

# Annual Report 1972



<b>Akzo Coatings, Amsterdam</b>	<b>Netherlands</b>	<b>Akzo Consumenten Produkten, The Hague</b>	<b>Netherlands</b>
<i>paints, powder coatings, adhesives and synthetic resins</i>		<i>detergents and cleaning products, disposable paper, body-care products and foodstuffs</i>	
Sikkens B.V., Sassenheim with establishments at Sassenheim, Alphen a/d Rijn, Beverwijk, Sneek and Wapenveld	Netherlands	Kortman & Schulte B.V., Dordrecht with establishment at Nijmegen	Netherlands
Kon. Talens B.V., Apeldoorn	Netherlands	Otarès B.V., Enschede	Netherlands
Kunstharsfabr. Synthese B.V., Bergen op Zoom	Netherlands	Intec B.V., The Hague	Netherlands
Syntac B.V., Voorburg	Netherlands	Kon. Eau de Colognefabriek J. C. Boldoot B.V., Amsterdam	Netherlands
Sikkens GmbH, Emmerich with establishment at Berlin	W. Germany	Kon. Fabr. T. Duyvis Jz. B.V., Koog a/d Zaan with establishments at Koog a/d Zaan, Vlaardingen and Assen	Netherlands
K.G. Lesonal-Werke Chr. Lechler & Sohn Nachf., Stuttgart with establishments at Stuttgart, Frankfurt, Bendorf and Salzburg (Austria)	W. Germany	Fino Fabrieken B.V., Harderwijk	Netherlands
50 – Resicoat GmbH, Reutlingen	W. Germany	Van Vollenhoven B.V., Emmen	Netherlands
Akzo Coatings Belgium N.V., Ternat with establishments at Ternat and Vilvoorde	Belgium	Kortman, division of Akzo België N.V., Brussels	Belgium
89 – Astral S.A., Paris with establishments in France, Italy, Morocco <sup>c</sup> , Tunisia, Senegal <sup>c</sup> , Ivory Coast <sup>c</sup> , Cameroun <sup>c</sup> and South Africa <sup>c</sup>	France	California, division of Akzo België N.V., Boechout	Belgium
Sikkens S.p.A., Dormelletto	Italy	50 – Mayolande S.A., Seclin	France
Colorificio Linvea S.p.A., Naples	Italy	A/S Blumøller, Odense	Denmark
40 – Miluz S.A.I.C.I.F., Buenos Aires	Argentina	Lilla Edets Pappersbruks AB, Lilla Edet with establishments in the Netherlands and Denmark	Sweden
<b>Akzo Pharma, Oss</b>	<b>Netherlands</b>	<b>Akzona, Asheville, North Carolina</b>	<b>U.S.A.</b>
<i>pharmaceuticals for human use, hospital supplies and equipment, raw materials for the pharmaceutical industry, veterinary products and crop protection products</i>		<i>chemical fibers, non-wovens, salt, chemical specialties, pharmaceuticals, wire and cable, leather, food products and various industrial products</i>	
Organon International B.V., Oss with establishments in the Netherlands, West Germany, Belgium, France, Italy, United Kingdom, Republic of Ireland, Spain, Portugal, Greece, Turkey, Denmark, Norway, Sweden, Finland, Mexico, Argentina, Brazil, Colombia, Ecuador, Venezuela, Hong Kong, India <sup>d</sup> , Indonesia, Iran <sup>d</sup> , Japan <sup>d</sup> , Philippines, Thailand, Australia, New Zealand, Zaïre and South Africa <sup>d</sup>	Netherlands	65 – Armak Co., Chicago, Illinois with affiliates in Italy, United Kingdom, Canada and Japan	U.S.A.
Chefaro International B.V., Rotterdam with establishments in the Netherlands, West Germany, Belgium, United Kingdom, Spain, Finland and Mexico	Netherlands	65 – American Enka Co., Enka, North Carolina	U.S.A.
Organon Teknika International B.V., Oss with establishments in the Netherlands, West Germany, Belgium and France	Netherlands	65 – Armour Leather Co., Sheboygan, Wisconsin	U.S.A.
Diosynth B.V., Oss with establishments in the Netherlands, West Germany, France, Italy, United Kingdom and Mexico	Netherlands	65 – Brand-Rex Co., Willimantic, Connecticut with affiliate in United Kingdom <sup>a</sup>	U.S.A.
Intervet International B.V., Boxmeer with establishments in the Netherlands, West Germany, Belgium, France, Italy, United Kingdom, Spain, Australia and Mexico	Netherlands	65 – International Salt Co., Clarks Summit, Pennsylvania with affiliates in Canada, Netherlands Antilles and Brazil <sup>b</sup>	U.S.A.
AAgrunol B.V., Groningen with establishments in West Germany <sup>d</sup> and Belgium	Netherlands	65 – Organon Inc., West Orange, New Jersey with affiliate in Canada	U.S.A.
Ver. Pharmaceutische Fabr. B.V., Apeldoorn	Netherlands	<b>Other companies</b>	
		50 – Silenka B.V., Hoogezand (glass fibers)	Netherlands
		40 – Chemische Ind. AKU-Goodrich B.V., Arnhem (synthetic rubbers and latices)	Netherlands
		20 – N.V. Verenigde Instrumentenfabrieken Enraf Nonius, Delft (medical equipment, etc.)	Netherlands
		Akzo Chemie Verkoopkantoor B.V., Amsterdam	Netherlands
		Akzo Engineering B.V., Arnhem	Netherlands
		50 – Moulinages Motte S.A., Mouscron (textured synthetic yarns)	Belgium
		a affiliate of British Enkalon Ltd (60%) and Akzona Inc. (40%); total participation of Akzo N.V.: 63%	
		b affiliate of Akzo Zout Chemie B.V. (46%) and Akzona Inc. (46%); total participation of Akzo N.V.: 76%	
		c participation slightly different from 89%	
		d participation less than 95%	

# Divisions and Group companies and their principal operating companies

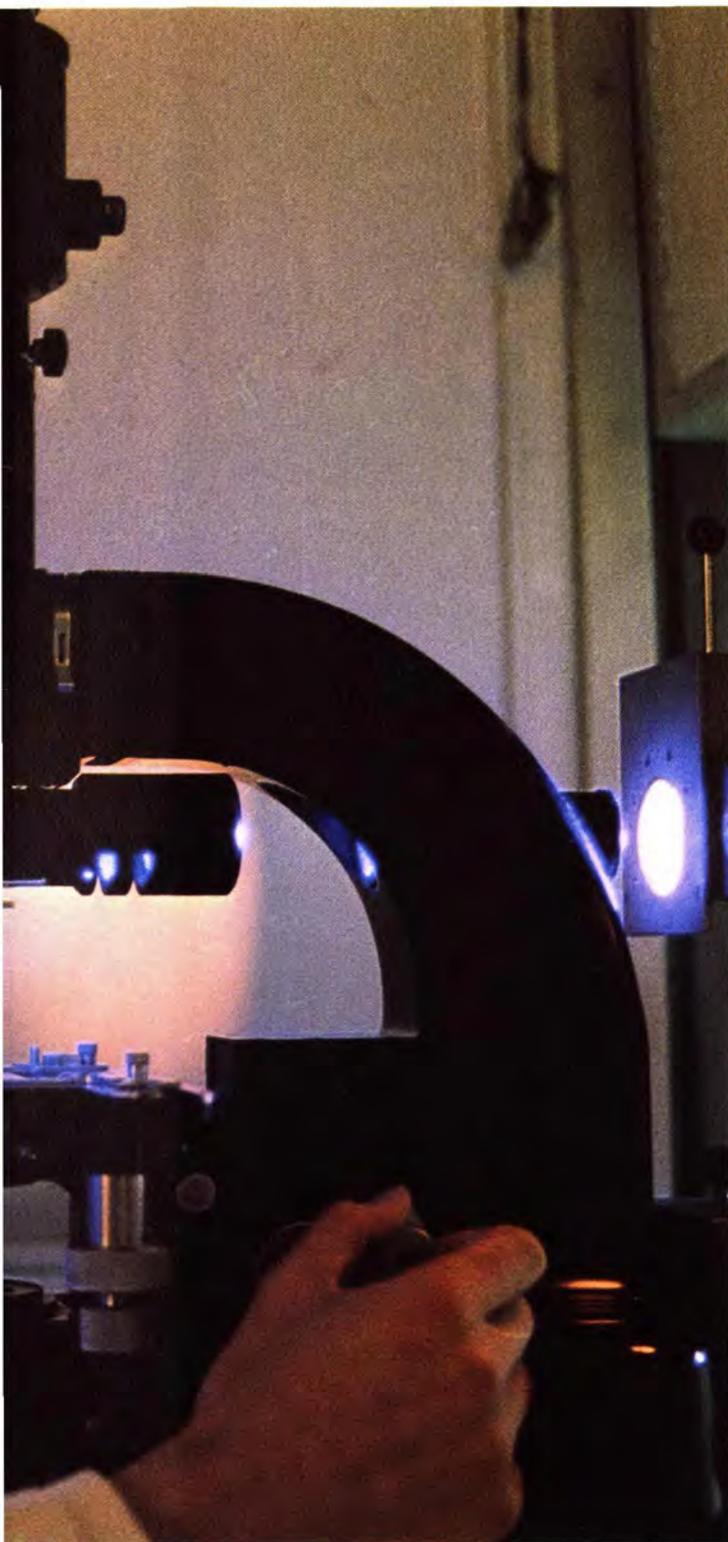
March, 1973

Percentages participation are only stated for companies in which Akzo N.V. holds a direct and/or indirect interest of less than 95%. The survey only lists operating companies. It should be noted that all operating companies in the Netherlands are directly or indirectly combined under the holding company Akzo Nederland B.V.

A substantial part of the activities in Belgium is incorporated in Akzo België N.V.

The word 'establishment' is used to denote both plants and affiliates.

		40 – Fibras Ouímicas S.A., Monterrey	Mexico
		51 – Polyenka S.A., Indústria Química et Têxtil, São Bernardo do Campo	Brazil
		with establishments at São Paulo and Americana	
		48 – Enka de Colombia S.A., Medellin	Colombia
		40 – Petroquímica Sudamericana S.A., Buenos Aires	Argentina
		44 – Century Enka Ltd, Calcutta	India
<b>Enka Glanzstoff, Arnhem/Wuppertal</b>	<b>Netherlands/ W. Germany</b>	<b>Akzo Zout Chemie, Hengelo (O)</b>	<b>Netherlands</b>
<i>chemical fibers, non-wovens, plastics, synthetic leather, machines and various industrial products</i>		<i>salt and heavy chemicals</i>	
Enka Glanzstoff B.V., Arnhem	Netherlands	Akzo Zout Chemie Nederland B.V., Hengelo	Netherlands
with establishments at Arnhem, Breda, Ede, Emmen, Emmercompascuum and Steenbergen		with establishments at Hengelo, Delfzijl and Rotterdam	
Strucol B.V., Zutphen	Netherlands	Ned. Soda-industrie B.V., Delfzijl	Netherlands
Enka Glanzstoff AG, Wuppertal	W. Germany	Petrochemie Delfzijl B.V., Delfzijl	Netherlands
with establishments at Wuppertal, Kassel, Kelsterbach, Oberbruch and Obernburg		Zoutchemie Botlek B.V., Rotterdam	Netherlands
Kuag Textil AG, Wuppertal	W. Germany	50 – Methanol Chemie Ned. v.o.f., Delfzijl	Netherlands
with establishments at Wuppertal, Konz and Waldniel		16 – Unie van Kunstmestfabrieken B.V., Utrecht	Netherlands
Barmag Barmer Masch. fabrik AG, Remscheid-Lennep	W. Germany	Norddeutsche Salinen GmbH, Stade	W. Germany
with affiliate at Charlotte, North Carolina, U.S.A.		50 – Elektro-Chemie Ibbenb. GmbH, Ibbenbüren	W. Germany
Fabelta, division of Akzo België N.V., Brussels	Belgium	50 – Dansk Salt I/S, PR Mariager	Denmark
with establishments at Ninove, Tubize and Zwijnaarde		46b – Comp. Ind. do Rio Grande do Norte, Macau	Brazil
93 – Ferenka Ltd, Limerick	Rep. of Ireland	<b>Akzo Chemie, Amersfoort</b>	<b>Netherlands</b>
Italenka S.p.A., Milan	Italy	<i>chemical specialties and industrial chemicals</i>	
with establishment at Palestro		Akzo Chemie Nederland B.V., Amersfoort	Netherlands
93 – Erste Oesterr. Glanzstoff-Fabr. AG, Vienna	Austria	with establishments at Amsterdam, Deventer, Dordrecht, Herkenbosch, Rotterdam, Roermond, Weert and Winschoten	
with establishment at St. Pölten		60 – Ketjen Carbon B.V., Rotterdam	Netherlands
Feldmühle A.G., Rorschach	Switzerland	50 – Cyanamid-Ketjen Katalysator B.V., Amsterdam	Netherlands
<b>Akzo International, Arnhem</b>	<b>Netherlands</b>	Akzo Chemie GmbH, Düren	W. Germany
<i>chiefly chemical fibers</i>		with establishments at Düren, Emmerich, Cologne and Mannheim	
62 – British Enkalon Ltd, Leicester	U.K.	65 – Carbosulf Chemische Werke GmbH, Cologne	W. Germany
with establishment at Antrim		Akzo Chemie France S.à.r.l., Venette	France
62 – Teesside Textiles Ltd, Thornaby/Stockton-on-Tees	U.K.	Akzo Chemie S.p.A., Milan	Italy
37a – Brand-Rex Ltd, Glenrothes	U.K.	with establishments at Milan and Mornago	
58 – La Seda de Barcelona S.A., Barcelona	Spain	Akzo Chemie U.K. Ltd, London	U.K.
with establishments at Alcalá and Prat de Llobregat		with establishments at Gillingham, Liverpool and Sheerness	
45 – Cyanenka S.A., Prat de Llobregat	Spain	Noury Chemical Corp., Burt, New York	U.S.A.
		50 – Nippon Ketjen K.K., Tokyo	Japan
		50 – Kayaku Noury K.K., Tokyo	Japan
		50 – Japan Interstab K.K., Tokyo	Japan



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- 1 Opening
- 2 Report of the Board of Management for the financial year 1972
- 3 Approval of the balance sheet and the statement of income with explanatory notes; submission of the dividend proposal
- 4 Appointment of members of the Supervisory Council
- 5 Determination of the number of members of the Board of Management
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## Supervisory council and board of management

*Akzo is a multinational industrial group of companies. Products include chemical fibers, salt, basic chemicals and chemical specialties, coatings, pharmaceuticals and consumer products.*

*The Group has operations in 40 countries, and employs over 100,000 people. Invested capital is nearly Hfl 7,000 million; Group sales total over Hfl 8,000 million.*

### **Supervisory Council**

J. R. M. van den Brink, chairman  
H. M. van Mourik Broekman, deputy chairman  
J. S. A. J. M. van Aken  
P. M. H. van Boven  
P. M. van Doormaal  
E. L. Fuller  
H. L. Merkle  
E. F. Philipp  
Y. Scholten  
Mrs. K. Schudel-van Zwanenberg  
K. Soesbeek  
W. F. G. L. Starrenburg  
F. H. Ulrich  
L. Vaubel  
J. de Vries  
O. Wolff von Amerongen

### **Board of Management**

G. Kraijenhoff, president  
L. H. Meerburg, senior deputy president  
S. C. Bakkenist, deputy president  
H. J. Schlange-Schöningen, deputy president  
A. van Driel  
D. W. van Krevelen  
H. J. Kruisinga  
F. Prakke  
A. Stikker

### **Secretary**

A. H. M. Wentholt



## Report of the supervisory council

At the annual meeting of stockholders held May 10, 1972 H. J. Abs, L. J. M. Beel and J. E. de Quay, having reached the retirement age, withdrew from the supervisory council. Great appreciation was expressed for their valued participation in the furtherance of the company's interests.

Mr. Abs, through his expertise in international finance, has benefited the company greatly. His association with Glanzstoff AG was among the contributing factors for the completion of the amalgamation of this company and AKU.

Mr. Beel contributed much to the company through his valuable counsel in the areas of law and business management.

In Mr. de Quay, the company has lost a council member who made the harmonization and development of personnel policy within the company his particular concern.

