



**AKZO**

## Contents

1	President's Letter
3	Financial Highlights
5	Report of the Supervisory Council
6	Report of the Board of Management
6	The Year in Review
16	Product Groups
17	Chemical Products
23	Man-Made Fibers
27	Coatings
30	Pharmaceuticals
33	Consumer Products
35	Miscellaneous Products
38	Activities by Geographic Area
42	Organization of the Akzo Group
43	Management
45	Financial Statements
45	Accounting Policies Used in Preparing the Consolidated Financial Statements
47	Consolidated Financial Statements of the Akzo Group
55	Supplementary Information on the Basis of Current Value
56	Financial Statements of Akzo N.V.
60	Other Information
60	Auditors' Report
63	Ten-Year Financial Summary
67	Principal Companies of the Akzo Group

### Translation.

In the event of a conflict in interpretation, reference should be made to the Dutch version of this Annual Report.

The symbol ® indicates trademarks registered in one or more countries.

## Agenda

Agenda of the Annual Meeting of Stockholders to be held in Musis Sacrum, Velperplein, Arnhem, the Netherlands, on Tuesday, April 28, 1987, at 2:30 p.m.

- 1 Opening
- 2 Report of the Board of Management for the fiscal year 1986
- 3 Approval of the financial statements; consideration of the dividend proposal
- 4 Determination of the number of members of the Supervisory Council; appointment of members of the Supervisory Council
- 5 Appointment of a member of the Board of Management
- 6 Proposal to designate the Board of Management as entitled to issue shares and to restrict or disregard the preemptive rights of stockholders
- 7 Proposal to authorize the Board of Management to acquire shares in the Company on behalf of the Company
- 8 Any other business

### Financial Calendar 1987

Annual Meeting of Stockholders	April 28
Report for the 1st Quarter	April 28
Report for the 2nd Quarter	August 5
Report for the 3rd Quarter	November 3
Payment of the 1986 Final Dividend	May 14



Akzo N.V., 76 Velperweg / P.O. Box 186,  
6800 LS Arnhem, the Netherlands  
Phone (085) 66 44 33 Telex 45438 Telefax (085) 66 32 50

## President's Letter

As expected, earnings in 1986 matched those in 1985, a very good year. The return on invested capital was 21.1%, versus 20.9% in 1985. Sales were down by a substantial 13%, but without the divestiture of America Enka there was no decline in volume. Various factors played major roles, including the fall of the dollar and the drop in oil prices, with recent acquisitions providing some compensation. If we succeeded in sustaining earnings at the prior year's level, that achievement is due in part to a significantly higher profit margin and an improved product mix. The continuation of modest economic growth was also helpful, as it contributed a comparatively favorable business climate.

The healthy performance of the business in 1986 enabled us to further pursue our efforts to strengthen the Group. The Company made acquisitions in the aggregate amount of approximately Hfl 680 million. Capital expenditures were raised once again and totaled Hfl 1.1 billion. The increase may seem slight relative to the prior year, but taking into account translations of the dollar and the divestiture of American Enka, it amounted to almost 25%.

In addition to steps to strengthen existing operations, we undertook substantial efforts to develop new, future-oriented products. Complementing the carbon fibers, production of aramid fibers also went on stream in 1986, after overcoming plant start-up problems. These new fibers, plus the acquisition of Wilson-Fiberfil, which gave us access to the U.S. market for engineering plastics, have significantly strengthened our interests in what is termed the New Materials.

We also launched strategic projects designed to make the organization more effective and, more specifically, to raise standards of human and technical quality. Involving the entire organization, such corporate projects seek, through the judicious use of close management attention, to promote a stronger corporate identity, to improve modes of internal cooperation, and to place greater emphasis on management development and information technology.

While the chemical industry makes positive contributions to economic growth, employment, and prosperity, we must admit that the environmental track record of our branch of industry is far from spotless. We must not allow a situation to arise where the industry's positive contributions are called into question because of environmentally unsafe practices. Our social responsibility requires that we add to our economic targets a commitment to clean production processes.

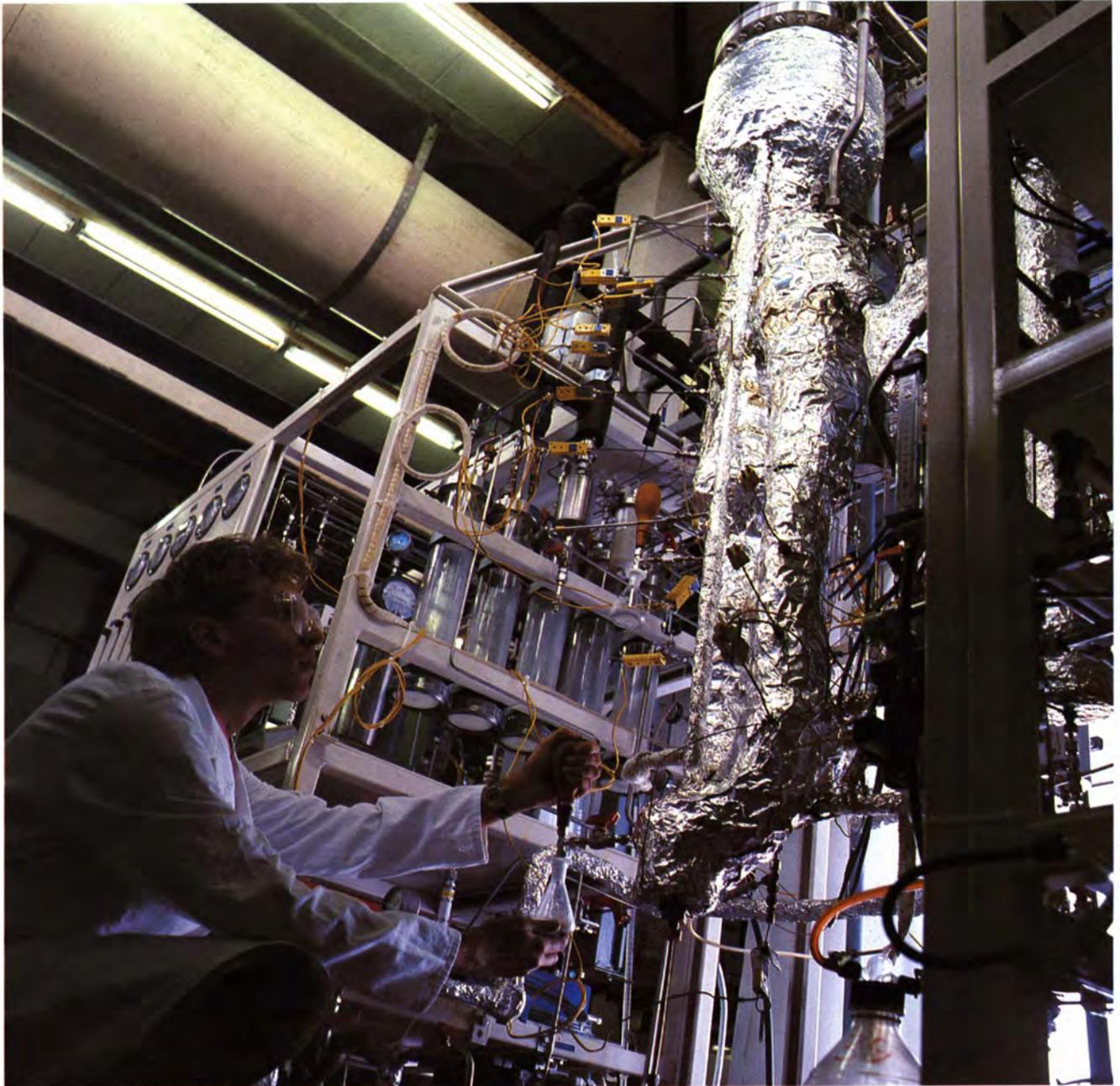
Although accidents can never be entirely excluded, we will have to make strong efforts to reduce risks and to curb industrial pollution. So as not to create inequality in



competitive positions, environmental legislation within the EEC should in essence be the same in all member states. But beyond that the chemical companies, and by implication Akzo, have a responsibility of their own.

After two excellent years, Akzo now faces the challenge of continuing its good performance, under less prosperous conditions. The changes in the exchange rate structure will adversely affect our competitive position, while lower raw material prices will provide insufficient compensation in 1987. Despite forecasts of continued moderate economic growth it will therefore be difficult to sustain the outstanding earnings level in the current year. But given the Group's accrued strength I feel that Akzo is now in a position to better cope with less favorable business conditions. My confidence in this is strengthened by the strong commitment of our employees at all levels. As was demonstrated during the year, they are invariably prepared to do their jobs with great dedication and are ready to rise to the new challenges ahead. I would like to use this opportunity to express my sincere gratitude and indebtedness to them.

A.A. Loudon



*The pilot installation in Akzo Chemie's Amsterdam research laboratory pictured here is an important aid in the testing of cracking catalysts.*

## Financial Highlights

	1986	1985	3
<i>Millions of guilders</i>			
Net sales	15,615	18,010	
Operating income	1,465	1,465	
Net income	842	843	
Common stock	803	796	
Stockholders' equity	4,311	4,142	
Property, plant and equipment			
Expenditures	1,106	1,008	
Depreciation	577	608	
Acquisitions	678	429	
<i>Per common share of Hfl 20, in guilders</i>			
Net income	20.96	21.21	
Dividend	6.60	6.60	
Stockholders' equity	107.40	104.16	
<i>Key financial statistics</i>			
Operating income, as % of net sales	9.4	8.1	
Operating income, as % of average invested capital	21.1	20.9	
Net income, as % of average stockholders' equity	19.9	20.7	
Number of employees at year-end	68,400	65,000	

### Akzo

Akzo, headquartered in the Netherlands, is a worldwide group of companies with operations in 50 countries.

Akzo's product range includes chemical products, man-made fibers, coatings, health care products, and consumer products.

Akzo's activities are organized in six divisions.

Geographically, Group operations are largely concentrated in the Netherlands and the Federal Republic of Germany. More than 60% of the Group's total invested capital and manpower resources is employed in these two countries.

In the Netherlands, Belgium, Brazil, and the United States, Akzo has central organizations which have a coordinating function or render services to the divisions.

Akzo's objective is to build a strong and well-balanced product mix. In addition to its efforts to strengthen its existing industrial and consumer products, Akzo focuses on the development of new activities in major growth sectors which draw upon our technological and marketing know-how. Akzo has assigned a high priority to the expansion of its position in North America.

# Supervisory Council and Board of Management

---

## 4 Supervisory Council

G. Kraijenhoff, Chairman  
A. Herrhausen, Deputy Chairman  
E.G.G. Werner, Deputy Chairman  
A. Batenburg  
A.G. van den Bos  
F.H. Fentener van Vlissingen  
H.A. van Stiphout  
C. van Veen  
O. Wolff von Amerongen

### Board of Management

A.A. Loudon, President  
J. Veldman  
H.J.J. van der Werf  
H.G. Zempelín

### Secretary

J.P. Huges

---

### Management Committee

In addition to the members of the Board of Management,  
the Management Committee includes:

S. Bergsma  
F.A.G. Collot d'Escury  
A.R. Dragone  
M.W. Geerlings  
J.R. Hutter  
H.B. Jacobs  
A.G.J. Vermeeren  
M.D. Westermann  
C. Zaal

# Report of the Supervisory Council

## Changes in the Supervisory Council

At the Annual Meeting of Stockholders held on April 23, 1986, H.J. Schlange-Schöningen resigned from the Council, having reached the mandatory retirement age. Because it was decided not to fill the vacancy for the time being, the Council now has nine members.

Stockholders also approved the reappointment to the Council of A.G. van den Bos and H.A. van Stiphout, whose terms of office had expired.

At the Annual Meeting of Stockholders convened for April 28, 1987, F.H. Fentener van Vlissingen, A. Herrhausen, and O. Wolff von Amerongen will step down because their terms of office are expiring. They are willing to serve another term, and we recommend that they be reappointed.

The stockholders will be asked to increase the membership of the Supervisory Council by one and to appoint H.G. Zempelín to fill the vacancy.

## Changes in the Board of Management

Having reached the retirement age, H.G. Zempelín will step down as a member of the Board of Management at the meeting of April 28, 1987.

Mr. Zempelín joined the then Vereinigte Glanzstoff Fabriken in 1956. In 1970 he became a member of the Board of Management of Enka. From 1975 until 1985 he served as President of that Board. In 1973, Mr. Zempelín was appointed a member of the Akzo N.V. Board of Management. Under his stimulating leadership, Enka was forged into a unified entity with a binational structure. Mr. Zempelín also directed the difficult and often dramatic restructuring process of our fiber operations. If we can again speak of a healthy man-made fibers product group, the credit for this achievement is largely his. We consider ourselves fortunate that he has agreed to serve on the Supervisory Council so that we may benefit from his great experience and acumen for many years to come.

The stockholders will be asked to appoint J.W. Berghuis a member of the Board of Management. Mr. Berghuis has served the Company since 1961. From 1983 until January 1, 1987 he was President of the Board of Akzo Nederland.

## Changes in the Management Committee

G.J. Coli, President of the Board of Akzo America, left the Company on October 1, 1986, having reached the retirement age. We are deeply indebted to Mr. Coli for his major contributions to the Group's development, particularly with regard to the restructuring of our interests in the United States. Effective October 1, A.R. Dragone was

appointed to succeed him. In addition, Mr. Dragone has replaced Mr. Coli on the Management Committee.

5

## Supervision

The Supervisory Council again received regular reports on the Company's business and periodically consulted with the Board of Management.

We are pleased to record here that further progress was made on improvement of the Group's product structure. For this, and for the Company's fine performance in 1986, we thank both the Board of Management and the Company's employees.

We herewith submit to you for approval at the Annual Meeting of April 28, 1987, the financial statements for 1986 as prepared by the Board of Management. These financial statements have been examined by KMG Klynveld Kraayenhof & Co., *Registeraccountants*. Their report appears on page 60.

We have approved these financial statements and the Board of Management's proposal made therein with regard to the allocation of profit. Acceptance of this proposal by stockholders means that the 1986 dividend will be fixed at Hfl 6.60 per common share of Hfl 20, of which Hfl 1.50 was declared and made payable as an interim dividend in November 1986.

We recommend that you also approve the financial statements, thus discharging the responsibility of the members of the Board of Management for their conduct of the business and of the members of the Supervisory Council for their supervision.

Arnhem, March 12, 1987

For the Supervisory Council

G. Kraijenhoff  
Chairman

# Report of the Board of Management

## The Year in Review

### 6 Improvement in Position

#### Objectives

Akzo has made it a major objective to further reduce the cyclicity of the Group's business, which it expects to accomplish through gradual changes in the product mix. The strategy it has adopted in the pursuit of this goal calls for:

- Maintenance of its competitive position in commodity chemicals and fibers through constant quality improvement and cost reduction. In this way these products can continue to generate the funds for new activities.
- Increase in the share of high-value-added products requiring high marketing and technology inputs.
- Efforts to secure a (larger) presence in high-growth areas, such as "new materials," electronic materials, membrane technology, biotechnology, and diagnostics.

Similarly, the Group has adopted the goal of achieving a greater geographic diversification. While we are committed to defending our position in the Netherlands and the Federal Republic of Germany, which countries account for approximately 60% of the Group's invested capital, we have assigned a high priority to further expansion of our position in the United States.

#### Progress in 1986

The pursuit of further improvement in the product mix has reduced the share of man-made fibers in total sales to 22%. Part of that reduction was caused by the sale of American Enka at the end of 1985. The percentage of chemical products has remained roughly the same. Due principally to acquisitions, the more consumer-oriented products now account for a much larger portion of sales. These shifts in the overall product mix have led us to alter the traditional order of reporting the results of the product groups.

In the fields of biotechnology and membrane technology encouraging progress was recorded.

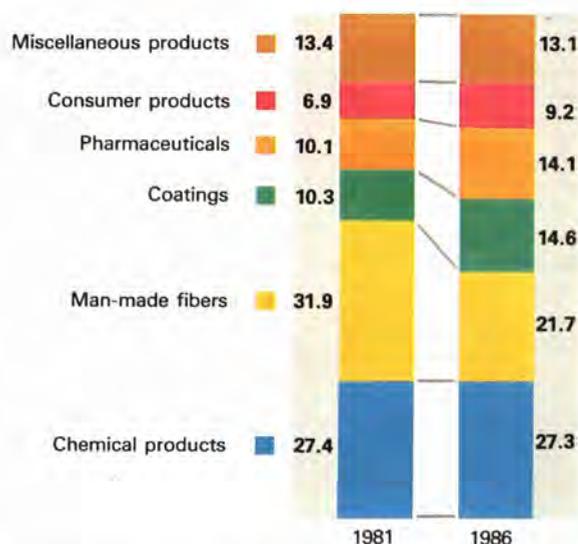
The position of "new materials," diagnostics, and specialty chemicals was bolstered through capital expenditures and acquisitions.

The first steps were made in the field of electronic materials. We reached an agreement in principle with the U.S.-based Kollmorgen Corporation on cooperation in materials for the electronics market.

#### Developments by Product Group

Further cuts were achieved in the manufacturing cost of chemical commodities. For specialty chemicals the earnings base was broadened geographically. The paper chemicals and fatty amines sectors were strengthened by the take-

Product mix, in net sales terms (as %)



over of operations from Monsanto (United States) and Perchem (United Kingdom), respectively.

The aramid and carbon fiber manufacturing facilities became operational and substantial modernization of polyester textile fiber production was initiated. Polyamide and polyester industrial yarn production was modernized in recent years. With these moves the structural position of the man-made fibers product group is now further improved.

The coatings product group increased its strength by the take-over of Blundell-Permoglaze and Sandtex (United Kingdom), the acquisition of part of the coatings operations of Brink/Molyn (the Netherlands), and the purchase of a 50% stake in Procolor (Spain). These moves have accomplished a geographically balanced distribution in Western Europe. In the near future, integration will be the prime target.

The pharmaceuticals product group expended considerable effort on integration of the U.S. businesses acquired in 1985. New acquisitions included the blood bank activities of Cooper Technicon (United States).

Integration of the businesses acquired in the past few years and the 1986 divestiture of the oils and fats business have significantly strengthened the consumer products group.

In the plastics sector, the U.S. company Wilson-Fiberfil

was acquired. This company specializes in fiber-reinforced plastics. The acquisition of Tiefenbach (hydraulic and electronic components) broadened the scope of the Barmag group.

### Dividend Proposal

Expressed in guilders per common share, net income for 1986 was Hfl 20.96, compared with Hfl 21.21 in 1985, while common stock increased Hfl 8 million to Hfl 803 million.

The corresponding figures on a current-value basis are Hfl 21.08 in 1986 and Hfl 18.49 in 1985.

Stockholders' equity per common share at December 31, 1986 was Hfl 107.40, versus Hfl 104.16 at December 31, 1985.

We will propose at the Annual Meeting of Stockholders that the 1986 dividend be fixed at Hfl 6.60 per common share of Hfl 20. Of this amount, Hfl 1.50 was declared and made payable as an interim dividend in November 1986.

If this proposal is adopted, Hfl 265 million, or 31%, of net income will be distributed, and Hfl 577 million will be retained.

### Outlook for 1987

It will be difficult to sustain the very high earnings level of the two preceding years. The international competitive position of the Group has been complicated by changes in exchange rates for which lower raw material prices will afford insufficient compensation.

However, given the Group's present strength in terms of the improved product mix and the available financial resources, we await with confidence the developments in 1987.

Over the somewhat longer term we anticipate a positive development of earnings as a result of stepped-up research efforts, high capital investments, and integration and synergism effects of the acquisitions made in the past few years.

Expenditures for property, plant and equipment in 1987 should be at about the same level as in 1986.

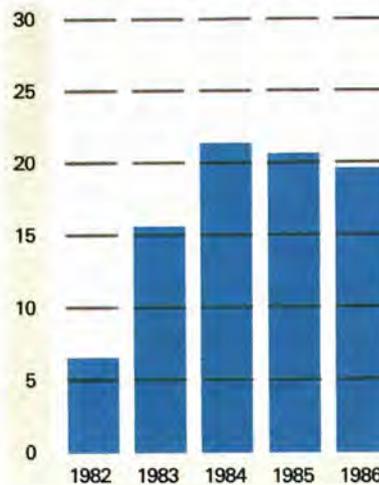
For the financing of the Group's existing activities we do not expect to issue any additional debt in 1987. However, we will remain alert to opportunities to further improve our debt portfolio.

Apart from any changes due to acquisitions, we expect the number of employees to increase in 1987 at a slower pace than in the two preceding years.

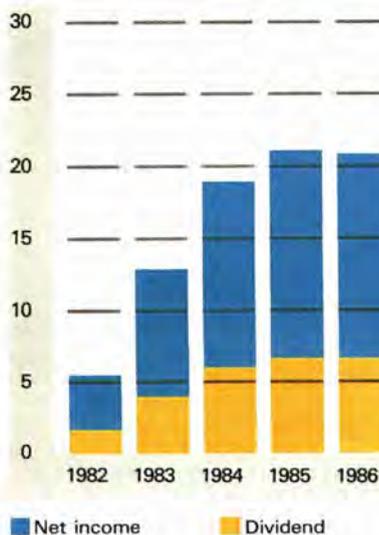
### Economic Situation

We are pleased to note that the overall economic

*Net income, as percentage of average stockholders' equity*

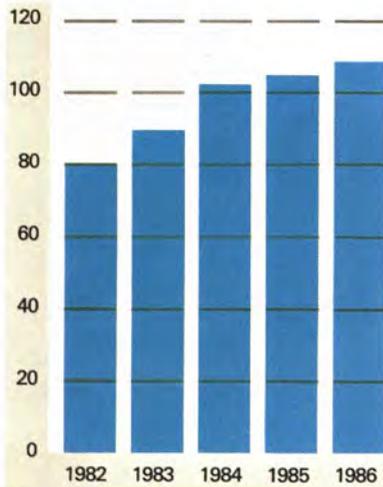


*Net income and dividend per common share of Hfl 20, in guilders*



situation remained robust in 1986. Economic growth rates in the United States and Western Europe were constant at the 1985 level. In most countries inflation continued to fall. Worldwide, there nevertheless remain several intractable problems which have so far resisted solution.

*Stockholders' equity  
per common share of Hfl 20, in guilders*



In addition to the debt problems of the developing nations and the latent instability of monetary systems, the persistent imbalances in trade flows and the tendency toward protectionism they inspire cause us concern. If unchecked they could have serious repercussions on the global economy. Let us hope that consultations in the appropriate agencies such as GATT and concerted international action will produce solutions for these problems, permitting the continued recovery of the world economy.

