Annual Report 1981

AKZO

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Agenda

Agenda of the Annual Meeting of Stockholders to be held at the RAI Congress Center, Europaplein, Amsterdam, on Tuesday, May 18, 1982, at 10.30 a.m.

1 Opening
2 Report of the Board of Management for the fiscal year 1981
3 Approval of the financial statements; consideration of the dividend proposal
4 Determination of the number of members of the Supervisory Council; appointment of members of the Supervisory Council
5 Composition of the Board of Management; determination of the number of members
6 Annual decision concerning issues as required by the London Stock Exchange*
7 Any other business

* annually recurring agenda item in re compliance with the requirements of the London Stock Exchange concerning the listing of Akzo shares on that stock exchange

Translation

Akzo

Akzo is an international group of companies with operations in more than 50 countries. The Group achieved sales of Hfl 14.5 billion in 1981 and employed approximately 78,000 people at year-end.

Akzo's product range includes man-made fibers, salt, commodity and specialty chemicals, coatings, pharmaceuticals, consumer products, electronic products, and miscellaneous industrial products.

Business activities are organized in the Enka, Akzo Zout Chemie, Akzo Chemie, Akzo Coatings, Akzo Pharma, and Akzo Consumenten Produkten divisions – which operate worldwide – and in Akzona, which incorporates practically all our interests in North America.

Akzo recognizes the importance of good communications regarding its policies and activities with those who are directly or indirectly involved with the Group. It accepts the codes of conduct established by the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organisation (ILO).

Akzo

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Supervisory Council and Board of Management

Supervisory Council

G. Kraijenhoff, chairman
J.R.M. van den Brink, deputy chairman
Y. Scholten, deputy chairman
S.C. Bakkenist
P.M.H. van Boven
A. Herrhausen
H.L. Merkle
H.J. Schlange-Schöningen
Mrs. K. Schudel-van Zwanenberg
E.G.G. Werner
O. Wolff von Amerongen

Board of Management

A.G. van den Bos, president
A.A. Loudon, deputy president
H. van Doodewaerd
M.W. Geerlings
H.J. Kruisinga
J. Veldman
H.J.J. van der Werf
M.D. Westermann
C. Zaal
H.G. Zempelin

Adviser: W.K.N. Schmelzer

Secretary

J.P. Huges

Report of the Supervisory Council

Changes in the Supervisory Council

At the Annual Meeting of Stockholders held May 12, 1981, J. de Vries resigned from the Supervisory Council, having reached the Council's mandatory retirement age. At that meeting we placed on record our deep gratitude for his fine contribution to the work of the Council over the past 18 years. To fill the vacancy created by his retirement, the stockholders appointed E.G.G. Werner, a Managing Director of Royal Dutch Petroleum Company*.

Mrs. K. Schudel-van Zwanenberg, S.C. Bakkenist and H.L. Merkle, whose terms of office had expired, were reappointed to the Council.

At the Annual Meeting of Stockholders convened for May 18, 1982, A. Herrhausen, G. Kraijenhoff and H.J. Schlange-Schöningen will resign from the Supervisory Council because their terms of office are expiring. They are willing to accept a new term and we recommend that they be reappointed.

Stockholders will be asked to authorize an increase in the Council's membership from 11 to 13, since approval will be sought for appointment to the Council of A.G. van den Bos, retiring President of the Board of Management, and of H.A. van Stiphout.

Changes in the Board of Management

Having reached the mandatory retirement age, A. van Driel, President of Akzo Coatings, resigned from the Board of Management at the Annual Meeting of May 12, 1981. C. Zaal, previously Deputy President of Akzo Coatings, succeeded him effective June 1, 1981.

Mr. van Driel devoted more than forty years of his life to our paints business. He began his career with Sikkens, becoming a Board member in 1958 and President of the Board in 1963. In 1969 he was named President of the Board of Management of Akzo Coatings and a member of the Akzo Board of Management.

Mr. van Driel inspired and energetically promoted the international expansion of the Coatings group.

Reasons of a personal nature motivated J.A. Wolhoff, one of the two Deputy Presidents of the Board of Management, to request to be relieved from all his duties with effect from October 1, 1981.

