%; Europe for 44%; the Asia, Pacific Area, Africa region for 6%; and South America for 1%.

The Petrochemicals division's principal products include the basic building blocks of petrochemicals, which are produced primarily in steam crackers. In a steam cracker, steam is used to crack naphtha mainly into ethylene and propylene. Other materials produced in this process include aromatics such as benzene, and C<sub>4</sub> cuts (a mixture of C<sub>4</sub> hydrocarbons) a source of butadiene, isobutene and n-butenes.

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In Europe, BASF operates steam crackers in Ludwigshafen, Germany and Antwerp, Belgium. In the NAFTA region, it operates a steam cracker in Port Arthur, Texas with its 40% partner Total Petrochemicals USA, Inc., Texas. Although the steam crackers mainly supply products for captive use within the company, BASF maintains positions in the merchant markets for ethylene to ensure high capacity utilization. In Nanjing, China, a steam cracker and several downstream production facilities are expected to start operations in 2005.

The division's products, which are used both internally in BASF's value-adding chains of production and are also sold to external customers, include large amounts of ethylene, propylene, butadiene, benzene, oxo alcohols, phthalic anhydride, plasticizers, ethylene oxide, ethylene glycols, propylene oxide, propylene glycol and industrial gases.

The Petrochemicals division sells products through BASF's own sales force as well as through wholesalers. Specialty chemical and other chemical companies are the primary external customers of this division, and some of the customers are also competitors of BASF. Approximately 40% of the division's sales are to other BASF divisions. The remaining amount is sold to approximately 2,200 customers worldwide.

The Petrochemicals division produces commodities that are subject to strong cyclicity in pricing. Changes in the costs of raw materials have an almost immediate effect on the division's financial performance. Competition in the market is based on strong customer relationships, comprehensive product services and price.

BASF considers Shell Chemicals and BP Chemicals, Eastman Chemicals, Exxon Chemicals Company, Dow, SABIC EuroPetrochemicals, SINOPEC, and European Oxo to be the main competitors in its Petrochemicals division.

### **Intermediates**

The Intermediates division manufactures approximately 600 products that are sold to around 3,000 customers worldwide. These customers typically purchase the division's chemical products as precursors for their higher-value chemicals. Customers of the Intermediates division are largely active in the manufacture of plastics, polyurethanes, textile fibers, resins, paints, surfactants, colorants, coatings, pharmaceuticals and agricultural products.

In 2004, the Intermediates division's sales to third parties were €1,987 million. Thereof, Europe accounted for 51%; the Asia, Pacific Area, Africa region for 31%; North America (NAFTA) for 15%; and South America for 3%.

Many of the Intermediates division's products are more resilient to economic cycles than products in the Chemicals segment's other divisions, and many are the result of multi-step production processes within BASF before intermediates are sold to external customers. The division additionally satisfies high demand within BASF for cost-efficient precursors for the production of agricultural products, pharmaceuticals, paint resins, plastics, adhesives, dyes, pigments and process chemicals for the textile, leather and paper industries. Internal transfers to other BASF operations, in particular of amines, account for approximately 25% of the division's total sales.

The keys to the Intermediates division's success are achieving technological and cost leadership, offering customized products and, increasingly, developing a global production presence. Currently, we are building wholly owned plants for tetrahydrofuran and polytetrahydrofuran (PolyTHF®) in Caojing, China. The plants will be started up in 2005 and will utilize BASF's newly developed proprietary technology to convert butane directly to tetrahydrofuran and subsequently to PolyTHF®.

BASF sells this division's products through its own sales force as well as through distributors. BASF is among the top three producers worldwide in the main products of its four strategic intermediates' business units. In the amines markets, BASF considers its main competitors to be Air Products, Dow and Huntsman.

In BASF's activities of butanediol and derivatives, the company's major competitors are ISP, Invista, Lyondell, Dairen, Mitsubishi Chemicals and new entrants from China. Eastman Chemical and Ube Industries are considered to be the main competitors for polyalcohols and specialties. Finally, the main competitors in BASF's acids and specialty intermediates business are Kemira and BP Amoco.

## PLASTICS

### Segment Overview

BASF is one of the world's leading plastics manufacturers, and offers one of the industry's most comprehensive product ranges. The segment is organized into three divisions: Styrenics, Performance Polymers, and Polyurethanes. Key information is provided in the following table:

	2004	2003	2002
	(Million €)		
Sales to third parties	10,532	8,787	8,477
Percentage of total BASF sales	28%	26%	26%
Intersegmental transfers	677	541	436
Income from operations	669	296	582
Capital expenditures	454	539	636

The Plastics segment purchases over two-thirds of its raw materials from external suppliers. The principal raw materials are benzene, toluene, ethylene, propylene, butadiene, acrylonitrile, cyclohexane, and ammonia. BASF has a policy of maintaining multiple suppliers for raw materials of its Plastics segment, so that it is not dependent on any dominant supplier. However, it cannot be guaranteed that short-term tightness in the supply for a particular raw material will not occur.

### Segment Strategy

BASF's Plastics segment seeks to strengthen its position in the styrenics, nylon and polyurethane value-adding chains of chemistry through the following strategies:

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*Marketing and selling products more efficiently than competitors in key regional markets:* To support this strategic goal, BASF is realigning its businesses with standard products, specialties and systems solutions differently to meet the changed market and customer demands and thus introducing new business models for the respective products.

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*Establishing efficient business processes for the standard products:* In the standard products business, BASF is streamlining its portfolio to include only a limited number of product lines combined with appropriate marketing processes to consistently deliver high-quality products at minimum costs with maximum reliability.

/\*/

*Increasing sales of selected specialty products:* BASF aims to expand its position in the market for specialty products that can be easily derived from the company's value-adding chains of chemistry. These have the potential to generate competitive advantages both for the customers and BASF.

/\*/

*Boosting the efficiency of the company's global production activities:* BASF shifts production from older or smaller plants to more efficient world-scale plants, which rely on new technologies and offer substantial economies of scale. In Asia, the company is continuing to expand its production capacities and is building on its well-established base in the region.

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*Optimizing the regional portfolio:* To increase efficiency significantly, BASF is improving processes and cost structures in Europe and consolidating businesses in North America. In Asia, BASF continues to strengthen its position as one of the leading global manufacturers of plastics.



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*Working closely with customers in developing new specialties and systems solutions:* For specialties as well as systems solutions, BASF is cooperating with customers in the early development phases of new applications, which is a significant factor for the long-term success of our business.

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*Using e-commerce more extensively as a distribution channel:* BASF's sales through e-commerce channels such as our proprietary PlasticsPortal doubled to more than €2 billion in 2004. BASF expects that sales via these distribution channels will continue to increase in the future.

## **Research and Development**

In 2004, the Plastics segment spent approximately €138 million on research and development activities. We consider R&D to be a key element in ensuring the long-term success of our Plastics segment. Our R&D activities are focused in two areas: the manufacturing processes, and product development.

Within the process development area, we seek to improve existing manufacturing processes, and also to develop new cost-effective manufacturing alternatives. A good example of this is the new hydrogen peroxide to propylene oxide (HPPO) technology. Together with Dow, we developed this innovative process, which generates nothing but the end product propylene oxide (PO), avoiding co-products. This process is the most cost-effective method to produce PO, and plants using this technology require a significantly lower investment compared to conventional PO production processes. The construction of a world scale plant using this process is scheduled to begin in 2006 at our Antwerp Verbund site.

Within the product development area, we seek to work together with customers in order to develop innovative new products and improvements to our existing products. By working with customers from the start, we can ensure that the results of our efforts are marketable. For example, our Ultradur® High Speed that allows our customers in the automotive and electronics industry to reduce their manufacturing costs thanks to shorter production times, has been well received by the market. This decisive benefit is due to the material's radically improved melt flow, which is achieved by adding finely distributed nanoparticles. Innovative products like this help make our customers more successful and solidify BASF's position as the partner of choice.

## **Products**

The Plastics segment contains the following significant product lines:

### ***PS (Polystyrene) (Styrenics division)***

BASF's polystyrene products range from rigid and transparent general-purpose plastics to high impact-resistant grades that customers shape using injection molding, extrusion and blow molding. Primary applications include packaging and household appliances.

### ***EPS (Expandable Polystyrene) (Styrenics division)***

BASF sells expandable polystyrene under the brand names Styropor® and Neopor®. Expandable polystyrene's advantages include heat insulation, high compressive strength, shock absorption, low weight, and moisture resistance. Primary applications include building insulation and packaging.

### ***XPS (Extruded Polystyrene) (Styrenics division)***

BASF sells extruded polystyrene under the brand name Styrodur®. It is a green, extruded, rigid polystyrene foam that is made using environmentally friendly carbon dioxide as a blowing agent. Styrodur® offers heat insulation, low water absorption, and compressive strength. The primary application is building insulation.

***SAN (Styrene-Acrylonitrile Copolymers) (Styrenics division)***

Luran® is BASF's trade name for SAN plastic. It is transparent, chemical and dishwasher resistant, and offers a high degree of stiffness and resistance to temperature change. Primary applications include household and toiletry items, and packaging.

***ABS (Acrylonitrile-Butadiene-Styrene Copolymers) (Styrenics division)***

Terluran® is the trade name for BASF's top styrene copolymer plastic. It offers superior surface quality, mechanical properties and chemical resistance. Primary applications include electrical and electronic equipment, and automotive components.

***ASA (Acrylonitrile-Styrene-Acrylate Copolymers) (Styrenics division)***

Luran® S is the trade name for BASF's styrene copolymer plastic modified with rubber to make it resistant to weathering, aging and chemicals. Primary applications include exterior automotive components, electrical and electronic equipment.

***MABS (Methacrylate-Acrylonitrile-Butadiene-Styrene Copolymer) (Styrenics division)***

Terlux® is the trade name for BASF's MABS plastic. It offers transparency, luster, toughness and resistance to chemicals. Primary applications include hygiene and cosmetic product containers as well as medical equipment housings.