To fill the vacancies, the annual meeting appointed J. S. A. J. M. van Aken, who was previously a member of the advisory council dissolved in 1971, F. H. Ulrich, who is a member of the board of management of the Deutsche Bank AG, and L. Vaubel, who was a deputy president of the board of management of our company until the time of his appointment.

The annual meeting of stockholders accepted the resignation from the board of management of P. J. van Helden, Jr., J. H. E. Hessels, and L. Vaubel, each of whom had reached retirement age for the board.

Mr. van Helden's name has been primarily connected with Organon. In his 35 years with this pharmaceutical company, and as its president from mid-1966, he made an outstanding contribution to the international expansion of the pharmaceuticals group.

Mr. Hessels served on the AKU board since 1959. His area of supervision was industrial operations and labor relations. As president of the board of management of Enka N.V., he, with Mr. Vaubel, directed the administrative and organizational unification of Enka and Glanzstoff into Enka Glanzstoff.

Mr. Vaubel's retirement from the Akzo board also marks the conclusion of a career with Glanzstoff AG, which extended nearly forty years, culminating in his presidency of that company. By virtue of his appointment to the Akzo supervisory council, the company will continue to benefit from his valued experience and insight, especially in legal and administrative matters.

In the year under review, no appointments to the board of management were made. For information on the

distribution of tasks among the board members, please refer to page 40.

F. Prakke, having also reached the retirement age, will resign from the board at the annual meeting of stockholders convened for May 10, 1973.

We herewith submit to you the balance sheet and statement of income, with notes, including the consolidated statements of the Group, prepared by the board of management for the 1972 financial year. These financial statements have been examined by Klynveld Kraayenhof & Co., Registeraccountants, appointed at the annual meeting of stockholders held May 10, 1972. Their report appears on page 22.

We approve these financial statements, as well as the proposal made therein by the board of management with regard to the allocation of profit. This proposal comprises the reservation of Hfl 90,484,053 and the allocation of Hfl 97,343,947 for distribution, including a dividend payment of Hfl 3.60 on each share of common stock, par value Hfl 20 per share. Of this amount, Hfl 1.20 was paid earlier as an interim dividend.

Until September 1, 1973, stockholders may choose to receive the final dividend of Hfl 2.40 in cash or in Akzo N.V. common stock, chargeable to capital surplus, at the rate of one new share of Hfl 20 par value for every 25 shares of common stock held.

We propose that you also approve the balance sheet and the statement of income, with notes, as well as discharge the responsibility of the board of management for their conduct of the business and the supervisory council for the supervision exercised by it.

Arnhem, March, 1973

For the supervisory council,

J. R. M. van den Brink,  
chairman

## Financial highlights

	1972	1971
sales, in Hfl million	8,235	8,056
percentage increase over previous year	2.2%	11.1%
operating income, in Hfl million	585	641
as percentage of sales	7.1%	8.0%
net income, in Hfl million	188	184
as percentage of stockholders' equity	6.1%	6.2%
per share of common stock, par value Hfl 20 per share, in guilders	6.94	6.81
ditto, before extraordinary items and additional depreciation	7.70	7.62
cash flow (Group income plus depreciation), in Hfl million	795	791
per share of common stock, par value Hfl 20 per share, in guilders	25.26	24.94
distributed income, in Hfl million	97	98
as percentage of net income	51.8%	53.0%
dividend per share of common stock, par value Hfl 20 per share, in guilders	3.60*	3.60
stockholders' equity, in Hfl million	3,065	2,992
per share of common stock, par value Hfl 20 per share, in guilders	113.49	110.78
common stock, in Hfl million	539.8	539.8
common stock, in thousands of shares of Hfl 20 par value	26,989	26,989
property, plant and equipment, in Hfl million		
capital expenditures	508	885
depreciation, including additional depreciation	562	555
personnel		
number of employees at year's end	101,000	104,500
salaries, wages and social charges, in Hfl million	2,478	2,354
personnel costs, as percentage of sales	30.1%	29.2%

\* until September 1, 1973, stockholders may choose to receive the final dividend of Hfl 2.40 in cash or in Akzo N.V. common stock, chargeable to capital surplus, at the rate of one new share of Hfl 20 par value for every 25 shares of common stock held

# Report of the board of management

## Sales and income

In the year under review, the difficult situation in the Western European chemical fibers industry overshadowed the gains made in other fields. This depressed both sales and income of the Group.

Sales increased just Hfl 179 million to Hfl 8,235 million. At Hfl 188 million, net income was slightly higher than the 1971 figure of Hfl 184 million. Expressed per share of common stock of Hfl 20 par value, net income was Hfl 6.94, versus Hfl 6.81 in 1971. Cash flow (Group income plus depreciation) was Hfl 795 million (1971: Hfl 791 million).

Operating income expressed as a percentage of sales declined from 8.0% in 1971 to 7.1% in 1972. This was largely due to a further reduction in prices of chemical fibers, which were an average of 7% lower than in 1971. This relative decrease in operating income was also the result of inflationary rises in costs.

Interest expenses were up somewhat, from Hfl 167 million in 1971 to Hfl 174 million in 1972.

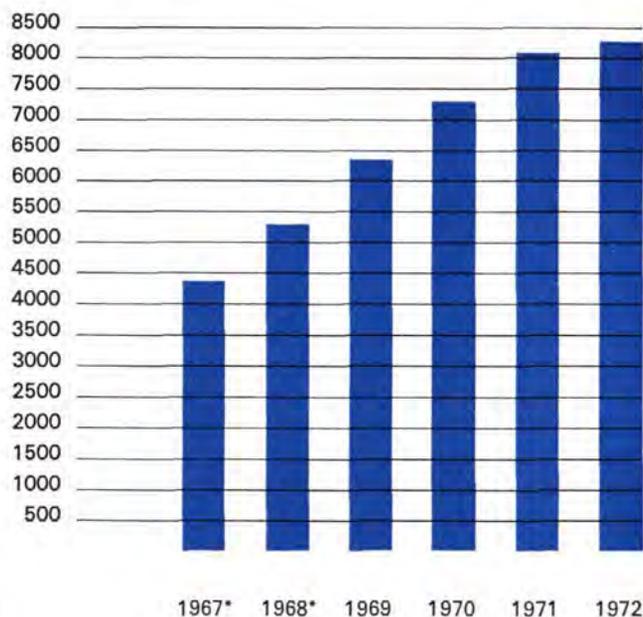
It is proposed to pay a dividend of Hfl 3.60 on each share of common stock, par value Hfl 20 per share; until September 1, 1973, stockholders may choose to receive the final dividend of Hfl 2.40 on each share of common stock in cash or in Akzo N.V. common stock, chargeable to capital surplus, at the rate of one new share of Hfl 20 par value for every 25 shares of common stock held.

This dividend proposal means that 51.8% of net income will be distributed.

Sales and operating income after taxes of the three main product groups – chemical fibers, chemical products and pharmaceuticals/consumer products/miscellaneous products – are shown below. 1972 pre-tax operating income stood at Hfl 585 million (1971: Hfl 641 million), while taxes amounted to Hfl 266 million (1971: Hfl 305 million).

in Hfl million	sales		operating income after taxes	
	1972	1971	1972	1971
chemical fibers	3,798	3,840	128	192
chemical products	2,404	2,210	98	72
pharmaceuticals, consumer products, miscellaneous products	2,033	2,006	93	72
<b>total</b>	<b>8,235</b>	<b>8,056</b>	<b>319</b>	<b>336</b>

Sales, in Hfl million



	1967*	1971	1972
<b>Breakdown of sales into main product groups</b>	%	%	%
chemical fibers	52	48	46
chemical products	20	27	29
pharmaceuticals, consumer products, miscellaneous products	28	25	25
<b>Breakdown of sales into sales areas</b>	%	%	%
the Netherlands	20	12	12
West Germany	24	22	21
other EEC countries**	12	13	14
other European countries	18	18	18
Europe	74	65	65
North America	18	24	25
Latin America	3	5	5
rest of the world	5	6	5

\* based on combined figures of AKU and KZO (this also applies to the sales graphs on pages 23, 28 and 34)

\*\* based on the situation before January 1, 1973

These consolidated figures show a decline for the *chemical fibers* group, not only in absolute terms but also in relation to the other main product groups. The decline in income was largely due to insufficient capacity utilization and price deterioration for important categories of synthetic textile yarns. This applied in particular to the polyester and polyamide (nylon) textile yarns, for which there was a continuing excess capacity in Western Europe.

Price erosion for chemical fibers in the EEC and the United Kingdom depressed sales by some Hfl 250 million. In the course of the second half year, improvements occurred in prices of most textile yarns and fibers. The upturn was more marked in the North American market, where the relation between capacity and market potential was better.

Lower income of our chemical fiber operations in the EEC area and the United Kingdom contrasted with higher income from operations in Spain and Latin America. In the United States, dollar income was somewhat higher than in 1971; however, expressed in guilders, income was 6% lower because of the 1971 change in exchange rate.

*Chemical products* rebounded from their 1971 low. Operating income was favorably influenced by a higher volume of sales and an improved composition of the product line. The vinyl chloride plant that commenced operations in 1971 also contributed to higher profits, while rationalization measures taken in earlier years are beginning to show results. On the other hand, income from salt operations in the United States fell substantially, especially because of the severe decline in shipments of salt for snow and ice control due to the mild winter weather.

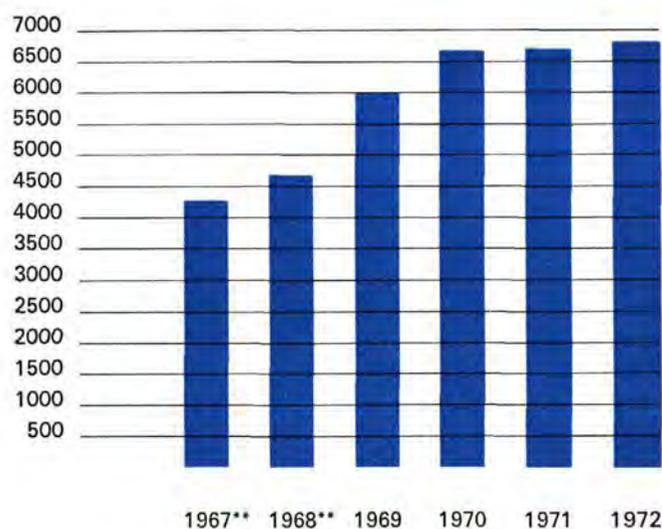
The coatings group was able to expand its share of the market, in the face of vigorous competition. Profit margins decreased somewhat. Nevertheless, income was higher than for the previous year.

Income from *pharmaceuticals, consumer products, and miscellaneous products* measured up to our expectations. The satisfactory development of the last few years thus continued. Sales were influenced by the fact that we disposed of a large part of our film activities in Western Europe.

#### Structural problems

In the year under review, we were faced with the serious consequences of the structural excess capacity that had

Invested capital, in Hfl million\*



	1967**	1971	1972
Geographical distribution	%	%	%
the Netherlands	49	36	34
West Germany	26	24	23
other EEC countries***	2	5	5
other European countries	6	12	13
Europe	83	77	75
North America	16	19	20
Latin America and rest of the world	1	4	5

\* Group equity + long-term liabilities

\*\* based on combined figures of AKU and KZO

\*\*\* based on the situation before January 1, 1973

arisen in certain segments of the Western European chemical fibers industry.

A restructuring plan proposed by us, which envisaged a phased shutdown of a number of plants, was not implemented for social reasons. In consultation with those involved, an alternative to the restructuring plan was sought. This resulted in the decision to gradually adjust our production and work forces in a number of plants.

Of course, the financial consequences of this alternative will be more unfavorable than those that would have resulted from the realization of the proposed restructuring plan. It will be necessary to actively continue the rationalization measures in our Western European chemical fiber companies.

Nevertheless, the continuing increase in consumption of a number of chemical fibers gives us confidence in the possibility of a return to more balanced conditions in the years ahead. The efforts by the individual Western European producers aimed at achieving such conditions would no doubt produce a more permanent effect if a means for the exchange of information on market prospects and investment plans were to be created among producers.

For the Western European chemical industry, especially the basic chemicals industry, we believe a clearer insight into the industry's investment position is also desirable. Such an insight is necessary because the policies of the governments of some EEC countries towards expansion in these branches of industry are based on national job needs and not on the needs of the market.

On a European level, the governments of the EEC countries can help achieve more balanced market conditions in the field of trade policy by having the contemplated further removal of tariffs and trade barriers accompanied by safeguards against imports disturbing the market.

We are in favor of the development of a Western European industrial policy. It is our concept that this would have to be a policy designed to bring about economic and social conditions that foster a balanced development of industry and employment, without interfering with normal national and international competition, and without affecting reasonable returns on capital invested.

Growing inflation in several countries of Western Europe is a matter of continuing concern to us. It is regrettable that, despite the attention given to the problem by all concerned – governments, employee and employers

organizations –, efforts to combat this phenomenon have so far met with little success.

For enterprise, inflation brings large annual wage increases and considerable price rises for raw materials, intermediate products and services, which in a number of cases cannot be sufficiently offset by the annual growth in productivity and by increases in selling prices. As a result, earning capacity is reduced, and the financing of expansion and replacements becomes increasingly difficult. These consequences of inflation may in time affect employment adversely.

Additionally, inflation endangers State services and social provisions as well as industry's pension schemes. All who are in a position to influence policy in this regard are therefore urged to direct their decisions primarily towards curbing inflation.

#### Investments

Capital expenditures for property, plant and equipment declined from Hfl 1,001 million in 1970 to Hfl 885 million in 1971 to Hfl 508 million in 1972. For 1973 and 1974 together, capital expenditures will probably total some Hfl 1,400 million.

The table shows the percentage breakdown of capital expenditures into the main product groups chemical fibers, chemical products, and pharmaceuticals, consumer products and miscellaneous products.

	1974/1973 forecast	1972	1971/1970
chemical fibers	52%	59%	67%
chemical products	33%	29%	26%
pharmaceuticals, consumer products, miscellaneous products	15%	12%	7%

In *chemical fibers*, our growth investments in the EEC have gone down since 1970. Investments in this area are increasingly concerned with rationalization, technological improvement, and protection of the environment. In the other areas, our policy has remained largely directed at expansion to enable us to meet growing demand.

American Enka Co., a subsidiary of Akzona Inc., built two new facilities at Clemson, South Carolina, for the production of synthetic yarns for carpeting (1971) and apparel (1972). For carpet yarns, a further expansion of capacity is being considered.

Continued expansion is also a feature of our operations in Spain, Argentina, Brazil, Colombia, and Mexico, where capacity expansions for synthetic yarns and fibers were completed in the year under review or are still under construction. Plans exist for construction of plants in other, rapidly developing, countries.

In *chemical products*, significant expansions will be completed in late 1973 or early 1974, such as:

the methanol plant at Delfzijl (the Netherlands), a joint venture with DSM, which will have an annual capacity of 330,000 metric tons;

the chemical complex at Mons (Belgium) for the manufacture of organic peroxides and peresters, which are used, among other things, as process auxiliaries in the production of plastics;

the facility for the production of fatty amines at Morris, Illinois, which will enable ArmaK Co., a subsidiary of Akzona Inc., to strengthen its position as the world's leading producer in this area.

In view of the expected growth in demand for vinyl chloride as a basic material for the plastic polyvinyl chloride, which continues to show sustained growth, preparations are being made for the construction of a second vinyl chloride plant. Upon completion of this facility, our annual production capacity will total over 600,000 metric tons, putting us among the world's largest producers of vinyl chloride.

In *pharmaceuticals, consumer products, and miscellaneous products*, acquisitions contributed to the expansion. The pharmaceuticals product group made acquisitions in Canada, through Akzona Inc., the United Kingdom, and Spain. In early 1973, Brand-Rex Co., Akzona Inc.'s wire and cable division, took over a company active in the area of electrical connectors and related products.

Akzona Inc. is rapidly expanding; consequently, the share of the United States in the Group's total activities is increasing. We have enlarged our interest in Akzona from 57% to nearly 65% through the purchase of 899,380 shares. This purchase gives Akzona more flexibility to transact future acquisitions through an exchange of shares without affecting our majority interest.

We have transferred a large part of our European film activities to UCB (Belgium).