During the year there were major shifts in most currency parities, particularly with regard to the U.S. dollar. Its mean value in 1986 was Hfl 2.44, which is 27% lower than in 1985, when it was Hfl 3.32. As a result the competitive position of Europe has suffered a setback, notably vis-à-vis the United States, but also relative to countries with dollar-linked currencies.

#### **Other Developments**

Following ratification of the Single European Act, the European Community will be equipped with a tool which should help it proceed more vigorously toward the realization of the common market. If, as projected, trade



*"Excellence in Operations" is a project launched with the aim of sharpening employees' awareness of what they can personally do to improve the quality of operations. At Akzo Zout Chemie's*

*Hengelo (the Netherlands) location, all 3,500 employees attended a presentation on this subject.*

flows within the European Community become truly free after 1992, European industry will be in a better position to succeed in the international competitive struggle. A further condition to this accomplishment is the adoption of modern technologies. Their development will benefit by a pooling of resources in Europe. The Group concentrates efforts on selected areas of the European technology policy.

The fall in the price of oil has more or less equalized energy prices in the several countries of importance to the Group. But in a few countries, notably France and Italy, energy prices persist at a lower level. Price equality is a prerequisite for healthy competitive conditions. It is therefore all the more troubling that the Dutch government has shifted the burden of its budgetary problems onto industry through the levy of duties on energy carriers, thereby indirectly distorting competition. For commodity chemicals, which operate in a competitive world market, this will ultimately have grave consequences.

Explosive growth is taking place in the field of information technology. In addition to its traditional applications in accounting and clerical jobs and in logistics, the computer is increasingly used in process management and quality control. Computerized control benefits our processes in enhanced efficiency, thus providing a major contribution to cost reduction, particularly in the area of our traditional products. Information technology furthermore has the potential of strengthening our competitiveness in new ways.

The trend toward increasingly advanced technologies and the intensifying competition demand greater quality awareness in all areas of the organization. While quality-consciousness is not in itself new, our thoughts and actions in the past were dominated by the necessity of restructuring the Group. Once our future course was clear and major steps were taken, it was time to concentrate a greater part of our energies on improvements in operational activities. To aid this process, we started a project named "Excellence in Operations," which is to impart new zeal to day-to-day operations, principally by heightening personal commitment of the workforce. During 1986, several concrete programs in this field were initiated.

## Sales and Income

### Continued Healthy Performance

In 1986 we achieved a net income of Hfl 842 million, matching the very satisfactory net income of Hfl 843 million recorded in 1985. This good performance reflected the improved product mix, improvement in productivity, and continued favorable business conditions.

Net income, expressed as a percentage of stockholders' equity, was 19.9%, against 20.7% in 1985.

## Condensed Statement of Income

9

Millions of guilders	1986	1985
Net sales	15,615	18,010
Operating costs	(14,150)	(16,545)
Operating income	1,465	1,465
Financing charges	(106)	(185)
Operating income less financing charges	1,359	1,280
Taxes	(478)	(465)
Earnings of consolidated companies from normal operations, after taxes	881	815
Earnings from nonconsolidated companies	17	98
Extraordinary items	23	3
Group income	921	916
Minority interest	(79)	(73)
Net income	842	843
<i>Current-value information</i>		
Operating income	1,482	1,289
Net income	846	735

### Sales

In 1986, net sales were 13% lower than in 1985. Currency translations at lower rates of exchange accounted for 5 percentage points of this decrease, and divestments for 9 percentage points. Acquisitions resulted in an increase of 4 percentage points. Overall, selling prices were 3% below the 1985 level, principally due to lower raw material and energy prices.

The decline in sales was attributable to man-made fibers (principally due to the divestiture of American Enka at the end of 1985), and to a lesser extent to chemical products (currency translation losses) and to consumer products (chiefly as a result of the sale of ROMI, a producer of oils and fats). The rise in sales of coatings, pharmaceuticals, and miscellaneous products is largely attributable to the acquisitions made in 1985 and 1986.

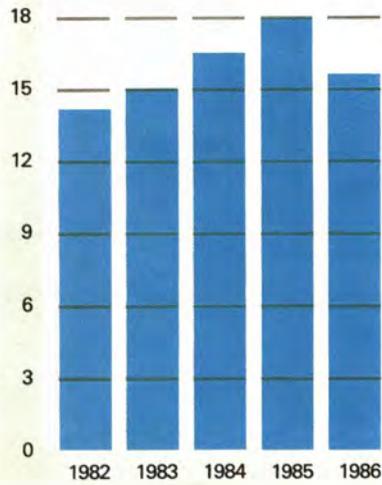
### Operating Costs

In 1986, lower operating costs more than offset the decrease in sales because of lower prices for energy and several raw materials, and changes in exchange rates.

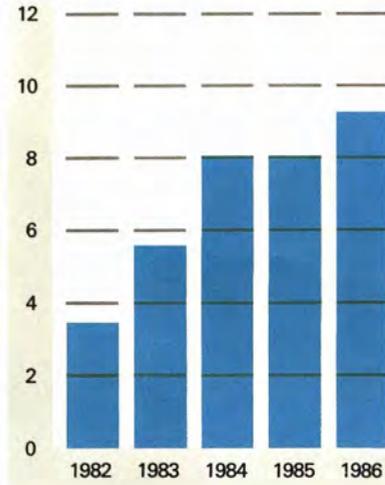
The costs of raw materials were 31% of sales, against 37% in 1985. Energy costs expressed as a percentage of sales were down from 6.0% in 1985 to 4.5%.

Labor costs were 4% lower than in 1985 due to the decline of the dollar and a decrease in the average size of the labor force, the effect of which was partially offset by higher cost per employee. Chiefly as a result of the decline in sales, labor costs as a percentage of sales increased from 25.8% in 1985 to 28.4%.

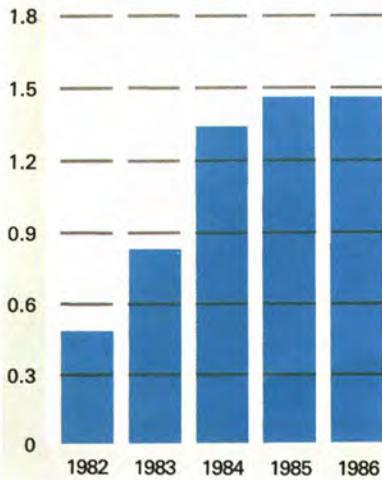
Net sales, in billions of guilders



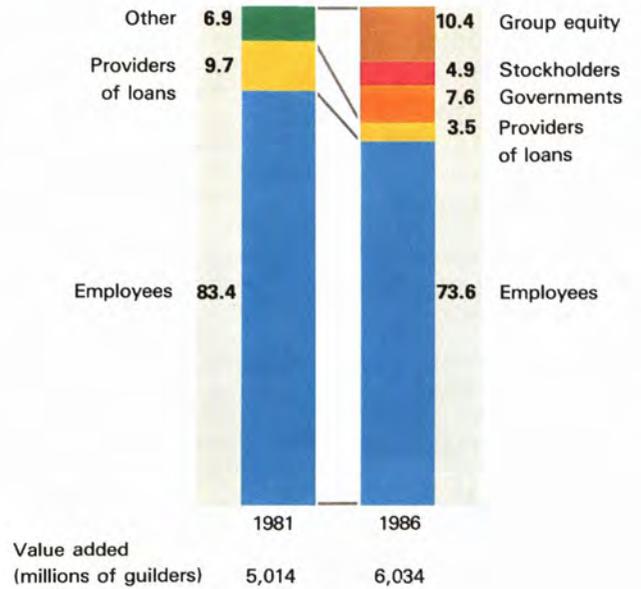
Operating income, as percentage of net sales



Operating income, in billions of guilders



Shares in value added (as %)



### Operating Income

At Hfl 1,465 million, operating income was equal to that of 1985. Expressed as a percentage of sales, operating income increased from 8.1% in 1985 to 9.4%.

### Financing Charges

In 1986, financing charges continued to decrease, primarily as a result of a lower aggregate amount of interest-bearing borrowings. Down 43%, they were Hfl 106 million.

### Taxes

The tax burden was 35% in 1986, against 36% in 1985.

### Earnings from Nonconsolidated Companies

Lower earnings were primarily caused by lower income derived from the man-made fiber companies in Latin America and India and by start-up costs of the aramid plants, which came on stream in 1986.

The nonconsolidated companies in the chemical sector had more varied results. Against declines in earnings for Glucona (gluconates) and Silenka (glass fibers) we registered improved income for Lion Akzo (fatty amines).

### Extraordinary Items

Extraordinary items showed a positive balance of Hfl 23 million, which was primarily due to deferred revenue from the sale of Brand-Rex (United States) in 1983.

### Net Income on the Basis of Current Value

Net income on the basis of current value was Hfl 846 million, against Hfl 735 million in 1985. Compared with the prior year, it reflects the favorable influence of the decrease in raw material prices.

### Value Added

Value added, defined as the aggregate amount of labor costs, financing charges, taxes, and Group income, was down 4% from Hfl 6,307 million in 1985 to Hfl 6,034 million in 1986, principally due to the sale of American Enka. The share of labor costs in value added remained on a par with the prior year's level (73.6%).

### Capital Investments

Capital investments, which aggregated Hfl 1.9 billion in 1986, break down into Hfl 1.1 billion for expenditures for property, plant and equipment, and Hfl 0.7 billion for acquisitions.

For salt and commodity chemicals capital expenditures were mainly focused on modernization and improvements in efficiency, while expenditures for specialty chemicals principally related to projects to expand capacity, notably in the United States and Brazil.

In the man-made fibers sector expenditures were primarily made to modernize the production facilities for industrial fibers and polyester textile yarns.

Major capital investment projects in the coatings sector included improvement of storage and distribution facilities, and improvement of the infrastructure.

A relatively large increase in capital investments was registered in the sectors of pharmaceuticals and miscellaneous products (notably for plastics).

Acquisitions were made in the sectors of specialty chemicals (Perchem, Monsanto paper chemicals), coatings (Blundell-Permoglaze, Sandtex, the coatings operations of Brink/Molyn, and a 50% stake in Procolor), pharmaceuticals (blood bank activities of Cooper Technicon, Colmed/PBI), plastics (Wilson-Fiberfil International, fiber-reinforced plastics and color concentrates), and machinery (Tiefenbach, hydraulic and electronic components).

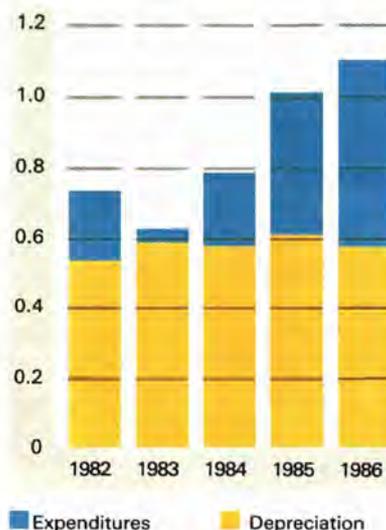
In 1986, as in 1985, the total amount of project authorizations aggregated almost Hfl 1.3 billion.

Capital investments by nonconsolidated companies (total sales of Hfl 2.6 billion in 1986) amounted to Hfl 0.4 billion, compared with Hfl 0.5 billion in 1985.

### Working Capital

At Hfl 3.7 billion, operational working capital (inventories and trade receivables, less accounts payable) was down 6% from 1985. Expressed as a percentage of sales, operational

*Property, plant and equipment, in billions of guilders*



12 working capital was 24%, which is almost at the same level as at year-end 1985, exclusive of American Enka.

## Financing

### Condensed Statement of Sources and Applications of Funds

Millions of guilders	1986	1985
<i>Sources of funds</i>		
Group income	921	916
Depreciation	577	608
Other sources	120	199
	<b>1,618</b>	<b>1,723</b>
<i>Applications of funds</i>		
Investments and acquisitions	1,864	1,430
Disposal of interests	(66)	(789)
	<b>1,798</b>	<b>641</b>
Change in working capital	(130)	197
Dividends paid	294	259
Other applications	16	18
	<b>1,978</b>	<b>1,115</b>
Deficit/surplus	<b>(360)</b>	<b>608</b>
<i>Financing</i>		
Issuance of stock/warrants, drawdowns, etc.	403	572
Repayment of borrowings, etc.	(444)	(762)
	<b>(41)</b>	<b>(190)</b>
Change in cash and short-term investments	<b>(401)</b>	<b>418</b>
Cash and short-term investments at December 31	<b>1,084</b>	<b>1,485</b>

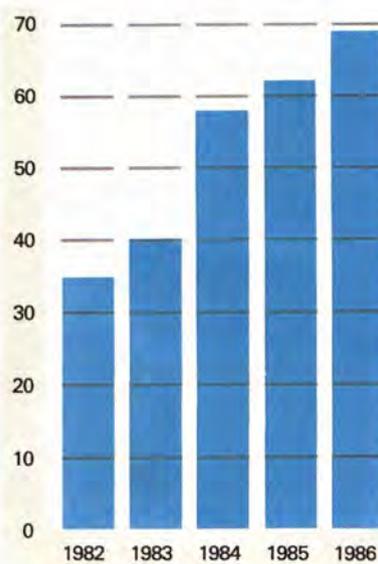
The condensed statement provided above shows the sources and applications of funds, supplemented with proceeds from and expenditures for financial operations, on balance resulting in a change in cash and short-term investments.

The cash flow resulting from operations was Hfl 1.6 billion, against Hfl 1.7 billion in 1985.

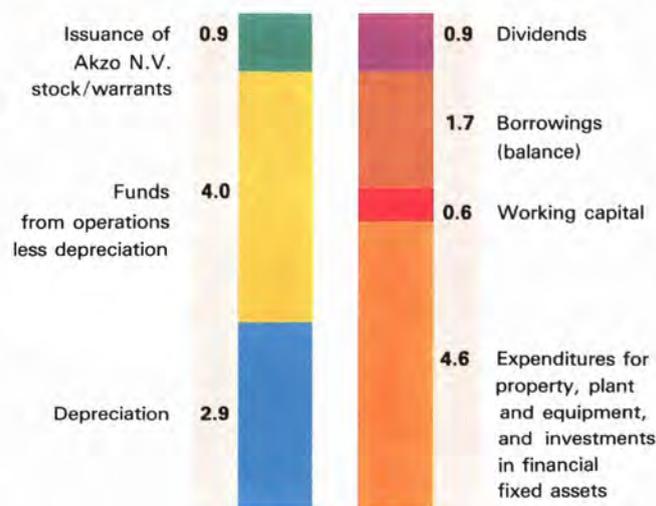
The expenditures for property, plant and equipment and for acquisitions totaled Hfl 1.9 billion, exceeding the prior year's high level by Hfl 0.4 billion. In contrast to the preceding year, the amount for disposal of interests was low.

Cash and short-term investments decreased by Hfl 0.4 billion to Hfl 1.1 billion at December 31, 1986.

Group equity, as percentage of debt



Sources and applications of funds, 1982-1986 (billions of guilders)



### *Issuance of Warrants*

In September 1986 more than 2 million warrants were issued at a price of Hfl 48 per warrant with a priority right in purchase for existing stockholders.

From May 1, 1988 through September 30, 1991, each warrant entitles the holder to purchase one share of Akzo N.V. common stock at a price of Hfl 120. Akzo has the right to decrease the exercise period by advancing the termination date from September 30, 1991 to any date after November 1, 1988, on at least 3 months' prior notice.

As a result of this issue stockholders' equity increased directly by Hfl 89 million.

Upon full exercise of the warrants stockholders' equity will be further increased by approximately Hfl 240 million, while the number of outstanding shares will rise by 2,001,513 shares of Hfl 20.

As the warrants cannot be exercised before May 1, 1988, per share income will not be diluted by this issue before that date.

### *Interest-Bearing Borrowings*

In 1986 the last repayments were made on the 1976 9¼% Dutch guilder debenture loan and the 1979 9½% Dutch guilder debenture loan. Furthermore, we repaid the remaining portion of the 1979/87 9¼% debenture loan before maturity.

During the year our subsidiary Akzo America Inc. obtained a U.S.\$ 53 million loan with a maturity of more than 2 years on favorable terms.

Total interest-bearing borrowings at year-end 1986 were Hfl 2,010 million, versus Hfl 2,301 million at the end of 1985. The average rate of interest on loans outstanding at December 31, 1986 was 8.1%, versus 8.4% at year-end 1985.

In 1986, 12,971 4¾% U.S. dollar convertible debentures were converted into 383,728 common shares of Hfl 20. At December 31, 1986, the amount of 4¾% U.S. dollar convertible debentures still outstanding was U.S.\$ 3.7 million. In the period 1987/88 conversion may add a maximum of 106,086 shares to the number of outstanding Akzo shares.

The strengthening of Group equity and the decrease in borrowings improved the equity/debt ratio from 0.62 at the end of 1985 to 0.69 at the end of 1986.

### *Credit Facilities*

The amount of credit available under long- and medium-term standby facilities did not change during the year. However, due to changes in exchange rates the guilder value decreased from Hfl 680 million to Hfl 540 million at the end of 1986.

During the year Akzo issued a limited volume of commercial paper in the Euro and domestic markets.

### **Research and Technology**

In 1986 the expenditures of the corporate and divisional research institutes aggregated Hfl 746 million, compared with an amount of Hfl 725 million in 1985. Excluding the effects of the lower dollar and the sale of American Enka, research expenditures increased 11%. After deduction of the cost of services and operational support provided by these institutes, net R&D expenditures were Hfl 677 million (1985: Hfl 662 million).

Expressed as a percentage of sales, R&D expenditures were 4.3% in 1986.

The number of employees engaged in R&D increased by 455 to 5,875 at year-end.

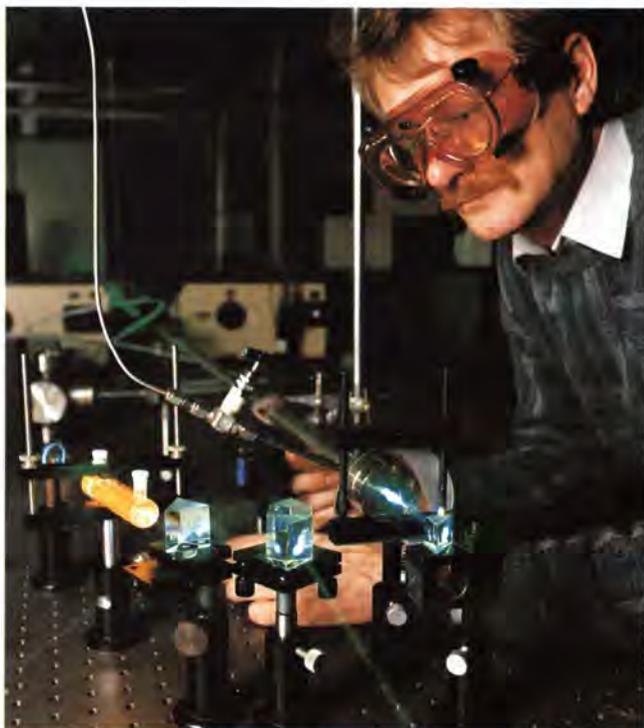
Partly as a result of acquisitions and divestments made in recent years the Group's product mix has shifted in the direction of high-tech products. Total research expenditures break down into approximately 50% for polymer chemistry (including high-tech fibers, plastics, coatings, and some specialty chemicals), approximately 35% for pharmaceuticals and diagnostics, and approximately 15% for miscellaneous products.

A great deal of R&D effort is aimed at broadening and deepening the know-how in the field of polymer chemistry, both at corporate level and in the divisional research institutes. These coordinated R&D efforts are concentrated on new and modified polymers and polymer combinations, with special emphasis on improvement of the mechanical, electrical, and optical properties of these materials and on enhancement of their heat resistance and processability. This polymer research has already resulted in new product candidates for widely diverse markets. Further development work on these products is carried out in application research laboratories, often in close consultation with our customers. In 1986, we took steps to set up a central composites laboratory, which is scheduled for completion by mid-1987. This laboratory will be further equipped and expanded in the years ahead.

For several years R&D work has been carried out on materials for the electronic industry. This work may be given fresh impetus by the intended collaboration with the U.S.-based company Kollmorgen.

Research in the field of recombinant DNA and monoclonal antibodies for diagnostics and therapeutics, notably for cancer, and the development of associated production processes are beginning to take form.

Contacts with universities and scientific institutes, both in Western Europe and the United States, were intensified. These contacts are important for strengthening our research base and for successful recruitment of young scientists for our growing research organization.



The central research laboratories in Arnhem use laser technology in many fields of inquiry, including polymer research.

We continue to be interested in international and national technology programs. We participate in several projects sponsored by the European Community. In addition, we also take part in a number of national programs, for example in the Federal Republic of Germany and in the Netherlands.

Further data on specific developments and projects can be found in the appropriate product group sections.

### Safety and the Environment

Due in part to recent incidents there is increasing public concern, both nationally and internationally, about safety and the environment. Over the years Akzo has been making great efforts to improve the environmental and safety aspects of its processes and products. These efforts have come to cover an ever wider field. At first we were mainly concerned with problems relating to wastewater flows and stack emissions. Subsequently, we were confronted with the problems of solid wastes, the environmental and health aspects of new and existing products, the exportation of chemicals to third-world countries, and the transport of wastes across national frontiers. In addition, due in part to requirements for submission to regulatory agencies of

comprehensive safety reviews for numerous production facilities, an increasing amount of time is now directed toward the safety of production processes.

The chemical industry's social responsibility goes beyond the realization of corporate business objectives to include responsible conduct of environmentally safe manufacturing processes. For its part Akzo will pledge to vigorously continue and, where necessary, step up its efforts in the field of safety and the environment.

The need for expert handling of the numerous issues of this ever greater field of activity places heavy demands on our employees. Their efforts as well as the investments in safety and environmental facilities and the costs of keeping them operational have to be funded with the proceeds from operations. At the production sites we are carrying out a systematic investigation into the investments and efforts that will need to be made in the years ahead.

An inventory of soil pollution at our industrial sites found no pollution requiring immediate action because of health or environmental hazards. However, for a few locations steps were or are being taken to eliminate or contain pollution.

Akzo has formulated policies which will be observed internationally in the event of pollution of an industrial site.

In conjunction with several other companies and in consultation with the government we are currently examining how care for the environment can best be implemented in the plants.