***MF (Melamine Resin Foam) (Styrenics division)***

BASF sells melamine resin foam under the brand name Basotect®. It is a flexible foam material that absorbs sound and offers high heat resistance and good flame retardant attributes. Primary applications include automotive components and soundproofing materials.

***PA (Polyamide) and Intermediates (Performance Polymers division)***

Ultradur® and Capron® are the trade names for BASF's engineering plastics based on nylon 6, nylon 6,6 and other copolymers. They offer toughness and strength as well as both heat and chemical resistance. Primary applications include automotive engine intake manifolds and flame retardant plastics for electrical components such as switches.

Ultradur® is also the trade name for BASF's base resin of nylon 6 and 6,6 sold in the fibers and extrusion market. Primary applications include carpets and textiles as well as films for food packaging.

Intermediates include caprolactam for nylon 6 and adipic acid and hexamethylenediamin for nylon 6,6.

***PBT (Polybutylene Terephthalate) (Performance Polymers division)***

Ultradur® is the trade name for BASF's engineering plastic based on PBT. It features high stiffness, strength, dimensional stability and heat and aging resistance. Primary applications include electrical connectors, and automotive components.

***POM (Polyoxymethylene) (Performance Polymers division)***

Ultraform® is the trade name for BASF's POM plastic. It offers high stiffness and strength, resilience and low wear. Primary applications include clips and fasteners, and mechanical and precision engineering devices such as shafts and gears.

***PES (Polyethersulfone) and PSU (Polysulfone) (Performance Polymers division)***

Ultrason® S and E are the trade names for BASF's PES and PSU plastics. The most important features of Ultrason are stiffness, and resistance to water and oily substances even at high temperatures. Other important features include electrical insulation properties and dimensional stability. Primary applications include automobile oil circulation systems, headlight reflectors, microwave dishes, and medical equipment.

***MDI (Diphenylmethane Diisocyanate) (Polyurethanes division)***

MDI is a versatile isocyanate that can be used to make flexible foams as well as semi-rigid and rigid polyurethane plastics. Primary applications include furniture interiors, automotive components, and shoe soles.

***TDI (Toluene Diisocyanate) (Polyurethanes division)***

TDI is an isocyanate used primarily in the manufacture of flexible foams. Primary applications include foam cushions for furniture, and automotive components.

***Polyether Polyols (Polyurethanes division)***

Polyether Polyols are combined with isocyanates to make virtually all polyurethane products, other than those made with polyester polyols. Primary applications include rigid and flexible foams.

***Polyester Polyols (Polyurethanes division)***

Polyester Polyols are combined with isocyanates to make primarily semi-rigid polyurethane plastics. Primary applications include cable sheathing and shoe soles.

***Polyurethane Systems (Polyurethanes division)***

BASF's worldwide polyurethane systems group offers tailor-made polyurethane products for a wide variety of applications. BASF develops ready-to-use polyurethane systems for customers, fulfilling customers' specific engineering requirements at its system houses around the world. Automotive OEM (original equipment manufacturer) suppliers comprise a significant customer group for polyurethane systems. OEM suppliers make seats, steering wheels, fenders and dashboards using BASF's polyurethane systems.

***TPU (Thermoplastic Polyurethane Elastomers) (Polyurethanes division)***

TPU is sold under the trade name Elastollan® and is based on both polyether polyols and polyester polyols. It is supplied in granular form to customers who use it primarily to make flexible plastic cable coverings. Customers for these products are primarily in the automotive and cable and wire industries.

***Cellular Elastomers (Polyurethanes division)***

Cellular Elastomers are sold under the names Cellasto®, Elastocell® as well as Emdicell® and are shock-absorbing, rigid plastics. Microcellular polyurethane parts for antivibration applications are sold, for example, as molded end products for use as shock absorbers and buffers in the automotive industry.

**Division Information**

**Styrenics**

BASF is one of a small number of global producers of styrenics, supplying customers in all major geographic markets worldwide. BASF continues to fine-tune Verbund structures at its production sites and to carry out backward integration where appropriate.

In 2004, the Styrenics division's sales to third parties were €4,450 million. Thereof, Europe accounted for 44%; the Asia, Pacific Area, Africa region for 32%; North America (NAFTA) for 19%; and South America for 5%.

BASF believes that cost-efficient business processes with an appropriate number of products manufactured in highly competitive world-scale plants are crucial to ensuring the continued competitiveness of its styrenics products. In the second quarter of 2004, the new ABS (Acrylonitrile-Butadiene-Styrene Copolymers) plant in Antwerp, Belgium started its production primarily for the European market. Together with its world scale plants in Ulsan, South Korea and Altamira, Mexico, BASF is now serving its customers with standard ABS globally out of three plants. As a consequence of our continuous process of restructuring, the EPS (expandable polystyrene) production in South Brunswick, New Jersey, will cease at the beginning of 2005. The extended plant in Altamira, Mexico will then supply the North American (NAFTA) area.

BASF continues to realign its business models for the standard products PS, ABS and EPS by streamlining the respective product portfolios and the specific business processes. Rising volatility of raw material prices and pricing pressure from low cost producers especially in Asia are leading to reduced margins. As a consequence, cost leadership in production and efficient business processes are crucial for these standard products. We therefore optimize our business models for standard products to meet the demands of our customers – consistent quality, reliable supply and competitive prices.

In contrast, BASF is targeting its specialties for profitable growth by focusing on market as well as application development and increased global sales. Starting in 2005, BASF is concentrating specialties in a newly established global business organization.

The Styrenics division sells products primarily through its own regional sales force, supported by BASF technical and marketing experts. The Styrenics division is increasingly relying on e-commerce (BASF's PlasticsPortal, EDI and VMI) for distributing its products.

The market for styrenics is global and characterized by intense price competition. Demand for styrenics continues to rise due to overall economic growth in both industrial and emerging markets.

The principal global competitors of the Styrenics division are Dow and Total. The division also competes in North America with Nova and in Europe with Enichem. In Asia, BASF competes with other regional competitors, such as Chi Mei, Loyal, and LG Chem.

### **Performance Polymers**

BASF is one of the world's leading producers of engineering plastics, extrusion products and fiber intermediates. In 2003, BASF purchased the engineering plastics business from Honeywell International and acquired the nylon 6,6 business of Ticona. In 2004, both businesses were successfully integrated into the division's engineering plastics activities.

In 2004, the Performance Polymers division's sales to third parties were €2,587 million. Thereof, Europe accounted for 49%; North America (NAFTA) for 28%; the Asia, Pacific Area, Africa region for 22%; and South America for 1%.

Performance Polymers products are sold to more than 2,000 customers worldwide, more than 85% of which are engineering plastics customers. This customer base consists largely of high-performance plastic molders and plastics component manufacturers in the automotive, consumer electronics, electrical equipment and packaging industries. These customers often rate product performance and customer support as important, but prices are becoming increasingly critical to customers in choosing a supplier.

To compete effectively in this market, the Performance Polymers division seeks to increase its preferred supplier status with global customers, many of whom demand collaboration in developing specific plastics applications. The division works with suppliers to automotive manufacturers to develop specific applications for parts such as engine components, airbag housings and electronic connectors.

The division's customers for engineering plastics, particularly in the automotive industry, are primarily global companies that demand uniform worldwide standards for products and services in all major markets. BASF sells engineering plastics products primarily through its own regional sales force supported by BASF's technical centers in Germany, the United States and Japan. These centers not only help customers to develop applications, but also independently research new markets and applications in which plastics can replace more conventional materials such as metal. In Asia, the division is expanding its sales force to build on its solid position in the market.

The large-volume markets for caprolactam and other fiber intermediate products are characterized by cyclicity, price competition and commodity pricing. Growth rates are usually low compared to the engineering plastics and extrusion market. The markets for extrusion grades, particularly films for food packaging, are gaining importance as they are less cyclic and show high growth rates, particularly in China.

The Performance Polymers division is increasingly relying on e-commerce as a channel for distributing its products, and operates its own website, [PlasticsPortal](#).

Major global competitors are Bayer, Celanese, Lanxess, DuPont, General Electric, DSM, UBE, Solutia and Rhodia.

### **Polyurethanes**

BASF's Polyurethanes division is one of the world's three largest producers of polyurethanes; important specialty plastics used to produce a wide spectrum of rigid, flexible, foamed and compact components for consumer products.

In 2004, the Polyurethanes division's sales to third parties were €3,495 million. Thereof, Europe accounted for 39%; North America (NAFTA) for 29%; the Asia, Pacific Area, Africa region for 29%; and South America for 3%.

BASF offers over 3,500 customized polyurethane solutions. These products are used to make a variety of automotive parts, including bumpers, steering wheels and instrument panels. BASF's polyurethanes can also be found in household goods, such as mattresses and upholstery, and in sports equipment, such as in-line skates and athletic shoes. The fashion industry is increasingly using BASF's polyurethanes, particularly to manufacture synthetic leathers.

The Polyurethanes division's products are broken down into three basic categories; polyurethane basic materials, polyurethane systems, and special elastomers. The Polyurethanes division sells the vast majority of its products to external customers.

To build on its strong relationships with customers, the Polyurethanes division is expanding its regional activities, focusing above all on the Asian market. In Yeosu, South Korea, a new plant for the production of TDI (*Toluene Diisocyanate*) based on new technology went onstream in 2003. For the support of our growth in Asia, the expansion of the existing MDI plant (*Diphenylmethane Diisocyanate*) was completed in the third quarter of 2004. In Caojing, China, BASF commenced construction of an integrated manufacturing facility for MDI and TDI with its local and international joint venture partners that is scheduled to come onstream in 2006.

For polyurethane systems and special elastomers, strong relationships with leading industry customers are crucial because of the highly individualized nature of these products. To strengthen its relationships with customers, BASF has established a global network of system houses. System houses are production sites that work closely with customers to provide specially formulated products for individual needs. The Polyurethanes division currently has 27 system houses around the world in locations near customers. BASF will continue to establish or acquire more.

Global demand for all polyurethane products is expected to continue growing as the global economy continues to expand. The market for polyurethane basic materials is less cyclical than the market for most

other standard plastics, primarily because polyurethane basic materials are relatively specialized. Competition in the market for basic materials is based primarily on price, although product quality and technical application assistance are also important to customers.