The Council acceded to this request, acknowledging a debt of gratitude to Mr. Wolhoff in respect of his substantial services to the Company since 1960.

At the Annual Meeting of May 18, 1982, A.G. van den Bos (President), H.J. Kruisinga and H. van Doodewaerd will retire from the Board of Management effective May 31, 1982. Effective June 1, 1982, A.A. Loudon, now Deputy President of the Board, will be appointed its President.

Mr. van den Bos began his 29 years with Akzo on the staff of the Amsterdam-based Nederlandsch Verkoopkantoor voor Chemische Produkten (a chemical sales office) and became Managing Director shortly thereafter. In 1961 he joined the management of Ketjen, which, after several mergers, became a part of Akzo Chemie, one of the Akzo Group divisions. In 1970 he was put in charge of this division, and in 1973 was appointed as a member of the Board of Management of Akzo.

During the last four years he has been President of the Board, also chairing the meetings of the Executive Committee. In this watershed period he ably directed the process of recovery of the Group, helped in the achievement of his objectives by the high priority he accorded to good human relations inside the organization. We are pleased that Mr. van den Bos has agreed to continue to give the Company the benefit of his wisdom and experience.

Mr. Kruisinga retires after a period of sixteen years in which he, as a member of the Board of Management, bore special responsibility for the Company's financial and accounting affairs. In the latter half of this period his principal task became the securing of financing for the Group. In conditions that were often difficult, Mr. Kruisinga energetically and ably pursued this objective.

Mr. Van Doodewaerd's retirement marks the end of a career in consumer products which extends over more than forty years; since 1974, Mr. Van Doodewaerd also served on the Board of Management. He deserves our recognition and gratitude for his excellent leadership evidenced by the healthy development of Akzo Consumenten Produkten under his presidency since 1973; total sales of this division recently passed the Hfl 1 billion mark.

After consultation with us, the Board of Management is proposing to change the organizational structure of the Company's top management with effect from June 1, 1982. We endorse this proposal, which will be submitted for approval to the Annual Meeting of Stockholders of May 18, 1982.

The proposal calls for a reduction in Board membership to four, namely A.A. Loudon, J. Veldman, H.J.J. van der Werf, and H.G. Zempelin.

M.W. Geerlings (Research and Technology), M.D. Westermann (Akzo Chemie) and C. Zaal (Akzo Coatings), currently members of the Board, will resign. We are indebted to these outgoing members for accepting the consequences of the new arrangement, which does not, however, entail any changes in their functional or operational duties.

With effect from June 1, 1982, they will join the members of the new Board to become members of a Management Committee, which will assist the Board of Management in corporate policy-making. At the same time the following

* currently a member of the Supervisory Board of that company

Company officers will also join the Management Committee: S. Bergsma (Financial Affairs), F.A.G. Collot d'Escury (President, Akzo Zout Chemie), J.R. Hutter (Deputy President, Enka), H.B. Jacobs (President, Akzo Consumenten Produkten), and A.G. Vermeeren (President, Akzo Pharma).

Supervision

We regularly obtained oral and written reports on the business of the Company.

The chief items of our consultations with the Board of Management were the changes in the Company's top management, and problems associated with the implementation of the plans for a restructuring of Enka's man-made fiber operations.

The Council shares the opinion of the Board of Management that, in the interest of a healthy future of the Group, termination of loss-making activities should continue to receive a high priority.

We herewith submit to you for approval at the Annual Meeting of May 18, 1982, the financial statements for 1981 as prepared by the Board of Management. These financial statements have been examined by Klynveld Kraayenhof & Co., *Registeraccountants.* Their report appears on page 49.

We have approved these financial statements and the Board of Management's proposal made therein with regard to the allocation of profit. Acceptance of this proposal means payment of a dividend of Hfl 2 per common share of Hfl 20 par value.

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

Arnhem, March 30, 1982

For the Supervisory Council,

G. Kraijenhoff,
Chairman

In December, 1981, Board of Management and central staff departments of Akzo moved into the Velperweg, Arnhem, offices which also house Enka B.V.

Electricity rates that do not deviate too far from those in neighboring countries are essential for a continuation in the long term of our energy-intensive production processes in the Netherlands.

