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)

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

\_\_\_\_\_ to \_\_\_

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 \_

**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)

Ludwigshafen, GERMANY 67056 (Address of principal executive offices)

**Carl Bosch Strasse 38** 

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

Title of each class

American Depositary Shares representing BASF ordinary shares of no par value

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:

Name of each exchange on which registered

New York Stock Exchange

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 ý No o

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

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.

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;

<i> * </i>	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;
<i> * </i>	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;
<i> * </i>	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.

	2004	2004 (Million € and Millio	2003 n \$, Except Per Sł	2002 nare Data and Certa	2001 ain Other Data)	2000
Income Statement Data						
German GAAP						
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
Thereof special items	(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
Balance Sheet Data						
German GAAP						
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
Total assets	45,915	33,916	33,602	35,086	36,875	38,557
•	21.2.12		15.050	16040	15.500	14.205
Stockholders' equity	21,343	15,765	15,879	16,942	17,522	14,295
Thereof subscribed capital	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
Thereof long-term	12,326	9,105	10,285	9,211	9,955	9,059
Total stockholders' equity and liabilities	45,915	33,916	33,602	35,086	36,875	38,557
Capital Expenditures and Depreciation						
Additions to fixed assets	2,959	2,186	3,541	3,289	4,053	8,637
Depreciation and amortization of fixed	2,757	2,100	5,511	3,207	1,000	0,057
assets.	4,193	3,097	2,682	2,501	2,945	2,921
U.S. GAAP Reconciliation	.,170	0,007	2,002	2,001	2,5 10	_,>_1
Net income*	2,522	1,863	1,320	1,716	5,655**	1,520**
Thereof from continuing	2,522	1,005	1,520	1,710	5,055	1,520
operations*	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	1.07	5.57	2.35	2.90	2.50	2.13
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**	2.23
Stockholders' equity*	23,230	17,159	17,324	18,040	18,659**	15,387**
Key Ratios	25,250	11,107	17,521	10,010	10,007	10,007
Return on sales $(\%)^{(1)}$	12.9	12.9	8.0	8.2	3.7	8.5
Return on assets $(\%)^{(2)}$	12.9	12.9	7.4	8.4	3.1	9.9
Return on equity after taxes $(\%)^{(3)}$	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 for inventories. BASF				U	
mandate by the Europe	1 1	1 .	1	<b>U</b>	1 0
permissible under Gern					
which has also been ad financial information. I					
		r			
** unaudited					
unaudited					
(1)					
Return on sales (%) is a	calculated by dividing in	ncome from operation	s by net sales.		
(2)					
Return on assets (%) is	, ,	income from ordinary	activities plus interest	expenses by the average	ge amount of total as
current and the previou	s year.				
(3)					
Return on equity after t stockholders' equity of			e, excluding extraordina	ary income after taxes,	by the average amo
stockholders equity of	the current and the prev	ious year.			
			_		

### REPORTABLE OPERATING SEGMENT DATA

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

<sup>(1)</sup> 

Until 2001 including the pharmaceuticals business.

### 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 depositary, in euros and, subject to certain exceptions, will be converted by the depositary 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.

	Dividend Paid	For Each
	BASF Sh	are
Year Ended December 31,	Euro	Dollar
2004	1.70	2.30
2003	1.40	1.76
2002	1.40	1.47
2001	1.30	1.16
2000	$2.00^{(1)}$	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 depositary 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.

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.

	U.S. Dollar For One Euro			
Year	High	Low	Period Average <sup>(1)</sup>	Period End
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
2003 2002 2001	1.2597 1.0485 0.9520	1.0361 0.8594 0.8370	1.1411 0.9495 0.8909	1.2597 1.0485 0.8901

(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 Fo High	or One Euro 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 = 0.00.

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

devaluate 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  $CO_2$  (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.

### Cyclicality may adversely affect BASF's operating margins

The results of BASF's Chemicals, Plastics and Performance Products segments are affected by cyclicality 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.

### Major recent capital expenditures included:

Segment	Location	Project	Projected Annual Capacity at Completion of Project (metric tons)	Start-Up/Projected Start-Up of Operations	
Chemicals	Caojing, China	Tetrahydrofuran / polytetrahydrofuran	80,000 / 60,000	2005	
	Nanjing, China	Integrated production site; major products include: /*/ ethylene	(1) 600,000	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	
Plastics	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	
Performance Products	Nanjing, China	Acrylic monomers	160,000(1)	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).

(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 35% 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  $\notin$ 37,537 million, income from operations of  $\notin$ 4,856 million, and net income after taxes and minority interests of  $\notin$ 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 cyclicality 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

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  $C_4$  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 butanediole 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  $C_4$  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  $C_4$  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.

#### Alkylene 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  $\notin$ 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  $C_4$  cuts (a mixture of  $C_4$  hydrocarbons) a source of butadiene, isobutene and n-butenes.

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 cyclicality 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.

/\*/

*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.

#### /\*/

*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.

/\*/

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  $\notin$ 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 productions 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<sup>®</sup>. It is a green, extruded, rigid polystyrene foam that is made using environmentally friendly carbon dioxide as a blowing agent. Styrodur<sup>®</sup> 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<sup>®</sup>. 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)

Ultramid® 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.

Ultramid® 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<sup>®</sup> 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 cyclicality, 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.

/\*/

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  $\notin 2,022$  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  $\notin 2,755$  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.

BASF manufactures most of these products at cost-effective Verbund plants. However, for certain products, suc