The markets for polyurethane systems and special elastomers are even less cyclical than those for polyurethane basic materials. Competition in the market for polyurethane systems and special elastomers is based primarily on a supplier's ability to satisfy customers' technical application needs by providing tailor-made formulations of isocyanates and polyols and also on a supplier's ability to accommodate customers' just-in-time manufacturing by delivering customized products quickly and at the appropriate time.

The main competitors of the Polyurethanes division are Bayer, Dow, Huntsman, Lyondell and Shell Chemicals.

## PERFORMANCE PRODUCTS

### Segment Overview

BASF is a leading global producer of performance chemicals, coatings and functional polymers through its Performance Products segment. This segment produces a broad range of high-value chemicals, formulations and integrated chemical systems solutions that it sells to many global companies in the automotive, coatings, oil, paper, packaging, textile, leather, detergent, sanitary care, construction, and chemical industries. BASF divested the printing systems business to CVC Capital Partners on November 30, 2004. Key information is provided in the following table:

	2004	2003	2002
	(Million €)		
Sales to third parties	8,005	7,633	8,014
Percentage of total BASF sales	21%	23%	25%
Intersegmental transfers	291	301	326
Income from operations	1,068	478	646
Capital expenditures	286	236	288

The Performance Products segment purchases approximately 50% of its raw materials from other BASF operations and does not rely on a dominant external supplier. The segment's principal raw materials are propylene, oxo alcohols, butadiene, styrene, ethylene oxide, propylene oxide, naphthalene, aliphatic alcohols, pigments, solvents and resins. The segment's products often represent the final stages in many value-adding chains within BASF's Verbund approach to integration.

### Segment Strategy

The key elements of the segment's success are:

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Developing products, integrated chemical systems solutions and application technologies tailored to the specific requirements of customers, and thereby ensuring sustainable development.

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Introducing new marketing programs, such as the "system supplier for coating materials" in the coatings division, where the segment takes over responsibility for the chemical management in customers' processes.

/\*/

Establishing and expanding regional manufacturing plants with economies of scale as well as development and application centers to better serve regional customers, particularly in the growth region Asia.

/\*/

Systematically controlling costs for standard products.

## Research and Development

In 2004, the segment spent €221 million on research and development activities. The main focus of the segment's research and development is on innovative and eco-efficient system solutions that are tailor-made for the processes and technologies of our customers. The target is to help customers to operate more successfully in their markets and to open growth potential for them and us. Therefore, close cooperation with customers holding leading market positions is of great importance in order to fully exploit the research resources and reduce the time to market. In addition, state-of-the-art application centers and pilot plants, for instance for coatings, paper making, or pressure-sensitive adhesives, are a key success factor, and serve to deepen our understanding of the customers' processes and assess new chemical systems under real application conditions.

Recent examples of successful innovations and system solutions are:

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Cyclanon® XC-W, is a textile processing product launched in May 2004. BASF became the first company to offer a post-clearing agent that can be used for all reactive dyes. This product removes all dye particles that are not completely absorbed by the fabric during the dyeing process, thereby improving colorfastness. At the same time, the new product reduces the number of rinsing baths, thus saving time, energy and water.

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"Integrated Process II," is an innovative coating method for customers in the automotive industry developed by BASF Coatings. By eliminating the filler coat and integrating its function into the subsequent basecoat layers, we can shorten coating lines and processes, economize on costs and materials, make more effective use of materials, reduce energy usage and reduce the environmental impact.

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We launched a completely new generation of binders for exterior paints based on nanocomposite dispersions. This innovative nanocomposite binder provides excellent resistance to dirt in architectural coatings. The unique properties of this new binder generation allows our customers in the coating industry to further enhance their end products such as exterior paints or wood stains.

## Products

The Performance Products segment contains the following significant product lines:

### *Pigments and Resins for Coatings and Plastics (Performance Chemicals division)*

The Performance Chemicals division offers organic and inorganic pigments, pigment preparations, non-textile dyes, process chemicals and resins. Resins are film-forming components used in UV (ultraviolet) curing coatings, urethane systems, and melamine based coatings. Pigments are insoluble dry coloring materials for paints, plastics, inks and other special applications. BASF's pigments and resins are used primarily in automotive, decorative, and industrial paint applications, as well as in the plastics industry.

### *Isobutene Derivative Chemistry (Performance Chemicals division)*

Isobutene is the starting material for polyisobutene, the most important component for BASF's branded fuel additives. Through its highly reactive polyisobutenes, BASF has established a new standard in the fuel and lubricant additives market. BASF is the only industry supplier with a product portfolio spanning low to ultra-high molecular polyisobutenes, and also manufactures polyisobutene derivatives such as polyisobuteneamine.

### *Surfactants (Performance Chemicals division)*

BASF produces a wide range of nonionic surfactants based on aliphatic alcohols, ethylene oxide and propylene oxide. Such products are used in detergents and cleaners, textile and leather auxiliaries.

***Hydrocyanic Acid Derivative Chemistry (Performance Chemicals division)***

BASF produces several chelating agents based on hydrocyanic acid, which serve as process chemicals in various industries. Applications include pulp manufacturing, electroplating, laundry detergents, cleaners and photographic chemicals.

***Performance Chemicals for Textiles (Performance Chemicals division)***

BASF offers textile and dyeing auxiliaries, pigment preparations for textile printing as well as inks for ink-jet printing technology. BASF's product range covers a wide spectrum of textile applications.

***Leather Dyes and Chemicals (Performance Chemicals division)***

BASF is one of the world's leading producers of leather chemicals and dyes, producing a full range of products for nearly every aspect of the leather production process.

***Automotive OEM (Original Equipment Manufacturer) Coatings Solutions***

BASF offers complete coatings solutions to coat car bodies and components as well as extensive technical support to major vehicle manufacturers. All of the world's leading automobile manufacturers are long-standing customers of BASF.

***Automotive Refinish / Commercial Transport Coatings Solutions***

For the refinishing of automobiles and coatings for commercial vehicles, BASF offers topcoat and undercoat materials through coating systems under the well-known brand names Glasurit®, R-M® and Salcomix®. Most of these systems, which are sold to paint distributors and automotive repair and body shops, increasingly use solvent-reducing waterborne coatings as well as high-solid systems.

***Industrial Coatings Solutions***

BASF offers environmentally efficient systems for coating industrial products. Application technologies include precoatings, powder, electro-deposition and liquid coatings that are used on household appliances, commercial vehicles, industrial buildings and radiator components. BASF is the second largest coil coatings producer.

***Decorative Paints (Coatings division)***

BASF is the leading producer of decorative paints for interior and exterior use in the South American market. BASF's dispersion and building paints are marketed under the Suvinil® trademark and enjoy a high level of customer recognition.

***Acrylic Monomers (Functional Polymers division)***

BASF is the world's largest producer of acrylic monomers, which are sold directly to internal and external customers in the form of acrylic acid, acrylic esters and special acrylics. Acrylic monomers are used as precursors to manufacture dispersions, superabsorbents, detergents, flocculants and fibers for a wide range of industries.

***Polymer Dispersions for the Adhesives and Construction Industries (Functional Polymers division)***

BASF's polymers products consist mainly of polymer dispersions for the manufacture of adhesives, paints and finishes, as well as non-woven materials and chemicals for the construction industry. BASF is

especially strong in its technical expertise and technology for adhesive raw materials, as well as in dispersions for paints and other coating materials.

***Paper Chemicals (Functional Polymers division)***

BASF offers the paper industry a comprehensive range of chemical products for many aspects of the paper production process, including the manufacture of untreated paper, paper finishing and wastewater treatment. The Functional Polymers division's product range of paper chemicals consists of paper-processing chemicals, paper dyes and dispersions for paper coating.

***Superabsorbents (Functional Polymers division)***

BASF sells superabsorbents globally to the personal hygiene industry, which uses these products to manufacture diapers and other sanitary care products.

**Division Information**

**Performance Chemicals**

BASF is one of the world's largest manufacturers of high-value performance chemicals, which the company sells to a broad range of customers worldwide in a wide variety of industries including the plastics, coatings, construction, detergent, automotive, oil, leather and textile industries.

BASF's strength is its Verbund approach: this gives the Performance Chemicals division an advantage over small and medium-sized companies that lack the cost advantages of integration. The Performance Chemicals division sells roughly 90% of its products to external customers.

In 2004, the Performance Chemicals division's sales to third parties were €3,228 million. Thereof, Europe accounted for 59%; the Asia, Pacific Area, Africa region for 21%; North America (NAFTA) for 15%; and South America for 5%.

The Performance Chemicals division comprises five different businesses: Performance Chemicals for Coatings, Plastics and Specialties, for Automotive and Oil Industry, for Detergents and Formulators, for Textiles and for Leather. Each business follows its own strategy, focusing on innovative products and systems solutions for growing markets. The division sells its products globally. BASF's own regional sales network sells most of the Performance Chemicals division's products. Distributors sell the balance of products, primarily to smaller customers. In the Asia Pacific region, we are increasing our sales activities to meet the needs of the growing markets especially for the textile and leather industries, which are continuing to relocate their activities from Europe and North America (NAFTA) to Asia.

BASF views the detergents industry as one of the division's most important markets. The company is one of the largest producers of nonionic surfactants. Surfactants enhance cleansing efficiency and are used, for example in household detergents and dishwashing agents as well as in industrial and institutional cleaning applications. The business unit Performance Chemicals for Coatings, Plastics and Specialties has been increasing its competitiveness by restructuring and consolidating production sites. The printing systems business (process pigments, printing inks, printing plates) of the Performance Chemicals division was divested as of November 30, 2004.

The Performance Chemicals division's principal competitors vary according to industry, however, the most significant competitors for the division are Ciba, Clariant, Shell, Sasol, Dow, Akzo Nobel and Bayer.

**Coatings**

BASF offers innovative and environmentally friendly products for the automotive industry, including both finishes and refinishes, and for particular segments of the industrial coatings market. BASF also sells decorative paints in South America for interior and exterior use in residential and commercial buildings.