Financial highlights

on an historical-cost basis	1981	1980	% change
in Hfl million			
sales	14,476	12,453	+ 16
operating income	564	416	+ 36
net income (loss) before extraordinary items	224	170	+ 31
net income (loss) after extraordinary items	239	(70)	
funds from operations	846	631	+ 34
property, plant and equipment			
capital expenditures	693	645	+ 7
depreciation	527	504	+ 5
stockholders' equity	2,449	2,266	+ 8
per common share of Hfl 20 par value, in Hfl			
net income (loss) before extraordinary items	7.58	5.77	+ 31
net income (loss) after extraordinary items	8.07	(2.35)	
dividend	2.00	–	
stockholders' equity	82.72	76.56	+ 8

on a current-value basis (see pages 44 and 45)	1981	1980	% change
in Hfl million			
operating income	193	161	+ 20
net income (loss) before extraordinary items	47	53	– 10
net income (loss) after extraordinary items	62	(187)	
stockholders' equity	3,206	2,929	+ 9
per common share of Hfl 20 par value, in Hfl			
net income (loss) before extraordinary items	1.62	1.80	– 10
net income (loss) after extraordinary items	2.11	(6.32)	
stockholders' equity	108.32	98.93	+ 9
number of employees	77,800	83,100	– 6

Report of the Board of Management

General review

Gratifying recovery

We are pleased to report that the Group was able to achieve distinctly positive results in the year under review, despite the continuing recession. Net income was Hfl 239 million, against a net loss of Hfl 70 million in 1980; this loss was due to a negative balance of extraordinary gains and losses of Hfl 240 million caused by the restructuring of man-made fiber activities.

Sales were up 16% to Hfl 14.5 billion, of which 2% was attributable to volume gains. The higher value of the U.S. dollar had a major positive impact.

On a current-value basis net income was Hfl 62 million, compared with a net loss of Hfl 187 million in 1980.

This improved performance has occasioned us to propose to the Annual Meeting of Stockholders that the 1981 dividend be fixed at Hfl 2 per common share of Hfl 20 par value. Acceptance of this proposal means that of the net income of Hfl 239 million, an amount of Hfl 59 million will be allocated for distribution, while an amount of Hfl 180 million will be retained.

Restructuring of man-made fibers delayed

Enka Europe's synthetic textile and carpet fiber business remains a constant source of worry. Once again operating losses occurred, although significantly lower than in 1980. The implementation of the restructuring measures announced in January 1981 was delayed by the lengthy negotiations with works councils and labor unions. We recognize that consultations on this issue, which deeply affects the lives of employees, require scrupulous care. On the other hand, the Group cannot continue, for any substantial length of time, activities which are irremediably unprofitable without jeopardizing the development of other sectors. We remain willing to make every effort to provide alternative employment.

For social reasons only part of production in the Antrim plant (Northern Ireland) was shut down in 1981. However, in light of poor prospects for the remaining production we decided early in 1982 – after consultations with the authorities and labor unions – to completely close down production.

The Breda plant will be closed during 1982. There is now a fair chance that the plant's employees will find alternative employment with new industries located on site.

With respect to the closure of the plant in Kassel (Federal Republic of Germany), we are in the middle of the procedures to be followed in such cases.

The implementation of Enka's restructuring measures is contributing toward the additional cuts in Western European production capacity for synthetic textile and carpet fibers which will be necessary in the coming years. The total capacity reduction, which is expected to amount to more than half a million metric tons, comes on top of the decrease of about 400,000 tons realized by the industry in the period 1978 through 1980.

Strengthening the business base

We did fairly well in a period of recession largely because of moves initiated years ago to strengthen the Group's business base, which today is evidenced by an improved product line and cost structure.

Low economic growth forecasts for the eighties make it imperative to continue our strategy of phasing down economically weak products and implementing cost-cutting measures. This strategy chiefly concerns those product sectors which under pressure of structural overcapacities are facing fierce international competition.

This policy enhances our ability to invest in vital product and process innovations, such as our aramid yarn project. The decision-making process regarding this project has not yet been finalized.

Economic climate

The expected recovery of the world economy failed to materialize. The volume of world trade, a key economic indicator, was even lower than in 1980.