The experience gained in recent years with safety audits has shown that this methodology is an appropriate tool for bringing to light the strong and weak points of the safety situation in plants, which enables us to take better preventive measures.

### Human Resources

As the following table shows, the number of employees increased by 3,400 to 68,400 at December 31, 1986:

Number of employees, December 31	1986	1985	change
Enka	29,900	28,600	1,300
Akzo Zout Chemie	5,700	5,600	100
Akzo Chemie	5,700	5,100	600
Akzo Coatings	10,600	9,600	1,000
Akzo Pharma	11,600	10,800	800
Akzo Consumenten Produkten	3,600	3,700	-100
Other companies	1,300	1,600	-300
<b>Total</b>	<b>68,400</b>	65,000	3,400

The increase in the total number of employees was the result of internal growth by 1,800, and an increase of 2,200 due to acquisitions, offset by a decrease of 600 due to divestitures.

The acquisition factor was especially prominent for Akzo

---

Coatings, Enka, and Akzo Pharma. Internal growth occurred principally in the Netherlands (700) and in the Federal Republic of Germany (400). This growth is mainly attributable to the Company's aggressive process and product innovation policy.

Recruitment of comparatively large numbers of highly qualified young people poses special problems. Thoughtful planning is required if we are to offer such potential managers the challenges that live up to their abilities and expectations.

Career plans for this category of personnel are being prepared with particular care. Their training and work programs are so devised as to provide multidisciplinary and interdivisional experience for all, with the addition of international exposure for some.

The Group has a vital interest in the adequate staffing of key posts. As the emphasis is on innovation and flexibility, we need managers and specialists who combine high qualifications with strong motivation. The explanation of why so much systematic effort is being invested in this matter today lies in the transition from a period when recruitment was very limited and mobility low, to one in which the restaffing of key posts is a major policy concern. The development of management potential for the nineties is now being actively pursued.

In conformity with the result of a study investigating opportunities for the redistribution of work in Akzo in the

Netherlands, no further overall cuts in working time were made in 1986. However, in some parts of the organization experiments with more flexible hours will be conducted. These experiments will be evaluated on the basis of their contribution to the Company's competitiveness.

As we were negotiating with the unions on a new collective labor agreement for our Dutch operations in June 1986, we were confronted with a short strike at three locations.

Joining the fight against youth unemployment, we are making additional training efforts with a view to affording more young people a realistic chance of employment in industry.

In the Federal Republic of Germany, where the hiring by industry of young people has long been channeled through an apprentice system, almost 900 adolescent workers are employed in Akzo companies on apprenticeship contracts—an increase of almost 7% on the prior year.

In an effort to meet rapid technological changes, we operate coordinated training schemes directed at newly inducted and other personnel.

We recognize that much of the credit for the Company's fine performance in 1986 is due to the dedicated efforts of our employees. We hereby acknowledge our debt to them.

## Product Groups

- 16 The statistics presented below illustrate the relative importance of each of the six product groups in terms of net sales, operating income, invested capital, and expenditures/depreciation in respect of property, plant and equipment.

Millions of guilders	Net sales		Operating income		Invested capital*		Property, plant and equipment Expenditures		Depreciation	
	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985
Chemical products	4,332	5,155	421	474	2,386	2,393	384	396	236	230
Man-made fibers	3,443	5,226	275	291	1,618	1,662	262	291	139	206
Coatings	2,314	2,171	132	130	1,070	894	128	113	58	48
Pharmaceuticals	2,239	2,138	350	355	1,069	987	121	70	57	50
Consumer products	1,453	1,677	91	87	310	359	40	31	22	22
Miscellaneous products	2,079	1,903	205	191	751	675	171	107	65	52
	<b>15,860</b>	18,270	<b>1,474</b>	1,528	<b>7,204</b>	6,970	<b>1,106</b>	1,008	<b>577</b>	608
Intra-Group deliveries, nonallocated items	(245)	(260)	(9)	(63)	(143)	(138)				
<b>Total</b>	<b>15,615</b>	18,010	<b>1,465</b>	1,465	<b>7,061</b>	6,832	<b>1,106</b>	1,008	<b>577</b>	608

The terms and conditions for intra-Group deliveries are negotiated at arm's length and therefore are, in principle, identical with the ones used in transactions with third parties. International intra-Group deliveries and international deliveries within a single product

group are made in accordance with standard procedures that take due account of tax, currency, and pricing regulations in force in the countries concerned.

Financial statistics	Operating income as % of net sales		Operating income as % of average invested capital		Net sales/av. invested capital ratio		Expenditures/depreciation ratio	
	1986	1985	1986	1985	1986	1985	1986	1985
Chemical products	9.7	9.2	17.6	19.9	1.81	2.17	1.6	1.7
Man-made fibers	8.0	5.6	16.8	14.2	2.10	2.54	1.9	1.4
Coatings	5.7	6.0	13.4	15.9	2.36	2.66	2.2	2.4
Pharmaceuticals	15.6	16.6	34.0	39.5	2.18	2.38	2.1	1.4
Consumer products	6.3	5.2	27.2	24.0	4.34	4.63	1.8	1.4
Miscellaneous products	9.9	10.0	28.8	29.8	2.92	2.97	2.6	2.1
<b>Overall ratio</b>	<b>9.4</b>	8.1	<b>21.1</b>	20.9	<b>2.25</b>	2.57	<b>1.9</b>	1.7

\* Total assets of consolidated companies, less cash and short-term investments, and less other current liabilities.

# Chemical Products

## General

Total sales of chemical products were down 16% to Hfl 4,332 million.

Although general business conditions continued to be favorable for chemical products, the influence of a considerably lower dollar weakened competitiveness. Lower energy and feedstock prices exerted a positive influence. On balance, operating income decreased 11% to Hfl 421 million. However, expressed as a percentage of sales, operating income increased from 9.2% in 1985 to 9.7% in 1986.

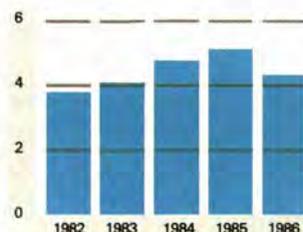
## Salt and Commodity Chemicals

Sales of this group of products were down 18% from Hfl 2,482 million in 1985 to Hfl 2,029 million in 1986. Of this decrease, 8 percentage points were due to currency translation differences. Volume sales fell approximately 8%, which was mainly attributable to lower deicing salt shipments and fewer nonrecurring salt deliveries.

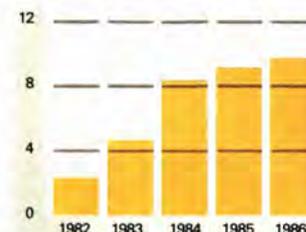
*The installation for dry evaporated salt at Delfzijl (the Netherlands) was commissioned into use in 1986. This type of salt is largely exported, particularly to the United States.*



Net sales, in billions of guilders



Operating income, as percentage of net sales



## Salt

Volume sales of salt, benefited by healthy business conditions, remained at a high level in 1986. During the year the production facility for dry evaporated salt in Delfzijl came on stream and ground was broken for the construction of storage facilities for this product in Georgetown, South Carolina (United States). Even at the current rate of the dollar, we foresee a growing market for this type of salt in the United States.

The decline of the dollar was the principal cause of lower guilder earnings of the U.S.-based International Salt Company. By all other measures the company continued to perform well. Replacement investments made over the last three years in the three rock salt mines have clearly improved efficiency, and hence the competitive position.

Integration of the European and American salt operations will primarily result in better utilization of know-how in the field of salt specialties.

## Chlor-Alkali Products

Despite the increased demand for PVC in Western Europe, there has not yet been sufficient progress in restructuring programs currently being implemented in the VCM and PVC industry to restore the balance between supply and demand. Lower revenues notwithstanding, margins showed some improvement because of lower feedstock costs. On balance, however, margins are still too low.

In the United States supply and demand for VCM were approximately balanced. This equilibrium reduced the pressure on markets in the Far East of exports from the United States, which would otherwise have been much higher at the current rate of the dollar.

Volume sales of ROVIN, the VCM/PVC joint venture with Shell Nederland Chemie, remained at a reasonable level in 1986.

The demand for chlorine continued at a high level, due in part to increased PVC production. However, the demand for the co-product, caustic soda, lagged behind that for



Salt is produced in many forms and grades to suit a wide variety of purposes.

Broxetten® salt tablets were specially developed for water softening.

chlorine. This difference in growth and keener competition in overseas markets from new suppliers (including Saudi Arabia) resulted in substantially lower revenues for caustic soda and lye.

Selling prices of soda ash in overseas markets were also depressed as a result of the lower dollar. Otherwise, demand remained at an acceptable level. Earnings were higher thanks to lower production costs, due in part to improvements realized in recent years.

During the year the modernization of the sodium sulfate plant in Delfzijl was completed, which resulted in substantially reduced energy costs and some expansion of capacity.

#### Other Commodity Chemicals

Existing overcapacities, the low dollar, and the decline in demand for industrial colloids used as a drilling mud

additive heavily affected earnings of this group of products. In addition to the capital investment made in 1986 to improve a major part of the production process, further steps are needed to restore the earning capacity of this group of products.

Results for our crop protection chemicals were again at a modest level in 1986.

The enlarged production facility for chloroform is gradually moving toward full capacity utilization. Selling prices for some chlorinated hydrocarbons are at an unsatisfactory level due to more vigorous competition.

Chemservice Europort's volume of business is developing according to expectations. We are examining various alternatives to expand business activities, and negotiations with interested parties are under way.

#### Joint Ventures

Sales by the joint ventures in the salt and heavy chemicals sector aggregated Hfl 840 million, down 19% from 1985.

Denak Co. Ltd (monochloroacetic acid, Japan) continued to be affected by the strong yen which depressed export revenues. The final income figure was satisfactory, however.

As in the previous year, Dansk Salt I/S (salt, Denmark) turned in a good performance.

Elektro-Chemie Ibbenbüren GmbH (chlor-alkali products, Federal Republic of Germany) achieved lower but still satisfactory earnings in spite of higher energy costs.

Delamine B.V. (ethylene amines, Delfzijl) was able to enjoy the benefits of a major energy savings project and of increased flexibility of its product range.

The construction of the Delesto B.V. combined heat/power generation plant was nearing its completion by the end of the year. Meanwhile, start-up activities have begun.

Methanol Chemie Nederland v.o.f. (resins, Delfzijl/Rotterdam) strengthened its position in specialty urea formaldehyde resins for particle board with lower formaldehyde emission values, primarily as a result of improved resin qualities. It has been decided to enlarge the capacity of the Rotterdam formaldehyde plant.

During the year the market situation for methanol (produced by Methanor v.o.f., Delfzijl) deteriorated. Excessive supplies from countries with low energy costs, notably Saudi Arabia and Libya, resulted in a further decrease in methanol prices, thus eliminating the advantage of a lower natural gas price in the Netherlands. A prerequisite for the continuity of this operation is that the feedstock, natural gas, is so priced as to permit an adequate response to competition. Increases such as those that result from Dutch excise duties levied on oil and gas weaken this company's competitiveness.

The construction of the coal-fired fluidized bed boiler in Hengelo was delayed a few months. In the Netherlands no experience had yet been gained with the technology for boilers of this size. At the end of the year the boiler came on stream, and it is anticipated that the design requirements will be met.

The optimization of energy efficiency in our Rotterdam plants by expanding the co-generation of electricity and steam progressed according to schedule.

The inauguration of the Delesto energy co-generation facility signifies for our Delfzijl plants the change-over to ultramodern energy production technology. This technology has a minimal environmental impact and is consistent with the Dutch government's policy to stimulate the production of an energy mix which carefully balances heat and power.

The end of the year saw the completion of the biological wastewater purification plant in Rotterdam. The first results suggest that it is performing well.

#### Outlook for 1987

Barring any drastic changes in the general economy, it is reasonable to expect that business of the Western European heavy chemical industry will not weaken appreciably in 1987. In the light of this projection we foresee a continuation of the high output and sales levels.

Provided that exchange rates do not fluctuate strongly and that energy costs remain in line with those in other countries, operating income in 1987 should not deviate materially from that achieved in 1986.

*In 1986, the Rotterdam VCM plant, which commenced operations in 1971, produced its five millionth ton of vinyl chloride monomer. Vinyl chloride monomer is the raw material for PVC, a major plastic with applications in numerous fields.*



20 Specialty Chemicals

Sales of this group of products, which faced strong competition, were down 14% to Hfl 2,303 million. This was principally due to the decline of the dollar and to lower selling prices, reflecting cuts in energy and raw material prices. Volume sales of most products were maintained at a high level.

**Products for Plastic and Elastomer Manufacturers and Processors**

In Europe shipments in this product sector remained high, but exports to overseas markets declined due to changes in exchange rates. In the United States fierce competition resulted in downward pressure on prices.

The upswing in the plastics industry enabled us to achieve volume gains in peroxides in the face of increased competition. These products are used as initiators in the manufacture and processing of plastics and elastomers.

Despite intensified competition, shipments of rubber chemicals remained at the prior year's level.

*Nouryset® 200* organic glass monomer faced vigorous

competition. We will try to defend our position by developing special monomer types.

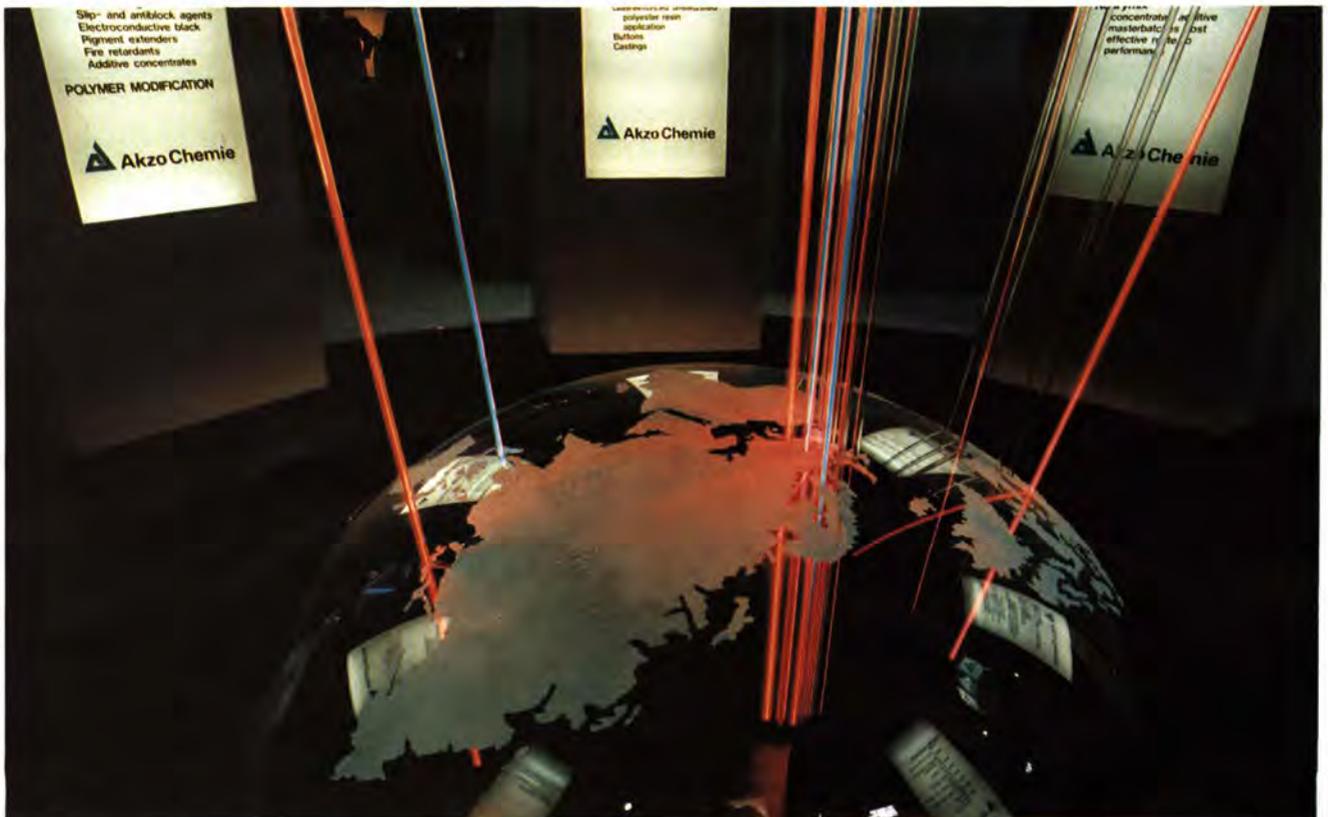
Market development in the area of specialty diisocyanates as a raw material for high-performance polyurethanes continued successfully. In Deventer a pilot plant for diisocyanates, scheduled for completion in 1987, is under construction. Pursuant to a recent decision a pilot plant for polyurethane prepolymers is also to be built there. This facility should enable us to better meet the needs of our customers.

**Metal Carboxylates**

Metal carboxylates posted an excellent performance, both in Europe and in the United States. Among these products, stabilizers, softeners, and *Intercide® ABF* biocide, all of which are used mainly in the PVC industry, reached high shipment levels.

**Organic Chemicals**

This product group benefited from low feedstock prices. Our paper chemicals business was strengthened by the



A substantial part of our specialty chemicals serve as auxiliaries in the manufacture and fabrication of plastics. Rays of light issuing

from a plastic globe pinpoint the centers whence Akzo Chemie distributes its products and know-how.

acquisition of Monsanto's activities in this field. Furthermore, we developed promising new types of paper chemicals, which cater to the increasing trend in the papermaking industry of producing paper under neutral or alkaline conditions instead of using the conventional "acid" method. In a prolonged field trial on one of the fastest papermaking machines in Europe our new *Cyclopa*<sup>®</sup> KE size demonstrated excellent performance.

For the first time after 10 years of steady growth, business for our sequestering agents (EDTA) weakened, notably in overseas markets, due to the declining dollar. Even so, we will press ahead with efforts to bolster our position in the United States.

Our position in fatty acids and oils for alkyd resins was strengthened. Our strong record in fatty acid derivatives is based in part on proprietary fatty acid production.

Earnings in the chlorofluorocarbons and carbon disulfide sectors were satisfactory. The two production plants have consistently been kept in good repair and fully meet safety and environmental requirements.

Our emerging oilfield chemicals business was affected by the slump in the oil industry.

## Fatty Amines

This strongly performing product group was strengthened by the acquisition of the Perchem group (United Kingdom). Perchem's product line emphasizes thickeners for numerous applications, notably paint production and oil exploration. This move advances forward integration and complements our activities in the field of drilling fluids.

The start-up in early 1986 of the new fatty amines plant in Itupeva (São Paulo), which uses an improved nitrile process, was successful. Given the adverse economic conditions in Brazil, production is at a very satisfactory level. Expansion of the plant in Japan, which will also use this process, is under way.

In the United States a plant for powdered quaternary amines came on stream.

## Catalysts

The market for cracking catalysts in the United States shows healthy growth, despite generally reduced outputs of oil refineries. Our *Octaboost*<sup>®</sup> catalyst enjoyed favorable market acceptance. Volume sales were restrained by limited production capacity. A capacity expansion program for our production facility in Houston (United States) is scheduled for the second quarter of 1987.

For desulfurization catalysts the market situation was less favorable, resulting in lower earnings in Europe, the United States, and Japan. In view of the long-term prospects we stepped up our research efforts in the field of desulfurization and hydrocracking catalysts.

## Other Chemical Products

Large overcapacities for sulfuric acid, due in part to the downturn in the fertilizer industry, along with high sulfur prices, were the principal factors in the decision to shut down the sulfuric acid plant in the Botlek area by mid-1987. Production in Amsterdam will be continued.

During the year the new sodium silicate furnace in Düren (Federal Republic of Germany) was brought on line. This enables us to meet the growing demand for silicates, one use of which is as a carrier in the production of catalysts.

The sulfo products plant in Amsterdam will be expanded in connection with the production of sulfonamides taken over from Monsanto at the end of 1985. This expansion will be completed in early 1987.

## Joint Ventures

In 1986, sales of Akzo Chemie's joint ventures aggregated Hfl 630 million, down 10% from sales of Hfl 700 million in the previous year.

Production capacity of Silenka B.V. in Hoogezand (the Netherlands), a producer of glass fibers, was increased



The diisocyanates pilot plant in Deventer (the Netherlands) is scheduled to start up soon. Its output will serve as feedstock in the production of high-value polyurethanes.

through the inauguration of a third furnace. Due to the lower rate of the dollar competition intensified, with increased imports from the United States a major element. The resulting downward pressure on prices together with higher costs due to the expansion led to lower earnings.

Earnings of Glucona v.o.f., Ter Apelkanaal, the Netherlands, were lower due to stiff competition in the sodium gluconates sector. Recently it was decided to modernize the obsolete production facility for sodium gluconates, which will result in greater competitiveness.

Lion Akzo Co. Ltd (Japan) achieved satisfactory results. Production capacity of the fatty amines plant will be expanded.

Kayaku Noury Corp. (Japan), a producer of organic peroxides, also posted a gratifying performance.

The disappointing results of Nippon Ketjen Co. Ltd (Japan, desulfurization catalysts) were attributable to the slump in the oil industry and the strongly increased rate of the yen. Initiatives have been taken to improve the situation through product innovation and dynamic marketing.

Earnings of Cyanamid-Ketjen Katalysator B.V. (Amsterdam), a producer of reforming catalysts, were at a satisfactory level.

The new cracking catalysts plant now being built for FCC – Fabrica Carioca de Catalisadores S.A. (Brazil) is expected to commence operations in 1988.

### Research and Development

Research aimed at promising applications of new and existing peroxides will provide access to market segments which offer attractive growth opportunities. Product improvement strengthened our market position in the catalysts sector. A new process for the preparation of amines was successfully implemented in several production units.

The increased research efforts focused on finding new applications for existing products and on the development of new activities in attractive high-technology sectors have already resulted in promising product candidates. These research activities also drew on expertise available elsewhere within Akzo.

### Outlook for 1987

With some slight growth projected in the strong general economy, we expect that earnings of our existing operations will be equal to the previous year. Additionally, capital investments made in recent years, notably in the United States and Brazil, should add to earnings.



*The testing of paper chemicals in the Düren (Federal Republic of Germany) research laboratory.*

# Man-Made Fibers

## General

In comparing the figures for this product group with those of previous years due allowance should be made for the divestment of American Enka at the end of 1985.