In 2004, the Coatings division's sales to third parties were €2,022 million. Thereof, Europe accounted for 50%; North America (NAFTA) for 27%; South America for 14%; and the Asia, Pacific Area, Africa region for 9%.

BASF's Coatings division provides customers with innovative high-solid, waterborne and powder coating systems that reduce or eliminate solvent emissions and are considered environmentally and economically efficient. For example, BASF sees significant growth opportunities for its "Integrated Process II" for automotive OEM coatings, which is in the market introduction phase. This innovative system simplifies the conventional process to require fewer coating layers, thus offering substantial cost saving potential while reducing the environmental impact of auto body painting, with limited investment.

The key to the division's success is maintaining preferred supplier status with major customers by working together with them to develop system solutions, which are tailor-made products and services. These system solutions help the division to differentiate its product offerings from those of its competitors and foster lasting relationships with customers.

In addition, customers that use automotive and industrial coatings require quick delivery of coatings at specified times to accommodate their just-in-time manufacturing. To satisfy these needs, BASF's Coatings division locates its operations near its customers' production sites.

BASF sells products of the Coatings division to customers, particularly those in the automotive industry, primarily through its own sales force. Third-party distributors also sell products of the automotive refinish coatings, industrial coatings and South American decorative paint businesses. The Coatings division sells all of its products to external customers.

The Coatings division also uses e-commerce as an important distribution channel, in particular for its automotive refinish coatings. In North America, customers of BASF's automotive refinish technologies business can order products online at bodyshopmall.com. For customers in Europe, the division has established similar e-commerce portals to sell its Glasurit® and R-M® brands.

Although price is important to the division's customers, competition is also based on the ability of coatings suppliers to collaborate with customers and quickly deliver tailor-made products and applications, particularly to vehicle manufacturers using just-in-time manufacturing. BASF's Suvinil® line of decorative paints competes in South America primarily on the basis of brand recognition, product quality and price.

BASF considers DuPont, PPG Industries and Akzo Nobel to be the primary global competitors of the Coatings division, while Nippon Paint Company and Kansai Paint Company are considered to be the division's competitors in Asia.

### **Functional Polymers**

BASF's Functional Polymers division is one of the largest producers of acrylic acid and its downstream products, which are mainly superabsorbents and dispersions. In a dispersion, submicron polymer particles are suspended in water. Dispersions are used in a multitude of industries, including the manufacture of paper, decorative paints, adhesives, construction chemicals, non-woven materials, carpets, fibers and plastics. The Functional Polymers division also manufactures wet-end chemicals for paper production. The most important customers of the Functional Polymers division are the paper, construction, adhesive, sanitary care, coatings, and chemicals industries.

In 2004, the Functional Polymers division's sales to third parties were €2,755 million. Thereof, Europe accounted for 50%; North America (NAFTA) for 25%; the Asia, Pacific Area, Africa region for 20%; and South America for 5%.

The Functional Polymers division's strategic goal is to achieve long-term profitable growth in all regions and to increase market share in the rapidly growing markets in Asia.

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BASF manufactures most of these products at cost-effective Verbund plants. However, for certain products, such as dispersions, which contain up to 50% water, manufacturing is done locally to minimize transportation costs. The largest plants are located at BASF's Verbund sites in Ludwigshafen, Germany; Antwerp, Belgium; Freeport, Texas; Kuantan, Malaysia; and from 2005, Nanjing, China.

The Functional Polymers division continues to strengthen its position in Asia, the fastest-growing market worldwide. BASF is constructing its second Asian Verbund site in Nanjing, China, where the division will start the production of acrylic acid and its esters beginning 2005. In Indonesia, additional capacities for dispersions production went onstream in 2004.

The division sells approximately 90% of its products to external customers. The vast majority of the division's products are primarily sold through BASF's own regional sales network. Some smaller customers purchase products through distributors.

The Functional Polymers division continues to develop e-commerce as a distribution channel for its products. The division is increasingly selling its products through Elemica Holding Ltd., an independent business-to-business e-commerce company. The division's participation in WorldAccount, BASF's integrated global extranet platform, is targeted at its customers in the adhesive, construction and paper industries.

Acrylic monomers are predominantly commodities and can therefore be affected by cyclicality. Other products, particularly dispersions for adhesives, paints and non-wovens; superabsorbents, and paper process chemicals, are relatively resilient to economic cycles and compete primarily on the basis of product innovation and quality.

BASF's main competitor in acrylic monomers and dispersions is Rohm & Haas. Dow and Hercules are BASF's main competitors in paper chemicals. In the superabsorbents business, BASF's main global competitors are Degussa and Nippon Shokubai.

### AGRICULTURAL PRODUCTS & NUTRITION

#### Segment Overview

This segment consists of the Agricultural Products and Fine Chemicals divisions, which are treated as separate reportable operating units. The segment offers opportunities for high returns and is typically more resilient to economic cycles. In addition, the segment includes the activities of BASF Plant Science. Key financial information is provided in the following table:

	2004	2003	2002
	(Million €)		
<b>Agricultural Products</b>			
Sales to third parties	3,354	3,176	2,954
Percentage of total BASF sales	9%	10%	9%
Intersegmental transfers	26	24	21
Income from operations	492	234	61
Capital expenditures	95	1,133	88
<b>Fine Chemicals</b>			
Sales to third parties	1,793	1,845	1,970
Percentage of total BASF sales	5%	6%	6%
Intersegmental transfers	30	20	36
Income from operations	48	125	(6)
Capital expenditures	137	140	157

## **BASF Plant Science**

BASF Plant Science has the goal of becoming a leading competitor in the plant biotechnology market and a major supplier to the agricultural and nutritional industry. The activities of BASF Plant Science are concentrated in developing more efficient agriculture, improved nutrition and the use of plants as "green factories." These include for example plants with a higher level of vitamins or with omega-3 fatty acids that can prevent cardiovascular diseases.

BASF Plant Science coordinates an international research and technology platform with seven sites in four countries in Europe and North America with a staff of about 400. In addition, BASF Plant Science has established numerous complementary cooperations with research institutes, universities and biotechnology companies in Europe and North America.

## **Agricultural Products**

### **Overview**

The Agricultural Products division is a leading innovator and supplier of fungicides, insecticides and herbicides. The division's products are used by farmers to improve crop yields and crop quality and by other customers for uses in non-crop areas such as in public health, structural/urban pest control, turf and ornamental plants, vegetation management and forestry.

Capital expenditures in the Agricultural Products division included mainly optimization measures at several sites.

### **Strategy**

The Agricultural Products division directs major resources at meeting the needs of the high-value agricultural markets in Western and Central Europe, North America, Brazil and Japan. The division aims to sustain its role as a leading innovator by continuing significant research and development activities focusing on fungicides, insecticides and selected herbicides, where it expects further market growth and high demand for innovations. Profitability of the Agricultural Products division is driven by:

/\*/

New products from its research pipeline or from acquisitions;

/\*/

Alignment of resources, product and service offering to customers' needs; and

/\*/

Effective management of assets and costs.

The division believes itself to be well positioned for continued profitable growth; building on a significant presence in core markets, a strong late stage R&D pipeline, a high share of patent-protected products and high customer satisfaction.

BASF aims to grow profitably especially with new fungicides and insecticides and in specific applications such as seed treatment. Products recently launched from the research pipeline are the fungicides F 500®, dimoxystrobin and boscalid. In 2003, BASF acquired the insecticide fipronil and certain fungicides for seed treatment from Bayer CropScience. As part of the acquisition, the fipronil manufacturing site in Elbeuf, France, entered into the ownership of BASF effective February 14, 2004.

The division continues to implement cost and asset optimization measures in mature or non-core segments. In 2004, it divested its phenoxy herbicide business (2,4-D, MCPA, Mecoprop-P, Mecoprop, Dichlorprop-P and Dichlorprop) and changed its marketing presence in Australia, establishing a distribution agreement with a third party. Production of imidazolinones was concentrated in Hannibal, Missouri; therefore, one manufacturing plant at its site in Manati, Puerto Rico, was closed down. BASF has announced the exit from the manufacturing site of Resende, Brazil through an employee buyout.

## Major Products

### *F 500® (pyraclostrobin)*

F 500® (pyraclostrobin) is a major new fungicidal active ingredient of the strobilurin class of chemistry, highly effective, safe for crops and has a favorable toxicological and ecotoxicity profile. At the end of 2004, F 500® has been approved in more than 40 countries for over 100 crops in over 70 indications. Products containing F 500® have been launched successfully in all regions. Therefore, BASF has updated the sales target for products containing F 500® from €300 million to €400 million.

### *Boscalid*

Boscalid is one of the most recent active ingredients from our research and is highly effective for controlling fungal diseases especially in fruits and vegetables. With its broad spectrum of activity and crop uses, boscalid will become the backbone of our specialty crop business and will complement our strobilurines and other molecules. Launched for the 2003/04 season, it has received registrations in over 20 countries for over 100 crops in over 100 indications by the end of 2004.

### *Fipronil*

Fipronil is an active ingredient of a new class of insecticide chemistry and was acquired from Bayer CropScience effective March 21, 2003. It plays a strategic role in BASF's insecticides portfolio. Fipronil puts the Agricultural Products division in a position to strongly participate in ongoing and future shifts in demand towards more modern insecticides. Furthermore, it strengthens BASF's position in other attractive market segments, such as structural/urban pest control, turf and ornamental plants. BASF expects to create synergies between fipronil and its current portfolio, especially in fungicides.

### *The CLEARFIELD® Production System*

The CLEARFIELD® Production System combines herbicide-resistant seeds developed using enhanced plant breeding methods with custom-designed herbicide solutions. CLEARFIELD® crops currently being marketed include canola, sunflower, corn, rice and wheat. Because the CLEARFIELD® technology does not involve the introduction of genetic material from other sources, it is characterized as non-GMO (genetically modified organisms), offering advantages to the growers for certain markets.