The further increase in crude oil prices, which in the year under review was almost exclusively due to the much higher exchange rate of the U.S. dollar, clearly delayed economic recovery. Unremittingly high interest rates also hampered the sorely needed expansion of investment activities.

Western Europe continued to feel the pinch of a deep recession with rising unemployment. In the United States there was an upturn in the first half of the year, but after the summer the economy again began to decline.

There is thus some cause for gratification that under these adverse economic conditions such business segments as specialty chemicals, coatings, pharmaceuticals, consumer products, and a number of industrial products, which together account for more than half of consolidated sales, retained considerable buoyancy despite the recession and achieved fair to satisfactory earnings.

In Western Europe, major branches of industry, including the petrochemical industry, the man-made fiber industry and some basic segments of the chemical industry, are confronted with structural overcapacities. This overcapacity exerts a disruptive influence, reflected not only in losses due to low capacity utilization but also in the fact that it is virtually impossible to pass through higher costs to selling prices within a reasonable time. As a consequence, we have for years been suffering substantial losses on our synthetic textile fibers, although the situation has improved somewhat in the year under review. In 1981 we also felt the impact of growing overcapacities in the plastics industry, resulting in appreciable losses on reduced shipments of vinyl chloride monomer to the PVC industry.

Restructuring measures in threatened business sectors require the understanding of employees as well as of the authorities. For a return to better, balanced market conditions, however, such measures are unavoidable and necessary.

The role of government in achieving structural improvements in the economy should primarily be aimed at establishing conditions likely to enhance the investment activities of industry. To this end it is important that public spending should be cut, thereby creating more scope for industry to attract capital on acceptable conditions.

We welcome the reduced upward pressure on cost levels in the Netherlands and the Federal Republic of Germany due to the relatively low inflation and modest wage increases in these countries during the past few years. With regard to raw material costs, prices of petrochemical feedstocks tended to stabilize in the second half of the year. Energy costs, on the other hand, again increased appreciably in 1981.

Energy

The plants in the Netherlands account for almost half of the Group's total energy consumption of approximately Hfl 1 billion. A significant portion of the comparatively high consumption in the Netherlands relates to Akzo Zout Chemie plants, notably the electrolysis plants.

After the Second World War a strong, export-oriented chemical industry was built up in the Netherlands, which benefited from the favorable infrastructure and the international orientation of the Netherlands. The series of increases in oil prices since 1973 and the national policy to rapidly adjust natural gas prices to oil prices have gradually eroded the competitive position of the industry compared with other Western European countries. Especially the differences in electricity charges, which mean a disadvantage to Akzo of tens of millions of guilders per year, are a matter of growing concern, which is shared by the Dutch government.

These developments have caused us to intensify efforts to reduce energy consumption by our energy-intensive production processes. In this connection, the application of the membrane process in our electrolysis plant now under construction in the Rotterdam area will help us realize a 15% reduction in energy consumption.

Nonetheless, for the continuation of the electrolysis activities over the long term it is imperative that energy charges in the Netherlands do not diverge too widely from those of neighboring countries.

Changes in top management

Since 1977 the Executive Committee has been an organ of the Board of Management specifically charged with providing direction and guidance to the Group as a whole. It has since become clear that a type of structure in which overall responsibilities for Group strategy and operational tasks are more clearly assigned is preferable.

Therefore, stockholders will be asked at the Annual Meeting of May 18, 1982, to give their approval to a reduction in the number of members of the Board of Management from eleven to four with effect from June 1, 1982.

A Management Committee to be composed of the members of the Board of Management and of executives in charge of operational or functional units will assist the Board of Management in policy-making.

Outlook for 1982

So far economic forecasts for 1982 have constantly been adjusted downward. Also, the Group's performance has leveled off in the first few months of 1982. At present there are no clear indications that the economy will recover soon.

If the economic climate does not further deteriorate, we expect to again achieve reasonable results in 1982.

For coatings, pharmaceuticals, consumer products, and various industrial products, which have so far held up well under the depressed economic conditions, we expect on the whole satisfactory earnings for 1982 as well. As to chemicals, we do not yet foresee a significant improvement for commodity chemicals in light of the overcapacities in major sectors. For specialty chemicals income should be at the 1981 level, provided the economy picks up.