Sales were down Hfl 1,783 million. Lower feedstock and energy prices notwithstanding, operating income declined by Hfl 16 million. Expressed as a percentage of sales, operating income rose from 5.6% in 1985 to 8.0% in 1986.

In the aggregate, man-made fibers posted a satisfactory performance in 1986. But in the second half of the year the impact of the low dollar and weakening demand for man-made fibers resulted in reduced volume and a distinct pressure on selling prices, notably in export markets.

The contribution made by our Spanish-based subsidiary La Seda de Barcelona S.A. was satisfactory, although lower than in 1985.

Polyenka S.A. (Brazil), a producer of textile polyester filament yarns, has again performed well.

The contribution of the nonconsolidated companies to earnings was appreciably lower than in 1985.

## Man-Made Fibers for Textiles and Carpets

Sales were Hfl 1,995 million against Hfl 3,577 million in 1985, a decrease of 44%. The divestiture of American Enka accounted for 38 percentage points of this decrease. Operating income developed variously in the individual sectors, but overall it was of the same order of magnitude as in the prior year.

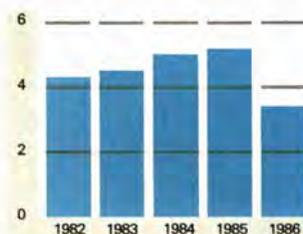
On August 1, 1986, the Multi-Fiber Arrangement was renewed for five years by the GATT's textile commission, allowing the Western European textile industry to continue its restructuring process.

In the first half of the year overall demand for man-made textile fibers in Western Europe remained at a fairly high level but weakened in the second half. Due to changes in exchange rates and diminishing demand in some export markets, exports had already started to decline early in 1986. Concurrently, the oversupply situation for certain products in the global marketplace resulted in strong pressure by imports in Western Europe. Notably, polyester staple fiber and textured filament were offered at very low prices. This may distort the hard-won balance between supply and demand. For some fiber types antidumping procedures were commenced against several countries.

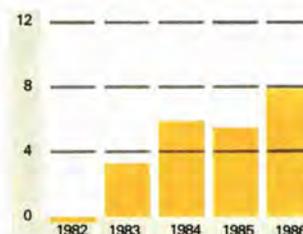
The modernization and optimization of polyester fiber production at the Oberbruch and Emmen plants proceeded on schedule.

The persistent weak demand for polyamide textile yarns induced us to transfer the sales activities for the relatively

Net sales, in billions of guilders



Operating income, as percentage of net sales



low production in Emmen to another producer and to start preparations for a phased shutdown of this facility.

Viscose textile yarns again achieved good results. Favored by current trends in fashion, there was a brisk demand for both bright yarns and very thin yarns used for lining and outerwear fabrics.

Volume sales of polyamide carpet yarns were maintained at the same level, although overall demand in Western Europe weakened slightly. This was largely attributable to sales in the contract market (hotels, offices, etc.). Earnings were adversely affected by changes in exchange rates.

The modernized Diolen® polyester filament plant in Oberbruch (Federal Republic of Germany).





*A major application of man-made fibers is as reinforcing materials, which have a wide spectrum of uses. One example is Enkazon®, a reinforced natural turf here providing instant erosion protection on a dike.*

## Man-Made Fibers for Industrial Uses

Sales of industrial fibers were down from Hfl 1,649 million in 1985 to Hfl 1,448 million in 1986, principally due to changes in exchange rates. Operating income was also clearly affected by the lower rate of the dollar. Exports, traditionally a major factor in our industrial fiber sales, met with ever greater problems, resulting in declining shipments and increased pressure on selling prices. By the end of the year, output levels in a few sectors had to be decreased. The decrease in sales was only partially offset by lower feedstock and energy prices, resulting in a lower operating income than in the excellent year 1985.

In the tire sector, the most important consumer of reinforcing materials, demand in Western Europe continued at a healthy level and shipments of both synthetic and viscose tire yarns met expectations.

Steelcord shipments were steady at the prior year's level. However, earnings were appreciably lower than in 1985, because our significant steelcord exports to the United States were hurt by the low dollar.

Volume sales of synthetic yarns for conveyor belts, hoses, ropes, and nets were also hit by the low dollar. Especially in the conveyor belt sector, customers lost traditional export markets, which resulted in a decrease of our shipments.

A healthier picture was shown by our industrial fabrics, sewing yarns, and seat belt yarns. Capacities for the last two products were fully utilized.

We continued to make progress in opening up the market for our superstrong high-value *Tenax*<sup>®</sup> carbon and *Twaron*<sup>®</sup> aramid fibers.

Although volume gains were recorded for the carbon fibers purchased from our licensor Toho Rayon, Japan, we failed to reach the targeted sales level. This was caused by stagnating growth in sales of sporting goods, currently the main outlet for these fibers. In the aerospace sector, an increasingly important consumer of our carbon fibers, we are awaiting the outcome of extensive approval procedures.

During the year our carbon fiber plant in the Federal Republic of Germany started commercial-scale production. A major capital investment program in a *Tenax*<sup>®</sup> pilot plant for further product development and the production of specialty types was authorized.

After several technical problems had been overcome, the aramid plants in the Netherlands started commercial production of *Twaron*<sup>®</sup> at the end of 1986. The patent dispute with Du Pont dragged on unresolved during the year.

We established a joint venture with Sumitomo Chemical

Company for the sale and – at some time in the future – the production of *Twaron*<sup>®</sup> in Japan.

## Joint Ventures

The production of *Twaron*<sup>®</sup> is entrusted to Aramide Maatschappij v.o.f. Start-up losses are still being recorded by this company.

Sales of our joint ventures in Latin America and India decreased by 32% from Hfl 1,190 million in 1985 to Hfl 810 million. Changes in exchange rates were a dominant factor in this decrease. In addition, adverse general economic and monetary conditions in some countries affected earnings.

Enka de Colombia S.A. met expectations and strengthened its position in almost all product sectors.

Enkador S.A. (Ecuador) saw a continuation of its healthy performance.

COBAFI S.A. (Brazil), a producer of industrial fibers and fabrics, maintained its market position, but earnings were impacted by government-imposed price controls.

Despite persistent economic and monetary problems, Fibras Químicas S.A. (Mexico), turned in a healthy performance.

All companies enjoyed almost full capacity utilization rates. Expansion and modernization investments are under way to meet growing demand.

The performance of our affiliate in India, Century Enka Ltd, which is currently passing through a highly expansionary phase, was adversely influenced by the liberalization of economic and licensing policies. Downward pressure on selling prices, more vigorous competition, and increasing imports counteracted full capacity utilization and brought substantially lower earnings compared with the good results achieved in 1985.

## Research and Development

During the year, significant R&D efforts were made to support the start-up of the *Twaron*<sup>®</sup> plants in Delfzijl and Emmen (the Netherlands). Furthermore, application development efforts were stepped up, resulting in, among other things, a PTFE-impregnated fiber type for seals and a fiber type that can be processed into paper.

In textile research, high priority was given to the optimization of high-speed spinning.

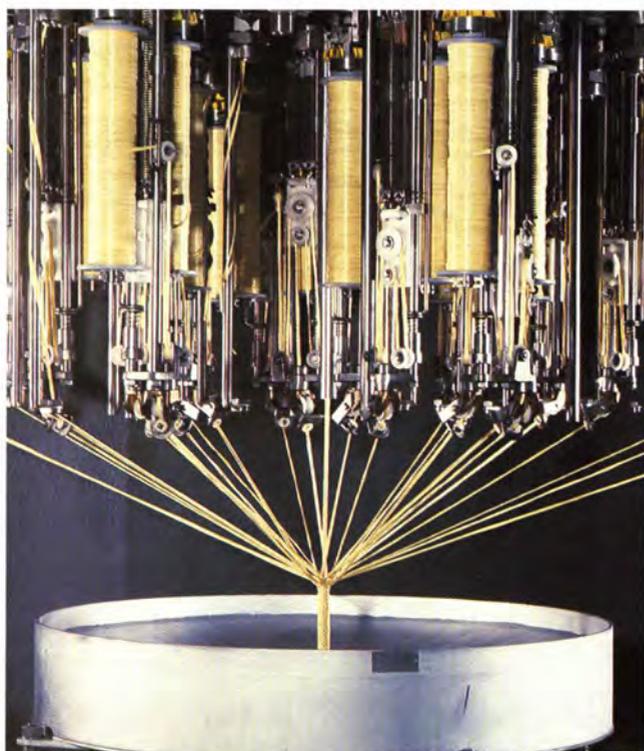
The development of our new high modulus, high shrinkage polyester tire yarn type has now reached the production stage. It will be introduced to the market in 1987.

The silica fiber developed by Enka and produced in a pilot plant is resistant to very high temperatures (up to 1100°C) and features good electrical insulation properties. Since its market introduction, customers have shown great

26 interest in its use for special applications. Some customers are already making products using our silica fibers (braids for power supply lines which have to be resistant to very high temperatures, narrow and broad fabrics for insulation purposes, and special laminates). These products will be subjected to further application research.

**Outlook for 1987**

By and large 1986 was a satisfactory year for man-made fibers. In 1987 the fiber business is likely to slacken, because volume sales and selling prices will continue to be depressed due to lower exchange rates, notably for the U.S. dollar and the pound sterling.



*Braiding machine for the superstrong Twaron® aramid fiber.*



*Production of Tenax® carbon fiber for high-tech applications.*

# Coatings

## General

In the face of adverse changes in exchange rates, sales were up 7% to Hfl 2,314 million. This increase is largely attributable to acquisitions, which bolstered positions in several European countries.

As in the previous year, European shipments were off to a poor start because of severe winter weather, but this was compensated by increased shipments in the remainder of the year. Due in part to acquisitions, shipments were significantly higher than in 1985.

Operating income in the amount of Hfl 132 million almost equaled the 1985 figure. As a percentage of sales, operating income decreased to 5.7% (1985: 6.0%). In South America, lower inflation led to a lower operating income. This was compensated by a better performance of the European companies, especially in decorative paints, car refinishes, and industrial coatings.

In the United Kingdom, Blundell-Permoglaze Holdings PLC and Sandtex Ltd were taken over, and in Spain a 50% share in the coatings company Procolor S.A. was acquired. In late 1986, part of the coatings activities of Brink/Molyn Beheer N.V., the Netherlands, was also purchased. These companies are principally engaged in the manufacture of paints for the trade and D-I-Y sectors.

## Investments and Rationalization

With modest volume growth in the global paints market continuing, marketing efficiency is the key to earnings growth.

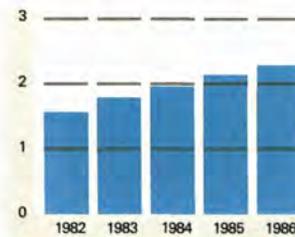
Investments were again up from the prior year. After the shutdown of the plant in Vitry, France, production was relocated to the Montataire facility, for which a major modernization program was completed. Significant amounts were also invested at the Stuttgart, Federal Republic of Germany, site. In Breda, the Netherlands, a new distribution center was inaugurated.

## Decorative and D-I-Y Paints

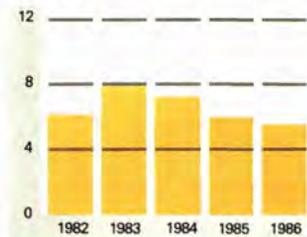
The Western European construction market continued to stagnate. But as a result of the acquisitions referred to above and with improvements in existing activities, sales in the trade and D-I-Y sectors expanded significantly. Any further improvement in market position and earning capacity will require concentration on the supply of products with a high technology content. Furthermore, there will be a substantial reorientation on paints for the maintenance market, which is less vulnerable to economic cycles.

In France a new exterior wall coating was launched. This elastic product repairs cracks and is water repellent.

Net sales, in billions of guilders



Operating income, as percentage of net sales



In 1986 the new distribution warehouse in Breda (the Netherlands) was taken into use.



28 **Automotive Finishes; Car Refinishes**

After a difficult prior year, efforts undertaken in 1986 to strengthen our position in automotive finishes failed to produce any fundamental improvement, although shipments were ahead in several countries. This was notably the case in South America, where a volume increase of approximately 20% was achieved.

The car refinishes segment is exhibiting steady growth. Higher sales of new cars were a contributing factor. In almost all countries where we have operations our market position was strengthened. Developments are particularly promising in North and South America.

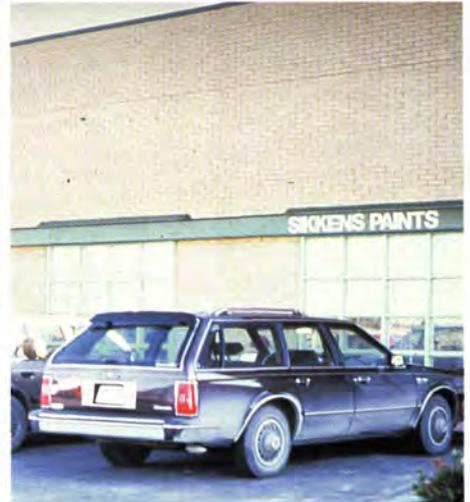
In North America, the first phase of a topcoat

manufacturing facility designed to serve the car refinishing market is now being initiated.

Among the products contributing to the continued success of marketing endeavors were *Autoclear®* and *Autoclear® MS*, two clear topcoats of the so-called two-layer system based on low-molecular acrylates and primer/filler 680.

Considerable effort again was invested in training employees and customers in application techniques, workshop design, and technical management. Worldwide, we now have a large number of information and training centers. This moves our resources of knowledge and experience as close to the customers as possible.

A major aid in the definition of colors is the Color Map,



*In the car refinishing business, considerable efforts are made to train employees and users in paint application techniques, shop layout, and technical management.*

*We now have many information and application centers around the world.*

of which a new edition has appeared. In it, colors are arranged in groups, with separate treatment of metallics and nonmetallics. The new map helps to satisfy the individual wishes of car owners even better than before.

#### Industrial Coatings for Wood, Metals, and Plastics

In this sector the improvement in our position, which began a few years ago, was continued. Rationalization of the product range and careful selection of market segments were instrumental in strengthening market positions, notably in the Federal Republic of Germany, France, and Brazil. The development of advanced products, such as coatings for plastics, cataphoretic coatings, and water-thinnable systems, has also been helpful.

#### Other Products

In the *Redox*<sup>®</sup> protective coatings sector we were able to maintain our positions, especially in the petrochemical industry, in the face of market stagnancy.

New application techniques, such as *Gritkote*<sup>®</sup> and *Korel*<sup>®</sup>, not only boost efficiency but also widen the weather window. In the Federal Republic of Germany, work commenced on a contract to treat Europe's biggest flue gas desulfurization unit with our glassflake coatings.

*Zincromet*<sup>®</sup> coil coating primer continued to lose volume as auto industry usage of galvanized steel increased. A new type of zinc primer specially developed for galvanized automotive steel reduces corrosion and offers good sales prospects.

Our European position in aircraft finishes was strengthened, resulting in improved profitability. Additionally, our specific aircraft finishing know-how is to be used in the United States.

As in previous years, Talens artists' colors and supplies turned in a satisfactory performance.

#### Synthetic Resins

Earnings in the synthetic resins sector were satisfactory. European production facilities operated at high rates of utilization. The expansion of our market position through addition of further synthetic resin specialties for paints, printing inks, and adhesives continues to be a prime strategic objective.

Jointly with a local partner, a synthetic resin manufacturing facility was built in Malaysia, which commenced production in mid-1986.

#### Research and Development

In 1986, several further product innovations were realized. Application of our knowledge in the field of rheology (a



*Manufacturing at the Montataire (France) site was substantially modernized.*

branch of physics concerned with flow characteristics) led to the introduction of a user-friendly D-I-Y wall paint and to the development of an aqueous basecoat for the automotive industry.

Our patented cataphoretic single-coat system for agricultural machinery and domestic appliances is finding increasing acceptance.

Fundamental research efforts were increased in the fields of dispersion methods and adhesion to new materials and composites.

#### Outlook for 1987

We remain determined to pursue selective growth targets in terms of both markets and geographic areas. For 1987 we expect rising sales and a higher operating income than in 1986.

Capital investment will remain high, with modernization of existing production facilities and integration of operations acquired in recent years the principal areas of expenditure.

# Pharmaceuticals

## 30 General

The 1986 increase in sales by almost 5% to Hfl 2,239 million is due to the U.S. acquisitions. Internal volume growth at a rate of over 8% was fully canceled out by lower rates of exchange for most foreign currencies relative to the guilder. The impact of this adverse factor was approximately 13%. Local markups were not nearly sufficient to balance the loss in revenue.

Operating income was maintained at the high level of 1985. In terms of sales, operating income was 15.6%, or slightly lower than the 1985 figure of 16.6%.

The acquisition of the blood bank activities of Cooper Technicon Inc. in the United States substantially strengthened Akzo Pharma's position in this field.

### Ethical Drugs

In the past year, Organon achieved a volume growth of more than 6% and also enhanced its position in certain major markets. However, with a significant portion of sales priced in comparatively weak currencies, the adverse movement in exchange rates caused both sales and operating income to be depressed. In a number of countries, particularly in Latin America, structural adjustments were therefore inevitable.

In the oral contraceptives market, Organon further expanded its position on the strength of the excellent properties of its *Marvelon*<sup>®</sup> product. A new diagnostic which pinpoints the moment of ovulation was added to the line of gynecological products.

Further delays were incurred in the registration of our *Cordium*<sup>®</sup> cardiological preparation in several important countries. Advances were made in the other R&D programs in this field.

Considerable effort was invested in additional product development programs specifically required for securing an entry for our preparations into the American and Japanese markets, both through the Company's own channels and through cooperation with domestic pharmaceutical enterprise.

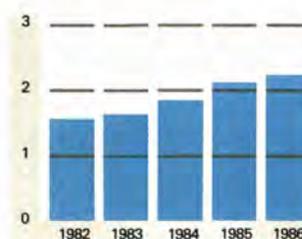
In various research programs, including cancer research, the increased potential for application of the biotechnology know-how we accumulated in recent years is being explored.

The volume growth experienced over the past years, plus our continuing concern with optimum quality assurance, prompted the decision taken in 1986 to schedule additional investment in new production equipment.

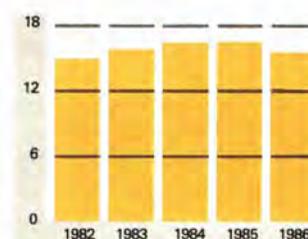
### Hospital Supplies

Organon Teknika had an excellent year. Sales grew by 40% and operating income was also up. These advances, which were primarily attributable to the U.S. acquisitions

Net sales, in billions of guilders



Operating income, as percentage of net sales



realized in 1985, ran counter to the highly adverse influence of changes in exchange rates. The year 1986 was marked by relocation, structural adjustment, and reorganization. During the year, integration was largely completed so that the acquisition aims are now close to realization. We are pursuing a strategy of expanding the scope of business, and this has led to a significant broadening of our U.S. base.

Considerable time and energy is being expended on new construction projects. In Durham, North Carolina, United States, work commenced on the construction and fitting out of a new facility. Expansion of the Turnhout, Belgium, location was initiated. New construction started at Boxtel, the Netherlands, and in Ireland steps were taken in preparation for a considerable scale-up of our manufacturing facility there.

*Recombinant-DNA research is a prominent topic in Akzo Pharma's research laboratories in Oss (the Netherlands).*

*Sequencing of the building blocks in DNA.*



Just before the end of 1986 a further acquisition was made. The deal covers the blood bank and research products of Cooper Technicon Inc. The purchase of this company, which mainly operates in North America, adds much to our strength in the two market segments.

Several new products were introduced, including a new version of our Aids diagnostic *Vironostika*<sup>®</sup> *anti-HTLV-III* and a Verify test to confirm a seropositive diagnosis. *Vironostika*<sup>®</sup> *anti-CMV* (a test for the detection of the cytomegalus virus) was launched. The position of our *Norcuron*<sup>®</sup> short-effect muscle relaxant was further strengthened.

In December 1986, the fourth generation of hollow-fiber artificial kidneys was launched. The new unit is both smaller and cheaper.

#### Nonprescription Products

Chefaro once more produced a satisfactory performance. Despite the effects of adverse movements in exchange rates, sales were constant at the 1985 level, and operating income advanced.

New technologies inspired considerable innovation. In the face of stiffening competition, Chefaro successfully maintained its position for its *Predictor*<sup>®</sup> *Color* pregnancy test based on the novel, patented, non-radioisotopic SPIA principle. *Predictor*<sup>®</sup> *Stick*, a new version of our pregnancy test, was launched in the Netherlands and Belgium in the fall. In Japan, Chefaro was the first to launch a home pregnancy test kit. The E.P.T. pregnancy test reasserted its market leadership in the United States. The kit is produced by Chefaro and marketed by Warner Lambert.

In the fall, Chefaro launched, in several Western European countries, its *Discretest*<sup>®</sup> ovulation test, intended for women who have difficulty conceiving. Indications are that this novel test concept is finding a ready market.

Chefaro Española made a major contribution to sales and earnings. After several slack years Chefaro's business in the Netherlands also saw new growth, especially due to the firming of the vitamins market.

#### Raw Materials for the Pharmaceutical Industry

The lower U.S. dollar exerted strong downward pressure on sales revenue of Diosynth. An abundance of supply of such products as codeines and heparins caused a further decline in selling prices of these materials.

The alkaloids product group was unable to balance lower prices by higher volume and consequently recorded a drop in sales.

Biochemical products likewise struggled in vain to compensate the steep decline in the price of heparins and certain other products by higher shipments. Although all products held on to their market positions, the net result was a lower sales figure.



*In the fall of 1986, the Discretest<sup>®</sup> ovulation test, intended for women who have difficulty conceiving, was launched in several Western European countries.*

Chemical raw materials managed to absorb most of the impact of the lower U.S. dollar through increased demand.

Across the board, the changes in exchange rates had a favorable effect on Diosynth's basic raw material costs. While operating income was lower than in the 1985 peak year, it remained at a quite acceptable level.

#### Generics

Worldwide, there is a growing demand for generics (drugs not having a trademark and not protected by patent). In the past year, our activities in this market were incorporated in a new business unit named Verenigde Pharmaceutische Fabrieken (VPF). In the United States we acquired two companies – Colmed and PBI – which are engaged in the development, production, and marketing of generics. Outside the United States, a program was launched for the acquisition of third-party products, to be merchandised as generics. Both in Europe and the Far East, cooperative ventures are being planned for the local manufacture and commercialization of these drugs.