## Research and Development

BASF's research and development activities in Agricultural Products cover all three areas of crop protection: fungicides, insecticides and herbicides. Agrochemical research activities are directed to the discovery of active ingredients with economic, biological and ecological advantages. BASF Plant Science conducts research in the area of agronomic traits for the division. Development activities are primarily focused on high-value segments in core markets and for core active ingredients.

In 2004, research and development spending in the Agricultural Products division was approximately 8% of the division's sales to third parties.

BASF is currently working on developing six new active ingredients, on a new herbicide tolerance project and on numerous products to protect seeds with active ingredients that have already been launched. These product innovations will be ready for market and have a peak sales potential of €700 million. A further seven crop protection active ingredients with a peak sales potential of €1 billion are currently being introduced to the market. Of these, F 500® and boscalid in particular have developed better than expected and in 2004 have helped us achieve approximately 60% of the peak sales potential planned with the active ingredients in market launch.

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	Uses	Total Peak Sales Potential
<b>Projects in market launch</b>		<b>about €1,000 million</b>
3 fungicides	Cereals, Soybeans, Specialty Crops	
3 herbicides	Cereals, Corn	
1 insecticide	Non-crop	
<b>Projects in development (launch targeted for 2005 and later)</b>		<b>about €700 million</b>
3 fungicides	Cereals, Rice, Specialty Crops	
2 herbicides	Corn, Non-crop	
1 herbicide tolerance	Soybeans	
1 insecticide	Specialty Crops	
<b>Total</b>		<b>about €1,700 million</b>

### Markets and Distribution

In 2004, the Agricultural Products division's sales to third parties were €3,354 million. Thereof, Europe accounted for 44%; North America (NAFTA) for 26%; South America for 21%; and the Asia, Pacific Area, Africa region for 9%.

The Agricultural Products division markets its products globally, focusing on high-value markets. The following table shows sales by product group:

Product Group	2004 Sales (Million €)
Fungicides	1,321
Insecticides and other agrochemical products	746
Herbicides	1,287
<b>Agricultural Products</b>	<b>3,354</b>

The Agricultural Products division delivers high performance products and competes primarily on innovation, product quality and service. BASF directs marketing and sales efforts through multi-staged marketing channels, which include wholesalers and commercial distributors.

The global market for agricultural products is seasonal, since the main markets for these products are in the Northern Hemisphere. Sales are higher in the first and second quarters of the year, when the growing season in North America and Europe is underway. Sales during the second half of the year, driven primarily by the main growing season in South America, are lower.

BASF considers the main competitors of the Agricultural Products division to be Syngenta, Bayer CropScience, Monsanto, Dow and DuPont.

### Governmental Regulation

In most countries, crop protection products (including genetically modified plants) must obtain government regulatory approval prior to marketing. The regulatory framework for crop protection and environmental health products is directed at ensuring the protection of the consumer, the applicator and the environment. The strictest standards are applied in the United States, Japan and Western Europe.

It generally takes five to seven years from discovery of a new active ingredient until the dossier is submitted to the appropriate regulatory agency for product approval. The standard time frame for registration of an agricultural product is typically 30 to 36 months.



## **Fine Chemicals**

### **Overview**

BASF's Fine Chemicals division develops, manufactures and sells more than 1,000 different products to approximately 8,000 customers. The Fine Chemicals division serves steadily growing markets driven by a growing world population with increasing needs in healthcare and lifestyle by being a leading supplier of vitamins; carotenoids; pharmaceutical active ingredients and advanced intermediates; polymers for the pharmaceuticals, cosmetics and human nutrition industries; aroma chemicals; UV (ultraviolet light) filters; amino acids; enzymes; non-antibiotic growth promoters; and organic acids for the animal nutrition industry. In all of the division's main product groups except amino acids, BASF is one of the top two suppliers. With the start of our feed enzyme production planned for late 2005, we will strengthen our leading position in the animal nutrition business. Virtually all of the division's products are sold to external customers.

About 60% of the division's raw material purchases are bulk commodities from external and internal sources, such as nutrients for vitamin premixes; sugar and molasses for lysine and pseudoephedrine production; and urea and acetanhydride for purines. There are currently no restrictions in supply for these commodity products. No single product accounts for more than 4% of our total external purchases of specialty (non-commodity) raw materials.

### **Strategy**

The Fine Chemicals division aims to achieve superior growth and leading positions in the markets it serves by leveraging chemical expertise, global presence, reliability of technical service and product quality. The division is focused on delivering innovative products and customized solutions to the markets it serves. New production technologies are continuously being developed and applied to reduce costs. The division envisages strong growth in its exclusive synthesis business for the pharmaceuticals industry, which is still in its emerging stages.

### **Products**

#### ***Vitamins***

BASF is the second largest vitamins producer worldwide, and vitamins account for approximately one third of sales in the Fine Chemicals division. BASF markets all of the 13 naturally occurring vitamins. In six of these vitamins, which include the five most significant vitamins; C, E, A, B<sub>2</sub> and Calpan, BASF has a production position. The Fine Chemicals division sells vitamins mainly to the human and animal nutrition industries, with a growing presence in the cosmetics industry.

#### ***Carotenoids***

These are nature-identical products that provide certain health benefits and are also used to color foods. This product line includes beta-carotene, canthaxanthine and astaxanthine for the food, feed and nutritional supplement industries for human and animal nutrition.

#### ***Active Ingredients and Advanced Intermediates***

The main products in this category are caffeine, pseudoephedrine, theophylline, ibuprofen and povidone iodine and our new isotretinoin. Beverage manufacturers account for approximately 80% of the caffeine demand, and pharmaceutical applications consume the remaining share. Theophylline and pseudoephedrine are used to treat respiratory diseases. Ibuprofen is used in a variety of over-the-counter and prescription products to treat mild to moderate pain and isotretinoin is the standard for systemic acne therapy.

### ***Contract Manufacturing***

BASF offers a range of customized manufacturing and formulation capabilities to the worldwide pharmaceuticals industry. These activities are complemented by flexible, multi-product cGMP plants, in particular at the Minden site in Germany, and BASF's chemical and biotechnological R&D skills.

### ***Polymers***

The Fine Chemicals division sells highly functional polymers for such diverse uses as binders, disintegrants, coatings and solvents for pharmaceutical industry, filtration aids for beverages, or in hair care products such as hairsprays, styling mousses, gels and hair conditioners for the cosmetics industry.

### ***Amino Acids***

Amino acids, such as lysine, are feed additives that serve as an efficient protein source for animal nutrition.

### ***Enzymes***

Enzymes, which are proteins that function as biochemical catalysts, are used for animal nutrition to improve feed absorption. BASF's enzyme product line includes Natuphos®, Natustarch®, and Natugrain®.

### ***Organic Acids***

These are used as preservatives for grains and compound feeds and more recently as growth-enhancing agents. BASF offers a wide range of organic acid products that suppress the growth of molds and bacteria. BASF is the leading supplier of standard and tailor-made organic acids for the feed industry in Europe and Asia. With Formi®, BASF offers the first non-antibiotic growth enhancer, an alternative to antibiotics that are to be banned in animal breeding in Europe as of 2006.

### ***Cosmetics Ingredients***

These are raw materials for personal care products with the major applications being hair, skin, sun and oral care. The Fine Chemicals division is the world market leader in UV absorbers for cosmetic applications and offers the full range of UVA and UVB absorbers.

### ***Aroma Chemicals***

These are raw materials for flavor and fragrance compounds that are used in many consumer products industries such as the food, personal care, and the fabrics and home care industries.

### **Research and Development**

The Fine Chemicals division's research and development activities focus on constantly generating a flow of new products like the new UV absorber Uvinul A+ and improving BASF's cost position, e.g., by combining the vitamins and citral value chains, supported by BASF's new 40 Kt world scale citral plant. In 2004, the Fine Chemicals division spent approximately 5% of its sales to third parties on research and development activities (2003: 4%). Variable production costs of biotechnological production processes are reduced through continuous improvement in the bacteria strains and fermentation processes for the amino acid lysine, vitamin B<sub>2</sub> and precursors of vitamin C.

## Markets and Distribution

In 2004, the Fine Chemicals division's sales to third parties were €1,793 million. Thereof, Europe accounted for 45%; North America (NAFTA) for 25%; the Asia, Pacific Area, Africa region for 24%; and South America for 6%.

The main customers of the Fine Chemicals division are global players in the animal nutrition, human nutrition, pharmaceuticals, personal care, and flavors and fragrances industries. A significant percentage of the division's products are sold in small, specialty volumes and are often tailor-made to meet specific customer specifications.

BASF sells the majority of its fine chemical products through its own sales force. Key account managers are assigned to major customers. Through its sales and marketing departments, BASF works closely with customers to develop systems and solutions as well as new products. BASF also sells its fine chemical products through its global e-commerce platform, WorldAccount.

BASF's competitive position depends to a large extent on its ability to compete on price, product quality and customer service. BASF expects the trend toward globalization and consolidation for both the manufacturing and the consumer industries to continue. The trend toward commoditization for certain fine chemicals, such as vitamins, is also continuing.

BASF considers its main competitors in the animal nutrition area to be DSM, Archer Daniels Midland, Novo Nordisk, Adisseo Group, Rhodia, Eisai and new entrants from China. In the human nutrition area, BASF's main competitors are DSM of the Netherlands and several Asian companies. In pharmaceutical active ingredients, BASF considers Albemarle Corporation, International Specialty Products and FMC Corporation to be its main competitors, as well as a number of Chinese and Indian suppliers. In cosmetics and aroma chemicals, LC United, International Specialty Products, Millennium Specialty Chemicals, National Starch & Chemical, Givaudan, Symrise and Kuraray are BASF's main competitors.

## Governmental Regulation

BASF's various Fine Chemicals products are subject to regulation by government agencies throughout the world. The primary emphasis of these requirements is to assure the safety and effectiveness of BASF's products. Of particular importance in the United States is the Food and Drug Administration (FDA), which regulates many of BASF's Fine Chemicals products. The FDA oversees the marketing, manufacturing and labeling of cosmetics (e.g., sunscreen agents), pharmaceuticals (e.g., pharmaceutical active ingredients), foods (e.g., dietary supplements, including vitamins) and feeds (e.g., vitamins, carotenoids). The Federal Trade Commission regulates claims made in the advertising of dietary supplements. Animal health products are also regulated in the United States by the United States Department of Agriculture and the Environmental Protection Agency.