Implementation of the restructuring measures at Enka Europe will be a major factor in a further improvement of the results for man-made fibers. It will take an upturn in the economy to cancel fresh pressure on income of Akzona's fiber division American Enka.

Capital expenditures will show a modest increase in 1982. Employment within the Group will further decrease due to the restructuring measures effected at Enka Europe.

in Hfl million	sales 1981	sales 1980	operating income 1981	operating income 1980
first quarter	3,533	3,285	114	181
second quarter	3,664	3,090	141	141
third quarter	3,588	2,853	127	31
fourth quarter	3,691	3,225	182	63
total	14,476	12,453	564	416

Results of operations

Sales and income

in Hfl million	1981	1980
sales	14,476	12,453
operating costs	13,912	12,037
operating income	564	416
interest	(329)	(261)
taxes on operating income less interest	(79)	(48)
equity in earnings of non-consolidated companies	83	72
Group income before extraordinary items	239	179
extraordinary items	7	(246)
minority interest	(7)	(3)
net income (loss)	239	(70)
on a current-value basis		
operating income	193	161
net income before extraordinary items	47	53
net income after extraordinary items	62	(187)

The increase in *sales* by more than 16% was due to selling price rises (10%) and to the effect of higher exchange rates for some currencies, including the U.S. dollar (4%). Shipments were up 2%.

The gain in shipments was mainly attributable to man-made fibers. For chemical products there was a decline in shipments of commodity chemicals which was offset by an increase for specialty chemicals. Volume sales of pharmaceuticals and consumer products showed a satisfactory development, while coatings stood up fairly well to the recession. Adverse economic conditions exerted a downward pressure on volume sales of Brand-Rex (Akzona); the products of Barmag Barmer Maschinenfabrik were also affected, if to a lesser extent.

At 15.6%, the increase in *operating costs* was slightly lower than the increase in sales. The breakdown of operating costs is as follows:

in Hfl million	1981	1980	
salaries, wages and social charges	4,182	3,789	+ 10%
depreciation	527	504	+ 5%
raw materials	5,500	4,650	+ 18%
energy	1,020	750	+ 36%
supplies, purchased services, etc.	2,683	2,344	+ 14%
total	13,912	12,037	+ 16%

After deduction of the effect of the higher value of the U.S. dollar (4%), *salaries, wages and social charges* were up 6%. The increase was limited by a 2% reduction in the average number of employees. Restraints on increases of wages and salaries in some countries where we operate also played a role.

The upward trend of the prices for oil-based *raw materials* was significantly impacted in the first half of 1981 by the rise of the exchange rate for the U.S. dollar. The higher value of the dollar also impacted raw materials other than petrochemical feedstocks. In the second half of the year, prices of a number of raw materials began to show some degree of stability.

Of the increase in *energy* costs by Hfl 270 million (36%), approximately Hfl 100 million was for the account of the Dutch plants of Akzo Zout Chemie.

Operating income improved by Hfl 148 million to Hfl 564 million. Expressed as a percentage of sales (3.9%), it is still inadequate, however. Nearly 80% of 1981 operating income is generated by coatings, pharmaceuticals, consumer products, and various industrial products, which together account for about 40% of total sales.

Net *interest expense* rose sharply by Hfl 68 million to Hfl 329 million. This rise was mainly attributable to higher rates of interest on loans and credit lines of our affiliates in Argentina, Brazil and the United States. In addition, the stronger dollar further increased Akzona's higher interest expense.

Higher interest received on cash and marketable securities afforded some counterbalancing.

At Hfl 83 million, *equity in earnings of nonconsolidated companies* was remarkably high (1980: Hfl 72 million). The man-made fiber companies in Latin America and India showed, in general, a satisfactory development, particularly the COBAFI nylon tire yarn plant in Brazil. In the second half of the year, however, this company was compelled to adjust production to a strong decline in demand of the tire industry due to the slump in the Brazilian automotive industry.

Equity in earnings of nonconsolidated companies in the chemical sector showed a further improvement in the year under review. By mid-1981 the two methanol plants in Delfzijl (the Netherlands) were incorporated into one company (Methanor), in which we hold a 27.5% stake. The results of operations for Delamine (Delfzijl) improved, although 1981 still closed with a loss.