32 **Veterinary Products**

With volume growth running at 16%, Intervet's position in veterinary vaccines and hormones further strengthened in the world market. Despite a reduction in sales growth to near zero – largely due to the fall in the U.S. dollar rate – Intervet accomplished higher operating income for the fifth year in succession.

Another major new vaccine, named *Nobi-vac*<sup>®</sup> *AR-T*, was launched during the year. Designed to control atrophic rhinitis in pigs, the product is the first in the world to substitute a toxin for the *Pasteurella* bacterium such products normally contain. Introduced in 1985, *Nobi-vac*<sup>®</sup> *Parvo-C*, a superior quality vaccine against a canine disease, has secured for Intervet first place in the sector of vaccines for pet animals in the United Kingdom, the principal European market for such products.

In the United States, where Intervet's marketing effort

has so far been limited to poultry vaccines, the company likewise became the top-ranking supplier in that field. It owes this prominence chiefly to its patented D78 vaccine against Gumboro's disease, a viral infection encountered in domestic fowls. Introduction of other Intervet products is projected.

Exports are under strong competitive pressure from the United States, which is aided by the low dollar. Even so, Intervet added more than 20% to its exports volume. Sales to South America and the Far East showed particular strength.

**Outlook for 1987**

For 1987 we expect modest sales growth, with operating income roughly at the 1986 level. The persistent uncertainty over rates in the foreign exchange market renders it difficult to make firm predictions.



*The Nobi-vac*<sup>®</sup> *Parvo-C* vaccine launched in 1985 is now used in many countries to control a canine disease which is often fatal in puppies.

# Consumer Products

## General

While sales were down 13% to Hfl 1,453 million, operating income was up 5% to Hfl 91 million. The principal factors in the sales drop were the divestiture of ROMI, a producer of oils and fats, on January 1, 1986, along with lower rates of exchange. The gain in operating income is mainly attributable to improvements in efficiency and lower raw material costs.

Operating income as a percentage of sales increased from 5.2% in 1985 to 6.3%. All business segments contributed to this increase.

## Integration and Geographic Diversification Moves

Integration of the Temana Companies and of Legrain (Spain) and Heidelberg Food (Denmark) was completed during the year. Benefits included cost reductions and the launching of several products in new markets.

Major savings will be generated by a drastic reorganization of physical distribution methods and facilities in the Netherlands. Furthermore, operations in Belgium were largely concentrated at a single location. Similar measures are being taken for our operations in Norway and Sweden.

Plans for a phased modernization of the Duyvis nut processing and packing plant at Koog aan de Zaan, the Netherlands, are far advanced. Extending over several years, the project should result in improved efficiency.

Geographically, the business is now significantly more diversified but efforts to broaden our geographic base will continue unabated. Notably, opportunities for cooperation with a partner in the German market are being explored. A high priority is also accorded to a broadening of the base of operations in France and in the United Kingdom, where penetration into the food market is scheduled.

## Food

Despite continuing heavy competition, the food business achieved a substantial rise in operating income.

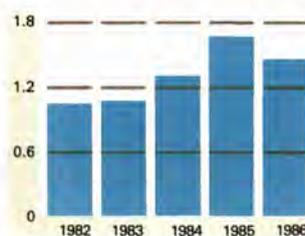
Mayolande in France accounted for a good portion of this increase. The company realized the projected improvement in the market position of its *Bénénuts*® brand nuts. In the sauces and mayonnaises segment (*Bénédicta*®) competition is as keen as ever.

In the Netherlands, Duyvis Recter successfully defended market positions of all of its products. The sole exception was liquid sauces, whose manufacture and sale will be continued for wholesale users only. In the dry mixes segment, Duyvis Recter increased its efforts.

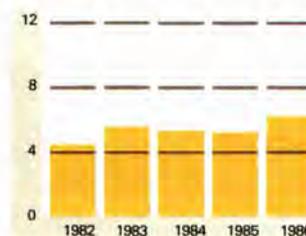
California (soups and bouillon products) again surpassed its previous results.

Hampered by import cuts imposed by the Greek government, Consuma nevertheless achieved gratifying sales and earnings growth.

Net sales, in billions of guilders



Operating income, as percentage of net sales



Heidelberg Food, the Danish food company acquired at the end of 1985, reported a reasonable performance. Meanwhile, Heidelberg products have also been introduced in other markets. Further growth of the brand will require substantial marketing efforts.

## Nonfood

The effects of integrating the Temana operations have been especially important in the nonfood sector. Overall, product swaps between our companies were more vigorously promoted.

Nonfood producers Grada Produktiebedrijven, Kortman Nederland, Kortman-Duyvis (Belgium), Blumøller (Denmark), and Temana France posted major earnings gains. Ashe Consumer Products in the United Kingdom was confronted with difficult market conditions but managed to maintain its position. Legrain (Spain) showed satisfactory growth.

The market position of *Biotex*® enzymatic detergent developed favorably. Further internationalization of this product is scheduled.

*Dobbelman*® washing powder was somewhat depressed. Action is being planned to improve the position of this product.

With its line of nuts and sauces, Mayolande has a leading position in the French market.



*Zwitsal*<sup>®</sup> products conceded no ground to intensified competition.

Sales of the insecticides product group were satisfactory.

#### **Institutional and Industrial Cleaning Systems**

With the increased geographic diversification brought by integration of the Temana operations, Otarès systems and products could also be marketed outside their established domain. In Otarès' native city of Enschede (the Netherlands), where production is largely concentrated, an International Center furnishes advice and support to the operating companies. Tailored to the level of development of the local market, ready-made systems and products can be supplied.

In a move to consolidate the position of institutional and industrial cleaning operations in France, a *Centre Parisien* was set up with the specific objective of providing intensive support to marketing efforts in the Paris area.

As in prior years, Otarès (the Netherlands) and Scan Otarès (Denmark) were the chief contributors to 1986 results.

#### **Outlook for 1987**

Recent efforts to boost efficiency will be continued in 1987.

Barring major exchange rate effects and sharp rises in raw material prices, it is expected that 1987 will see some gains in sales and operating income.



*In most of Western Europe, Zendium<sup>®</sup> and Zwitsal<sup>®</sup> branded products enjoy high customer recognition in the oral hygiene and bodycare market segment.*

# Miscellaneous Products

## General

This product group is chiefly composed of the Enka group's nonfiber products. Sales increased 9% to Hfl 2,079 million, due primarily to boom conditions for Barmag engineering products and to the acquisition of Wilson-Fiberfil International (United States). Operating income also increased from Hfl 191 million to Hfl 205 million, with Barmag the principal contributor. As a percentage of sales, operating income was 9.9% (1985: 10.0%).

## Machinery and Other Engineering Products

In 1986, the Barmag group significantly expanded volume sales for the third year in succession, raising money sales by almost 20% to Hfl 867 million. The group thus again reinforced its world prominence as a producer of high-tech machinery for the textile, fiber, and plastics industries, and its fine position as a manufacturer of other engineering products such as hydraulic components and auto parts.

In 1986, as in the prior year, the principal markets for our textile machinery were the countries in the Far East (especially the People's Republic of China), followed by Western Europe and the Comecon countries. Reflecting the region's economic problems, demand from South America was weak. In the United States, the market gave evidence of some recovery. Capital spending in the Southeast Asian countries was largely for capacity expansion. In Western Europe it was mainly for plant modernization.

Research activities related first and foremost to the development of electronics for computer-controlled spinning and texturing machinery.

In plastics machinery, including extruders and equipment for the production of tapes, films, staple, and filament, the leading customers were in Western Europe, Southeast Asia, and South America. This sector typically demonstrates dynamic technological development and very high global growth rates.

The current upswing in European automotive sales contributed to the excellent strength shown in the automotive products sector.

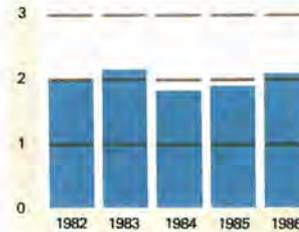
In 1986, Dr. H. Tiefenbach GmbH & Co. of Essen (Federal Republic of Germany) was acquired, a company manufacturing hydraulic and electronic products. The move complements and strengthens Barmag's operations, notably in the hydraulic equipment sector.

## Plastics

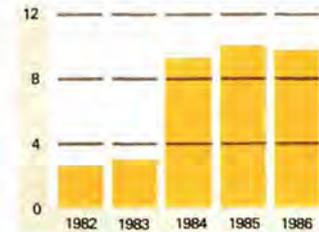
Akzo Plastics, a producer of engineering plastics, on the whole performed well. Sales aggregated Hfl 597 million, compared with Hfl 472 million in 1985.

The sales figure was adversely affected by the lower U.S. dollar which reduced exports to the United States and the Far East. Operating income declined somewhat relative to

Net sales, in billions of guilders



Operating income, as percentage of net sales



the prior year, despite lower raw material prices.

In 1986 we acquired Wilson-Fiberfil International, a leading U.S. producer of fiber-reinforced plastics and color concentrates. This gave us a substantial presence in North America. Immediately after the acquisition an intensive transatlantic exchange of know-how was begun. The acquisition of Wilson-Fiberfil has expanded the range of fiber-reinforced plastics. This will substantially strengthen our position in the engineering plastics market.

The market for plastic bottles for carbonated beverages saw further growth during the year, causing a gain in *Arnite*<sup>®</sup> polyester volume sales. In addition, we were able to advance our market leadership in the field of menu trays and the replacement of tinplate for packaging purposes by plastics. Growth projections for our specialty grades remain excellent, supporting the continued high level of capital investment in this sector.

In addition to research efforts centered on such key themes as self-extinguishing properties, alloys, materials with ultrahigh impact strength, and stampable sheeting, we are now also doing work in the field covered by Wilson-Fiberfil, which encompasses long-fiber technology and self-lubricating materials. Research on thermoplastic materials capable of withstanding exposure to high temperatures is being vigorously pursued.

## Membranes

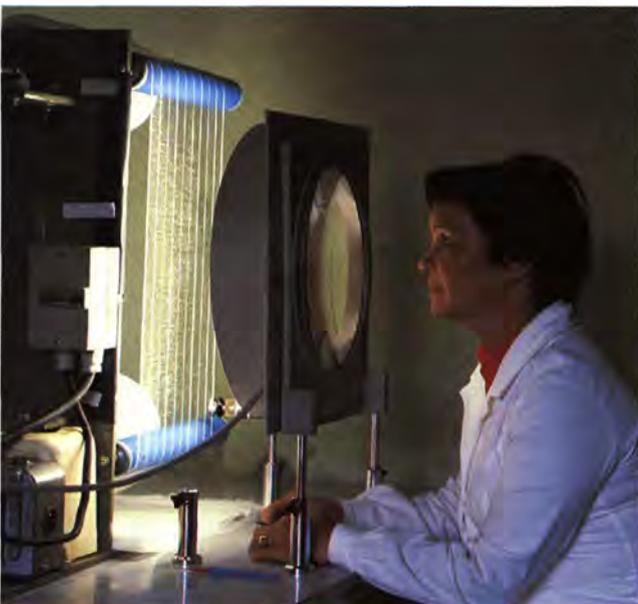
Sales of the membranes product group increased from Hfl 216 million in 1985 to Hfl 222 million in 1986. Operating income was maintained at a satisfactory level.

While the use of artificial kidneys for hemodialysis continues to grow, it is also subject to continued worldwide pressure to control the cost of health care. But with superefficient membrane types becoming available and with the development of the new hollow-fiber bundling technology, a major reduction in the cost of artificial kidney units has been achieved so that our competitive position did not suffer.

The introduction of new membrane types such as the *Hemophan*<sup>®</sup> membrane (which possesses superior



This firehose owes its high strength to Akzo Plastics' Arnitel®, a thermoplastic material which satisfies rigorous quality standards.



The success of new membrane developments depends on intensive research efforts.

Inspection of product at Membrana's research laboratory in Wuppertal (Federal Republic of Germany).

biocompatibility) and the cellulose-acetate based High Flux membrane catered to the trend for product diversification in the hemodialysis market. In the current year we are scheduled to launch some additional membrane types, including a *Hemophan® High Flux* membrane.

Despite intensified competition, these effective new membranes should enable us to defend and strengthen our leading position in the world market.

Efforts aimed at getting our *Oxyphan®* membranes incorporated in oxygenators (artificial lungs) continued successfully; a cooperation agreement was concluded with a European producer of oxygenators.

Development and introduction of the plasmapheresis system for therapeutic applications are progressing slowly.

The *Enka Microdyn®* crossflow microfiltration system developed for industrial uses is showing gratifying sales strength. The system was designed to separate solids from aqueous solutions and to purify emulsions. Through periodic backflushing it provides continuous filtration at high flow rates. Around the world, more than 100 systems with *Enka Microdyn®* modules are already being used in the food and beverage sector, and in the pharmaceutical, chemical, and metalworking industries. We cooperate in this field with equipment makers of established reputation.

Sales of hydrophilic and hydrophobic flat membranes are shaping up well. Among our customers are established manufacturers of filter candles for fine-filtration purposes.

#### Other Products

This group includes industrial nonwovens, cleaning supplies, and new products developed by Enka's New Business Group. Armira's leather operations were sold in 1986.

#### Nonwovens

Volume sales of our industrial nonwovens in the principal end uses of roofings and floor coverings showed sustained growth during 1986. Despite a major expansion of production capacity, demand could not be fully met. With market growth continuing, a further capacity increase is being planned.

#### Cleaning Supplies

Our position in cleaning supplies (sponges, chamois, and household cloths) was strengthened further in 1986, both in the consumer market and in the market for professional cleaning aids.

#### New Products

Enka's New Business Group is responsible for the development of new products and for their subsequent commercialization.

In 1986, *Sympatex®* liner, a material which shuts out wind and rain while permitting water vapor to pass through,



*In 1986, Sympatex® liner, which allows garments to breathe while at the same time making them water- and windproof, was successfully launched in the sports and leisure wear market.*

was successfully introduced in the sports and leisure wear market.

Other applications are being studied to capitalize on this material's characteristics.

The manufacture of polyimide-metal laminates based on a new process was started.

#### **Outlook for 1987**

After Barmag's explosive growth over the past few years, we should now see a return to a more normal level. Even so, we expect earnings to remain strong in 1987.

In the sectors of plastics, membranes, and other products operating income should continue to rise somewhat.

## Activities by Geographic Area

38 The statistics presented below concerning sales, income, invested capital, expenditures for property, plant and equipment, and number of employees of the *consolidated companies* illustrate the geographic pattern of Group operations. For a few significant ratios see the table at bottom left.

To complete the global overview, a breakdown by relevant geographic area of sales, invested capital, and number of employees of the *nonconsolidated companies* (Group interest 50% or less) has been added. The latter statistics are presented on a pro forma full-ownership basis (bottom right).

Millions of guilders	Net sales*		Operating income		Invested capital**		Expenditures for property, plant and equipment		Number of employees, December 31	
	1986	1985	1986	1985	1986	1985	1986	1985	1986	1985
The Netherlands	5,721	6,234	546	568	2,657	2,560	442	424	23,900	23,100
Federal Republic of Germany	4,251	4,419	433	384	1,651	1,679	273	191	19,400	19,000
Other EEC countries***	2,802	2,021	276	182	1,281	907	141	82	12,400	7,900
Rest of Europe	254	1,042	27	117	80	339	16	42	800	4,600
North America	1,918	3,510	84	95	1,102	1,047	207	231	6,200	5,400
Other regions	669	784	99	119	290	300	27	38	5,700	5,000
<b>Total</b>	<b>15,615</b>	<b>18,010</b>	<b>1,465</b>	<b>1,465</b>	<b>7,061</b>	<b>6,832</b>	<b>1,106</b>	<b>1,008</b>	<b>68,400</b>	<b>65,000</b>

### Ratios of consolidated companies

	Operating income as % of net sales		Operating income as % of average invested capital	
	1986	1985	1986	1985
The Netherlands	9.5	9.1	20.9	22.8
Fed. Republic of Germany	10.2	8.7	26.0	23.7
Other EEC countries***	9.9	9.0	22.3	22.0
Rest of Europe	10.6	11.2	39.7	36.2
North America	4.4	2.7	7.8	6.6
Other regions	14.8	15.2	33.6	38.3
<b>Overall ratio</b>	<b>9.4</b>	<b>8.1</b>	<b>21.1</b>	<b>20.9</b>

### Nonconsolidated companies

Millions of guilders	Net sales*		Invested capital**		Number of employees	
	1986	1985	1986	1985	1986	1985
EEC countries***	1,378	1,641	1,031	866	2,425	2,710
Rest of Europe	40	40	10	10	50	50
North America	34	21	16	19	215	120
Latin America	670	1,011	642	679	5,725	5,680
Other regions	497	620	399	450	2,655	2,630
<b>Total</b>	<b>2,579</b>	<b>3,333</b>	<b>2,088</b>	<b>2,024</b>	<b>11,020</b>	<b>11,190</b>

In appraising the ratios for our companies in the "Other regions," due allowance should be made for the fact that operating income is to be reduced by high financing charges as a result of strong inflation.

\* By origin, i.e. sales of the companies established in the geographic area.

\*\* Total assets, less cash and short-term investments, and less other current liabilities.

\*\*\* 1986 figures include Spain and Portugal.

## Europe

The Netherlands and the Federal Republic of Germany are the home ground of more than 60% of the Group's operations. Aggregate 1986 sales of the consolidated companies based in these countries were Hfl 10 billion; exports accounted for 55% of that figure (1985: 57%).

Sales of the consolidated companies in *the Netherlands* fell 8% to Hfl 5.7 billion, largely due to lower selling prices and the sale of ROMI. Operating income expressed as a percentage of sales increased from 9.1% in 1985 to 9.5% in 1986.

The sharp drop in sales of the nonconsolidated companies is chiefly attributable to lower shipments and selling prices of methanol.

Capital expenditures by the consolidated companies in the Netherlands aggregated Hfl 442 million. Additionally, substantial outlays were made by the nonconsolidated companies (notably Delesto).

In late 1986, the aramid plants in Delfzijl and Emmen commenced commercial-scale production of *Twaron*<sup>®</sup>. The Brink/Molyn paint manufacturing facility at Groot-Ammers was taken over during the year.

The number of employees in the Netherlands increased by 800 to 23,900 at December 31, 1986.

Sales of the consolidated companies in the *Federal Republic of Germany* decreased by 4% to Hfl 4.3 billion. Operating income as a percentage of sales increased from 8.7% in 1985 to 10.2% in 1986.

For practically all our operations in the Federal Republic, 1986 was a good year; Barmag again turned in a peak performance. The situation for our coatings companies has improved relative to the previous year.

In 1986 capital expenditures in the Federal Republic totaled Hfl 273 million; much of that amount went for the modernization of polyester staple and filament production in Oberbruch.

The number of employees increased by 400 to 19,400 at December 31, 1986.

For our companies in the *other EEC countries* (from 1986 including Spain and Portugal) earnings were generally on the 1985 level. The Spanish fiber company La Seda de Barcelona again recorded a satisfactory performance in 1986.

Our interests in the other EEC countries were expanded through acquisitions (Blundell-Permoglaze, Sandtex, and Perchem in the United Kingdom, and a 50% stake in Procolor in Spain).

## North America

The drop in sales in North America is chiefly attributable to the sale of American Enka. That divestiture also explains the improvement in operating income as a percentage of sales from 2.7% in 1985 to 4.4% in 1986.

Although U.S. volume sales of deicing salt were lower in 1986 than in the prior year (an outstanding one for this particular product), International Salt recorded gratifying earnings.

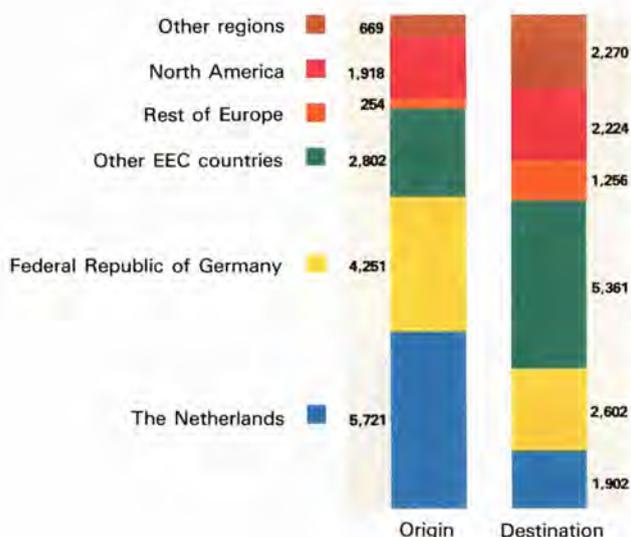
With competition more intense, earnings of Akzo Chemie's North American operations trailed the prior year's level. Activities in the United States were expanded through the takeover of Monsanto's paper chemicals business and the start-up of an amines plant.

The results of Akzo Coatings America failed to meet projections, principally due to lower auto sales.

The North American diagnostics operations will be largely concentrated at Durham, North Carolina, where construction of the new site was begun. In 1986 the U.S. position was further strengthened through the acquisition of the blood bank activities of Cooper Technicon and the purchase of Colmed/PBI (generics).

In the engineering plastics field, a share of the market was secured through the acquisition of Wilson-Fiberfil International (fiber-reinforced plastics and color concentrates).

1986 net sales, by origin and by destination (millions of guilders)





In 1986 a fifty-percent interest in the Spanish coatings company Procolor was acquired.

### Latin America

Taking into account the region's financial and economic quandaries, the performance of our operations in Latin America was not unsatisfactory. Sales and earnings were lower than in the prior year, however, particularly for the nonconsolidated fiber companies, due in the main to currency translation effects.

The new fatty amines plant in Brazil went on stream.

### Other Regions

Business for our affiliates in *Japan* was on the whole satisfactory, with the exception of Nippon Ketjen (desulfurization catalysts).

In *Malaysia* the synthetic resin manufacturing plant built jointly with a local partner was started up in mid-1986.

1986 sales and earnings of our affiliate Century Enka in *India* were significantly lower than in the very good previous year, despite full capacity utilization. Century Enka is carrying out major expansions.