In the E.U., similar regulatory systems are established on the national level of different member states as well as on the pan-European government level. Positive lists and negative lists in Europe regulate the usage of various substances in order to ensure consumer safety. Before the substances are added to these lists, they are subject to a rigorous approval procedure.

In countries other than the United States and those of the E.U. in which BASF conducts business, BASF is subject to regulatory and legislative environments that are similar to or sometimes even more restrictive than those described above.

**OIL & GAS****Segment Overview**

BASF conducts the activities of its Oil & Gas segment through its 100% subsidiary Wintershall AG. Wintershall and its affiliated companies are active in two sectors:

***Oil and Natural Gas Exploration and Production***

Wintershall explores for and produces oil and natural gas in five selected core regions. The company markets its crude oil production predominantly through its wholly owned subsidiary Wintershall Oil AG of Zug, Switzerland.

***Natural Gas Distribution and Trading***

Wintershall conducts natural gas distribution and trading activities through two joint ventures WINGAS GmbH (WINGAS) and Wintershall Erdgas Handelshaus GmbH & Co. KG (WIEH) in partnership with Gazprom. WIEH also markets Russian natural gas in Central Europe through its Swiss subsidiary Wintershall Erdgas Handelshaus Zug AG (WIEE), Switzerland.

The Oil and Gas segment sells all of the oil and most of the natural gas it produces to third parties, however WINGAS also supplies BASF with natural gas consumed at BASF's Verbund site in Ludwigshafen, Germany, and at other BASF companies in Europe. Key information is provided in the table below:

	2004	2003 (Million €)	2002
Sales to third parties, net of natural gas taxes	5,263	4,791	4,199
Percentage of total BASF sales	14%	14%	13%
Intersegmental transfers	546	498	363
Sales including intersegmental transfers	5,809	5,289	4,562
Royalties	243	251	210
Sales including intersegmental transfers, less royalties	5,566	5,038	4,352
Income from operations*	1,637	1,365	1,210
Capital expenditures	374	323	920

\*

Income taxes on oil production in North Africa and the Middle East that are noncompensable with German corporate income tax in the amount of €668 million (2003: €505 million, 2002: €427 million) are not deducted from income from operations, but are reported as income taxes. Please see Note 8 to the Consolidated Financial Statements.

**Segment Strategy**

In Europe, the segment strategy is predominantly characterized by integration of the Exploration and Production sector and the Natural Gas Distribution and Trading sector in a comprehensive "Gas for Europe" concept. This concept takes into account the increasing demand for natural gas imports into Western Europe. Thus, upstream activities will focus on exploration for, development and production of gas resources in and around Europe with our midstream business bringing the gas to market.

In the Oil and Natural Gas Exploration and Production sector, we have realized a production increase of 36% compared to 1999. In future years, growth will continue, thus further strengthening Wintershall's hydrocarbon hedge function within the BASF group. BASF's goal is to maintain a robust ratio of proved reserves to production and a balanced portfolio of assets operated both by Wintershall and by third parties. To ensure the company's ongoing competitiveness and efficiency, Wintershall focuses geographically on a limited number of hydrocarbon provinces. In addition to our existing core regions Europe, North Africa and South America (Southern Cone), we are currently developing Russia and the Caspian Sea to become pillars of our business. Completing our strategy of regional focus, we concentrate on core technologies that



especially include shallow water expertise, desert operations, field development in ecologically sensitive areas, enhanced oil recovery and extended reach and horizontal drilling technology.

Specific measures pursued are:

/\*/

Increasing gas production in the North Sea through further exploration projects and field developments

/\*/

Expanding activities in North Africa (especially Libya) to increase oil and gas production and to offset the depletion of existing oil reserves

/\*/

Expanding oil and gas activities in Russia through strategic partnerships, predominantly with Gazprom

/\*/

Building up a portfolio of exploration and development activities in the Caspian Sea region.

Additionally, in Argentina Wintershall intends to increase its production of gas from existing and new fields in order to meet long-term growing demand for natural gas in the Southern Cone region.

As part of the "Gas for Europe" concept, the Natural Gas Distribution and Trading strategy is based on a strong infrastructural backbone including pipeline and storage facilities. It is strategically located for gas imports to, and distribution within, Germany as well as for transit to other European countries. The modern infrastructure, in combination with a strong purchase portfolio, enables us to optimize logistics to efficiently supply the German and European gas market. Accordingly, marketing activities are regionally focused on Germany and increasingly Western Europe. Combined with a dynamic and lean sales and marketing organization, the company's strategy should provide profitable sales growth exceeding that of the market.

This strategy takes into account the ongoing liberalization of the European natural gas market, which creates growth opportunities. As well as making use of third-party access to transport natural gas through its competitors' transmission networks, the company also markets its free transport capacity both of which contribute to an optimal utilization of our infrastructure.

Specific measures pursued are:

/\*/

Optimal use and targeted extension of own infrastructure

/\*/

Use of external infrastructure to benefit from gas market liberalization

/\*/

Profitable expansion of activities in the European market.

Research and development expenses in the Oil and Gas segment are confined to exploration activities.

#### ***Oil and Natural Gas Exploration and Production***

Wintershall is the operator of most of the significant exploration and production projects in which it has an interest. In projects where it is not the operator, Wintershall participates in operating decisions pursuant to agreements with top tier operators. Wintershall is active in five selected core regions.

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**Reserves**

The Oil & Gas segment's most significant oil reserves are in Libya and Germany. The most significant natural gas reserves are in Argentina, Germany and the Netherlands. The Oil & Gas segment's proved oil and gas reserves and proved developed oil and gas reserves by geographic area were as follows:

	Germany	Libya	Argentina	The Netherlands	Rest of World	Total	Rest of World (at equity)
<b>At December 31, 2004</b>							
<b>Oil (millions of barrels)</b>							
Proved reserves	82	362	48	1	8	501	13
Proved developed reserves	53	335	36	1	7	432	13
<b>Gas (billions of cubic feet)</b>							
Proved reserves	439	217	1,530	265	12	2,463	
Proved developed reserves	389	201	954	189	12	1,745	
<b>At December 31, 2003</b>							
<b>Oil (millions of barrels)</b>							
Proved reserves	93	407	52	0	10	562	14
Proved developed reserves	60	338	28	0	10	436	14
<b>Gas (billions of cubic feet)</b>							
Proved reserves	453	226	1,463	253	16	2,411	
Proved developed reserves	395	137	604	151	16	1,303	
<b>At December 31, 2002</b>							
<b>Oil (millions of barrels)</b>							
Proved reserves	92	410	50	1	12	565	17
Proved developed reserves	76	358	33	1	11	479	17
<b>Gas (billions of cubic feet)</b>							
Proved reserves	482	208	1,341	328	0	2,359	
Proved developed reserves	425	149	684	105	0	1,363	

At 2004 levels of production, proved oil reserves would last approximately eight years, and proved gas reserves would last approximately ten years. For additional information on reserves, please see "Supplementary information concerning oil and gas producing activities (unaudited)" included in Item 18.

**Exploration and Production**

The net quantities of oil and gas produced as well as the average sales price and production cost (lifting cost) per unit of oil and gas produced in each of the last three years were as follows:

	2004	2003	2002
<b>Oil</b>			
Net quantities produced (millions of barrels)	64	65	60
Average sales price less royalties (per barrel)	€22.54	€18.90	€19.10
Average production cost (lifting cost) (per barrel)	€ 3.06	€ 3.20	€ 3.44
<b>Gas</b>			
Net quantities produced (billions of cubic feet)	258	228	189

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Average sales price less royalties (per thousand cubic feet)	€ 2.26	€ 2.04	€ 1.92
Average production cost (lifting cost) (per thousand cubic feet)	€ 0.53	€ 0.57	€ 0.52

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Wintershall's total gross and net productive wells, total gross and net developed acres and total gross and net undeveloped acres (both leases and concessions) as of December 31, 2004, were as follows:

	Germany	Libya	Argentina	The Netherlands	Rest of World <sup>(1)</sup>	Total	Rest of World (at equity)
<b>Oil</b>							
Total gross productive wells	506.0	65.0	60.0	7.0	239.0	877.0	11.0
Total net productive wells	234.7	59.8	19.3	7.0	11.9	332.7	5.5
<b>Gas</b>							
Total gross productive wells	140.0	0.0	163.0	121.0	2.0	426.0	
Total net productive wells	67.6	0.0	40.1	19.7	0.6	128.0	
<b>Oil and Gas Acreeges (thousand of acres)</b>							
Total gross developed acres	187.3	41.1	256.2	107.0	68.3	659.9	2.5
Total net developed acres	66.2	38.7	60.4	18.0	3.7	187.0	1.2
Total gross undeveloped acres	3,252.3	996.3	9,154.2	3,022.2	15,075.9	31,500.9	5,163.8
Total net undeveloped acres	1,254.7	408.0	3,917.1	812.1	5,647.8	12,039.7	2,581.9

(1) Consolidated activities only

In 2004, Wintershall spent €415 million for exploration, acquisition and investment, compared with €385 million in 2003. Thereof, €189 million was spent in Europe (2003: €151 million), €125 million in North Africa/Middle East (2003: €147 million), €76 million in South America (2003: €67 million) and €25 million in Russia/Caspian Sea (2003: €20 million).

Either directly or through its subsidiaries, Wintershall was involved in the drilling and completion of 24 exploration and appraisal wells, which resulted in 10 successful wells. As of December 31, 2004, Wintershall had begun drilling four additional exploratory wells.