The loss situation of the nitrogen derivatives plant Société des Dérivés Azotés in Mons (Belgium) failed to turn around, mainly due to the relatively weak market for such products as raw materials for laundry softeners.

Extraordinary gains in 1981 were Hfl 57 million and *extraordinary losses* Hfl 50 million. The extraordinary gains were primarily caused by book profits on a number of divestments, including the sale of the butanol plant (Rotterdam) and of our interest (60%) in the carbon black plant of Ketjen Carbon (Rotterdam) as well as by the concentration of the methanol activities. A substantial part of the extraordinary losses relates to additions to provisions for the restructuring of activities.

Determination of the 1981 results on the basis of the *current value* of property, plant and equipment, and of inventories produces a decrease in operating income by Hfl 371 million to Hfl 193 million (1980: Hfl 161 million). This decrease is caused by inventory profits of Hfl 197 million (1980: Hfl 105 million), and by higher depreciation on property, plant and equipment of Hfl 174 million (1980: Hfl 150 million).

Net income on current-value basis is computed at Hfl 62 million.

Sales, operating income and invested capital

product groups	sales		operating income		invested capital**	
in Hfl million	1981	1980	1981	1980	1981	1980
man-made fibers	4,678	3,782	33	(170)	2,328	2,123
chemical products	4,011	3,549	125	183	1,851	1,749
coatings	1,513	1,432	110	110	569	585
pharmaceuticals	1,484	1,320	190	145	714	733
consumer products	1,013	869	50	40	289	261
miscellaneous products	1,959	1,670	88	116	1,058	973
total	14,658	12,622	596	424	6,809	6,424
intra-Group deliveries, nonallocated costs and nonallocated invested capital	(182)	(169)	(32)	(8)	(65)	(6)
total	14,476	12,453	564	416	6,744	6,418

The terms and conditions for intra-Group deliveries are negotiated at arm's length and therefore are, in principle, identical with the ones used in transactions with third parties. International intra-Group deliveries and international deliveries within a single product group are made in accordance with standard procedures that take due account of tax, currency and pricing regulations in force in the countries concerned.

regions	sales*		operating income		invested capital**	
in Hfl million	1981	1980	1981	1980	1981	1980
the Netherlands	4,699	4,255	133	117	2,143	2,095
Federal Republic of Germany	3,385	3,106	105	66	1,660	1,578
other EEC countries	1,633	1,498	78	46	601	632
rest of Europe	825	718	31	37	332	309
North America	3,210	2,253	99	45	1,721	1,542
rest of the world	724	623	118	105	287	262
total	14,476	12,453	564	416	6,744	6,418

* by origin

** total assets of consolidated companies less cash and marketable securities, and less non-interest-bearing other current liabilities

For details on the development of sales and operating income of the product groups see page 18 and following.

The financial information about product groups now also includes invested capital. The data presented permit conclusions as to the return on investment before taxes. For *coatings, pharmaceuticals and consumer products* it was favorable compared with the other product groups. The greatest improvement was posted for *man-made fibers,* while *chemical products* showed a steep decline.

With respect to the same information by region, an appraisal of the figures for the *rest of the world* should make due allowance for the fact that operating income achieved in this region is to be reduced by high financing charges as a result of the strong inflation.