To realize a more efficient utilization of the opportunities for product diversification, we have formed a Corporate Business Development department. This department is responsible for the development of projects that do not directly or exclusively concern the product areas of the divisions.

To promote the broadest geographical distribution of activities, Akzo International B.V. (formerly Enka International N.V.) will move beyond coordination of the activities of our chemical fiber companies outside the EEC to give support and guidance to projects in other product sectors in countries where the divisions in question are not yet active.

#### Finance

Cash and marketable securities were maintained at a satisfactory level without our aggregate amount of borrowings being raised.

in Hfl million	1972	1971
working capital at January 1	1,980	1,980
cash flow	795	791
issuance of stock	17	29
borrowings (balance of funds raised and redemptions)	(21)	391
investments in property, plant and equipment, and in affiliated companies	(647)	(1,088)
dividends	(124)	(61)
other changes	130	(62)
working capital at December 31	2,130	1,980
cash and marketable securities at December 31	645	616

The expenditures for investments include an amount of Hfl 96 million for the purchase of the 899,380 Akzona shares referred to above.

Together, inventories and trade receivables, expressed as a percentage of sales, remained virtually at the 1971 level, about 40%.

In the year under review, funds raised by the Group in respect of medium and long-term borrowings aggregated Hfl 519 million. This amount was somewhat lower

than the funds required for redemptions on borrowings (Hfl 540 million).

At the end of 1972, the average interest rate of the debentures and private borrowings was 7.0%, compared with 6.7% at the end of 1971.

The unrest in the foreign exchange markets and the attendant restrictions in international movement of money and capital adversely affected our 1972 results. The monetary crises of February and March 1973 have again led to changes in exchange rates, weakening the competitive position of our companies in the Netherlands and West Germany, especially as regards exports to the United States.

The interests of international companies like ours are best served by a system of fixed currency parities. We hope that the system of floating currencies now introduced will be temporary.

The composition and financing of the Group's total assets developed as follows:

in Hfl million and in %	Dec. 31, 1972		Dec. 31, 1971		Dec. 31, 1970	
non-current assets	4,721	54	4,749	55	4,729	56
current assets	4,042	46	3,926	45	3,698	44
<b>total</b>	<b>8,763</b>	<b>100</b>	<b>8,675</b>	<b>100</b>	<b>8,427</b>	<b>100</b>

financed from:

Group equity	3,635	41	3,602	42	3,654	43
long-term liabilities	3,216	37	3,127	36	3,055	36
current liabilities	1,912	22	1,946	22	1,718	21
<b>total</b>	<b>8,763</b>	<b>100</b>	<b>8,675</b>	<b>100</b>	<b>8,427</b>	<b>100</b>

<u>Group equity</u>	0.71	0.71	0.77
<u>liabilities</u>			

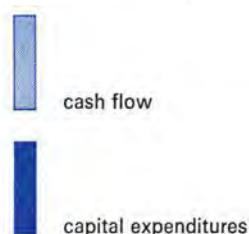
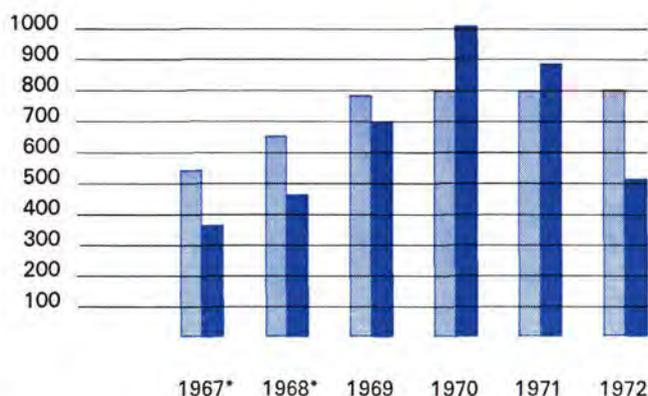
<u>Group equity</u>	0.77	0.76	0.77
<u>non-current assets</u>			

<u>current assets</u>	2.11	2.02	2.15
<u>current liabilities</u>			

A provision was made in 1971 to cover additional write-offs on certain chemical fiber facilities in Western Europe that were to be put out of operation, by charging Hfl 150 million against reserves.

Because of the withdrawal of the restructuring plan, only part of this provision was used.

Cash flow and capital expenditures for property, plant and equipment, in Hfl million



\* based on combined figures of AKU and KZO

In view of the direction in which we are now moving to adjust to the changed conditions, it is not yet possible to estimate to what amount the provision will be necessary. As the situation becomes clearer, any part of the provision that is no longer required will be returned to reserves.

A survey of the factors influencing the development of Group equity in 1972 is given on page 16.

In the year under review, we obtained a listing of our Akzo N.V. common stock on the London Stock Exchange. In view of the significance of this stock exchange and Britain's entry into the EEC, we expect that, on a long-term basis, this listing will improve the marketability of our stock. For a special obligation which our company undertook for the listing, see page 22.

Akzo shares are now listed on stock exchanges in the Netherlands, Belgium, West Germany, France, Switzerland and the United Kingdom.

We do not anticipate that, in 1973, Akzo N.V. will need to raise funds on the public capital market to finance investments in property, plant and equipment, and in working capital. Our efforts continue to be directed towards maintaining and, where possible, improving our present debt-equity ratio.

#### Labor relations

The continued expansion in certain sectors created a number of jobs that could not be filled through internal transfers. Consequently, there was an increase in personnel of 3,300.

On the other hand, there was a personnel reduction of 6,800, mainly in the chemical fibers sector, so that the net effect was that the number of employees decreased to 101,000.

#### Geographical breakdown of personnel strength:

	Dec. 31, 1971	increase*	decrease	Dec. 31, 1972
the Netherlands	31,600	—	1,900	29,700
West Germany	31,100	100	3,400	27,800
rest of Europe	21,000	1,500	1,300	21,200
United States	16,700	1,200	—	17,900
other countries	4,100	500	200	4,400
	104,500	3,300	6,800	101,000

\* due to expansion, including acquisitions

In 1972, the structural excess capacity that was found to exist in the sector of the synthetic textile yarns in Western Europe prompted a proposal to seek the capacity reduction that was deemed necessary through a phased shutdown of a number of plants in this area.

In this context, it should be remembered that Akzo was formed by amalgamation of several companies with production facilities in many locations. Because of almost constant strong expansion of the production of chemical fibers after the Second World War, an obvious streamlining of production had not been carried into effect. The restructuring plan, which sought to achieve the best possible solution, in terms of business management, of the problems that had arisen, was found to meet with such resistance that integral, forced implementation would have caused Akzo more damage – both immediately and in the longer run – than the so-called linear curtailment of production that has now been accepted. It should be noted that the extensive and repeated talks with consultative bodies, such as works councils and groups of personnel within and outside the chemical fibers sector, and with the trade unions failed to win support for our plan. In these talks, the strategy designed to safeguard the long-term interests of our company and our employees was overridden by – in themselves quite understandable – short-term considerations. Moreover, these talks took so long that a well-nigh unbearable and much-deplored strain was placed on the employees involved. The events have taught us that we should allow even more scope in our policy and decision making to the shifting opinions in society.

The formation of Akzo Nederland B.V., which we announced in our 1971 annual report, took place by the end of the year under review. We have thus created the organizational framework in the Netherlands necessary

*Shown (foreground) is the prototype of an automatic respirometer developed by the Akzo Research department. At 30 minute intervals, the instrument records the reaction of the bacteria that are to purify the waste water to the incoming effluent. These measurements also provide a check on the efficiency of the purification plant and on the amount and quality of effluent.*

for a proper functioning of the consultative machinery required by law.

We wish to record our gratitude for the great interest, dedication and competence with which our employees all over the world performed their duties under varying, and often very difficult, conditions.

#### **Research and engineering**

In 1972, expenditures for research and development were approximately Hfl 290 million, or 3.5% of sales. The improved division of work and the closer cooperation among our research organizations, including Corporate Research, enabled us to do more with the same personnel strength.

Over 90% of the research activities are carried out under the responsibility of the divisions. More than half of our research concentrates on existing products and processes. These activities are aimed at quality improvement, cost reduction, and product improvement for existing and new fields of application. Additionally, the divisional research organizations are working intensively on new developments. The principal results of recent years' research are highlighted in the product group sections. The activities of the Corporate Research departments, which are conducted in close collaboration with the divisions, mainly focus on:

development of new methods in such areas as chemical analysis, physical instrumentation, laboratory and process automation, and quality control, aimed at supporting the activities of the divisions;

basic research to supplement divisional research, aimed at consolidation and expansion in those areas where the Group is holding a strong position;

exploratory research to develop new products, production processes and applications. This research mainly concentrates on synthetic organic chemistry and polymer chemistry. In these areas, discoveries have been made for which we have great expectations for the future.

Pursuant to a decision made in early 1971, Akzo Engineering B.V.'s establishments at Amsterdam, Hengelo and Arnhem were concentrated in one central office at Arnhem by the middle of 1972. Akzo Engineering B.V. also has an establishment at Obernburg, West Germany. Because of the reduction in investment

projects, this concentration saw a personnel reduction of about 25%.

Besides projects commissioned by divisions and Group companies, Akzo Engineering B.V. also performs activities for third parties, frequently in connection with the sale of the Group's know-how. In 1972, assignments were received for the construction and installation of a vacuum salt plant in Romania, for the expansion of a vacuum salt plant in the United Kingdom, and for some extensions to chemical fiber plants in Czechoslovakia delivered earlier.

#### **Environmental control**

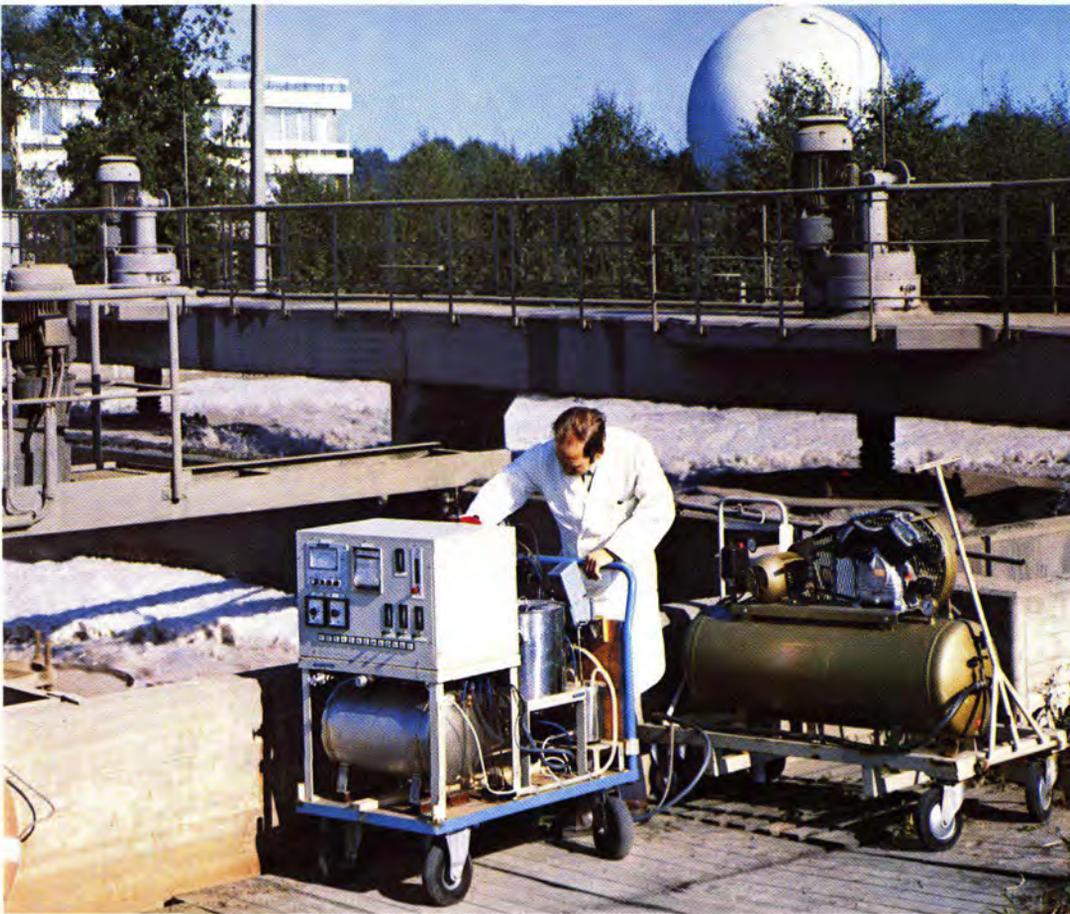
In the year under review, pollution-control projects requiring a capital outlay of approximately Hfl 50 million were started. These projects are mainly concerned with waste water purification. The problems of solid waste disposal and the abatement of air pollution and noise will require increasing capital expenditures. For 1973, we anticipate a doubling of expenditures for environmental control.

Several hundred persons are involved in the Group's environmental-control activities. In consultation with some establishments, the central organization for the environment at Arnhem has evolved basic environmental-control concepts that can be used by each Akzo establishment to draw up a site plan.

A number of Western European and Japanese chemical industries have begun to exchange their experience and data relating to environmental subjects. Akzo will serve as the central office for this exchange of information. The problems presented by wastes that are difficult to dispose of have been a focus of our attention for a considerable time. In the year under review, we thus set up a system of joint transport and destruction of wastes from our plants in the Netherlands.

Experiments will be conducted to ascertain whether wastes that are impossible to destroy can be dumped in specially designed hollows. These hollows would be located in salt deposits at great depths of approximately 1,500 meters. The decision to conduct such experiments was made after consultation with the Dutch Ministry of Health and the Government Mine Inspection. The latter agency will assist in the experiments. If results are acceptable, this method will be used to dispose of wastes from our plants and from others.

To reduce the risks in transport of chlorine to a minimum, we have set up, jointly with an important customer and another producer, an emergency service for such



transports in the Netherlands. For transport of chemicals and other materials, further measures will be necessary; in this respect, an active government policy is desirable. The increasing strictness of the requirements for proper protection of the environment also offers Akzo an opportunity to make its know-how and products available for the battle against pollution. A number of interesting possibilities in this area are being investigated.

#### Prospects

Indications are that the Western European chemical fibers industry will make some recovery in 1973

from its heavy depression. In the United States, expectations for the business of Akzona are favorable. For the other sectors in general we anticipate higher sales, with income remaining roughly constant at the 1972 level.

The projected improvement of the Group's profitability for 1973 will be adversely affected by the recent changes in exchange rates. Moreover, it is still uncertain how wage costs will develop in a number of countries where the Group has major operations.

Arnhem, March, 1973

the board of management

## Financial statements

### ● Consolidated balance sheet of the Akzo group

after allocation of profit\*

in Hfl 1,000	December 31, 1972	December 31, 1971
<b>non-current assets</b>		
property, plant and equipment	4,249,657	4,273,545
intangible assets	—	—
investments in non-consolidated companies	341,482	334,962
other non-current assets	<u>130,041</u>	<u>140,103</u>
	4,721,180	4,748,610
<b>current assets</b>		
inventories	1,614,622	1,664,553
short-term receivables	1,728,072	1,590,200
prepaid expenses	54,234	55,989
cash and marketable securities	<u>644,490</u>	<u>615,506</u>
	4,041,418	3,926,248
<b>total assets</b>	<b>8,762,598</b>	<b>8,674,858</b>
<b>Group equity</b>		
Akzo N.V. stockholders' equity	3,064,691	2,991,641
minority interest in Group equity	<u>570,383</u>	<u>610,218</u>
	3,635,074	3,601,859
<b>long-term liabilities</b>		
provisions	809,122	725,197
long-term debts	<u>2,406,795</u>	<u>2,401,943</u>
	3,215,917	3,127,140
<b>current liabilities</b>		
bank overdrafts	222,999	272,668
other current liabilities	<u>1,688,608</u>	<u>1,673,191</u>
	1,911,607	1,945,859
<b>total Group equity and liabilities</b>	<b>8,762,598</b>	<b>8,674,858</b>

\* based on a cash dividend of Hfl 3.60 per share of common stock, par value Hfl 20 per share

## ● Consolidated statement of income of the Akzo group

in Hfl 1,000	1972		1971	
sales		8,234,809		8,056,258
operating costs				
salaries, wages and social charges	2,478,166		2,354,348	
depreciation	526,945		526,448	
other costs	<u>4,644,546</u>		<u>4,534,084</u>	
		<u>7,649,657</u>		<u>7,414,880</u>
operating income		585,152		641,378
interest		<u>172,110</u>		<u>164,688</u>
		413,042		476,690
taxes on operating income and interest		<u>180,952</u>		<u>238,438</u>
		232,090		238,252
equity in earnings of non-consolidated companies		<u>28,709</u>		<u>22,922</u>
Group income before extraordinary items and additional depreciation		260,799		261,174
extraordinary items	7,560		3,610	
additional depreciation	<u>35,058</u>		<u>28,755</u>	
		<u>27,498</u>		<u>25,145</u>
Group income		233,301		236,029
of which minority interest		45,473		51,600
Akzo N.V. net income		187,828		184,429

per share of common stock, par value  
Hfl 20 per share, in Hfl

	1972	1971
net income	6.94	6.81
net income before extraordinary items and additional depreciation	7.70	7.62

## ● Notes to the consolidated financial statements of the Akzo group

### Principles of consolidation

The consolidated financial statements include Akzo N.V. and all companies in which Akzo N.V. or any of its majority subsidiaries has an interest, directly or indirectly, of more than 50% of the outstanding capital stock. 100% of the assets, the liabilities and the results of the consolidated companies are included; minority interests in Group equity and in Group income are shown separately.