### Europe

In Germany, the offshore field Mittelplate with approximately 200 million barrels of proved initial reserves is the country's largest known oil reservoir. Wintershall and its 50% partner RWE DEA AG, Germany, have decided to connect the offshore production platform by pipeline to the onshore facilities, thus increasing the export capacity and production of the field. This project is scheduled for 2005. In the German North Sea, Wintershall operates the first natural gas offshore field on the German continental shelf with a production capacity of 45 billion cubic feet per year. Wintershall has a 49.95% participation interest.

In 2004, Wintershall significantly increased its production of natural gas in the Netherlands. The additional production stems from two gas fields, which came onstream by end of 2003, and one new gas field in 2004. Two other gas discoveries are under development. Wintershall is the third largest gas producer in the Netherlands and operates a total of 23 offshore platforms in the North Sea. In the UK Southern North Sea, Wintershall was granted nine exploration blocks in 2004, located at the border with the Dutch North Sea. In the Danish North Sea sector, a farm-in was accomplished into an exploration block, which is adjacent to the Wintershall operated concessions in the German North Sea. To maximize operational efficiency, the above-mentioned activities are coordinated from our Dutch office, which is specialized in shallow water operations.

In Romania, Wintershall is active in gas exploration and production. A gas field in central Romania started production at the beginning of 2004.

### North Africa/Middle East

In 2004, approximately 69% of the Oil & Gas segment's oil reserves and production activities were in Libya, where the segment operates several onshore oil fields and produces associated natural gas for local

consumption. Offshore Libya, Wintershall holds a 12.5% interest in the Al Jurf oil field, which started production in September 2003 and reached its targeted plateau production in 2004.

In 2004, Wintershall became engaged in exploration partnerships in the Atlantic margin region offshore Morocco and Mauritania which consist of participation in three blocks. In Dubai, Wintershall holds an interest of 5% in an offshore oil concession with exploration and production activities, and in Qatar, Wintershall explores for oil and gas.

South America/Southern Cone

Wintershall produces substantial volumes of its natural gas in Argentina. In the Carina and Aries gas fields off the coast of Tierra del Fuego, the offshore installation of two production platforms and pipelines has been finalized in 2004. Production start-up is planned for the second quarter of 2005. The two fields will deliver a substantial contribution to meet the country's rising gas demand in time for the coming winter season. In the Aguada Pichana field, ten production wells were drilled in 2004 to maintain high gas production levels. Wintershall successfully optimized its exploration portfolio by partially farming out interest to established partners in three exploration blocks with previous participation of up to 100%. Offshore Brazil, Wintershall is exploring for oil and gas.

Russia/Caspian Sea

BASF has a cooperation agreement with Gazprom that provides a legal and commercial framework for field development projects. Wintershall and Gazprom are specifically planning to cooperate in the development of large gas/condensate fields in Western Siberia. For the development of the Achimov formation in a part of the Urengoy gas field, the joint venture company Achimgaz was established in July 2003. Partners are OOO Urengoygazprom, a subsidiary of Gazprom, and Wintershall with 50% interest each. In 2004, the partners approved the first phase of the field development with a total investment of \$125 million. This phase includes the drilling of six production wells and the installation of processing facilities starting in 2005. After verification of the reservoir performance, the full field development is planned starting in 2008.

In the Volga region, the joint venture company Wolgodeminoil with its partners Wintershall and Lukoil continued oil exploration and production activities.

In the offshore region of Dagestan, geological and geophysical evaluation in the exploration block Tyuleni is continuing.

In general, oil and gas exploration and production activities require high levels of investment and entail special economic risks and opportunities. These activities tend to be highly regulated, and companies engaging in these activities generally may face intervention by governments in matters such as:

- /\*/  
The award of exploration and production licenses
- /\*/  
The imposition of specific drilling and other work obligations
- /\*/  
Environmental protection measures
- /\*/  
Control over the development and abandonment of fields and installations
- /\*/  
Restrictions on production.

Crude oil prices are subject to international supply and demand and other factors that are beyond an oil company's control. Such factors can also affect the price of natural gas sold under long-term contracts because, under long-term contracts in Germany and in many other countries, natural gas pricing typically is tied to prices of refined products pursuant to a specified time lag. Crude oil prices are generally set in U.S. dollars, while costs may be incurred in a variety of currencies. Fluctuations in exchange rates therefore can give rise to foreign exchange exposures.

As with most international oil and gas companies, substantial portions of the oil and gas reserves of Wintershall are located in countries which can be considered politically and economically less stable than the OECD countries. To date, political risks have not significantly affected the Oil & Gas segment or had a material adverse effect on BASF's financial condition or results of operations.

Wherever possible, Wintershall arranges capital investment guarantees by the German government to protect its investments. German government guarantees currently cover a total investment volume by Wintershall of approximately €624 million, including inventory of raw materials and supplies.

General uncertainties are inherent in estimating quantities of proved reserves and in projecting future rates of production and timing of development expenditures. The accuracy of any reserve estimate is a function of the quality of available data, reservoir engineering, as well as geological interpretation and judgment. Results of drilling, testing and production after the date of the estimate may require substantial upward or downward revisions. In addition, changes in oil and natural gas prices could have an effect on the economically recoverable reserves. Accordingly, reserve estimates could be materially different from the quantities of oil and natural gas that are ultimately recovered. To reduce uncertainties, Wintershall has for some years used independent internationally recognized auditors to perform reserves audits of its major oil and gas fields.

### *Natural Gas Distribution and Trading*

BASF conducts its natural gas distribution and trading activities pursuant to an extensive agreement with OOO Gazexport, a subsidiary of Gazprom. To promote the joint marketing of mainly Russian, as well as Western European natural gas in Germany and Europe, Wintershall and OAO Gazprom established two joint ventures:

*/\*/*

WINGAS in which Wintershall has a 65% share and

*/\*/*

WIEH in which Wintershall has a 50% share, although profit distributions are differentiated according to customers and sales countries.

WINGAS owns and operates a large pipeline system in Germany that is more than 2,000 kilometers in length. It enables WINGAS to supply the German gas market and to transit gas to other European countries. The company also owns and operates the largest underground natural gas storage site in Western Europe with a working gas capacity of 157 billion cubic feet.

WINGAS currently is the third largest natural gas transmission and distribution company in Germany. So far, WINGAS has invested more than €3.0 billion. Capital expenditures in 2004 totaled €57 million. The main project was the extension of the STEGAL, which connects the WINGAS pipeline system with Czech and Slovakian pipeline systems as well as the Polish network via JAGAL. It is therefore a significant milestone to increase transport capacity for Russian natural gas to Western Europe, thus supporting our Gas for Europe concept. The project will be completed in 2006. Consequently, WINGAS has secured its gas supplies by extending its main contracts for Russian gas with OOO Gazexport until 2030. In addition, WINGAS concluded a long-term purchase agreement with ENI, Italy under which natural gas will be supplied at the transfer point at Eynatten on the Belgian-German border.

For supplying the British gas market, WINGAS established HydroWingas Ltd., a joint venture with Norsk Hydro in 2004. At the end of the year, WINGAS acquired "Saltfleetby" the largest onshore natural gas field in Great Britain from Australian Roc Oil Company Limited. WINGAS plans to use Saltfleetby as a future gas storage facility to enhance storage capacity in Great Britain. In the medium term, a part of WINGAS' supplies to Great Britain will be shipped through the new cross-border pipeline via the Netherlands, Bacton-Balgzand-Leiding (BBL). In 2003, WINGAS took a 25% stake in HubCo. In 2004, Gastransport Services, the network operator of N.V. Nederlandse Gasunie, joined HubCo resulting in a reduction of the WINGAS share to 16.7%. The company's name was changed to EuroHub GmbH. EuroHub offers international gas traders a fully integrated hub service at the trading point in Bunde/Emden, Germany.

WIEH exclusively acts as a trading company, purchasing Russian natural gas and marketing it to WINGAS and Verbundnetz Gas AG (VNG), a transmission and distribution company in Eastern Germany in which Wintershall has a 15.8% share. WIEH also markets Russian natural gas in Central Europe through its wholly owned Swiss subsidiary WIEE.

The natural gas distribution and trading business generates stable margins and represents a source of non-cyclical income for BASF. In addition, this business ensures a reliable and cost-efficient source of natural gas for BASF's Verbund site in Ludwigshafen, Germany, and for other BASF companies in Europe.

In 2004, WINGAS entered into new supply contracts with municipalities, industrial companies and in the forward market. In addition, pursuant to our Gas for Europe concept, WINGAS acquired additional industrial customers in Belgium, France, Great Britain (via our British HydroWingas joint venture) and Austria. In total, the WINGAS sales volume increased from 559 billion cubic feet to 646 billion cubic feet in 2004. This growth was due to the enhanced activities at the trading hubs, new customers and the increase in sales volumes of existing contracts. The sales volume of WINGAS, WIEH and WIEE totaled 1,037 billion cubic feet compared with 978 billion cubic feet for 2003. The BASF consolidated sales volume in 2004 was 717 billion cubic feet, representing an 11% increase over the previous year's sales volume of 647 billion cubic feet.

WINGAS's biggest customer is BASF's own Verbund site in Ludwigshafen. In 2004, BASF purchased approximately 95 billion cubic feet for its Ludwigshafen site and other sites in Germany and Belgium. Approximately 20 billion cubic feet was sold to other BASF companies in Germany and Great Britain; 193 billion cubic feet to transmission companies; 112 billion cubic feet to regional distributors, municipalities and industrial companies, and 216 billion cubic feet was sold in foreign markets of which the main part was sold at trading hubs.

In 2004, WINGAS purchased 515 billion cubic feet of natural gas directly or via WIEH from Gazexport. WINGAS also bought 109 billion cubic feet from North Sea suppliers, 72 billion cubic feet in the forward market and 12 billion cubic feet from Wintershall.

## ENVIRONMENTAL MATTERS

BASF is subject to extensive, evolving and increasingly stringent international and local environmental laws and regulations concerning: the production, distribution, the handling and storage of our products, the disposal of materials, the practices and procedures applicable to construction and operation of sites, the exploration and production of oil and gas, as well as the maintenance of safe conditions in the workplace.