Arnhem, March 12, 1987

The Board of Management



*Aerial view of Wilson-Fiberfil's facilities in Neshanic Station (New Jersey). Besides three plants in the United States, Wilson-Fiberfil has manufacturing operations in Canada, Belgium, France, and Sweden.*

*The company is a producer of fiber-reinforced plastics and color concentrates.*

# Organization of the Akzo Group

42



**Akzo N.V.**  
Arnhem  
Netherlands

Central staff departments

Central service organizations

Divisions and products

**Enka**  
Wuppertal  
Federal Republic  
of Germany

Man-made fibers for industrial uses and textile uses, including carpets, machinery, engineering plastics, membranes, nonwovens, various industrial products

**Akzo Zout Chemie**  
Hengelo  
Netherlands

Salt, chlorine, alkali products, VCM, methanol, urea formaldehyde resins, industrial colloids, organochlor compounds, organic amines, and raw materials for herbicides

**Akzo Chemie**  
Amersfoort  
Netherlands

Specialty chemicals for plastic and elastomer manufacturers and processors, and for the paint industry; functional chemicals such as sizes for the papermaking industry, sequestrants, and surfactants; catalysts for the oil, petrochemical, and chemical industries

**Akzo Coatings**  
Hoofddorp  
Netherlands

Paints, stains, synthetic resins for industrial, professional, and consumer uses

**Akzo Pharma**  
Oss  
Netherlands

Ethical drugs, nonprescription products, hospital supplies, diagnostics, raw materials for the pharmaceutical industry, veterinary products

**Akzo Consumenten  
Produkten**  
The Hague  
Netherlands

Detergents and cleaning products for household and industrial uses, insecticides, air fresheners, health and bodycare products, foodstuffs

National organizations

Netherlands

Akzo Nederland, Arnhem

Belgium

Akzo België, Brussels

Brazil

Akzo do Brasil, São Paulo

United States

Akzo America, New York

National offices

Japan

Mercator Internationaal, Tokyo

Republic of Korea

Akzo Asia—Korea Branch, Seoul

March 1987

## Board of Management of Akzo N.V.

The Board of Management consists of four members who are jointly responsible for directing the Akzo Group. In addition, the members are individually entrusted with a number of management tasks. Their main tasks and responsibilities are listed below:

### **A.A. Loudon** President

*Has responsibility for:*  
strategic planning, financial and social policies, external relations

*Coordinates activities in:*  
the Netherlands, North America

### **J. Veldman**

*Supervises:*  
Akzo Coatings, Akzo Pharma, Akzo Consumenten Produkten

*Has responsibility for:*  
effective functioning of staff departments and Group services

*Coordinates activities in:*  
Spain, Portugal, Asia except Japan and People's Republic of China, Latin America, Africa, Australia, New Zealand

### **H.J.J. van der Werf**

*Supervises:*  
Akzo Zout Chemie, Akzo Chemie

*Has responsibility for:*  
research, technology, and energy policies

*Coordinates activities in:*  
Belgium, France, Italy, Eastern Europe, Japan

### **H.G. Zempelin**

*Supervises:*  
Enka

*Has responsibility for:*  
organization, automation, legal affairs

*Coordinates activities in:*  
Federal Republic of Germany, Switzerland, Austria, Scandinavia, United Kingdom, Republic of Ireland, People's Republic of China

## Management Committee

The Board of Management is assisted in policy-making by a Management Committee, which includes the members of the Board.

A.A. Loudon  
J. Veldman  
H.J.J. van der Werf  
H.G. Zempelin  
S. Bergsma  
F.A.G. Collot d'Escury

A.R. Dragone  
M.W. Geerlings  
J.R. Hutter  
H.B. Jacobs

A.G.J. Vermeeren  
M.D. Westermann  
C. Zaai

### Secretary

J.P. Huges is secretary to the Supervisory Council and to the Board of Management.

Chairman  
Deputy Chairman  
Deputy Chairman  
Deputy Chairman  
Financial Affairs  
President of Akzo Zout Chemie  
President of Akzo America Research and Technology  
President of Enka  
President of Akzo Consumenten Produkten  
President of Akzo Pharma  
President of Akzo Chemie  
President of Akzo Coatings

## Managements of Divisions

*Enka*

J.R. Hutter                      President  
 H. Stöhr                         Deputy President  
 J.H. Katgert  
 W.H. Meyberg  
 U.G. Stark  
 H.G. Zengel  
 (from March 1, 1987)

M. Schütze  
 R. van den Berg

*Akzo Zout Chemie*  
 F.A.G. Collot d'Escury                      President  
 H.A. van Karnebeek

J.L. Ryon

*Akzo Chemie*

M.D. Westermann                      President  
 J.C.E. Fuller  
 J.C.P. van Oosterom

K. Bakker  
 M.E. Hartman  
 A.J. Kortenhorst  
 A. Moolenburgh  
 A.J.H. Nolle  
 E. Snoeck

*Akzo Coatings*

C. Zaal                                      President  
 H.C. Bijvank  
 H.C. Ekker  
 J.D. Remijnse  
 M.R. Rooseboom  
 K.G. Schultze

*Akzo Pharma*

A.G.J. Vermeeren                      President  
 P.K. Brons  
 B.H.M. van Dommelen  
 T. Kalff  
 W. Smit  
 F.L. Vekemans

*Akzo Consumenten Produkten*

H.B. Jacobs                              President  
 P.B. van Hulst  
 B.J. Nielsen  
 R.S. Schortinghuis  
 J.E.H. Sikkink

## Managements of Coordinating National Organizations

*Akzo Nederland*

J.W. Berghuis                      President  
 (until January 1, 1987)  
 A. van Es                              President  
 (from January 1, 1987)

*Akzo België*

F.C.L. De Deken                      President

*Akzo do Brasil*

J.W. Bootz                              President

*Akzo America*

A.R. Dragone                              President

## Financial Statements

### Accounting Policies Used in Preparing the Consolidated Financial Statements

#### Consolidation

The consolidated financial statements include the accounts of Akzo N.V. and all companies in which the interest of Akzo N.V. or any of its majority-owned subsidiaries separately or jointly exceeds 50% of the subscribed stock. Partnerships ("Vennootschappen onder firma") in which the interest of Akzo N.V. or any of its majority-owned subsidiaries separately or jointly equals or is less than 50% are not included in consolidation because of the absence of a controlling vote. Therefore, the balance sheets, with notes, of such partnerships are in principle included in "Other Information."

All of the assets, liabilities, and results of the consolidated companies are included. Minority interest in Group equity and Group income is shown separately.

#### Valuation

The principles of valuation and determination of income used in the consolidated financial statements shown on pages 47 through 54 are based on historical cost. Current-value data are furnished by way of supplementary information on page 55.

#### Translation of Foreign Currencies

In the balance sheet, amounts in foreign currencies are translated into guilders at rates virtually equaling the rates of exchange in force at year's end.

In the statement of income, amounts in foreign currencies are translated into guilders at rates of exchange fixed for each quarter as typical of the rates then applicable. Foreign exchange differences are included in income, except for foreign exchange differences resulting from translation into guilders of intra-Group loans and of stockholders' equities of affiliated companies outside the Netherlands; the latter differences are directly added to, or deducted from, Group equity.

However, before being translated into guilders, the financial statements of affiliated companies established in hyperinflationary countries are adjusted to reflect the effects of changing prices.

#### Exchange Rates of Key Currencies

45

The principal exchange rates against the guilder used in drawing up the balance sheet and the statement of income are:

Unit	Balance sheet		Statement of income		
	Dec. 31, 1986	Dec. 31, 1985	1986*	1985*	
U.S. dollar	1	2.19	2.77	2.44	3.32
Deutsche mark	1	1.13	1.13	1.13	1.13
Pound sterling	1	3.23	4.00	3.59	4.28
French franc	1	0.34	0.37	0.35	0.37
Swiss franc	1	1.35	1.34	1.36	1.35
Belgian franc	100	5.43	5.51	5.48	5.61
Spanish peseta	100	1.67	1.80	1.75	1.94
Braz. cruzado	100	14.80	26.50	17.90	57.90

\* Average exchange rates.

#### Principles of Valuation of Assets and Liabilities

##### *Intangible fixed assets*

Preparation and start-up expenses of large investment projects are capitalized and charged against operating income in not more than five equal annual installments after the facilities concerned have been put into service.

Other intangibles are not capitalized but are charged against operating income.

Purchased goodwill is charged directly against Group equity.

##### *Property, plant and equipment*

Property, plant and equipment are valued at cost less depreciation.

Cost includes the financing charges of capital investment projects under construction. Capital investment grants are deducted from property, plant and equipment.

Depreciation is computed by the straight-line method based on estimated life, which in the majority of cases is 10 years for plant equipment and machinery, and which ranges from 20 to 30 years for buildings. In cases where the book value so computed exceeds the value to the business additional write-offs are made.

*Financial fixed assets*

Investments in nonconsolidated companies are stated at the amount of Akzo's share in stockholders' equity. The calculation of stockholders' equity is based as much as possible on the Akzo principles of valuation.

Loans to nonconsolidated companies are carried at face value less such provisions as are deemed necessary. The other financial fixed assets are valued at the lower of cost or market.

*Inventories*

Inventories are stated at the lower of cost or net realizable value. Cost is defined as the full manufacturing cost related to the stage of processing.

Cost is determined by the first-in first-out (FIFO) method. Provisions are made for obsolescence.

In the valuation of inventories, profits arising from transactions between consolidated companies are eliminated.

*Receivables*

Receivables are stated at face amounts less such provisions as are deemed necessary.

*Cash and short-term investments*

Cash and short-term investments are carried at face value, with the exception of marketable private borrowings and marketable securities, which are valued at the lower of cost or market.

*Provisions*

Provisions for deferred taxes are stated at face value.

Dividend taxes for which no compensation is available are taken into account to the extent of earnings expected to be transferred by affiliated companies in the new fiscal year. The provisions in respect of pension rights are generally computed on an actuarial basis.

Provisions for commitments and risks whose extent is uncertain but which can reasonably be estimated, and provisions made to equalize expenses among several fiscal years are shown in the aggregate under "Other provisions." The amounts of these provisions are fixed in relation to the liabilities and risks concerned and are stated at face value.

*Long-term debt and current liabilities*

Long-term debt and current liabilities are stated at face value. Discount on borrowings and cost of negotiating loans are capitalized and charged against income over the period until maturity.

**Principles of Determination of Income**

The determination of income is closely associated with the valuation of assets and liabilities.

In addition, a number of specific principles are observed in the preparation of the statement of income, which are set forth below.

- Net sales is defined as the revenue from the sale and delivery of goods and services, net of rebates, discounts, and similar allowances, and net of sales tax.

- Cost of sales comprises the manufacturing cost of the goods and services sold and any inventory write-downs to lower net realizable value.

Manufacturing cost includes such items as:

- . the cost of raw materials and supplies, energy, and other materials;

- . depreciation and the cost of maintenance of the assets used in production;

- . salaries, wages, and social charges for the personnel involved in manufacturing.

- Taxes on income comprise both current and deferred taxes. No tax deductions are made from income to the extent that this income can be offset against losses incurred in prior years. From losses, taxes are deducted to the extent that they can be offset against taxes charged to income in previous years.

- Income from nonconsolidated companies consists of the Group's equity in earnings of these companies and interest received on loans granted to them, with due allowance being made for taxes relating to these items.

# Consolidated Balance Sheet of the Akzo Group

after allocation of profit

See notes on pages 50 through 52.

Millions of guilders, December 31	1986	1985	47
<b>Assets</b>			
Fixed assets			
Property, plant and equipment	4,329.6		3,843.0
Financial fixed assets			
Nonconsolidated companies	534.7	482.3	
Other financial fixed assets	<u>125.4</u>	<u>139.5</u>	
	<u>660.1</u>		<u>621.8</u>
	4,989.7		4,464.8
Current assets			
Inventories	2,586.1	2,690.9	
Receivables	2,768.2	3,114.6	
Cash and short-term investments	<u>1,084.1</u>	<u>1,485.0</u>	
	6,438.4		7,290.5
<b>Total</b>	<b>11,428.1</b>		<b>11,755.3</b>
<b>Group Equity and Liabilities</b>			
Group equity			
Akzo N.V. stockholders' equity	4,311.2	4,141.6	
Minority interest	<u>353.6</u>	<u>353.1</u>	
	4,664.8		4,494.7
Provisions	2,004.7		2,003.0
Long-term debt			
Subordinated loans	166.5	184.5	
Other long-term debt	<u>1,438.3</u>	<u>1,678.1</u>	
	1,604.8		1,862.6
Current liabilities			
Debt to credit institutions	405.5	438.8	
Other current liabilities	<u>2,748.3</u>	<u>2,956.2</u>	
	3,153.8		3,395.0
<b>Total</b>	<b>11,428.1</b>		<b>11,755.3</b>

# Consolidated Statement of Income of the Akzo Group

See notes on page 53.

48 Millions of guilders	1986	1985
Net sales	15,614.8	18,009.8
Cost of sales	<u>(9,894.1)</u>	<u>(12,343.9)</u>
Gross margin	5,720.7	5,665.9
Selling expenses	(2,878.8)	(2,857.1)
Research and development expenses	(676.7)	(662.2)
General and administrative expenses	(772.2)	(744.8)
Other revenue from operations	<u>71.5</u>	<u>63.1</u>
	<u>(4,256.2)</u>	<u>(4,201.0)</u>
Operating income	1,464.5	1,464.9
Interest received and similar income	108.7	152.3
Interest paid and similar expenses	<u>(214.2)</u>	<u>(337.4)</u>
Financing charges	<u>(105.5)</u>	<u>(185.1)</u>
Operating income less financing charges	1,359.0	1,279.8
Taxes	<u>(477.9)</u>	<u>(464.6)</u>
Earnings of consolidated companies from normal operations, after taxes	881.1	815.2
Earnings from nonconsolidated companies	<u>16.8</u>	<u>98.2</u>
Group income from normal operations, after taxes	897.9	913.4
Extraordinary gains	44.6	99.4
Extraordinary losses	<u>(29.2)</u>	<u>(167.5)</u>
Extraordinary items before taxes	15.4	(68.1)
Taxes	<u>7.9</u>	<u>70.6</u>
Extraordinary items after taxes	<u>23.3</u>	<u>2.5</u>
Group income	921.2	915.9
Minority interest	<u>(79.7)</u>	<u>(72.9)</u>
Net income	841.5	843.0
Salaries, wages, and social charges	4,438.5	4,641.4
Depreciation of property, plant and equipment	576.5	608.2

# Consolidated Statement of Changes in Financial Position of the Akzo Group

See notes on page 54.

Millions of guilders	1986	1985	49
<b>Sources of Funds</b>			
Group income	921	916	
Depreciation	577	608	
Income retained by nonconsolidated companies	44	(52)	
Changes in provisions	48	246	
Other sources	28	5	
	<u>1,618</u>	<u>1,723</u>	
<b>Applications of Funds</b>			
Expenditures for property, plant and equipment	1,106	1,008	
Investments in nonconsolidated companies	169	17	
Acquisition of consolidated interests	599	427	
Changes in other financial fixed assets	(10)	(22)	
Disposal of interests	(66)	(789)	
	<u>1,798</u>	<u>641</u>	
Changes in working capital*	(130)	197	
Dividends paid	294	259	
Other applications	16	18	
	<u>1,978</u>	<u>1,115</u>	
<b>Balance of Funds Provided and Funds Used</b>	<b>(360)</b>	<b>608</b>	
<b>Financing</b>			
Issuance of stock/warrants	135	70	
Drawdowns	268	457	
Repayment of long-term debt	(409)	(762)	
Change in short-term debt to credit institutions	(35)	45	
<b>Change in Cash and Short-Term Investments</b>	<b>(401)</b>	<b>418</b>	

\* Inventories and receivables less other current liabilities, exclusive of dividends.

# Notes to the Consolidated Financial Statements of the Akzo Group

50

## General

### Affiliated Companies

The principal affiliated companies at December 31, 1986, are listed on pages 67 and 68.

A list of affiliated companies, drawn up in conformity with Book 2 of the Dutch Civil Code, section 379, paragraph 1, and using paragraph 3, has been filed at the Trade Registry of Arnhem.

### Changes in Consolidated Interests

Included in the 1986 consolidated financial statements are Blundell-Permoglaze Holdings PLC, United Kingdom, the Wilson-Fiberfil International division of Plastic Specialties & Technologies Inc., United States, and Koninklijke Brink/Molyn B.V., the Netherlands.

During 1986 the interests in ROMI B.V., the Netherlands, and Armira Company, United States, were sold; consequently these companies are no longer included in the consolidated balance sheet at December 31, 1986.

There were no other changes of significance to the financial statements.

## Consolidated Balance Sheet

### Property, Plant and Equipment

Millions of guilders	Total	Buildings and land	Plant equipment and machinery	Other equipment	Construction in progress and prepaid projects	Assets not used in the production process
Situation at December 31, 1985						
Cost of acquisition	10,680.9	2,239.0	6,947.0	828.6	465.6	200.7
Depreciation	(6,837.9)	(1,156.9)	(4,995.1)	(541.1)		(144.8)
Book value	3,843.0	1,082.1	1,951.9	287.5	465.6	55.9
Changes in book value						
Acquisitions and disposal of interests	138.8	65.7	60.3	12.1		0.7
Capital expenditures	1,105.6	180.1	669.9	151.0	103.8	0.8
Depreciation	(576.5)	(76.6)	(403.2)	(91.6)		(5.1)
Disinvestments	(27.7)	(1.5)	(8.7)	(8.2)		(9.3)
Changes in exchange rates	(164.0)	(66.2)	(86.6)	(9.4)		(1.8)
Other changes	10.4	(5.1)	18.0	(3.7)		1.2
Total changes in 1986	486.6	96.4	249.7	50.2	103.8	(13.5)
Situation at December 31, 1986						
Cost of acquisition	11,389.7	2,330.3	7,376.8	938.9	569.4	174.3
Depreciation	(7,060.1)	(1,151.8)	(5,175.2)	(601.2)		(131.9)
Book value	4,329.6	1,178.5	2,201.6	337.7	569.4	42.4

The book value of property, plant and equipment financed by installment buying and leasing was approximately Hfl 41 million at December 31, 1986 (at December 31, 1985: approximately Hfl 54 million).

Given their comparatively slight magnitude, preparation and start-up expenses, carried at Hfl 5.6 million at December 31, 1986 (at December 31, 1985: Hfl 8.3 million), were included in property, plant and equipment.

**Financial Fixed Assets**

Millions of guilders	Total	Nonconsolidated companies	Loans to nonconsolidated companies	Other financial fixed assets
Situation at December 31, 1985	621.8	454.7	27.6	139.5
Investments	202.3	168.2	1.1	33.0
Disinvestments	(59.2)	(12.7)	(3.1)	(43.4)
Equity in 1986 earnings	2.7	2.7		
Dividends received	(46.8)	(46.8)		
Changes in exchange rates	(22.0)	(18.3)		(3.7)
Goodwill	(38.7)	(38.7)		
Situation at December 31, 1986	<b>660.1</b>	<b>509.1</b>	<b>25.6</b>	<b>125.4</b>

**Inventories**

Millions of guilders, December 31	1986	1985
Raw materials and supplies	640.1	682.4
Work in process	607.7	609.1
Finished products and goods for resale	1,331.4	1,388.0
Inventory prepayments	6.9	11.4
	<b>2,586.1</b>	<b>2,690.9</b>

**Receivables**

Millions of guilders, December 31	1986	1985
Trade receivables	2,337.9	2,682.4
Receivables from nonconsolidated companies	65.1	80.9
Other receivables	547.2	611.2
	<b>2,950.2</b>	<b>3,374.5</b>
Discounted portion	(182.0)	(259.9)
	<b>2,768.2</b>	<b>3,114.6</b>

**Cash and Short-Term Investments**

Millions of guilders, December 31	1986	1985
Short-term investments	920.2	1,370.3
Cash on hand and in banks	163.9	114.7
	<b>1,084.1</b>	<b>1,485.0</b>

The short-term investments include cash loans, time deposits, marketable private borrowings, and debentures, which are virtually all listed on stock exchanges.

**Credit Facilities**

The total amount of medium- and long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 540 million at December 31, 1986 (at December 31, 1985: approximately Hfl 680 million).

**Group Equity**

Millions of guilders	Group equity	Minority interest
Situation at December 31, 1985	4,494.7	353.1
Issuance of stock	45.8	
Issuance of warrants	89.0	
Cumulative preferred stock purchases	(0.3)	
Retained earnings	625.6	49.0
Changes in minority interest in Group companies	(27.4)	(27.4)
Goodwill	(311.2)	(1.7)
Changes in exchange rates	(251.4)	(19.4)
Situation at December 31, 1986	<b>4,664.8</b>	<b>353.6</b>

For details on changes in Akzo N.V. stockholders' equity see the note to the Akzo N.V. balance sheet on page 58.

**Provisions**

Millions of guilders, December 31	1986	1985
Deferred taxes	378.7	330.0
Pension rights	918.3	865.3
Other provisions	707.7	807.7
	<b>2,004.7</b>	<b>2,003.0</b>

The current portion of provisions amounted to approximately Hfl 201 million (at December 31, 1985: approximately Hfl 213 million).

*Provisions in respect of pension rights*

Most Group companies have arranged appropriate pension plans for their employees, with due observance of the statutory regulations and customs in the countries concerned. The provisions in respect of pension rights relate to rights not covered by independent pension funds or by third parties. At December 31, 1986, as at December 31, 1985, the accumulated pension benefits were on balance fully covered by these provisions and by contributions paid into independent pension funds or to third parties.

*Other provisions*

The principal provisions are for the restructuring of activities. Other provisions also include amounts in respect of guarantees, and amounts providing coverage for losses, not otherwise insured, contingent upon the outcome of litigation.

**Subordinated Loans**

This item is composed of the amounts borrowed in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Enka B.V. or Akzo Zout Chemie Nederland B.V. Akzo N.V. has agreed to be jointly and severally liable for these loans. They are subordinated to all third-party debts of the companies named.

The interest rate averaged 11.2% (1985: 11.2%). Repayment is scheduled to be made in 1987 (Hfl 21.1 million), 1988 through 1991 (Hfl 122.4 million), and after 1991 (Hfl 23.0 million).

**Other Long-Term Debt**

Millions of guilders, December 31	1986	1985
Convertible debentures	13.1	60.6
Other debentures		
Issued by Akzo N.V.	348.8	422.5
Issued by consolidated companies	55.5	90.3
Private borrowings	475.7	487.9
Debt to credit institutions	426.2	459.4
Other debt	119.0	157.4
	<b>1,438.3</b>	<b>1,678.1</b>

Aggregate maturities are as follows:

Millions of guilders	1987	1988-1991	after 1991
Convertible debentures	0.2	12.9	
Other debentures			
Issued by Akzo N.V.		220.0	128.8
Issued by consolidated companies	2.8	0.1	52.6
Private borrowings	61.1	328.3	86.3
Debt to credit institutions	76.1	323.4	26.7
Other debt	26.1	68.0	24.9
	<b>166.3</b>	<b>952.7</b>	<b>319.3</b>

The average interest rate was 8.1% (1985: 8.4%).