The principal affiliated companies are listed on the inside of the front cover. A list of names and registered offices of affiliates, drawn up in conformity with article 14, paragraph 2 and using article 14, paragraph 3, subpara a, of the Dutch Corporations' Financial Statements Law ('Wet op de Jaarrekening van Ondernemingen'), has been filed at the Trade Registry of Arnhem.

### Currency

In the consolidated balance sheet, amounts in foreign currencies have been converted into guilders at rates virtually equal to the rates of exchange in force at December 31, 1972; in the consolidated statement of income, foreign currencies have been converted into guilders at rates of exchange fixed for each quarter as typical of the rates then applicable.

### Consolidated balance sheet

#### Property, plant and equipment

Land is stated at cost with a revaluation, however, at January 1, 1969, of approximately Hfl 70 million for land acquired long ago. Other property, plant and equipment are stated at cost, less depreciation.

Depreciation is calculated by the straight-line method based on estimated life. In cases where the book value calculated in this way exceeds the working value, additional write-offs were made.

Of the Hfl 300 million provision for facilities to be put out of operation made at December 31, 1971, only Hfl 104,178,000 has been used, as a result of the change in the situation\* since that time.

The remainder of this provision, which, as in the previous financial year, has been deducted from book value, amounts to Hfl 195,822,000. According as the situation becomes clearer, such part of this provision as may not be needed will be added to the other reserves, the effect of the deferred taxes being taken into account.

\* see pages 8 and 9 of the report of the board of management

\*\* before deduction of provision for facilities to be put out of operation of Hfl 300 million

in Hfl 1,000

book value at December 31, 1971	4,573,545**
amount used of provision for facilities to be put out of operation	(104,178)
changes due to acquisition and disposal of consolidated companies	( 7,672)
capital expenditures	508,100
depreciation	(526,945)
foreign exchange differences	( 19,452)
other changes	22,081
book value at December 31, 1972	4,445,479
provision for facilities to be put out of operation	195,822
book value at December 31, 1972, after deduction of the above provision	4,249,657

The book value of Hfl 4,445 million comprises the following items:

in Hfl 1,000	cost of acquisition	book value at Dec. 31, 1972	book value at Dec. 31, 1971
land	230,844	230,844	222,903
buildings	1,919,599	1,225,363	1,207,985
plant equipment and machinery	6,688,363	2,849,887	2,997,421
means of transport	108,096	46,131	44,932
assets not used in the production process	189,647	93,254	100,304
	<u>9,136,549</u>	<u>4,445,479</u>	<u>4,573,545</u>
projects under construction, included in book value		<u>269,755</u>	<u>458,195</u>
purchase commitments (not included in consolidated balance sheet)		<u>131,211</u>	<u>187,219</u>
insured value		<u>11,900,000</u>	<u>11,100,000</u>

#### Intangible assets

Intangible assets, such as exploitation rights, goodwill, tradenames, patents and licenses, know-how, preliminary costs, start-up costs and research expenses are stated at no value.

These costs have been charged to operating income, with the exception of paid goodwill, which has been charged direct to Group equity.

### Investments in non-consolidated companies

This item includes the non-consolidated companies and the loans to these companies. Investments in non-consolidated companies are stated at the amount of our share in stockholders' equity less provisions of Hfl 12 million. The calculation of stockholders' equity has been based as much as possible on the Akzo principles of valuation. The loans are stated at face amounts.

in Hfl 1,000

situation at December 31, 1971	270,544
changes in participation equity in 1972 earnings	28,291
dividends received	29,770
foreign exchange differences	(18,261)
other changes in value	(19,574)
	1,839
situation at December 31, 1972	292,609
loans at December 31, 1972 (at December 31, 1971: 64,418)	48,873
	341,482

### Other non-current assets

The long-term receivables of Hfl 125 million included in this item are stated at face amounts. The part of long-term receivables becoming due within one year, amounting to Hfl 39 million, is included under short-term receivables.

The other assets included in this item are stated at cost or estimated value, whichever was lower.

### Inventories

Inventories are stated at cost or at market value, whichever was lower. Provisions have been made for obsolescence and other risks.

In the valuation of inventories, profits arising as a result of transactions between consolidated companies have been eliminated.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
raw materials and supplies	523,691	534,240
work in process	329,833	312,724
finished goods	761,098	817,589
	1,614,622	1,664,553

### Short-term receivables

Short-term receivables are stated at face amounts, less provisions for doubtful accounts and for exchange and transfer risks.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
trade receivables	1,709,176	1,578,558
receivables from non-consolidated companies	38,824	38,072
other receivables	263,449	233,814
	2,011,449	1,850,444
discounted drafts	283,377	260,244
	1,728,072	1,590,200

### Cash and marketable securities

With few exceptions, securities included in this item are listed on stock exchanges. They are stated at cost or market value, whichever was lower.

The securities include 112,417 shares of Akzo N.V. common stock acquired in 1972, which have been valued at Hfl 7,505,648.

Unlisted securities are stated at cost or estimated value, whichever was lower. Cash and other liquid assets are stated at face amounts.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
securities	32,505	34,793
cash loans and time deposits	398,806	383,537
cash on hand and in banks	213,179	197,176
	644,490	615,506

### Group equity

See survey on page 16.

### Provisions

This item comprises provisions which do not refer to specific assets.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
deferred taxes	357,367	270,350
pension rights	203,735	180,292
other provisions	248,020	274,555
	809,122	725,197

### Provisions for deferred taxes

This item comprises the tax liabilities, less the part expected to become due in 1973. These liabilities have in general not been discounted to present value.

## Survey of Group equity

in Hfl 1,000	capital stock	capital surplus, paid in	retained earnings	other reserves	stock- holders' equity	minority interest	Group equity
situation at December 31, 1971	541,601	709,643	1,279,144	461,253	2,991,641	610,218	3,601,859
purchase of Akzona Inc. shares			(31,066)		(31,066)	(64,826)	(95,892)
issuance of stock of Group companies to third parties						17,365	17,365
goodwill resulting from acquisitions of companies*			(16,093)		(16,093)	(657)	(16,750)
retained 1972 earnings			90,484		90,484	18,023	108,507
additional depreciation**				29,119	29,119	5,939	35,058
change in exchange rates				(16,244)	(16,244)	(8,127)	(24,371)
other changes*				16,850	16,850	(7,552)	9,298
situation at December 31, 1972	541,601	709,643	1,322,469	490,978	3,064,691	570,383	3,635,074

\* including adjustments concerning previous years

\*\* for American purposes, the additional depreciation should be included in 'Retained 1972 earnings'

At least Hfl 260 million of the capital surplus, paid in, can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law ('Wet op de Inkomstenbelasting 1964').

## Provisions in respect of pension rights

With due observance of the statutory regulations and customs in the countries concerned, most Group companies have arranged appropriate pension schemes for their employees. To meet the ensuing liabilities, independent funds have been established or provisions have been made by Group companies in their balance sheets to an aggregate amount of Hfl 204 million; the present value, computed at balance-sheet date, of the vested benefits, which must be covered by payment of contributions for periods not exceeding the remaining service lives of the employees concerned, aggregates approximately Hfl 40 million.

## Other provisions

These provisions relate to various operating risks.

## Long-term debts

Long-term debts are stated at face amounts.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
convertible debentures	252,000	252,000
other debentures	386,555	209,012
private borrowings	1,752,501	1,928,124
other long-term debts	244,136	270,969
	<u>2,635,192</u>	<u>2,660,105</u>
part becoming due within one year (included under current liabilities)	228,397	258,162
	<u>2,406,795</u>	<u>2,401,943</u>

Private borrowings and other long-term debts have been secured to an aggregate amount of Hfl 478 million by means of mortgages, etc. The average interest rate of the debentures and private borrowings is 7.0%.



## Other current liabilities

Other current liabilities are stated at face amounts.

in Hfl 1,000	Dec. 31, 1972	Dec. 31, 1971
suppliers	580,372	578,669
non-consolidated companies	14,354	14,256
taxes on income	93,683	79,167
dividend relating to financial year	96,864	97,269
redemptions on borrowings	228,397	258,162
pensions	13,928	19,718
other liabilities and accrued charges	661,010	625,950
	1,688,608	1,673,191

## Liabilities not shown in the balance sheet

With regard to non-consolidated companies and third parties guarantees were given and liabilities contracted to an aggregate amount of Hfl 151 million, of which Hfl 91 million direct by Akzo N.V. In respect of leasehold, rent, etc. liabilities have been contracted for a number of years to an amount of approx. Hfl 11 million per year.

## Consolidated statement of income

### Sales

This item includes the total of amounts invoiced to third parties in respect of goods supplied and services rendered, less sales taxes and excise duties.

### Interest

in Hfl 1,000	1972	1971
interest paid	209,921	204,899
interest received	35,583	38,159
	174,338	166,740
income from securities, etc.	2,228	2,052
	172,110	164,688

### Taxes on income

This item includes current and deferred tax liabilities. The taxes charged against Group income amount to Hfl 201 million (1971: Hfl 217 million) and break down as follows:

in Hfl 1,000	1972	1971
taxes on:		
operating income	265,892	305,155
interest	84,940	66,717
balance	180,952	238,438
taxes on equity in earnings of non-consolidated companies	1,812	2,971
taxes included in extraordinary items	17,823	(24,874)
	200,587	216,535

The decrease in taxes on operating income and interest (43.8% in 1972; 50.0% in 1971) is due to the fact that, in the calculation of income for tax purposes, previous years' losses carried forward could be deducted on a larger scale, and to tax facilities on account of new investments.

### Equity in earnings of non-consolidated companies

Under this heading are included the Group's equity in earnings of non-consolidated companies and interest received on loans granted to these companies, taking into account taxes on these items.

### Extraordinary items

This item comprises important but isolated gains and losses not relating to normal operations; the taxes concerned have been taken into account.

in Hfl 1,000	1972	1971
extraordinary gains	15,635	27,629
extraordinary losses	8,075	24,019
	7,560	3,610

Extraordinary gains for 1972 mainly consist of isolated gains resulting from sale of fixed assets, and of extraordinary tax benefits. Extraordinary losses for 1972 mainly relate to termination of certain operations.

### Additional depreciation

The depreciation included in operating income has been calculated on a historical cost basis. In view of the increase in prices, additional depreciation in the amount of Hfl 35 million has been charged against Group income. This amount has been added to Group equity.

## ● Consolidated statement of source and application of funds of the Akzo group

in Hfl million	1972	1971*
working capital (excess of current assets over current liabilities) at January 1	1,980	1,980
<b>source of funds</b>		
cash flow	795	791
issuance of stock by Akzo N.V. and Group companies	17	29
aggregate borrowings	519	529
receipts from disposal of participations	11	—
working capital of new participations	6	80
miscellaneous	84	7
	1,432	1,436
	3,412	3,416
<b>application of funds</b>		
expenditures for property, plant and equipment	508	885
new participations (including increase in existing interests)	115	173
investments in non-consolidated companies	24	30
redemptions on borrowings	540	138
included under working capital	(30)	105
	510	243
dividends paid to:		
stockholders of Akzo N.V.	97	32
minority stockholders of Group companies	27	29
	124	61
miscellaneous	1	44
	1,282	1,436
working capital at December 31	2,130	1,980
<b>increase (decrease) in components of working capital**:</b>		
inventories	(50)	84
short-term receivables	138	27
prepaid expenses	(2)	(5)
cash and marketable securities	29	122
increase in current assets	115	228
bank overdrafts	(50)	3
other current liabilities		
redemptions on borrowings	(30)	105
other liabilities	45	120
	15	225
increase (decrease) in current liabilities	(35)	228
increase (decrease) in working capital	150	0

\* rearranged for comparative purposes

\*\* inclusive of increase (decrease) in working capital due to changes in participations

## ● Akzo N.V. balance sheet

after allocation of profit\*

in Hfl 1,000	December 31, 1972	December 31, 1971**
affiliated companies		
consolidated companies	3,466,228	3,500,832
non-consolidated companies	92,689	73,707
receivables from affiliated companies	<u>1,132,643</u>	<u>930,764</u>
	4,691,560	4,505,303
other receivables and prepaid expenses		
other receivables	55,664	58,925
prepaid expenses	<u>12,363</u>	<u>10,623</u>
	68,027	69,548
cash and marketable securities		
marketable securities	17,276	1,366
cash loans and time deposits	260,621	303,975
cash on hand and in banks	<u>50,001</u>	<u>27,997</u>
	327,898	333,338
<b>total assets</b>	<b>5,087,485</b>	<b>4,908,189</b>
stockholders' equity		
common stock	539,771	539,771
cumulative preferred stock	1,782	1,782
priority stock	48	48
capital stock	<u>541,601</u>	<u>541,601</u>
capital surplus, paid in	709,643	709,643
retained earnings	1,322,469	1,279,144
other reserves	<u>490,978</u>	<u>461,253</u>
	3,064,691	2,991,641
borrowings		
convertible debentures	252,000	252,000
other debentures	104,588	105,121
private borrowings	<u>714,300</u>	<u>589,190</u>
	1,070,888	946,311
amounts due to affiliated companies	810,606	845,702
sundry debts		
dividend relating to financial year	96,864	97,269
other liabilities and accrued charges	<u>44,436</u>	<u>27,266</u>
	141,300	124,535
<b>total stockholders' equity and debts</b>	<b>5,087,485</b>	<b>4,908,189</b>

\* based on a cash dividend of Hfl 3.60 per share of common stock, par value Hfl 20 per share

\*\* rearranged for comparative purposes

The notes to the balance sheet and statement of income are given on page 22.

## ● Akzo N.V. statement of income and allocation of profit

in Hfl	1972
net income	187,828,000
allocation of profit according to art. 42 of the articles of association:	
dividend on priority stock – Hfl 60 per share of Hfl 1,000 par value	2,880
dividend on cum. pref. stock – Hfl 60 per share of Hfl 1,000 par value	106,920
dividend on common stock – Hfl 1 per share of Hfl 20 par value	26,876,152
bonus to supervisory council	480,000
	<u>27,465,952</u>
remaining amount	160,362,048
of this amount, it is proposed to retain	<u>90,484,053</u>
and to allocate the balance of	69,877,995
for payment of Hfl 2.60 per share of common stock of Hfl 20 par value.	

Following the acceptance of this proposal, the holders of common stock will consequently receive a total dividend of Hfl 3.60 per share of Hfl 20 par value, of which Hfl 1.20 was paid earlier as an interim dividend. The final dividend of Hfl 2.40 will be made available on dividend coupon no. 8 from May 23, 1973. Until September 1, 1973,

stockholders may choose to receive the final dividend on this coupon in cash, less 25% withholding tax, or in Akzo N.V. common stock, chargeable to capital surplus, at the rate of one new share for every 25 shares of common stock held.