These Environmental protection and remediation laws and regulations govern primarily:

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The protection of humans and the environment from the harmful effects of dangerous chemical substances;

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Emissions into the air and other releases into the environment; and

*/\*/*

The purification and discharge of wastewater and the waste management, focusing on waste avoidance and reuse of waste.

Although BASF believes that its production sites and operations currently fully comply with all applicable laws and regulations, these laws and regulations have required, and in the future could require, BASF to take action to remediate the effects on the environment of the prior disposal or release of chemicals or petroleum substances or waste. Such laws and regulations have applied, and in the future could apply, to various sites, including BASF's chemical plants, oil fields, waste disposal sites, chemical warehouses and natural gas storage sites. In addition, such laws and regulations have required, and in the future could require, BASF to install additional controls for certain emission sources, undertake changes in its operations in future years and remediate soil or groundwater contamination at current and/or former sites and facilities.

BASF's operating costs for environmental protection totaled €624 million in 2004. These costs are recurring or one-time costs associated with sites or measures that are incurred in the avoidance, reduction or

elimination of deleterious effects on the environment. They include the costs of disposal sites, such as wastewater treatment plants and residue incinerators. They also comprise different levies such as effluent levies and water levies, costs for disposal services by third parties, monitoring, analyses and surveillance carried out by mobile and stationary units as well as research and development costs for reducing the incidence of residues. BASF spent approximately €115 million in 2004 on capital expenditures for pollution control devices and equipment.

BASF also incurs costs to remediate the impact of the past disposal as well as the release of chemicals or petroleum substances or waste, both at its own sites and at third-party sites to which BASF has sent waste for disposal. Worldwide, BASF had established provisions of €257 million for anticipated investigation and clean-up costs at such sites as of December 31, 2004, and €248 million as of December 31, 2003.

In the United States, liability for remediation of contamination is imposed generally pursuant to the federal Comprehensive Environmental Response Compensation and Liability Act (Superfund) and analogous state laws. Although such U.S. laws generally allow the recovery of the total cost of cleanup from any single responsible party, cleanup costs typically are shared among several responsible parties at third-party sites where multiple parties sent waste to the site for disposal, and sometimes at owned or operated sites where a predecessor or other third-party disposed of waste on-site. BASF has been notified that it may be a potentially responsible party at such sites. The proceedings related to these sites are in various stages. The cleanup process has not been completed at most sites; the number, potential liability and financial viability of other parties are typically not fully resolved and the status of the insurance coverage for most of these proceedings is uncertain. Consequently, BASF cannot accurately determine the ultimate liability for investigation or cleanup costs at these sites. As events progress at each site for which BASF has been named a potentially responsible party or is otherwise involved in remediation of contamination, BASF accrues, as appropriate, a liability for site cleanup. Such liabilities include all costs that are probable and can be reasonably estimated. In establishing these liabilities, BASF considers its shipments of waste to a site and its percentage of total waste shipped to the site (in the case of third-party sites); the types of waste involved; the conclusions of any studies; the magnitude of any remedial actions which may be necessary; and the number and viability of other potentially responsible parties. Although the ultimate liability may differ from estimates, BASF routinely reviews liabilities and revised estimates, as appropriate, based on the most current information available.

BASF has established and continues to establish provisions for environmental remediation liabilities where the amount of such liability can be reasonably estimated. The provisions made are considered to be in accordance with U.S. GAAP. BASF sets up or adjusts accruals as new remediation commitments arise or additional information becomes available. For further information, see Note 22 to the Consolidated Financial Statements.

BASF establishes provisions for currently known potential soil contamination at BASF sites that are still in operation, or in case of the accidental release of chemicals around the world. In general, investigations into potential contamination and subsequent cleanups are only required when a site is closed and the existing production facilities dismantled. Taking into account BASF's experience to date regarding environmental matters and facts currently known, BASF believes that capital expenditures and remedial actions necessary to comply with existing laws and conditions governing environmental protection will not have a material effect on BASF's consolidated financial condition or results of operations.

In connection with the onshore and offshore oil and gas activities conducted by BASF's subsidiary, Wintershall, BASF is subject to an increasing number of international and national laws, regulations and directives governing the protection of the environment. In connection with the exploration, drilling, production, storage, transportation and distribution of oil and gas, these regulations may, among other things:

/\*/

Require permits;

/\*/

Restrict the types, quantities and concentration of substances that may be released into the environment;

/\*/

Limit or prohibit such activities on land within environmentally protected areas; and/or

/\*/

Impose criminal or civil liability for pollution of soil, water and air as a result of such activities.

Wintershall performs environmental impact studies where new oil and gas activities are planned and complies with environmental protection principles when onshore and offshore sites are abandoned. Environmental laws and regulations have an increasing impact on the oil and gas industries, and therefore on Wintershall. It is impossible to predict accurately the effect of future developments in such laws and regulations on Wintershall's future earnings and operations. BASF can make no assurance that Wintershall will not incur material costs and liabilities relating to environmental matters.

In recent years, the operations of all chemical companies have become subject to increasingly stringent legislation and regulations related to occupational safety and health, product registration and environmental protection. Such legislation and regulations are complex and constantly changing, and there can be no assurance that future changes in laws or regulations would not require BASF to install additional controls for certain of its emission sources, to undertake changes in its manufacturing processes or to investigate possible soil or groundwater contamination and remediate proven contamination at sites where such cleanup is not currently required.

Regarding emissions trading, for all its sites in Germany, the BASF Group has been assigned certificates for 2.2 million metric tons of CO<sub>2</sub>/year for the first trading period (2005-2007). Assignments for other sites in Europe are not yet available. In the second trading period (2008-2012), conditions are expected to be stricter due to higher reduction targets in all EU countries, the complete inclusion of chemical plants and the extension of the legislation to further climate gases.

The European Union is currently preparing new legislation on chemicals (REACH) that will alter the registration, evaluation and approval of chemical substances. The new legislation is not expected to come into force before 2007 in the respective countries in Europe. It is not yet possible to place a final figure on the associated costs.

## SUPPLIES AND RAW MATERIALS

### Raw materials procurement

The major raw materials that feed BASF's Verbund production sites are hydrocarbon-based raw materials such as naphtha and LPG (liquefied petroleum gas). These materials are used as feedstock for the steam crackers that are operated in Ludwigshafen, Germany; Antwerp, Belgium; and Port Arthur, Texas. BASF monitors the market for naphtha, and actively hedges its exposure by using swaps and options. Other important hydrocarbon-based raw materials are natural gas, benzene and propylene. BASF primarily sources its natural gas from Russia by means of long-term natural gas supply contracts. Other important materials at BASF include cyclohexane, ammonia, titanium dioxide and methanol.

BASF utilizes e-commerce to continuously improve efficiency of procurement processes. This has a positive impact on process times and process quality. For procuring technical goods and services, BASF uses the electronic marketplace cc-hubwoo, in which BASF owns a stake. In our purchasing processes for raw materials, we have integrated the marketplace Elemica. It is used as a trading platform for chemical products by 180 customers and suppliers.

BASF has a policy of maintaining, when possible, multiple sources of supply for materials and is not dependent on a limited number of suppliers for essential raw materials. BASF has not experienced any difficulty in obtaining sufficient supplies of raw materials in recent years and believes it will generally be able to obtain them at competitive market prices in the future. However, BASF cannot give any assurance that

unforeseen developments will not adversely affect its ability to obtain sufficient, competitively priced raw materials in the future.

### ORGANIZATIONAL STRUCTURE

BASF Aktiengesellschaft is the ultimate parent company of the BASF Group. The Group operates in five separate business segments, which encompass BASF's 12 operating divisions. The business segments are reportable segments except for the business segment Agricultural Products & Nutrition, which is treated as two reportable segments, disclosing separately the Agricultural Products and Fine Chemicals divisions.

Business operations are run by 55 regional and global business units, organized along business or product lines. As profit centers, they are responsible for all business operations from production to marketing and sales and their processes are customer-oriented.

In addition to its operating divisions and business units, BASF has three corporate divisions that support the Board of Executive Directors in directing the company's activities, and eight competence centers that oversee strategic activities and set global standards. The corporate divisions are Legal, Taxes & Insurance; Planning & Controlling; and Finance. The competence centers are Global Procurement and Logistics; Information Services; Human Resources; Environment, Safety & Energy; Corporate Engineering; Chemicals Research & Engineering; Specialty Chemicals Research; and Polymer Research.

The following table sets forth significant subsidiaries owned, directly or indirectly, by BASF Aktiengesellschaft:

Name of Company	Percentage Owned
BASF Coatings AG, Münster-Hiltrup, Germany	100
BASF Schwarzheide GmbH, Schwarzheide, Germany	100
Elastogran GmbH, Lemförde, Germany	100
Wintershall AG, Kassel, Germany	100
BASF Antwerpen N.V., Antwerp, Belgium	100
BASF Española S.A., Tarragona, Spain	100
BASF Corporation, Florham Park, New Jersey	100
BASF S.A., São Bernardo do Campo, Brazil	100
BASF Company Ltd., Seoul, South Korea	100

### DESCRIPTION OF PROPERTY

BASF owns and operates numerous production and manufacturing sites throughout the world. The principal offices of BASF Aktiengesellschaft are located in Ludwigshafen, Germany. In addition, BASF operates regional headquarters, sales offices, distribution centers and research and development facilities worldwide. We believe that our production sites are well aligned with both our present capacity requirements, and our future growth strategy. We are constantly evaluating the location, efficiency and capacity of our plants, and taking action where appropriate.

At the heart of BASF's integration strategy are its Verbund production sites, which produce a wide range of products. BASF produces approximately 8,000 products, which can vary significantly in quantity produced and sales price. The following is a description of our operational Verbund sites and production capacities of certain significant products. Capacities are listed in metric tons per year unless otherwise

noted. An additional Verbund site is currently under construction in Nanjing, China, with the joint venture partner SINOPEC.

Segment	Product	Production Sites				Total World Capacity / Notes
		Ludwigs-hafen, Germany	Antwerp, Belgium	Geismar, Louisiana and Freeport, Texas	Kuantan, Malaysia	