Private borrowings and debt to credit institutions have been secured to an aggregate amount of Hfl 88 million (at December 31, 1985: Hfl 107 million) by means of mortgages, etc.

For details on convertible debentures and other debentures issued by Akzo N.V. see the notes to the Akzo N.V. balance sheet on page 58.

**Other Current Liabilities**

Millions of guilders, December 31	1986	1985
Prepayments by customers	100.9	76.5
Debt to suppliers	1,188.3	1,415.5
Debt to nonconsolidated companies	26.5	45.1
Taxes and social security contributions	406.8	396.3
Dividends	206.6	205.3
Pensions	59.9	45.6
Other liabilities	759.3	771.9
	<b>2,748.3</b>	<b>2,956.2</b>

**Commitments and Contingent Liabilities**

There are pending against companies of the Akzo Group a number of claims and lawsuits arising in the normal course of business with respect to commercial matters and governmental regulations. All such claims are contested. While the results of litigation cannot be predicted with certainty, management believes, in part based upon legal advice, that the final outcome of such litigation will not materially affect the consolidated financial position of the Akzo Group.

Purchase commitments for property, plant and equipment aggregated Hfl 230 million at December 31, 1986 (at December 31, 1985: Hfl 266 million). In addition, the Company has purchase commitments for raw materials and supplies incident to the ordinary conduct of business.

Long-term liabilities were contracted in respect of leasehold, rental, operating leases, etc. For 1987, these liabilities will require total payments of Hfl 63 million.

Guarantees in behalf of nonconsolidated companies and third parties totaled Hfl 237 million (at December 31, 1985: Hfl 245 million). As general partners of several partnerships, companies of the Akzo Group are liable for obligations incurred by the partnerships. These obligations, exclusive of debt to, or debt guaranteed by, other Group companies, aggregated Hfl 394 million (at December 31, 1985: Hfl 463 million).

## Consolidated Statement of Income

### Net Sales

#### Product groups

Millions of guilders	1986	1985
Chemical products	4,332	5,155
Man-made fibers	3,443	5,226
Coatings	2,314	2,171
Pharmaceuticals	2,239	2,138
Consumer products	1,453	1,677
Miscellaneous products	2,079	1,903
	<u>15,860</u>	<u>18,270</u>
Intra-Group deliveries	(245)	(260)
	<u>15,615</u>	<u>18,010</u>

#### Areas of destination

Millions of guilders	1986	1985
The Netherlands	1,902	1,988
Federal Republic of Germany	2,602	2,605
Other EEC countries*	5,361	4,618
Rest of Europe	1,256	2,121
North America	2,224	3,923
Other regions	2,270	2,755
	<u>15,615</u>	<u>18,010</u>

\* 1986 figure includes Spain and Portugal.

### Financing Charges

Interest paid decreased by Hfl 33 million (1985: Hfl 30 million) due to the capitalization of financing expenses of capital investment projects under construction.

### Taxes on Operating Income less Financing Charges

Taxes averaged 35% (1985: 36%). Because of loss compensation facilities a portion of income was not included in taxable income.

## Earnings from Nonconsolidated Companies

53

Earnings from nonconsolidated companies include a tax benefit of Hfl 10.2 million in 1986 and a tax charge of Hfl 17.8 million in 1985.

### Extraordinary Items

On balance, extraordinary items showed a gain after taxes of Hfl 23.3 million, which was largely attributable to deferred revenue from the sale of Brand-Rex (United States) in 1983, the divestiture of certain interests, and the creation of various provisions.

### Salaries, Wages, and Social Charges

Millions of guilders	1986	1985
Salaries and wages	3,464.3	3,586.2
Pension costs	365.8	377.6
Other social charges	608.4	677.6
	<u>4,438.5</u>	<u>4,641.4</u>

### Employees

Average number of employees	1986	1985
Enka	29,300	28,300
Akzo Zout Chemie	5,600	5,600
Akzo Chemie	5,400	5,000
Akzo Coatings	10,200	9,300
Akzo Pharma	11,200	10,000
Akzo Consumenten Produkten	3,600	3,700
Other companies	1,500	5,700
	<u>66,800</u>	<u>67,600</u>
Number of employees at December 31	68,400	65,000

54 Consolidated Statement of Changes in Financial Position

This statement provides data on sources and applications of funds and on the Company's financing activities. It is based on a comparison of initial and final balance sheet amounts, in which

currency translation differences, changes in investments in affiliated companies, etc. are eliminated.

For some items the elimination can be derived directly from the notes to the balance sheet. For certain other items the elimination is shown below.

Millions of guilders	Working capital*	Provisions	Long-term debt	Short-term debt to credit institutions
Changes in 1986 balance sheet items	(243)	2	(257)	(34)
Eliminations:				
Changes in exchange rates	185	49	119	32
Changes in investments in affiliated companies	(72)	(3)	(3)	(33)
Changes in 1986 financial position	(130)	48	(141)**	(35)

\* Inventories and receivables less other current liabilities, exclusive of dividends.

\*\* Balance of repayments (Hfl 409 million) and drawdowns (Hfl 268 million).

## Supplementary Information on the Basis of Current Value

In the valuation and determination of income on the basis of current value the following additional accounting policies are used:

### *Property, plant and equipment*

- The current value of land is approximated on the basis of appraisals.
- The current value of the other property, plant and equipment is computed using indexes from external sources in the principal countries of establishment, with adjustments for the estimated decrease in value as a result of technological advances. In cases where the current value exceeds the value to the business, the latter value is used.
- Deferred taxes resulting from the revaluation of property, plant and equipment not yet realized are shown under provisions.
- To calculate depreciation on the basis of current value the same percentages are used as for depreciation on the basis of historical cost.

- The difference between depreciation on the basis of current value and depreciation on the basis of historical cost is treated as additional depreciation.

### *Inventories*

- Inventories are shown at historical cost, unless there is a material difference with the current value at the balance sheet date.
- The difference between current value and historical cost of the inventories consumed is treated as inventory results.

### *Gearing adjustment*

- To the extent that fixed assets and inventories are considered to be financed with debt, additional depreciation and inventory results are not charged against net income.

### Condensed Consolidated Balance Sheet

Millions of guilders, December 31	1986	1985
<b>Assets</b>		
Fixed assets on the basis of historical cost	4,990	4,465
Revaluation of fixed assets	<u>1,370</u>	<u>1,409</u>
Fixed assets on the basis of current value	6,360	5,874
Current assets	6,438	7,290
<b>Total</b>	<b>12,798</b>	<b>13,164</b>

### Group Equity and Liabilities

Stockholders' equity	5,058	4,907
Minority interest	<u>407</u>	<u>404</u>
Group equity	5,465	5,311
Provisions	2,575	2,596
Debt	4,758	5,257
<b>Total</b>	<b>12,798</b>	<b>13,164</b>

### Summarized Consolidated Income Data

Millions of guilders	1986	1985
Net sales	15,615	18,010
Operating income on the basis of historical cost	1,465	1,465
Adjustment of operating income to current value		
Inventory results	146	(43)
Additional depreciation	<u>(129)</u>	<u>(133)</u>
Operating income on the basis of current value	1,482	1,289
As percentage of net sales	9.5	7.2
Net income on the basis of historical cost	842	843
Adjustment of operating income to current value	17	(176)
Gearing adjustment	(6)	72
Adjustments for nonconsolidated companies and minority interest	<u>(7)</u>	<u>(4)</u>
Net income on the basis of current value	846	735

# Akzo N.V. Balance Sheet

after allocation of profit

See notes on pages 57 through 59.

56 Millions of guilders, December 31	1986	1985
<b>Assets</b>		
Fixed assets		
Financial fixed assets	5,832.2	5,193.2
Current assets		
Receivables	88.1	135.5
Cash and short-term investments	<u>405.9</u>	<u>880.1</u>
	494.0	1,015.6
<b>Total</b>	<b>6,326.2</b>	<b>6,208.8</b>
<b>Stockholders' Equity and Liabilities</b>		
Stockholders' equity		
Subscribed stock	803.1	795.7
Additional paid-in capital	1,247.4	1,120.3
Statutory reserves	1,010.6	635.8
Other reserves	<u>1,250.1</u>	<u>1,589.8</u>
	4,311.2	4,141.6
Long-term debt	1,669.2	1,605.0
Current liabilities	345.8	462.2
<b>Total</b>	<b>6,326.2</b>	<b>6,208.8</b>

# Akzo N.V. Statement of Income

See notes on page 59.

Millions of guilders	1986	1985
Net income from affiliated companies	854.6	833.2
Other net income	<u>(13.1)</u>	<u>9.8</u>
Net income for the fiscal year	<b>841.5</b>	<b>843.0</b>

# Notes to Akzo N.V. Balance Sheet and Statement of Income

## General

Foreign currency has been translated, assets and liabilities have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income set forth on pages 45 and 46.

Thus stockholders' equity and net income are equal to stockholders'

equity and net income as shown in the consolidated financial statements on pages 47 and 48. As the financial data of Akzo N.V. are included in the consolidated financial statements of the Akzo Group, the statement of income of Akzo N.V. is condensed in conformity with Book 2 of the Dutch Civil Code, section 402.

## Balance Sheet

### Financial Fixed Assets

Millions of guilders	Total	Consolidated companies		Nonconsolidated companies		Other financial fixed assets
		Share in capital	Loans	Share in capital	Loans	
Situation at December 31, 1985	5,193.2	3,783.2	1,248.7	142.9	3.1	15.3
Investments/disinvestments	132.8	147.2				(14.4)
Equity in 1986 earnings	854.6	844.9		9.7		
Dividends received	(479.8)	(470.6)		(9.2)		
Loans granted	762.6		762.6			
Repayment of loans	(89.7)		(86.6)		(3.1)	
Changes in exchange rates	(232.0)	(221.8)	(0.7)	(9.5)		
Goodwill	(309.5)	(309.5)				
<b>Situation at December 31, 1986</b>	<b>5,832.2</b>	<b>3,773.4</b>	<b>1,924.0</b>	<b>133.9</b>	<b>-</b>	<b>0.9</b>

Loans to consolidated companies have no fixed repayment schedule.

### Receivables

Millions of guilders, December 31	1986	1985
Receivables from consolidated companies	47.9	61.4
Receivables from nonconsolidated companies	0.1	0.3
Other receivables	40.1	73.8
	<b>88.1</b>	<b>135.5</b>

### Cash and Short-Term Investments

Millions of guilders, December 31	1986	1985
Short-term investments	394.6	853.1
Cash on hand and in banks	11.3	27.0
	<b>405.9</b>	<b>880.1</b>

Millions of guilders	Subscribed stock	Additional paid-in capital	Statutory reserves	Other reserves	Stockholders' equity
Situation at December 31, 1985	795.7	1,120.3	635.8	1,589.8	4,141.6
Issuance of common stock due to conversion of convertible debentures	7.7	38.1			45.8
Issuance of warrants		89.0			89.0
Cumulative preferred stock purchases	(0.3)				(0.3)
Retained earnings			374.8	201.8	576.6
Goodwill				(309.5)	(309.5)
Changes in exchange rates in respect of affiliated companies				(232.0)	(232.0)
Situation at December 31, 1986	<b>803.1</b>	<b>1,247.4</b>	<b>1,010.6</b>	<b>1,250.1</b>	<b>4,311.2</b>

**Subscribed stock**

Authorized capital stock of Akzo N.V. is Hfl 1,030,048,000 and consists of 48 shares of priority stock of Hfl 1,000 each, 30,000 shares of cumulative preferred stock of Hfl 1,000 each, and 50 million shares of common stock of Hfl 20 each. Subscribed stock consists of 48 shares of priority stock, 326 shares of cumulative preferred stock, and 40,138,331 shares of common stock.

**Warrants**

In September 1986, Akzo N.V. issued 2,001,513 warrants to bearer at the price of Hfl 48 per warrant. From May 1, 1988 through September 30, 1991 each warrant entitles the holder thereof to obtain, at the price of Hfl 120, one share of Akzo N.V. common stock. Akzo N.V. has the right to shorten the exercise period of the warrants to any date after November 1, 1988, with due observance of a period of prior notice of at least three months.

**Purchases of own stock**

In 1986 a total of 276 cumulative preferred shares of Hfl 1,000 were offered to the Company. They were purchased for an amount of Hfl 334,000.

**Additional paid-in capital**

At least Hfl 817 million of additional paid-in capital (at December 31, 1985: Hfl 678 million) can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law (Wet op de Inkomstenbelasting 1964).

**Statutory reserves**

This includes the statutory reserve relating to the earnings retained by affiliated companies after 1983.

**Long-Term Debt**

Millions of guilders, December 31	1986	1985
Convertible debentures	13.1	60.6
Other debentures	348.8	422.5
Debt to consolidated companies	1,090.1	824.7
Private borrowings	207.4	291.6
Debt to credit institutions	9.8	5.6
	<b>1,669.2</b>	<b>1,605.0</b>

**Convertible debentures**

4% debentures Akzo N.V. 1969 convertible into Akzo N.V. common stock, payable 1987/1989. The amount outstanding at December 31, 1986, was U.S.\$ 3.7 million. The conversion price is Hfl 121.60 per share of Hfl 20, based on an exchange rate of U.S.\$ 1 = Hfl 3.60.

**Other debentures**

Millions of guilders, December 31	1986	1985
9 ¼ % 1976 due 1982/1986		25.0
9 ½ % 1979 due 1983/1986		31.2
9 ¾ % 1979/1987		19.3
9 ½ % 1982/1989 (DM 100 million)	113.0	112.6
10 % 1982 due 1988/1992	100.0	100.0
5 % 1983-93 (Sfr 100 million)	135.1	133.7
Employee debentures	0.7	0.7
	<b>348.8</b>	<b>422.5</b>

**Debt to consolidated companies**

Borrowings from these companies have no fixed repayment schedule. Part of these borrowings do not bear interest. To the extent that interest is charged, it averaged 6.5% in 1986 (1985: 6.9%).

*Private borrowings and debt to credit institutions*

Aggregate maturities are as follows:

Millions of guilders	1987	1988-1991	after 1991
Private borrowings	30.3	176.4	0.7
Debt to credit institutions	9.8		

The average rate of interest was 7.6% (1985: 7.6%).

**Current Liabilities**

Millions of guilders, December 31	1986	1985
Debt to credit institutions	41.9	110.7
Debt to consolidated companies	22.6	83.9
Taxes and social security contributions	5.2	11.5
Dividend	206.6	202.8
Other liabilities	69.5	53.3
	345.8	462.2

**Liabilities Not Shown in the Balance Sheet***Joint and several liability; guarantees*

Akzo N.V. has declared in writing that it accepts joint and several liability for contractual debts of Dutch consolidated companies.

These debts, at December 31, 1986 aggregating approximately Hfl 1.5 billion (at December 31, 1985: Hfl 1.6 billion), are included in the consolidated balance sheet of the Akzo Group.

Additionally, guarantees were issued in behalf of consolidated companies in the amount of Hfl 774 million (1985: Hfl 770 million), and in behalf of nonconsolidated companies and third parties in the amount of Hfl 101 million (1985: Hfl 108 million).

Arnhem, March 12, 1987

## The Board of Management

A.A. Loudon  
J. Veldman  
H.J.J. van der Werf  
H.G. Zempelin

## Statement of Income

**Net Income from Affiliated Companies**

Net income from affiliated companies concerns Akzo N.V.'s share in the earnings of its affiliates.

**Remuneration of Members of the Board of Management and of the Supervisory Council of Akzo N.V.**

In fiscal 1986, remuneration including pension expense amounted to Hfl 4,551,000 (1985: Hfl 4,448,000) for members and former members of the Board of Management, and to Hfl 607,000 (1985: Hfl 654,000) for members and former members of the Supervisory Council. These amounts were charged to Akzo Group income.

## The Supervisory Council

G. Kraijenhoff  
A. Herrhausen  
E.G.G. Werner  
A. Batenburg  
A.G. van den Bos  
F.H. Fentener van Vlissingen  
H.A. van Stiphout  
C. van Veen  
O. Wolff von Amerongen

## Other Information

---

### 60 **Auditors' Report**

We have examined the foregoing 1986 financial statements of Akzo N.V., Arnhem.

In our opinion, these financial statements present fairly the financial position of Akzo N.V. at December 31, 1986, and the results of its operations for the year then ended.

Arnhem, March 12, 1987

KMG Klynveld Kraayenhof & Co.

### Provisions of the Articles of Association with regard to Profit Allocation

#### Article 39

1  
The Board of Management shall be authorized to determine, with the approval of the Supervisory Council, how great a share of the profit as shown by the approved statement of income shall be added to reserves; the general meeting of shareholders may dispose of such reserves only on the proposal of the Board of Management approved by the Supervisory Council. The remainder of the profits shall be put at the disposal of the general meeting of shareholders, with due observance of the provisions in paragraph 2.

2  
The remainder of the profits shall, to the extent possible, be allocated as follows:

a  
to the holders of priority shares:  
six per cent per share or the statutory interest as stated in article 8,

paragraph 1, whichever is lower, plus any accrued and unpaid dividends;

b  
to the holders of cumulative preferred shares:  
six per cent per share, plus any accrued and unpaid dividends;

c  
to the holders of ordinary shares:  
a dividend of such an amount per share as the remaining profit, less the aforesaid payments and less such amounts as the general meeting of shareholders may decide to carry to reserves, shall permit.

3  
The holders of ordinary shares are, to the exclusion of everyone else, entitled to allocations made from reserves accrued by virtue of the provision of the second paragraph sub c.

4  
The right to receive dividends and interim dividends shall lapse six years after such dividends and interim dividends have been made payable.

### Proposal for Profit Allocation

Amounts in guilders 1986

Net income 841,500,000

With due observance of art. 39, para 2, of the articles of association, it is proposed that this amount be allocated as follows:

To be distributed:	
dividend on priority stock	2,880
dividend on cumulative preferred stock	27,840
dividend on common stock	<u>264,912,985</u>
	<u>264,943,705</u>
To be retained	576,556,295
for addition to statutory reserves	374,800,000
for addition to other reserves	201,756,295

Following the acceptance of this proposal, the holders of common stock will receive a final dividend of Hfl 5.10 per share of Hfl 20, while Hfl 1.50 was paid earlier as an interim dividend.

The final dividend will be made available on dividend coupon No. 28 from May 14, 1987.

### Special Rights to Holders of Priority Stock

The priority stock is held by "Akzostichting" (Akzo Foundation), which is controlled by the members of the Supervisory Council and the Board of Management.

The meeting of holders of priority stock has the right to draw up binding lists of nominees for appointment to the Supervisory Council and the Board of Management.

### Balance Sheets, with Notes, of Dutch Partnerships ("Vennootschappen onder firma")

Akzo Group companies are general partners in the following partnerships:

Aramide Maatschappij v.o.f., Emmen	50%
Glucona v.o.f., Ter Apelkanaal	50%
Methanol Chemie Nederland v.o.f., Delfzijl (MCN)	50%
Methanor v.o.f., Delfzijl	30%
ROVIN Rotterdamse Vinylunie v.o.f., Amsterdam	50%

In conformity with Book 2 of the Dutch Civil Code, section 379, paragraph 4, the Minister of Economic Affairs has granted an exemption for Aramide Maatschappij v.o.f., Emmen, for the years 1985 and 1986, as contemplated in Book 2 of the Dutch Civil Code, section 392, paragraph 5.

The data of the other Dutch partnerships are of negligible significance for a proper understanding of the financial statements.

The percentages indicate Akzo Group interest in the above companies.

## Ten-Year Financial Summary

In the computation of ratios, the amounts used for invested capital and stockholders' equity represent averages of the amounts at January 1 and December 31 of the year.

Consolidated Balance Sheet, December 31	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	63
<i>Millions of guilders</i>											
Property, plant and equipment	4,330	3,843	4,208	3,840	3,911	3,673	3,441	3,273	3,360	3,577	
Financial fixed assets	660	622	610	611	499	532	525	493	537	513	
Fixed assets	4,990	4,465	4,818	4,451	4,410	4,205	3,966	3,766	3,897	4,090	
Inventories	2,586	2,691	2,653	2,457	2,542	2,506	2,454	2,233	1,902	1,920	
Receivables	2,768	3,114	2,893	2,701	2,339	2,587	2,308	2,225	1,993	1,898	
Cash and short-term investments	1,084	1,485	1,067	1,206	778	898	883	805	598	580	
Current assets	6,438	7,290	6,613	6,364	5,659	5,991	5,645	5,263	4,493	4,398	
Total assets	11,428	11,755	11,431	10,815	10,069	10,196	9,611	9,029	8,390	8,488	
Subscribed capital	803	796	789	664	593	593	593	593	593	593	
Additional paid-in capital	1,247	1,120	1,087	740	658	658	658	658	658	658	
Statutory reserves	1,011	636	347	—	—	—	—	—	—	—	
Other reserves	1,250	1,590	1,791	1,563	1,237	1,198	1,015	1,074	980	1,074	
Stockholders' equity	4,311	4,142	4,014	2,967	2,488	2,449	2,266	2,325	2,231	2,325	
Minority interest	354	353	170	120	122	407	393	408	397	414	
Group equity	4,665	4,495	4,184	3,087	2,610	2,856	2,659	2,733	2,628	2,739	
Provisions	2,005	2,003	1,729	1,535	1,427	1,335	1,329	1,147	1,054	1,039	
Subordinated loans	167	184	203	221	175	75	25	—	—	—	
Other long-term debt	1,438	1,678	2,169	3,132	3,227	3,114	3,072	2,842	2,645	2,790	
Long-term debt	1,605	1,862	2,372	3,353	3,402	3,189	3,097	2,842	2,645	2,790	
Debt to credit institutions	405	439	430	349	571	613	574	453	386	347	
Other current liabilities	2,748	2,956	2,716	2,491	2,059	2,203	1,952	1,854	1,677	1,573	
Current liabilities	3,153	3,395	3,146	2,840	2,630	2,816	2,526	2,307	2,063	1,920	
Total Group equity and liabilities	11,428	11,755	11,431	10,815	10,069	10,196	9,611	9,029	8,390	8,488	
Invested capital*:											
Of consolidated companies	7,061	6,832	7,203	6,666	6,881	6,744	6,418	6,074	5,777	6,014	
In nonconsolidated companies	535	482	445	452	351	351	357	297	338	321	
Total	7,596	7,314	7,648	7,118	7,232	7,095	6,775	6,371	6,115	6,335	
Property, plant and equipment											
Capital expenditures	1,106	1,008	784	625	730	693	645	461	434	409	
Depreciation	577	608	576	584	533	527	504	506	486	494	
<i>Ratios</i>											
Net sales : invested capital	2.25	2.57	2.38	2.23	2.08	2.20	1.99	2.03	1.81	1.68	
Group equity : debt	0.69	0.62	0.58	0.40	0.35	0.39	0.38	0.43	0.46	0.48	
Group equity : fixed assets	0.93	1.01	0.87	0.69	0.59	0.68	0.67	0.73	0.67	0.67	
Current assets : current liabilities	2.04	2.15	2.10	2.24	2.15	2.13	2.23	2.28	2.18	2.29	

\* Total assets less cash and short-term investments, and less other current liabilities.