Arnhem, March, 1973

the board of management:

G. Kraijenhoff  
 L. H. Meerburg  
 S. C. Bakkenist  
 H. J. Schlange-Schöningen  
 A. van Driel  
 D. W. van Krevelen  
 H. J. Kruisinga  
 F. Prakke  
 A. Stikker

the supervisory council:

J. R. M. van den Brink  
 H. M. van Mourik Broekman  
 J. S. A. J. M. van Aken  
 P. M. H. van Boven  
 P. M. van Doormaal  
 E. L. Fuller  
 H. L. Merkle  
 E. F. Philipp  
 Y. Scholten  
 K. Schudel-van Zwanenberg  
 K. Soesbeek  
 W. F. G. L. Starrenburg  
 F. H. Ulrich  
 L. Vaubel  
 J. de Vries  
 O. Wolff von Amerongen

## ● Notes to Akzo N.V. balance sheet and statement of income

### General

The investments in affiliated companies, as well as the other assets and liabilities, have been valued in accordance with the valuation principles mentioned in the notes to the consolidated financial statements. Thus stockholders' equity and net income are equal to stockholders' equity and net income as shown in the consolidated financial statements, which form part of the notes to the balance sheet and statement of income.

### Non-consolidated companies

in Hfl 1,000

situation at December 31, 1971	73,707
changes in participation equity in 1972 earnings	6,572
dividends received	14,680
foreign exchange differences	(6,511)
other changes in value	(367)
	4,608
situation at December 31, 1972	92,689

### Capital stock

Authorized capital stock of Akzo N.V. is Hfl 1,030,048,000 and consists of 48 shares of priority stock, par value Hfl 1,000 per share, 30,000 shares of cumulative preferred stock, par value Hfl 1,000 per share, and 50 million shares of common stock, par value Hfl 20 per share. Outstanding capital stock consists of 48 shares of priority stock, 1,782 shares of cumulative preferred stock and 26,988,569 shares of common stock (of which 112,417 shares of common stock are held by the company).

A number of employees were granted options to purchase a total of 36,350 shares of common stock at a price of Hfl 104 per share. Options are exercisable through December 31, 1974.

The priority stock is held by 'Akzostichting' (Akzo Foundation), which is controlled by the members of the supervisory council and the board of management.

### Borrowings

Redemptions becoming due in 1973 total Hfl 26 million. For information on the convertible and other debentures, see the notes to the consolidated financial statements (page 17).

### Remuneration supervisory council

For 1972, the members of the supervisory council were paid a total

of Hfl 791,667, of which Hfl 480,000 was a bonus pursuant to art. 42 of the articles of association.

At end 1972, the council numbered 16 members; all members receive a remuneration.

### Auditors' report

*We have examined the foregoing financial statements 1972 of Akzo N.V., Arnhem, which also include the consolidated financial statements.*

*In our opinion, these statements present fairly the financial position of the company at December 31, 1972, and the results of operations for the year then ended.*

*With regard to the financial data of certain Group companies included in the financial statements, we have based our opinion in part on reports issued by other auditors, established in the Netherlands and abroad.*

Arnhem, March 29, 1973 *Klynveld Kraayenhof & Co*

### Information concerning listing on London Stock Exchange

*In the United Kingdom, the principle prevails that issues of equity or equity-linked securities for cash should be available in the first place to equity stockholders, but this principle can be put aside in limited circumstances when the stockholders of the company have given their authorization. Pursuant to the company's articles of association, the company may issue equity or equity-linked securities without making such securities available in the first place to equity stockholders, but, in accordance with the rules of the London Stock Exchange, the company has undertaken not to make such issues, unless stockholders have renewed their confirmation that the right to make such issues exists.*

*As a recognition of the freedom of movement customary in this country in respect of issues of equity and equity-linked securities, the London Stock Exchange has agreed to a system in which stockholders give the aforementioned confirmation for a period of 12 months provided that the aggregate amount of the shares concerned shall not surpass 2,700,000 shares of common stock. The board of management has no present plans for issuing any equity for cash, but, in order to retain the flexibility of the company, the board of management will request the annual meeting of stockholders to resolve accordingly.*

## Product groups

### ● Chemical fibers\*\*

#### Sales and income

The decline in earnings of Enka Glanzstoff was largely caused by price erosion for major categories of synthetic textile yarns, a reduction in export volumes, and start-up costs of the steel cord plant in the Republic of Ireland. In the United Kingdom, shipments and prices declined due to massive imports, primarily from Japan, of polyester yarns at very low prices. This was the main factor that caused the income of British Enkalon to dwindle. Results for heavy-denier industrial yarns and nylon carpet yarns were quite satisfactory, so that overall income of the two companies remained positive. The results of American Enka, the chemical fiber division of Akzona, in terms of U.S. dollars, were slightly better in 1972 than in 1971. Results were adversely affected by the start-up costs of the new Clemson plant and by the considerable decline in prices for polyester textile yarns. The results for the other chemical fibers, such as nylon and rayon, were very satisfactory. The recovery in the latter half of 1971 of the operations of our Spanish affiliate La Seda de Barcelona continued in the year under review. Sales and earnings of our other operations in Spain and Latin America continued their favorable development.

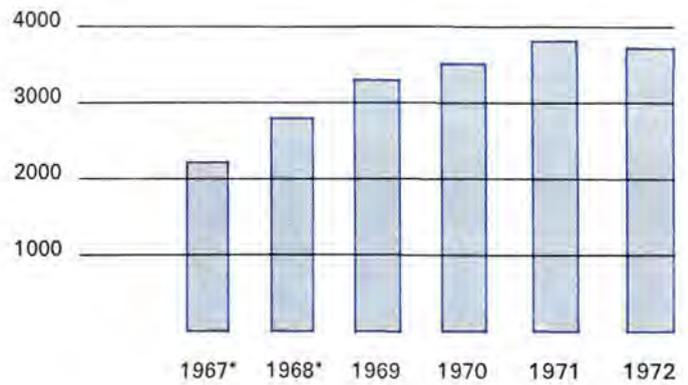
#### Market situation

In the year under review, the diminished growth in consumption of chemical fibers in the highly industrialized countries was illustrated by a lower increase in world production. In 1972, production rose 7% to approximately 10 million metric tons, while the year 1971 showed a rise of 10%.

In the United States, production was up 17%, aided by the upswing in the textile cycle. In the Latin American countries, growth remained at a high level, showing advances that averaged 25%. On the other hand, production in Western Europe rose only 4%, while in Japan it decreased a little.

Expressed as a percentage of total world fiber consumption, the share of synthetic yarns and fibers continued to increase from about 25% in 1971 to about 27% in 1972. We expect a continuation of this growth to some 40% in 1980.

Sales of chemical fibers, in Hfl million



In the year under review, the concurrence of diminishing sales growth and enlarging production capacity that resulted from expansion programs begun in earlier years had the worst consequences in the EEC and the United Kingdom, especially for polyester and nylon textile yarns. In 1970 and 1971, the Western European producers generated substantial exports of polyester yarns to the United States where the market for this product was fast expanding. However, the completion of new production facilities in the United States, the adverse changes in exchange rates, and the restrictive measures imposed by the U.S. government combined to produce a sharp reduction of these exports in early 1972.

This development stimulated the chemical fibers industry in the United States. In addition, the U.S. economy rallied strongly while the textile cycle was on the upswing.

In developing industrial nations, synthetic yarns and fibers continue in a stage of vigorous expansion with regard to consumption. By virtue of strong demand, new production capacities can attain full utilization within a short time after commencing operation. However, in these countries as elsewhere the price level is moving downward.

The consistent fall of prices ceased for a number of products in the latter half of 1972. Most textile yarns and fibers showed some improvement in prices. Nevertheless, the improvement was far from adequate to recover from the decline of the price level over the past years.

#### Rationalization moves

World consumption of synthetic yarns and fibers is anticipated to double over the next 7 to 8 years. Most chemical fibers in industrialized countries now exhibit to a large extent the characteristics of a mass-produced commodity. Because the level of costs in these countries is comparatively high, the need for extreme efficiency in production and in sales, as well as continued research aimed at achieving this efficiency, will be even more essential. To remain competitive, low production cost as well as product quality and customer service will be of decisive importance.

Increasing proportions of investment in our Western European fiber companies relate to projects designed to advance the above objectives. High priority has been assigned to intensification and acceleration of cost-

\*\* chemical fibers is the generic term for all non-natural fibers. The term includes both filament yarns and staple fibers



reduction programs. Increased wage costs, which are about one-third of sales, have compelled us to direct a large part of our cost-reduction programs at this aspect. In 1972, the combined personnel strength of the Enka Glanzstoff group companies in the EEC was down about 5,100, representing a further decrease of 11%. Of this decrease, a number of 2,300 related to personnel not involved in direct production. It is anticipated that this program of reductions will continue in 1973. By virtue of this rationalization policy, Enka Glanzstoff in the year under review was again able to substantially compensate for cost inflation. Further cost-control efforts are made through technological process improvement and simplification. The improvements that are now being made, and that relate primarily to combinations of spinning, drawing and texturing of synthetic yarns, are designed to further strengthen our competitive position.

#### Products

In the year under review, the problems in the chemical fibers industry were mainly in the synthetic filament yarns for apparel. By comparison, developments in most yarns and fibers for other uses presented a more favorable picture.

In Western Europe, business in 1972 was very difficult for nylon filament yarns for apparel, hose, and like products. Shipments to warpknitters, except in Spain and the United Kingdom, and to the hosiery industry made no advance. In some cases, there was even a decline. In fact, excess capacity for these yarns had existed since 1970, but remained largely hidden in 1971, because of a change to production of polyester textile yarns by equipment conversion. The much diminished sales possibilities of the latter yarns that occurred at the end of 1971 clearly revealed that the excess capacity was due to a structural imbalance for both yarns together. For nylon textile yarns, we do not expect profitable operations in the EEC in the near future. In the United States, this product's status remains rather unsatisfactory, especially with regard to prices.

For polyester textile yarns, 1972 was a disappointing year. After the expansive development of shipments in 1971, the events described above under 'Market situation' caused a substantial decline of shipments in a short period of time and an extreme price drop of about 40%. In Western Europe and the United States, the latter half of 1972 saw an improvement in shipments and

stabilization of prices. In the case of American Enka, this even led to full capacity utilization by year's end. The introduction of the producer-textured yarn manufactured in the new Clemson facility contributed considerably to this improvement. In the Latin American countries, the strong growth of shipments continued unabated.

Shipments of nylon filament carpet yarns grow at a fast rate. In this sector, the Group has a prominent position in the world. The large producers in Western Europe have been able to maintain a satisfactory utilization of production capacities, with prices being subject to downward pressure. In the United States, the economic prosperity of the building construction market caused a marked increase in demand for carpet yarns at rising prices.

Because of the superior quality of our rayon textile yarns, in particular those of Enka Glanzstoff, and the shutdown of competitors' facilities in the industrialized countries, we have come to occupy a prominent position with this product over the past few years. Prices for these yarns, which are largely used for lining fabrics, and capacity utilization of our facilities were again most satisfactory.

In the staple fiber field, shipments of polyester staple fiber and acrylic staple fiber exceeded projections. Our facilities operated virtually to capacity. Increased prices for natural fibers stimulated the use of these synthetic fibers in blended yarns. For 1973, shipments are expected to continue at a satisfactory level. After a stabilization of prices in the latter half of the year, a slight, if still insufficient, price improvement in Western Europe became apparent by the end of the year. For our other staple fibers, such as nylon and rayon, shipments were also satisfactory. In the United States, shipments of nylon staple for carpeting and of rayon staple attained a gratifying level. The demand for the latter product increased because of the growing use of non-wovens for disposables.

Our activities in the non-wovens area are still in the formative stages. Enka Glanzstoff's effort in this field has mainly focused on synthetic yarn and fiber non-wovens which are specifically intended for the floorcovering industry (carpet backings) and for various technical uses. Our product *Colback*<sup>®</sup> has met with favorable response from carpet makers. American Enka, on the other hand,

\* indicates registered trademarks



*Reception area of American Enka with carpets of Enka® nylon yarn, chair upholstery of Enkalure® nylon yarn and sofa upholstery of polyester/rayon yarn.*

*Some uses of Enka Glanzstoff polyester yarns: Diolen Loft®, a textured, elastic yarn with brilliant coloring possibilities, ideally suited for comfortable, yet elegant women's wear; Diolen Ultra® for special-effect draperies.*

*British Enkalon have developed a new type of polyamide (nylon) yarn for competitively-priced, high-pile luxury carpets ('shag' carpets).*

has focused on developing rayon filament based non-wovens for products for use in hospitals and elsewhere.

The automobile tire industry continues to rank first among the outlets for our heavy-denier industrial yarns. This industry employs various yarn types for tire fabrics. The Group offers a broad line of tire reinforcing materials: rayon, nylon and polyester yarn as well as steel cord. In the year under review, the European automobile industry continued in a period of diminished growth. As a result, shipments of our tire reinforcing materials did not increase as expected. This factor, and the decreasing price trend, a condition in this area for a considerable period of time, caused sales to fall short of the 1971 level. Nevertheless, we have maintained our strong market position.

Considering these circumstances, capacity utilization in our industrial yarn plants was satisfactory. However, the results of the rationalization measures that were also taken in this sector were insufficient to offset the combined effect of rising costs and falling prices. As a result, income was lower than in 1971.

The Ferenka Ltd steel cord plant at Limerick (Republic of Ireland) commenced operations in the latter half of 1972. Steel cord is mainly used for reinforcement of radial-ply tires for both trucks and passenger automobiles. The rapid growth in demand for radial-ply tires in Western Europe was followed by a similar demand for radial-ply tires in the United States and Japan. Because of the favorable outlook for steel cord and the necessity of intensive research, we have entered into a program of technical cooperation with Tokyo Rope, Japan's largest steel cord producer. As the use of steel cord increases, other reinforcing materials will be adversely affected. Nevertheless, the growth of the automobile market offers sufficient scope for the use of the other materials, notably rayon.

Heavy industrial fabrics and non-wovens from polyamide and polyester yarns find their application in a wide variety of industrial sectors. During the year under review, shipments of these special yarns rose substantially, especially for the production of roofing and covering materials and seat belts. Additionally, industrial yarns offer advantages to the building and engineering industries, where they are used for such purposes as prevention of soil erosion (*Enkamat*®) and road subgrade stabilization. The areas of hydraulic and environmental engineering are potential major outlets for industrial yarn fabrics.

## Research and development

Our principal research and development centers for chemical fibers are in the Netherlands, West Germany and the United States. Costs now total some 3% of sales.

Hopes are high for the antistatic nylon yarns developed by us for carpeting (*Enkastat*®) and apparel, which were introduced in the year under review.

After the development of *Diolen BC*®, a polyester filament yarn with built-in crimp properties for use in apparel, our know-how in this field contributed to other modifications of yarns and fibers, such as polyester fiber types of exceptionally low shrinkage for use in sewing thread, and also polyester fibers for use in the knitting industry that exhibit minimum pilling and have an affinity for basic dyes.

In the North American market, new yarn varieties were successfully introduced, such as *Strialine*®, a polyester yarn that permits more color variations in piece-dyed fabrics for apparel and home furnishings. Producer-textured polyester yarns with excellent dyeing properties were made available to the warpknitting industry.

In the heavy-denier industrial yarn sector, activities are partly concerned with the improvement of our products in existing applications. However, major emphasis is placed on the opening up of new, untapped markets. In the area of steel cord, our efforts are aimed at a deepening of our knowledge of product, process technology and applications. The development of new polymers is also receiving continuous attention.

## The environment

Pollution-control measures in our chemical fiber producing companies are mainly concerned with purification of waste water and prevention of air pollution. The rayon plants in particular require extensive provisions to solve waste water problems and reduce hydrogen sulfide emission.

Of the total expenditure for the Group's investment projects to protect the environment started in 1972, some two-thirds related to chemical fibers.

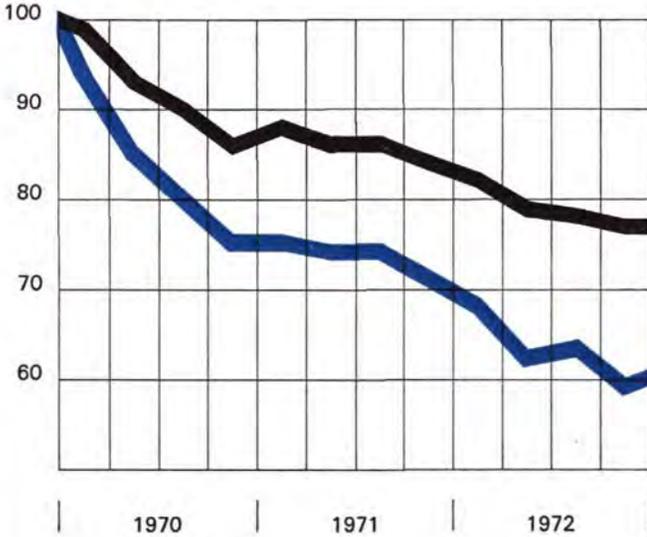
For 1973, we anticipate a considerable increase in capital expenditures for the protection of the environment.

*Enka® Nylon Superfest carrier fabric reinforces watertight asphaltic membranes used in the construction of reservoirs for the Rotterdam drinking water supply system. In 1973, this material will be employed to seal a water reservoir in Venezuela with a bottom and slope area of 470,000 sq. meters.*

*Enkamat® (nylon) based sward for use on slopes to prevent erosion.*

*Enka Glanzstoff trucks have radial-ply tires reinforced with Ferenka® steel cord, and Diolen® Superfest tarpaulins.*

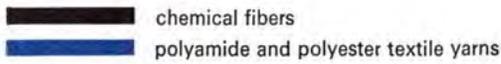
*Price trend for chemical fibers,  
Enka Glanzstoff 1970–1972 (1969 = 100)*



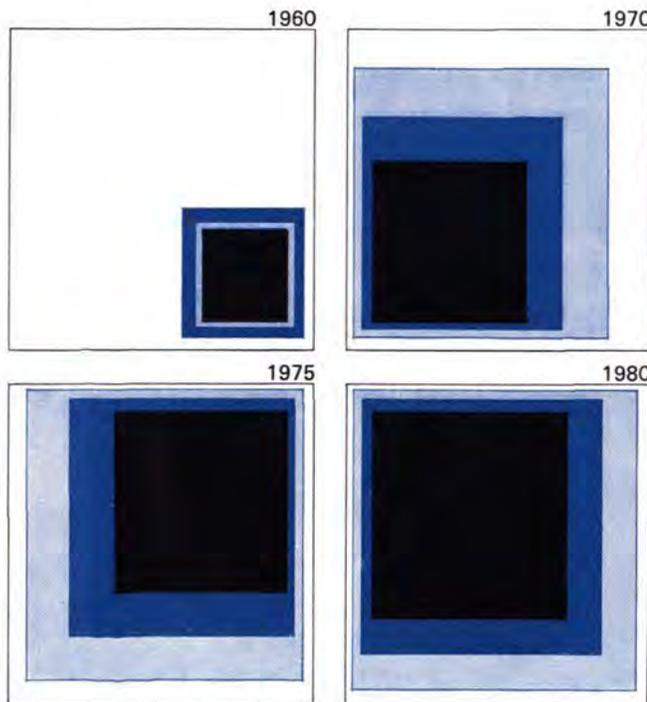
**Prospects**

For our companies in the enlarged EEC, we expect increased shipments for most yarns and fibers in 1973. If the improvement in prices that occurred by the end of 1972 proves lasting and labor costs can be kept within bounds, we anticipate an improvement in earnings in this area.

Business of our companies in the other areas, in particular North America and Latin America, is again expected to be satisfactory.



*Share of chemical fibers in some important end-use areas in 1960 and 1970, with forecasts for 1975 and 1980*



The proportion of each of the colored squares to the area of the outer square indicates the share of chemical fibers in the end-use field concerned.





## ● Chemical products

## ● Salt and heavy chemicals

### Sales and income

Business of Akzo Zout Chemie improved substantially over the preceding year when income was adversely affected by the start-up of the Rotterdam vinyl chloride plant, among other factors. Aided by a modest recovery in Western European business conditions, we were able to increase shipments of a number of products, which resulted in higher capacity utilization in most plants. However, excess capacity persisted for several products, including salt and chlorine, so that opportunities to adjust prices were limited.

Income from salt operations of International Salt, a subsidiary of Akzona, a considerable part of whose shipments is intended for snow and ice control, was again disappointing. The mild weather of the 1971/1972 winter season and vigorous competition as a result of high stock levels and low ocean freight rates were foremost among the factors contributing to this state of affairs. By mid-1972, the first trial shipment of salt was made from the Bonaire, Netherlands Antilles, solar salt plant. Rationalization measures had a beneficial effect on earnings of the CIRNE solar salt plant in Brazil.

### Products

The Group's annual salt production capacity in Western Europe and the Americas totals 13 million metric tons and comprises vacuum, rock and solar salt.

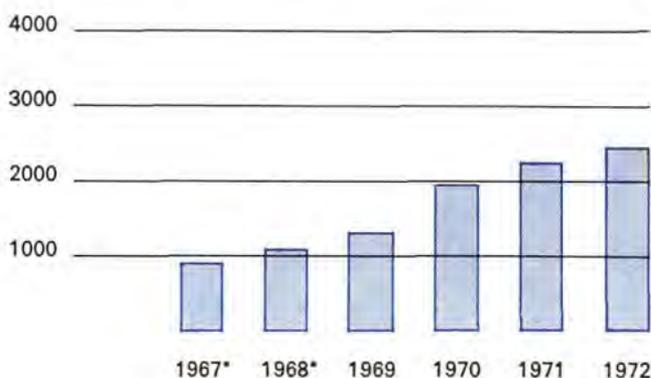
Our salt interests in Western Europe are centered on the Netherlands, West Germany and Denmark. Capacity in this area is 4.8 million metric tons per annum; production in the year under review was 3.5 million metric tons, as compared with 3.7 million metric tons in 1971.

Shipments of salt to the Scandinavian countries, mainly for use in the bleaching process in the pulp and paper industries, exhibited no significant improvement, because of the continued depression in that industry. The mild winter weather of the past few years caused salt consumption for snow and ice control purposes to fall considerably short of projections.

Part of our Western European salt output is processed in our electrolysis plants in the Netherlands and West Germany.

Demand for chlorine for the production of vinyl chloride increased, resulting in a reduction in excess capacity for chlorine. Under these conditions, the degree of utilization of our facilities in the Netherlands and West Germany,

Sales of chemical products, in Hfl million



with an aggregate annual capacity of 460,000 metric tons, was satisfactory.

The scarcity of sodium hydroxide, like chlorine a product of salt electrolysis, eased during the year under review. Prices accordingly showed some decline.

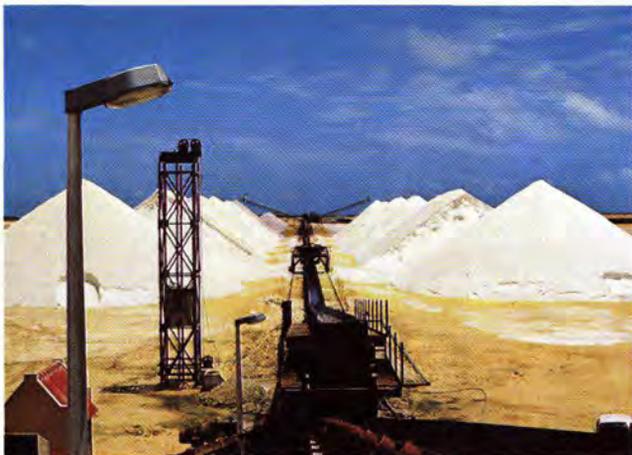
The start-up of the plant for the production of dense soda ash caused annual capacity for light and dense soda ash to reach a level of 300,000 metric tons. Dense soda ash, which is produced by a new Akzo-developed process, is used mainly in the glass-making industry. The volume of sales is expected to produce satisfactory capacity utilization.

Among our petrochemical products, vinyl chloride – from which the plastic polyvinyl chloride (PVC) is produced – maintained a satisfactory level of demand. A fairly high capacity utilization of our new vinyl chloride plant and a stable price level resulted. Since demand for PVC has increased and is expected to continue, preparatory work has been started for the establishment of an additional facility of the same capacity (approx. 300,000 metric tons per annum). Our strong competitive position in northwest Europe also favors such expansion.

Price levels of our other basic chemicals showed some improvement. However, imports from the United States and Japan prevented further improvement of price levels, which were unsatisfactory for several products. Prices for DMT (a basic material for polyester production), which is supplied to chemical fiber companies of the Group in Western Europe, were cut considerably.

A recovery of results was realized for most of Akzo Chemie's industrial chemical products, such as sulfuric acid, carbon disulfide, fluorine compounds (for aerosol propellants and other uses), bisphenol (among others for the production of epoxy resins), and edible and technical oils. Improved utilization of plant capacities, lower raw material prices for some products, and stricter efficiency measures assisted this recovery. For certain products, the situation continues depressed due to competition arising from, among other things, the completion of new facilities by others in the field. For citric acid, this led to a decline in sales and income as compared with 1971.

In the year under review, both shipments and prices of fertilizers recovered. In the Unie van Kunstmestfabrieken, in which we have a 16% participation, this improvement was further enhanced by the advantages obtained from the 1971 amalgamation of the fertilizer activities of DSM and VKF.



*The solar salt plant of International Salt at Bonaire in the Netherlands Antilles. The first trial shipment took place in 1972.*

*In 1972, Akzo Zout Chemie took into use a salt loading installation at Delfzijl. Unique for Europe, the installation will handle ships up to 20,000 dwt.*

### **Internationalization**

Because of a degree of market saturation, the growth of many of our products is leveling off. We anticipate that we will have to look increasingly to countries where the basic chemicals are available and where conditions are favorable for the sale of our expertise, or for participations. Various projects outside Western Europe are now being studied.

In the year under review, agreement was reached with Romchim on construction of a 400,000 metric tons per annum salt production facility at Rimnicu Vilcea in Romania. The contract calls for a four-stage evaporator plant, which is to commence operations at the end of 1973. The salt produced by this facility will be used as a basic material for the chemical complex at the same location.

### **Research and development**

The total cost of Akzo Zout Chemie's research center at Hengelo is about 1.5% of sales. The center's work has been primarily directed at process improvement. An example is the development and introduction of improved diaphragm systems for salt electrolysis which cut production costs.

Under our policy to stimulate further diversification, innovative and exploratory research must receive greater emphasis.

### **The environment**

In the salt and heavy chemicals product group, much attention must be given to the abatement of pollution by some of our products and production processes. An incinerating facility (investment Hfl 12 million) for wastes from the vinyl chloride plant is being built. These operations are expected to commence in 1974. The facility will also handle wastes from non-Group companies. Mercury losses incidental to our electrolysis processes have been reduced through tighter process control. Further reductions will be effected through such techniques as the use of an internally developed highly efficient adsorption resin. Measures taken in our Amsterdam sulfuric acid plant (investment Hfl 4 million) will demonstrate major advances in the control of emission of air pollutants.



### **Prospects**

With growth leveling off, and because of the virtual cessation of demand for road de-icing salt caused by the mild winter in Western Europe, it is not anticipated that our salt producing capacity will be fully utilized in 1973. We expect income to continue on approximately the same level as in 1972.

For International Salt, prospects for 1973 are considered more favorable.

## ● Chemical specialties

### Sales and income

Business improved significantly for both Akzo Chemie and Armak, a division of Akzona. This was due to a revival of business in most markets for our products; Akzo Chemie also experienced the positive effects of rationalization and restructuring measures on overall profitability. Certain isolated factors made a further contribution.

### Products

The products that contributed most to the increase in income are process chemicals for the plastics industry (the *Perkadox*<sup>®</sup> and *Trigonox*<sup>®</sup> initiator lines) and chemicals for the paper and rubber industries, including carbon black. Earnings from catalysts for the chemical and petrochemical industries remained approximately on the same level as in 1971. By the addition of new catalyst types for the production of acrylonitrile, the basic material for, among other things, acrylic fiber, we strengthened our position in this field.

For most of the products mentioned, our expertise is fundamental to our strong market position. This expertise and its necessary development constitute a solid base for internationalization of the product line.

Activities in which our position is not strong enough, or not likely to become so, will be terminated or sold. In view of the element of employment, we prefer to sell. In conformity with this policy, we sold our interests in the manganese ore and printing ink areas in the year under review.

Armak has developed a range of specialties for diverse fields of application, based on fatty acids and fatty acid derivatives. Sales of antistatic additives increased strongly in the year under review. A major outlet for these additives is the plastics industry. There was a growing demand for motor gasoline additives that control fouling of the engine and so boost performance. New types of emulsifiers for road building were developed. Armak now has a comprehensive line of specialties in this field.

The construction of the 3,000 metric tons per annum calcium gluconate plant at Ter Apelkanaal (the Netherlands), a 50/50 joint venture of AVEBE, a Dutch producer of starch and starch derivatives, and Akzo Chemie, is progressing. The plant is expected to commence operations in the latter half of 1973. Outlets for calcium gluconate are mainly in the pharmaceutical

and food industries. We already have a considerable share of the market for this product.

We expect that, some time in early 1974, we will commence production of organic peroxides and peresters in the new complex at Mons (Belgium), which is now under construction. Safety of operation has been given careful attention.

### Internationalization

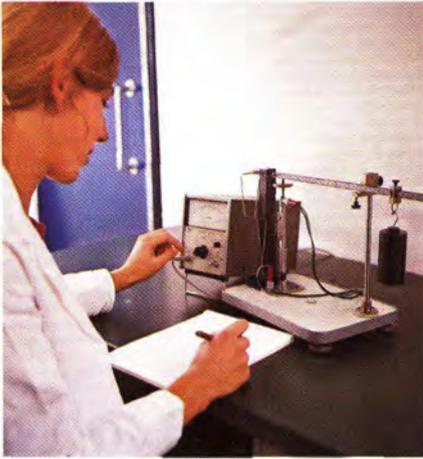
In addition to our activities in the EEC and the United Kingdom, where the majority of our plants are located, our operations in Japan are assuming major importance. Two joint ventures with Japanese industry were able to commence operations in the past few years. One of these companies, Kayaku Noury, is engaged in the production and sale of organic peroxides for the plastics industry. The other company, Nippon Ketjen, is engaged in the production and sale of desulfurization catalysts for the petroleum industry. In the field of fatty amines and derivatives, Armak has been active in the Japanese market for many years by virtue of its 50% interest in Lion Armour. During the year under review, a fourth joint venture, Japan Interstab, was formed. This company, in which we own a 50% interest, will sell European-produced stabilizers for the thermoplastics industry. Local production might be considered, depending on the development of sales.

In the United States, our peroxides, which are produced by Noury Chemical Corporation, have captured an important share of the market. To achieve an even greater share of this major market, we are considering the construction of a second facility, in combination with a plant for the production of desulfurization catalysts.

The strong industrial development in a number of Latin American countries has caused us to study the possibilities for participation in this development. For certain products, we see attractive opportunities for cooperation with local producers.

### Research and development

Our research effort, costs of which vary from 1 to 7% of sales, depending on the products concerned, will concentrate even more strongly than in previous years on exploration and innovation, especially in the field of process auxiliaries, such as catalysts and initiators. In certain, mainly technical, applications of plastics and rubbers, improved electrical conductivity is required. We



*Akzo Chemie have developed a new type of carbon black which can be blended with plastics and rubbers to improve absorption and electrical conductivity.*

*Shown is the measurement of conductivity of this carbon black.*

*Asphalt additives produced by Lion Armour, a Japanese affiliate of Armak, are used in the construction of this road in Japan.*

*Asphalt additives ensure excellent adhesion of asphalt to moist bases.*



have developed a new type of carbon black, which can be blended with these materials to achieve such conductivity. The new product will also be used in batteries.

During the year under review, several new catalysts and peroxides developed by us were added to the product range.

#### **Prospects**

Income for 1972 was favorably influenced by some isolated factors. Consequently, the satisfactory development of sales anticipated for 1973 is not expected to cause a marked improvement in income. A number of projects have been set up with the Corporate Research departments and the research organizations of some other divisions that, on a long-term basis, should make a material contribution to the broadening and strengthening of our product line.

## ● Coatings

### Sales and income

Sales of coatings (paints and synthetic resins) went up 8% in the year under review. The highly competitive market and governmental price controls made it difficult to fully offset the rises in costs. Nevertheless, income was higher than in the preceding year.