## Consolidated Statement of Income

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<i>Millions of guilders</i>										
Net sales	15,615	18,010	16,520	15,085	14,154	14,476	12,453	12,015	10,666	10,433
Operating income	1,465	1,465	1,340	843	493	564	416	689	421	240
Financing charges	(106)	(185)	(285)	(341)	(297)	(329)	(261)	(259)	(248)	(245)
Taxes on operating income less financing charges	(478)	(465)	(369)	(73)	(28)	(79)	(48)	(136)	(113)	(65)
Equity in earnings of nonconsolidated companies	17	98	123	110	59	83	72	32	28	34
Group income from normal operations, after taxes	898	913	809	539	227	239	179	326	88	(36)
Extraordinary items after taxes	23	3	(35)	(102)	(49)	7	(246)	(60)	(25)	(122)
Group income	921	916	774	437	178	246	(67)	266	63	(158)
Minority interest	(79)	(73)	(22)	(9)	(13)	(7)	(3)	(36)	(39)	(8)
Net income	842	843	752	428	165	239	(70)	230	24	(166)
Common stock, in thousands of shares of Hfl 20	40,138	39,755	39,427	33,151	29,594	29,594	29,594	29,594	29,594	29,594
Dividend	265	262	236	133	47*	59	—	71	—	—
<i>Per common share of Hfl 20, in guilders</i>										
Net income	20.96	21.21	19.06	12.91	5.56	8.07	(2.35)	7.74	0.82	(5.63)
Dividend	6.60	6.60	6.00	4.00	1.60	2.00	—	2.40	—	—
Stockholders' equity	107.40	104.16	101.80	89.48	84.06	82.72	76.56	78.55	75.35	78.52
<i>Adjusted for common stock issues</i>										
Net income	20.96	21.21	19.06	12.85	5.29	7.67	(2.23)	7.36	0.78	(5.35)
Dividend	6.60	6.60	6.00	3.98	1.52	1.90	—	2.28	—	—
Stockholders' equity	107.40	104.16	101.80	89.03	79.94	78.67	72.81	74.70	71.66	74.67
Number of employees at December 31	68,400	65,000	66,100	66,300	73,700	77,800	83,100	83,000	83,200	84,400
Salaries, wages, and social charges	4,439	4,641	4,292	4,303	4,229	4,182	3,789	3,572	3,395	3,277
Salaries, wages, and social charges, as percentage of net sales	28.4	25.8	26.0	28.5	29.9	28.9	30.4	29.7	31.8	31.4
<i>Ratios</i>										
Operating income, as percentage of net sales	9.4	8.1	8.1	5.6	3.5	3.9	3.3	5.7	3.9	2.3
Operating income, as percentage of invested capital	21.1	20.9	19.3	12.4	7.2	8.6	6.7	11.6	7.1	3.9
Net income, as percentage of stockholders' equity	19.9	20.7	21.5	15.7	6.7	10.1	(3.0)	10.1	1.1	(6.7)
<b>Figures on a Current-Value Basis</b>										
<i>Per common share of Hfl 20, in guilders</i>										
Net income	21.08	18.49	16.36	9.26	2.20	2.74	(5.98)	3.01	(1.89)	(8.11)
Stockholders' equity	126.00	123.41	123.50	113.40	110.74	110.51	100.84	96.99	96.11	98.24

\* Of which Hfl 30 million in cash.

## Product Group Statistics

*Millions of guilders**Net sales*

Chemical products

Salt and commodity chemicals

Specialty chemicals

Man-made fibers

Textile uses

Industrial uses

Coatings

Pharmaceuticals

Consumer products

Miscellaneous products

Total

Intra-Group deliveries

Net sales

*Operating income*

Chemical products

Man-made fibers

Coatings

Pharmaceuticals

Consumer products

Miscellaneous products

Total

Not allocated

Operating income

*Invested capital*

Chemical products

Man-made fibers

Coatings

Pharmaceuticals

Consumer products

Miscellaneous products

Total

Not allocated

Invested capital

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<i>Millions of guilders</i>										
<i>Net sales</i>										
Chemical products										
Salt and commodity chemicals	2,029	2,482	2,302	2,001	1,872	1,924	1,729	1,797	1,388	1,370
Specialty chemicals	2,303	2,673	2,498	2,096	1,945	2,087	1,820	1,684	1,528	1,628
	<u>4,332</u>	<u>5,155</u>	<u>4,800</u>	<u>4,097</u>	<u>3,817</u>	<u>4,011</u>	<u>3,549</u>	<u>3,481</u>	<u>2,916</u>	<u>2,998</u>
Man-made fibers										
Textile uses	1,995	3,577	3,528	3,223	3,105	3,427	2,663	2,817	2,633	2,590
Industrial uses	1,448	1,649	1,507	1,303	1,254	1,251	1,119	1,035	934	1,008
	<u>3,443</u>	<u>5,226</u>	<u>5,035</u>	<u>4,526</u>	<u>4,359</u>	<u>4,678</u>	<u>3,782</u>	<u>3,852</u>	<u>3,567</u>	<u>3,598</u>
Coatings	2,314	2,171	1,973	1,796	1,572	1,513	1,432	1,221	1,049	975
Pharmaceuticals	2,239	2,138	1,849	1,647	1,563	1,484	1,320	1,274	1,211	1,099
Consumer products	1,453	1,677	1,302	1,080	1,055	1,013	869	725	696	611
Miscellaneous products	2,079	1,903	1,826	2,142	1,976	1,959	1,670	1,595	1,349	1,274
	<u>8,085</u>	<u>7,889</u>	<u>6,950</u>	<u>6,665</u>	<u>6,166</u>	<u>5,969</u>	<u>5,291</u>	<u>4,815</u>	<u>4,305</u>	<u>3,959</u>
Total	15,860	18,270	16,785	15,288	14,342	14,658	12,622	12,148	10,788	10,555
Intra-Group deliveries	(245)	(260)	(265)	(203)	(188)	(182)	(169)	(133)	(122)	(122)
Net sales	<u>15,615</u>	<u>18,010</u>	<u>16,520</u>	<u>15,085</u>	<u>14,154</u>	<u>14,476</u>	<u>12,453</u>	<u>12,015</u>	<u>10,666</u>	<u>10,433</u>
<i>Operating income</i>										
Chemical products	421	474	403	193	89	125	183	253	122	110
Man-made fibers	275	291	302	151	(19)	33	(170)	74	10	(88)
Coatings	132	130	144	143	97	110	110	98	64	45
Pharmaceuticals	350	355	306	260	233	190	145	134	140	133
Consumer products	91	87	69	59	47	50	40	31	31	16
Miscellaneous products	205	191	168	65	51	88	116	132	107	80
Total	1,474	1,528	1,392	871	498	596	424	722	474	296
Not allocated	(9)	(63)	(52)	(28)	(5)	(32)	(8)	(33)	(53)	(56)
Operating income	<u>1,465</u>	<u>1,465</u>	<u>1,340</u>	<u>843</u>	<u>493</u>	<u>564</u>	<u>416</u>	<u>689</u>	<u>421</u>	<u>240</u>
<i>Invested capital</i>										
Chemical products	2,386	2,393	2,362	2,025	1,895	1,851	1,749			
Man-made fibers	1,618	1,662	2,446	2,364	2,477	2,328	2,123			
Coatings	1,070	894	738	653	598	569	585			
Pharmaceuticals	1,069	987	809	772	701	714	733			
Consumer products	310	359	366	315	295	289	261			
Miscellaneous products	751	675	605	604	1,007	1,058	973			
Total	7,204	6,970	7,326	6,733	6,973	6,809	6,424			
Not allocated	(143)	(138)	(123)	(67)	(92)	(65)	(6)			
Invested capital	<u>7,061</u>	<u>6,832</u>	<u>7,203</u>	<u>6,666</u>	<u>6,881</u>	<u>6,744</u>	<u>6,418</u>	<u>6,074</u>	<u>5,777</u>	<u>6,014</u>

## Regional Statistics

	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<i>Millions of guilders</i>										
<i>The Netherlands</i>										
Net sales by area of destination	1,902	1,988	1,836	1,675	1,561	1,460	1,454	1,419	1,289	1,284
Net sales by area of origin	5,721	6,234	5,772	5,106	4,528	4,699	4,255	4,212	3,623	3,585
Operating income	546	568	453	229	75	133	117			
Expenditures for property, plant and equipment	442	424	286	283	338	303	246	170	180	
Invested capital	2,657	2,560	2,414	2,293	2,288	2,143	2,095	2,069	1,983	1,962
Number of employees	23,900	23,100	22,400	22,000	22,600	23,000	23,600	23,700	24,300	25,400
<i>Federal Republic of Germany</i>										
Net sales by area of destination	2,602	2,605	2,493	2,340	2,168	2,266	2,198	2,243	1,966	1,932
Net sales by area of origin	4,251	4,419	4,130	3,580	3,395	3,385	3,106	3,087	2,825	2,658
Operating income	433	384	370	178	128	105	66			
Expenditures for property, plant and equipment	273	191	157	110	136	138	130	100	96	
Invested capital	1,651	1,679	1,562	1,694	1,688	1,660	1,578	1,613	1,576	1,690
Number of employees	19,400	19,000	18,400	18,700	19,400	20,200	21,000	21,200	21,300	21,800
<i>Other EEC countries*</i>										
Net sales by area of destination	5,361	4,618	3,991	3,449	3,398	3,431	2,966	2,791	2,348	2,143
Net sales by area of origin	2,802	2,021	1,662	1,491	1,561	1,633	1,498	1,287	1,161	1,055
Operating income	276	182	135	112	100	78	46			
Expenditures for property, plant and equipment	141	82	67	53	37	43	63	44	36	
Invested capital	1,281	907	744	650	645	601	632	583	541	521
Number of employees	12,400	7,900	6,700	6,800	7,200	8,200	9,600	9,600	10,200	10,000
<i>Rest of Europe</i>										
Net sales by area of destination	1,256	2,121	1,911	1,682	1,739	1,845	1,750	1,732	1,384	1,473
Net sales by area of origin	254	1,042	808	735	831	825	718	711	573	561
Operating income (loss)	27	117	80	62	64	31	37	56	40	(2)
Expenditures for property, plant and equipment	16	42	33	24	31	52	36	16	11	11
Invested capital	80	339	308	242	264	332	309	329	254	303
Number of employees	800	4,600	4,400	4,200	5,500	5,800	6,400	6,300	6,000	6,300
<i>North America</i>										
Net sales by area of destination	2,224	3,923	3,781	3,744	3,241	3,375	2,362	2,413	2,315	2,334
Net sales by area of origin	1,918	3,510	3,353	3,462	3,048	3,210	2,253	2,224	2,027	2,133
Operating income (loss)	84	95	166	123	(24)	99	45	113	99	87
Expenditures for property, plant and equipment	207	231	217	136	148	139	150	117	93	87
Invested capital	1,102	1,047	1,853	1,510	1,695	1,721	1,542	1,291	1,188	1,339
Number of employees	6,200	5,400	8,800	9,100	13,400	14,900	16,000	16,200	15,600	15,300
<i>Other regions</i>										
Net sales by area of destination	2,270	2,755	2,508	2,195	2,047	2,099	1,723	1,417	1,364	1,267
Net sales by area of origin	669	784	795	711	791	724	623	494	457	441
Operating income	99	119	136	139	150	118	105	79	86	72
Expenditures for property, plant and equipment	27	38	24	19	40	18	20	14	18	20
Invested capital	290	300	322	277	301	287	262	189	235	199
Number of employees	5,700	5,000	5,400	5,500	5,600	5,700	6,500	6,000	5,800	5,600

\* 1986 figures include Spain and Portugal.

# Principal Companies of the Akzo Group

(other than holding companies and national organizations)

December 31, 1986

Percentages of participation are only stated for companies in which Akzo N.V. or any of its majority-owned subsidiaries separately or jointly holds less than 95% of the subscribed stock.

Enka, Wuppertal	Federal Republic of Germany (D)	Akzo Chemie, Amersfoort	Netherlands	67
<i>Man-made fibers, machinery, engineering plastics, membranes, nonwovens, various industrial products</i>		<i>Specialty chemicals, functional chemicals, catalysts, industrial chemicals</i>		
Enka B.V., Arnhem	Netherlands	Akzo Chemie Nederland B.V., Amersfoort	Netherlands	
Akzo Plastics B.V., Arnhem	Netherlands	Cyanamid-Ketjen Katalysator B.V., Amsterdam	Netherlands	(50)
Colbond B.V., Arnhem	Netherlands	Glucona v.o.f., Ter Apelkanaal	Netherlands	(50)
Aramide Maatschappij v.o.f., Emmen	Netherlands (50)	Silenka B.V., Hoogezand	Netherlands	(33)
Enka AG, Wuppertal	D	Akzo Chemie GmbH, Düren	D	
Barmag AG, Remscheid-Lennep	D	Carbosulf Chemische Werke GmbH, Cologne	D	(67)
with establishments in Switzerland*, U.S.A., Brazil*, and Hong Kong		Rhodanid Chemie GmbH, Cologne	D	(67)
Kuaggarn Textil GmbH, Wuppertal	D	Akzo Chemie Belge S.A., Mons	Belgium	
La Seda de Barcelona S.A., Barcelona	Spain (58)	Akzo Chemie Danmark A/S, Hørsholm	Denmark	
Wilson-Fiberfil International Inc., Neshanic Station, New Jersey	U.S.A.	Akzo Chemie France S.à.r.l., Venette	France	
with establishments in Canada, France, Belgium, and Sweden		Akzo Chemie Norge A.S., Oslo	Norway	
Enka America Inc., Asheville, North Carolina	U.S.A.	Akzo Chemie Italia S.p.A., Arese	Italy	
Fibras Químicas S.A., Monterrey	Mexico (40)	Bertelli S.p.A., Porcari	Italy	
Polyenka S.A., São Paulo	Brazil (51)	Akzo Chemie Española S.A., Barcelona	Spain	
COBAFI Companhia Bahiana de Fibras S.A., Camaçari	Brazil (36)	Akzo Chemie U.K. Ltd, Gillingham	U.K.	
Enka de Colombia S.A., Medellín	Colombia (49)	Akzo Chemie America, Chicago, Illinois	U.S.A.	
Enkador S.A., Quito	Ecuador (49)	with establishments in Canada		
Century Enka Ltd, Calcutta	India (40)	Peroxidos Argentinos S.A.I.C.F.y A., Buenos Aires	Argentina (82)	
<b>Akzo Zout Chemie, Hengelo (O)</b>	<b>Netherlands</b>	Akzo Chemie Brasil, São Paulo	Brazil	
<i>Salt, chlorine, alkali products, vinyl chloride monomer, methanol, other commodity chemicals</i>		FCC-Fabrica Carioca de Catalisadores S.A., Rio de Janeiro	Brazil (40)	
Akzo Zout Chemie Nederland B.V., Hengelo	Netherlands	Akzo Chemie Singapore Pte. Ltd, Singapore	Singapore	
Methanol Chemie Nederland v.o.f., Delfzijl	Netherlands (50)	Nippon Ketjen Co. Ltd, Tokyo	Japan (50)	
Methanor v.o.f., Delfzijl	Netherlands (30)	Kayaku Noury Corp., Tokyo	Japan (50)	
Delamine B.V., Delfzijl	Netherlands (50)	Lion Akzo Co. Ltd, Tokyo	Japan (50)	
Delesto B.V., Delfzijl	Netherlands (50)	<b>Akzo Coatings, Hoofddorp</b>	<b>Netherlands</b>	
ROVIN Rotterdamse Vinylunie v.o.f., Amsterdam	Netherlands (50)	<i>Paints, stains, synthetic resins</i>		
Norddeutsche Salinen GmbH, Stade	D	Sikkens B.V., Sassenheim	Netherlands	
Elektro-Chemie Ibbenb. GmbH, Ibbenbüren	D (50)	Koninklijke Brink/Molyn B.V., Groot-Ammers	Netherlands	
Konezo, Brussels	Belgium	Koninklijke Talens B.V., Apeldoorn	Netherlands	
Dansk Salt I/S, Mariager	Denmark (50)	Synthese B.V., Bergen op Zoom	Netherlands	
Akzo Zout Chemie Svenska A.B., Göteborg	Sweden	Akzo Coatings GmbH, Stuttgart	D	
Denak Co. Ltd, Tokyo	Japan (50)	Akzo Coatings Ges.mbH, Salzburg	Austria	
International Salt Co., Clarks Summit, Pennsylvania	U.S.A.	Akzo Coatings, Ternat	Belgium	
with establishments in Canada and the Netherlands Antilles		S.A. Levis N.V., Vilvoorde	Belgium	
		Akzo Coatings S.A., Paris	France	
		with establishments in Morocco*, Senegal*, Ivory Coast*, and Cameroon*		
		Dacral S.A., Paris	France (50)	
		Akzo Coatings PLC, London	U.K.	
		Permoglaze Paints Ltd, London	U.K.	
		Sikkens Ltd, London	U.K.	

\* Participation less than 95%.

Akzo Coatings S.p.A., Milan	Italy	N.V. Akzo Consumer Products	
Akzo Coatings S.A., Barcelona	Spain	Belgium S.A., Brussels	Belgium
Industrias Químicas Procolor S.A., San Adrián de Besós	Spain (50)	Ashe Consumer Products Ltd, Leatherhead	U.K.
Akzo Coatings America Inc., Troy, Michigan with establishment in Canada	U.S.A.	Mayolande S.A., Seclin	France
Morilla Inc., Holyoke, Massachusetts	U.S.A. (30)	A/S blumøller, Odense	Denmark
Miluz S.A.I.C.I. y F., Buenos Aires	Argentina	De Danske Eddikebryggerier C. Lange A/S (Heidelberg Food), Frederiksberg	Denmark
Akzo Coatings, São Paulo	Brazil	Tomten A/S, Sandvika	Norway
Metropolitan Paint Factory Ltd, Bangkok	Thailand	Legrain S.A., Barcelona	Spain
<b>Akzo Pharma, Oss</b>	<b>Netherlands</b>	Other sales offices or production plants are established in: – the United Kingdom, France, Greece, Portugal, Austria, Switzerland, Sweden, Norway, and Finland	

*Ethical drugs*

(Organon International B.V., Oss, the Netherlands)

*Hospital supplies*

(Organon Teknika N.V., Turnhout, Belgium)

*Nonprescription products*

(Chefaro International B.V., Rotterdam, the Netherlands)

*Raw materials for the pharmaceutical industry*

(Diosynth B.V., Oss, the Netherlands)

*Veterinary products*

(Intervet International B.V., Boxmeer, the Netherlands)

*Generics*(Verenigde Pharmaceutische Fabrieken (VPF) B.V.,  
Oss, the Netherlands)Sales offices or production plants of one or more of the  
above companies are established in:

- the Netherlands, Federal Republic of Germany, Belgium,  
France, Italy, United Kingdom, Republic of Ireland,  
Denmark, Norway, Sweden, Finland, Switzerland, Spain,  
Portugal, Greece, Turkey
- United States, Canada
- Mexico, Argentina, Brazil, Chile, Ecuador, Venezuela
- Cyprus, Bangladesh\*, India\*, Malaysia, Pakistan\*, Thailand,  
Republic of Korea\*, Indonesia\*, Hong Kong, Japan\*, Taiwan\*
- Australia
- Morocco, Nigeria\*, South Africa

**Akzo Consumenten Produkten, The Hague Netherlands (51)***Detergents and cleaning products, health and bodycare  
products, foodstuffs*

Kortman Nederland B.V., Veenendaal	Netherlands
Duyvis Recter B.V., Veenendaal	Netherlands
Grada Produktiebedrijven B.V., Apeldoorn	Netherlands
California Verkoopmaatschappij B.V., Harderwijk	Netherlands
Otarès B.V., Enschede	Netherlands

---

*Dividends are paid through the following banks:*

**The Netherlands**

Amsterdam-Rotterdam Bank  
Algemene Bank Nederland  
Bank Mees & Hope  
Nederlandsche Middenstandsbank  
Pierson, Heldring & Pierson  
Rabobank Nederland  
at their offices in Amsterdam, Rotterdam, The Hague, Utrecht  
(Rabobank Nederland), and Arnhem, if established there

**Federal Republic of Germany**

Deutsche Bank  
Deutsche Bank Berlin  
Bank für Handel und Industrie  
Berliner Handels- und Frankfurter Bank  
Dresdner Bank  
Sal. Oppenheim jr. & Cie.  
at their offices in Düsseldorf, Frankfurt/Main, Hamburg, Cologne,  
Berlin (West), and Wuppertal, if established there

**Belgium**

Generale Bank  
Paribas Bank België  
Kredietbank  
at their offices in Brussels and Antwerp

**Luxembourg**

Banque Générale du Luxembourg, Luxembourg

*Akzo N.V. common stock is listed on the following stock exchanges:*

The Netherlands:	Amsterdam
Federal Republic of Germany:	Frankfurt/Main, Düsseldorf, and Berlin (West)
Switzerland:	Zurich, Basel, and Geneva
France:	Paris
Belgium:	Brussels and Antwerp
United Kingdom:	London
Austria:	Vienna

**United Kingdom**

Barclays Bank  
Midland Bank  
at their offices in London

**France**

Lazard Frères & Cie  
Banque Nationale de Paris  
at their offices in Paris

**Austria**

Creditanstalt-Bankverein, Vienna

**Switzerland**

Schweizerische Kreditanstalt, Zurich  
Schweizerische Bankgesellschaft, Zurich  
Schweizerischer Bankverein, Basel  
and the Swiss branch offices of these banks  
Pictet & Cie, Geneva

**United States**

Morgan Guaranty Trust Company, New York

---