### Products

The coatings market in the EEC, which constitutes our principal sales area, is characterized by a constant though limited growth. However, growth in certain specific product sectors is considerably above average, such as for some industrial uses, automotive repair paints and do-it-yourself products.

Sales to industry presuppose a good technical cooperation between supplier and customer. To improve our flexibility in this field, we have adjusted our sales organization in France and combined our organizations in the Netherlands and Belgium.

Despite strong competition, we have maintained our position as suppliers to the automobile industry.

We are continuing our active role in the development of new application techniques and new coatings. One application technique that shows particular promise is that used for powder coatings, which are sprayed onto metal objects by an electrostatic process. Resicoat (West Germany), in which we hold a 50% interest, is among the leaders in the development of this product. The increasing interest shown in our product by producers from various countries evidences this leading role. During the year under review, licenses were issued in the United States and Japan.

The growth of sales of special paints for the coating of steel strip (coil coating) was very satisfactory, especially in France. During the year under review, the commercial introduction of the electron beam curing process showed good market response.

We succeeded in further augmenting our market share for automotive repair paints. A new type of automotive repair paint (*Autocryl*<sup>®</sup>) was introduced successfully. In view of the increasing usage of these paint types, we decided to expand production by constructing a new specialized plant at Sassenheim, the Netherlands; construction is now under way. The new color mixing machines which were developed in our own laboratories met with favorable customer acceptance.

In the sector of paints for the building industry, we introduced some new products in West Germany. Our broad range of wall paints now offered in West Germany forms the basis of further innovations in other countries. Campaigns to promote more decorative use of colors have been started.

Our new warehouse and distribution center at Hanover, which will be completed shortly, will give an additional impetus to our marketing efforts in West Germany.

By virtue of our many-faceted product line, we expect to be able to make a substantial contribution to the further development of products for industrial building, as well as to urban renovation.

In addition to paints, stains and glues, our do-it-yourself product line in the Netherlands comprises wallpaper, for which the tradename *Red Point*<sup>®</sup> was introduced in the year under review. In France, we introduced a polyurethane paint (*Polylac*<sup>®</sup>) to the do-it-yourself market.

The *Talens*<sup>®</sup> line of creative hobby products was extended through addition of several new items.

In the sector of synthetic resins, part of which are used as binders within the product group, continued favorable development is anticipated. This includes in particular special uses in the plastics industry.

Our establishments outside the EEC, such as those in a number of African countries and in Argentina, developed satisfactorily.

### Research and development

Progress towards further integration of the activities of our research centers in the Netherlands, West Germany and France was made. An increasing part of our research effort, costs of which total over 4% of sales, is innovations-oriented. It is anticipated that the benefits of the integration should enable us to carry out a more extensive research program at virtually unchanged personnel strength. At Stuttgart, a new laboratory for automotive products was taken into use.

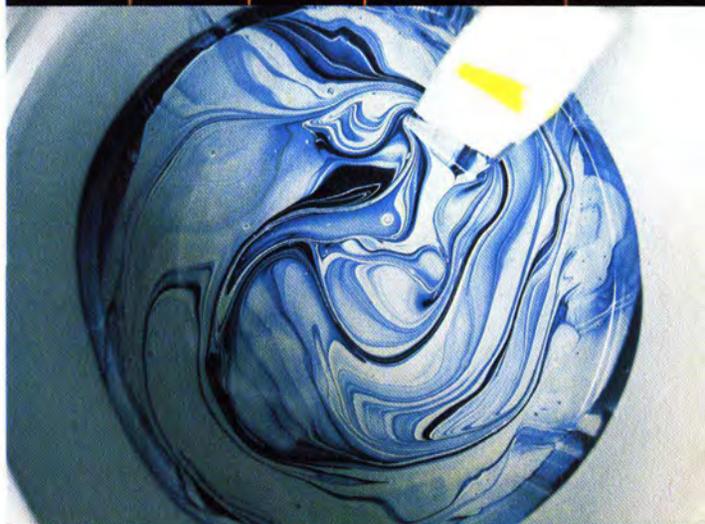
### The environment

In the field of pollution abatement, major results were achieved in the development of non-polluting products that contain no mercury, mercury compounds or polychlorobiphenyls. Plant installations were improved, as

well as water purification at some locations. Other projects in this field are being prepared.

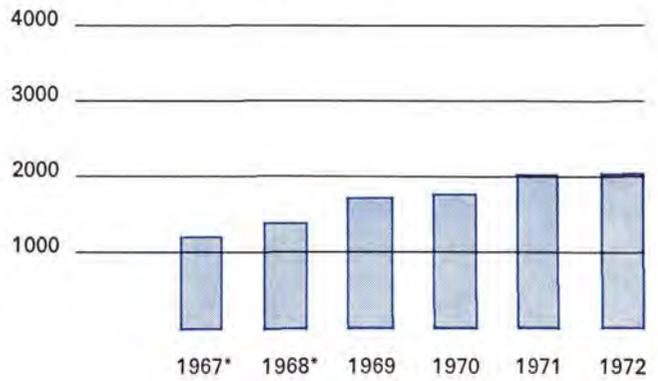
#### Prospects

Although we expect a rise in sales in 1973, the highly competitive market will make it difficult to offset the continuous rise in costs, particularly labor costs. We will continue to give special attention to opportunities for further internationalization of our activities outside the EEC, both in industrialized and in developing countries.



- Pharmaceuticals, consumer and miscellaneous products
- Pharmaceuticals

Sales of pharmaceuticals, consumer products and miscellaneous products, in Hfl million



#### Sales and income

Almost all sectors contributed to the rise in sales. In general, the development of income was satisfactory. Compared with the steep rise in income shown in 1971, which was in part due to the contributions of some companies acquired in the beginning of that year, the rise in 1972 was lower.

#### Products

The Organon group holds the prime position in the pharmaceuticals product group. Such position is illustrated not only by the size of its activities but also by the degree of its diversification and internationalization. In addition to ethical drugs, the Organon group is active in non-prescription drugs (Chefaro), and in hospital supplies and equipment (Organon Teknika).

The principal area of activity in the sector of ethical drugs is in hormone preparations. Our strong position in anabolics underwent no material change. The renewed growth in oral contraceptives, which became apparent in 1971, continued during the year under review. Sales increased significantly in 1972, especially in West Germany. We broadened our product line by the introduction of *Exluton*<sup>®</sup>, a low-dose progestogen pill for continuous administration, thus widening the choice in contraceptives. Introduction of this product has been started in a number of countries. Apart from the introduction of new or improved products, a relaxation of current restrictions in some countries would be instrumental in further boosting sales of oral contraceptives. Sales of *Dexatopic*<sup>®</sup>, a preparation to cure skin diseases, which was introduced in a limited number of countries in 1970, doubled as compared with 1971. This was achieved in part by a broader international distribution, even though the often time-consuming registration procedures delay the rate of introduction.

In the area of non-prescription drugs, sales rose 15%. Contributing factors to this rise included the further internationalization of our traditional products, such as pain-killers, cough remedies, and vitamins. However, the largest contributing factor was the sales success of *Predictor*<sup>®</sup>, the 'do-it-yourself' pregnancy test. We are striving to further expand this diagnostic market, and also to broaden the Chefaro range of popular drugs.

Hospital supplies and equipment showed a considerable sales increase. At present, this group still relies largely on diagnostics, infusion liquids and blood fractions. Hopes are high for the artificial kidney developed by us. A contribution to this product's development was made by Enka Glanzstoff's research. In 1972, production was started in the former Orgachemia buildings at Boxtel, the Netherlands. Our initial experiences in the Netherlands indicate that this product will make a substantial contribution to the growth of Organon Teknika. Geographically, 1972 witnessed a considerable rise in the sales volume of products of the Organon group in West Germany and Japan. The importance of these countries to the group continues to grow. In France and Belgium, growth leveled off.

The Diosynth group is active in the manufacture and sale of raw materials for the pharmaceutical industry. Twenty percent of production capacity is used to supply the other sectors of the pharmaceuticals product group. While the rise in sales continued satisfactorily, prices were under increasing pressure. To reduce stocks to a reasonable level, under-capacity operation had to be employed temporarily.

In the Netherlands, the group is well established, both in terms of equipment and personnel, for the development and manufacture of products that require long and sophisticated processes and comprehensive chemical and technical know-how. To ensure the supply of essential raw materials for the production of steroids, the group operates facilities in Mexico. Plans are being worked out to integrate the activities in the alkaloids field of Verenigde Pharmaceutische Fabrieken, Apeldoorn (the Netherlands), into the Diosynth group.

In the Intervet group (veterinary products), the prices of our principal products continued to be depressed in the year under review. This trend adversely affected the development of sales. Nevertheless, we enjoy a firm market position, in the Netherlands and abroad, which offers good prospects for further development.

In the sector of crop protection products, integration of the former Orgachemia activities into the AAgrunol group was accomplished without difficulty. Attention is being given to internationalization of operations. During the year under review, AAgrunol België was established. Additionally, we entered into a form of cooperative endeavor with Stähler of West Germany.



*Organon Inc. introduced in the United States a new neuromuscular blocking agent, Pavulon®, for use during operations under anesthesia. It permits lighter doses of anesthetics and makes surgical procedures less difficult.*

#### **Acquisitions**

Organon Inc., an Akzona subsidiary, acquired Penick Canada Ltd, a firm active in the area of proprietary drugs (antiasthmatics, antirheumatics, antianemics), animal extracts and raw materials for the pharmaceutical industry. The existing Organon sales office in Canada was integrated with this company under the name Organon Canada Ltd.

In Spain, we acquired a pharmaceutical company with a product line including infusion liquids and anesthetics.

In the United Kingdom, we took over the veterinary product line of Bristol-Myers Ltd at the end of the year under review. This will substantially improve the efficiency of our sales organization in this country.

In early 1973, our Mexican interests were increased through the acquisition of Serva S.A. This constitutes the initial move towards introduction of our veterinary products in Latin America.

Our acquisition policy continues to be directed not only towards further geographical distribution, but also to a broadening of our product line.

#### **Research and development**

In 1972, our research and development expenditure totaled some 8% of sales. Over 12% of the total personnel of the pharmaceuticals group (about 8,000 employees) is active in research and development. The principal center is Oss, the Netherlands.

The research effort of the Organon group continues to concentrate on new products and new therapeutic uses. A major part of this effort is devoted to the systematic performance of projects specifically concerned with fertility control, with the treatment of inflammation and depression, with diagnostics and with sex steroids. Some projects have reached the stage where a successful conclusion may be expected in the foreseeable future, while others show a prospect of tangible results in the more distant future.

The primary objectives of the research effort of the Diosynth group are process improvement, service to customers and extension of the product line. Increasing research is being done on alkaloids and related products. In the Intervet group, research is traditionally poultry-oriented. Additionally, in cooperation with the Organon group, activities are increasingly being directed towards the problems of fertility in larger animal species. We continue to give attention to opportunities for cooperation in certain areas with third parties.

#### **Prospects**

In 1973, the completion of some important research projects and the preparations for the introduction of several new products will require such expenditures that a temporary leveling-off of the growth of income should be expected for the coming year. However, these investments will bear fruit in the subsequent years.

from top to bottom and from left to right:

*Organon Teknika's new diagnostic Hypronosticon® for certain metabolic diseases.*

*Nephross® C-01 disposable artificial kidney, the 'heart' of the artificial kidney system to be introduced by Organon Teknika.*

*Boldoot® – the nicest way of refreshing.*

*Expanding its line of oral contraceptives, Organon introduced Exluton®, a low-dose progestogen pill without estrogen component. Exluton® is to be taken daily, without interruption during menstruation.*

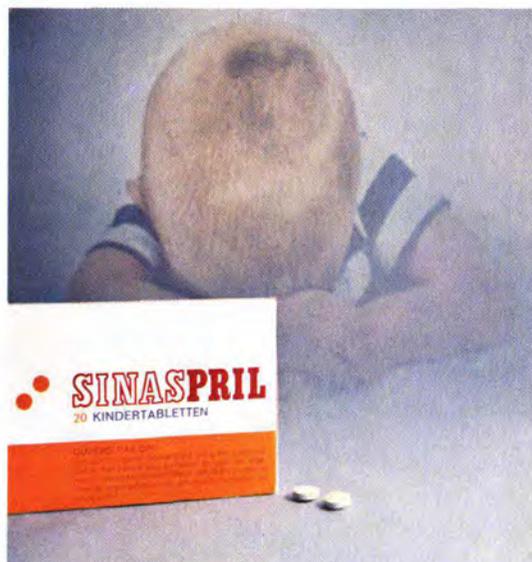
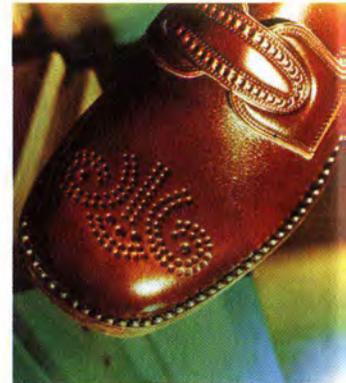
*Duyvis® snacks, for family and guests.*

*Sinaspril® children's analgesic tablets, well-known to mothers and doctors.*

*Shoes from Xylee® synthetic leather: strong, stylish and comfortable.*

*Betsie®, a new detergent based on pure soap.*

*Edet® kitchen tissue, indispensable in the household.*



## ● Consumer products

### Sales and income

Sales were on about the same level as in 1971. However, income developed very favorably as a result of much improved business in the sectors of detergents and cleaning products and disposable paper.

### Products

Akzo offers consumers in the Netherlands and abroad a comprehensive line of consumer products such as detergents and cleaners, disposable paper, body-care preparations, and foods. The line includes a large number of well-established brand name products whose disappearance from the modern household is hard to imagine. The market for these articles is largely confined to the Benelux, Scandinavia and France.

The Benelux and Denmark constitute the principal markets for cleaning products and detergents, with *Biotex*<sup>®</sup> being foremost. Sales volumes continued to increase, particularly in Belgium and Denmark. In the Netherlands, the *Dobbelman*<sup>®</sup> laundry detergent sold strongly, securing a satisfactory share of the market. Elsewhere, new detergents were introduced successfully. The environmental aspects of the use of detergents are

receiving much attention, both in the case of existing products and in the development of new products.

Under the brand name *Edet*<sup>®</sup>, a line of high-grade disposable paper products is put on the markets of, notably, Sweden, Denmark and the Netherlands. Especially in Sweden, where our chief production capacity is located, we have secured a major share of the market. Efficiency in our plants was improved substantially. In the principal areas, satisfactory sales increases were achieved.

Leading articles are toilet tissue and tissue paper for kitchen use. Our policy is to seek an expansion of the list of products through finding new products and added uses in the areas of hygiene and comfort.

Sales of brand name products in the body-care sector were reasonably profitable. A large portion of sales is accounted for by toiletries, with *Boldoot*<sup>®</sup> and *Zwitsal*<sup>®</sup> products comprising the bulk.

New *Duyvis*<sup>®</sup> and *California*<sup>®</sup> products were successfully introduced to expand the foodstuffs line. Development of new products and varieties is of essential importance in this segment of the market for brand name products. With the shortening of life cycles of these products, the speed of adjustment to changes in the turbulent market must be increased. The possibilities for saving work in the home are receiving particular attention. The French company Mayolande, in which we have a 50% stake, succeeded in further expanding its market share. For mayonnaise and nuts, the company is among the foremost producers in France. Exports of oils and fats experienced the adverse effects of unsettled conditions in the foreign exchange market.

### Prospects

For 1973, we expect that sales increases and cost increases will balance. Since opportunities to pass on cost increases are few, earnings should be on much the same level as in 1972.



## ● Miscellaneous products

This group of products includes plastics, natural and synthetic leather, wire and cable, various industrial products, and machines and equipment principally designed for spinning and processing chemical and natural fibers, and for processing plastic raw materials in the plastics industry.

For our *plastics*, 1972 was a satisfactory year. This was due both to marked improvements in the Western European plastics market, and to our persistent efforts to improve the quality of our *Akulon*<sup>®</sup> (nylon) and *Arnite*<sup>®</sup> (polyester) materials. Shipments of *Akulon*<sup>®</sup> in particular were up substantially.

*Tenax*<sup>®</sup>, the new Akzo-developed heat-resistant polymer, has met with growing international interest. Leading cable manufacturers are engaged in developing high-voltage cables for the transmission of very large quantities of power, using *Tenax*<sup>®</sup>, in paper form, as the insulating material. In other areas of the electrical and electronic industry, *Tenax*<sup>®</sup> has also met with growing interest. To cope with industry's increasing demand for trial lots, and to promote further development of process technology, the capacity of the present pilot installation will be increased.

Shipments of CMC (carboxymethyl cellulose) and CMC derivatives, special types of which are used particularly in oil and gas exploration drilling to compose the drilling mud, continued to show great strength. In view of the multi-faceted uses of CMC, a further growth of shipments is expected.

Demand for our *Xylee*<sup>®</sup> synthetic leather grew strongly, reflecting substantial price increases of natural leather and the growing need for rationalization of the footwear industry. The development work has resulted in a technically and hygienically high-grade synthetic upper shoe material that has met with international acceptance. However, continued research will remain necessary for the development of new types.

Armour Leather, a subsidiary of Akzona and a supplier of *natural leather* to the footwear and leather goods industries, experienced the effects of the much tighter supply position for hides and the consequent substantial price increases. Market conditions did not permit full compensation through adjustment of leather prices. In spite of this, earnings exceeded the 1971 level, partly through a further expansion of the market share as a result of regular introduction of new and varied leather types. The situation in the U.S. leather market will lead to accelerated introduction of synthetic leather (*Xylee*<sup>®</sup>).

Business for Brand-Rex, a subsidiary of Akzona and a producer of *wire and cable*, showed a marked recovery in the year under review, with contributions made by all product groups. The acquisition in early 1973 of Pyle-National, who manufacture products such as electrical connectors and related products, will benefit Brand-Rex through an expansion of the product line and a strengthening of the technological basis.

Expansion opportunities were further enhanced by the development of new product types for telephone cables and for the computer, radio and television industries. Especially in the latter two, Brand-Rex is striving for a strong position as a supplier.

Stricter U.S. statutory regulations in the area of occupational safety and health create additional sales potential.

The wire and cable facility in Glenrothes (Scotland), in which Akzona Inc. and British Enkalon Ltd have interests of 40% and 60%, respectively, has started production. By the end of 1973, the plant will reach full production. For 1973, a further improvement in business is anticipated. The expected higher price levels of *wire and cable* products should contribute to this improvement.

Barmag Barmer Maschinenfabrik, West Germany, is primarily a distinguished producer of *spinning machines* for chemical fibers, and of *processing and finishing equipment* for chemical and natural fibers. American Barmag is its U.S. affiliate. Products are sold both to Group companies and to others, and over the years a substantial export business has been built up. Sales increased further in 1972, while results showed a most satisfactory rise.

The sharp cutback in capital expenditures by the chemical fibers and textile industries unmistakably affected the size of orders. By the end of the year, an improvement had occurred, due in part to growing interest in a number of Barmag-developed machines for the processing of yarns and fibers and for the plastics industry.

# Survey of principal products

## Chemical fibers

filament yarns (flat and textured) and staple fibers produced from polyamide (nylon), polyester, polyacrylonitrile (staple), polyurethane (elastomeric yarn), cellulose (rayon), glass and steel (cord); non-wovens from polyamide, polyester and rayon.

End-uses include:

apparel, carpets and other home furnishing and household textiles

reinforcement of automobile and airplane tires, and conveyor belts

coated fabric and non-woven structures for various technical applications; safety belts, fishing nets and rope.

## Salt and heavy chemicals

bulk chemicals based on salt, petrochemical raw materials, natural gas, sulfur and vegetable raw materials, including:

vacuum, rock, and solar salt for industrial uses, consumption, as well as snow and ice control, chlorine, caustic soda, soda ash, sodium sulfate, hydrochloric acid, hydrogen, bleaching liquor

chlorinated hydrocarbons, chloroacetic acid derivatives, methylamines, vinyl chloride, dimethyl terephthalate (DMT), butanol, acetic acid, vinyl acetate, phenol compounds (including bisphenol), methanol, formaldehyde, urea formaldehyde

edible and technical oils, citric acid, fluorine compounds, sulfuric acid, carbon disulfide and other sulfur compounds, fertilizers.

## Chemical specialties

chemical specialties for use as raw materials, auxiliaries or additives, including:

silicates, aerosol propellents, gluconates, fatty acids and fatty acid derivatives, such as esters, amines, amides

catalysts, initiators, ion exchangers

stabilizers for the thermoplastics industry, carbon black and other fillers mainly for the rubber processing industry, surface-active materials for the detergent and cleaning agent industry, various chemicals for the paper, textile, food, coatings and other industries.

## Coatings

paints, powder coatings, adhesives and synthetic resins for:

industrial uses, *e.g.* for automobiles, airplanes, railroad cars and for products of the metal-working, wood-working, furniture, packaging and other industries

non-industrial uses, *e.g.* for car repair, building, road marking, shipbuilding and other anti-corrosive uses

the do-it-yourself market.

## Pharmaceuticals

ethical drugs, including hormone preparations (anabolics, contraceptives), alkaloids, as well as non-prescription drugs, such as vitamins, pain-killers, cough remedies and sweetening agents

hospital supplies, including infusion liquids, blood fractions, diagnostics and medical equipment

raw materials for the pharmaceutical industry

veterinary products, including vaccines and hormone preparations

phytopharmaceutical products (crop protection products).

## Consumer products

detergents and cleaning products, including soaking and prewashing agents, laundry detergents, fine-laundry detergents, liquid detergents, soap, soda and bleaching agents

disposable paper for household and industrial uses, including toilet paper, tissue paper for kitchen use, towels and table napkins

body-care products, including eau de cologne, baby-care products, cosmetic creams

foodstuffs, including oils, fats, margarine, mayonnaises, sauces, dry mixes, snacks, nuts, preserves, soups, bouillon cubes, flavorings, spices, salads, dried vegetables and potatoes.

## Miscellaneous products

raw materials, such as nylon and polyester granules, for the plastics processing industry for mainly technical end-uses; carboxymethyl cellulose (CMC)

leather and synthetic leather for footwear; sponges, shammies, household and floor cloths

wire and cable for electrical and electronic end-uses, including telephony, radio and television equipment, and computers; electrical connectors and related products

spinning machines for chemical fibers, processing and finishing equipment for chemical and natural fibers, extrusion equipment for the plastics industry, hydraulic pumps

synthetic and other adhesives, adhesive tape, film, industrial abrasives.

# Management structure

March, 1973

The organization of the Akzo group is product-oriented, with divisions acting both independently and internationally. Where required, different activities in a geographical area are combined. Akzo N.V. is the Group's holding company with direct and indirect participations in the Group's companies.

## Management of Akzo N.V.

The following members of the board of management are primarily in charge of overall Group policy:

G. Kraijenhoff, president  
L. H. Meerburg  
S. C. Bakkenist  
H. J. Schlange-Schöningen  
H. J. Krusinga  
A. Stikker

The other members direct operations of segments of the Group:

A. van Driel, Akzo Coatings  
D. W. van Krevelen, Akzo Research & Engineering  
F. Prakke, Akzo International

A. H. M. Wentholt, secretary of the board of management.

In addition to being charged with overall Group policy, several members of the board of management act as coordinators of product groups. Thus, Messrs. Meerburg and Schlange-Schöningen perform duties for the chemical fiber group, Mr. Stikker for the chemical group, and Messrs. Kraijenhoff and Bakkenist for pharmaceuticals and consumer products, respectively.

Messrs. Kraijenhoff, Bakkenist, Krusinga and Stikker, and the secretary of the board of management, are each responsible for a number of central staff departments and for the coordination of the relevant functional activities within the Group.

## Management of central staff departments

M. W. Arts, Internal Auditing  
A. M. van Haastrecht, Organization and Efficiency  
C. Hoek, Legal Affairs  
B. Klaverstijn, Public Relations  
H. J. Krusinga, Financial Affairs  
R. M. Lievaart, Fiscal Affairs  
J. K. G. Meijnen, Insurance Affairs  
B. W. van Mourik Broekman, Personnel Affairs  
K. J. Mulder, Economic Affairs  
R. J. Ovezall, Accounting and Management Information  
C. P. Spoel, Computer Affairs  
P. J. S. Th. Stehouwer, Corporate Business Development  
T. M. Tieleman, Strategic Planning

Messrs. P. R. A. Maltha and E. W. Meier are charged with activities in the areas of chemical development and international relations, respectively.

## Management of Akzo Research & Engineering

D. W. van Krevelen (president), H. Kramers (deputy president),  
F. C. A. A. van Berkel, E. Meyer

## Managements of national organizations in the Netherlands, Belgium and Japan

Akzo Nederland, J. P. van den Bent, president  
Akzo België, J. van den Driest, president  
Mercator Internationaal (Japan), T. A. Townsend

## Managements of Group companies and divisions in which Akzo N.V. holds an interest of 95% or more

### Enka Glanzstoff

B. Zevenbergen (president), H. G. Zempel (deputy president),  
F. C. A. A. van Berkel, S. Lochner, E. Meyer, D. Wendelstadt,  
H. F. Wesenhagen

### Akzo International

F. Prakke (president), H. Karus, A. F. J. C. Zillikens

### Akzo Zout Chemie

J. A. Wolhoff (president), M. Boogaardt, J. H. Dijkema,  
G. H. W. Meeder, R. M. Smulders

### Akzo Chemie

A. G. van den Bos (president), H. W. Muzerie, H. J. J. van der Werf,  
D. B. Kagenaar, J. C. P. van Oosterom, P. W. Pfeiffer,  
H. A. Praetorius

### Akzo Coatings

A. van Driel (president), R. de Bonneval, O. Daum, C. P. B. Littooy,  
G. Macovich, H. van Prooyen, Sr.

### Akzo Pharma

G. Kraijenhoff (president), G. Hes, R. A. P. van Iersel, J. Veldman

### Akzo Consumenten Producten

Fr. Schuddeboom (president), H. van Doodewaerd

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*Dividends are paid through the following banks:*

<b>the Netherlands</b>	Amsterdam-Rotterdam Bank Algemene Bank Nederland Bank Mees & Hope Nederlandse Credietbank Pierson Heldring & Pierson at their offices in Amsterdam, Rotterdam, The Hague and Arnhem, if established there
<b>West Germany</b>	Deutsche Bank Bank für Handel und Industrie Berliner Disconto Bank Berliner Handelsgesellschaft-Frankfurter Bank Dresdner Bank Saarländische Kreditbank Sal. Oppenheim jr & Cie at their offices in Cologne, Düsseldorf, Frankfurt, Hamburg, Saarbrücken, West-Berlin and Wuppertal, if established there
<b>Belgium</b>	Generale Bankmaatschappij Bank Lambert Kredietbank at their offices in Brussels and Antwerp
<b>United Kingdom</b>	Barclays Bank, London
<b>France</b>	Lazard Frères & Cie Banque de Suez et de l'Union des Mines Banque Nationale de Paris Credit Lyonnais at their offices in Paris
<b>Switzerland</b>	Schweizerische Kreditanstalt, Zürich Schweizerische Bankgesellschaft, Zürich Schweizerischer Bankverein, Basel and at their Swiss branch offices Pictet & Cie, Geneva
<b>U.S.A.</b>	The Chase Manhattan Bank, New York

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- a combined figures of AKU and KZO  
b based on a cash dividend  
c combined figures of AKU and KZO; based on a cash dividend  
d for complete dividend proposal, please refer to page 21  
e of which Hfl 32 million and Hfl 59 million in cash for 1970 and 1968, respectively  
f of which Hfl 2.80 in cash or, at stockholder's option, in common stock at the rate of one new share of Hfl 20 par value for every 25 shares of common stock held

#### consolidated balance sheet at year's end

	1972 <sup>b</sup>	1971	1970 <sup>b</sup>	1969	1968 <sup>c</sup>
property plant and equipment	4,250	4,274	4,280	3,745	2,822
investments in non-consolidated companies	341	335	306	315	322
other non-current assets	130	140	143	124	76
non-current assets	4,721	4,749	4,729	4,184	3,220
inventories	1,615	1,664	1,581	1,458	1,013
short-term receivables	1,728	1,590	1,563	1,369	1,044
prepaid expenses	54	56	61	38	18
cash and marketable securities	645	616	493	656	555
current assets	4,042	3,926	3,698	3,521	2,630
total assets	8,763	8,675	8,427	7,705	5,850
capital stock	542	542	521	514	452
capital surplus, paid in	710	710	730	703	394
retained earnings	1,322	1,279	1,181	1,123	1,122
other reserves	491	461	686	641	551
stockholders' equity	3,065	2,992	3,118	2,981	2,519
minority interest in Group equity	570	610	536	503	499
Group equity	3,635	3,602	3,654	3,484	3,018
provisions	809	725	857	809	665
long-term debts	2,407	2,402	2,198	1,729	972
long-term liabilities	3,216	3,127	3,055	2,538	1,637
bank overdrafts	223	273	270	237	100
other current liabilities	1,689	1,673	1,448	1,446	1,095
current liabilities	1,912	1,946	1,718	1,683	1,195
total Group equity and liabilities	8,763	8,675	8,427	7,705	5,850

#### consolidated statement of income

sales	8,235	8,056	7,249	6,366	5,260
salaries, wages and social charges	2,478	2,354	2,073	1,670	1,347
depreciation	527	526	472	397	329
other costs	4,645	4,535	4,064	3,498	2,892
operating income	585	641	640	801	692
interest	172	165	112	61	43
taxes on operating income and interest	181	238	259	375	345
equity in earnings of non-consolidated companies	29	23	31	28	14
Group income before extraordinary items and additional depreciation	261	261	300	393	318
extraordinary items	7	4	19	5	—
additional depreciation	35	29	23	20	14
Group income	233	236	296	368	304
of which minority interest	45	52	55	60	57
net income	188	184	241	308	247

## Five-year financial review

in Hfl million, except where otherwise stated

general data	1972	1971	1970	1969	1968 <sup>a</sup>
sales to third parties					
chemical fibers	3,798	3,840	3,561	3,326	2,817
chemical products	2,404	2,210	1,915	1,296	1,044
pharmaceuticals, consumer products and miscellaneous products	2,033	2,006	1,773	1,744	1,399
total	8,235	8,056	7,249	6,366	5,260
percentage increase over previous year	2.2%	11.1%	13.9%	21.0%	21.5%
operating income	585	641	640	801	692
as percentage of sales	7.1%	8.0%	8.8%	12.6%	13.2%
net income	188	184	241	308	247
as percentage of stockholders' equity	6.1%	6.2%	7.7%	10.3%	9.8%
per share of common stock, par value Hfl 20 per share, in Hfl	6.94	6.81	9.24	12.02	10.99
ditto, before extraordinary items and additional depreciation	7.70	7.62	9.28	12.80	11.50
cash flow (Group income plus depreciation)	795	791	791	785	647
per share of common stock, par value Hfl 20 per share, in Hfl	25.26	24.94	26.22	26.36	24.39
distributed income	97	98	104 <sup>e</sup>	102	78 <sup>e</sup>
as percentage of net income	51.8%	53.0%	43.4%	33.2%	31.6%
dividend per share of common stock, par value Hfl 20 per share, in Hfl	3.60 <sup>d</sup>	3.60	4.00 <sup>f</sup>	4.00	
stockholders' equity	3,065	2,992	3,118	2,981	2,519
per share of common stock, par value Hfl 20 per share, in Hfl	113.49	110.78	120.06	116.40	111.92
common stock	539.8	539.8	519.2	511.8	449.8
common stock, in thousands of shares of Hfl 20 par value	26,989	26,989	25,958	25,590	22,492
property, plant and equipment					
capital expenditures	508	885	1,001	699	460
depreciation, including additional depreciation	562	555	495	417	343
acquisitions of affiliates and investments in non-consolidated companies	139	203	99	276	39
personnel					
number of employees at year's end	101,000	104,500	100,800	100,300	84,300
salaries, wages and social charges	2,478	2,354	2,073	1,670	1,347
personnel costs, as percentage of sales	30.1%	29.2%	28.6%	26.2%	25.6%
<b>selected financial ratios</b>					
Group equity : liabilities	0.71	0.71	0.77	0.83	1.07
Group equity : non-current assets	0.77	0.76	0.77	0.83	0.94
current assets : current liabilities	2.11	2.02	2.15	2.09	2.20