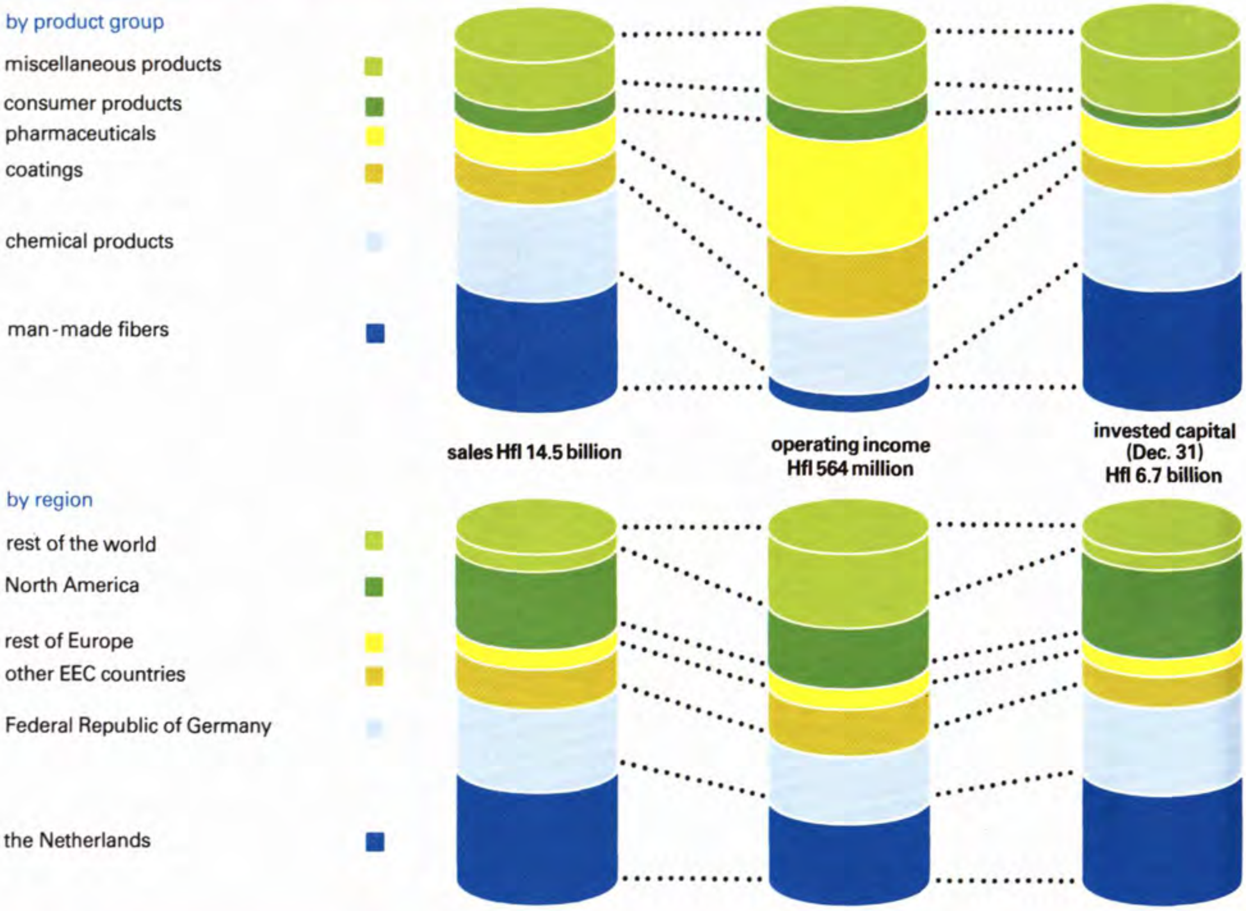
In *the Netherlands* operating income was up from the previous year. The strongly reduced contribution of Akzo Zout Chemie, resulting from losses on vinyl chloride monomer and acetic acid and the upsurge in energy costs, was amply offset by improved performance of other divisions such as Enka, Akzo Chemie and Akzo Pharma.

In the *Federal Republic of Germany* the substantial rise in operating income was mainly caused by Enka's better results.

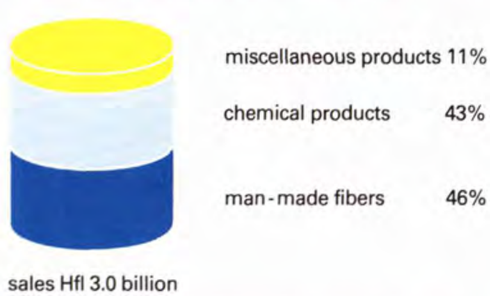
Among the other European countries, *Spain* and the *United Kingdom* registered lower operating incomes owing to poor results for man-made fibers, although performance of La Seda de Barcelona was much improved by year-end. By shutting down a major portion of British Enkalon's production, losses were reduced in the second half of the year.

The share of *North America* (Akzona) increased as a result of improved performance and the higher value of the dollar.

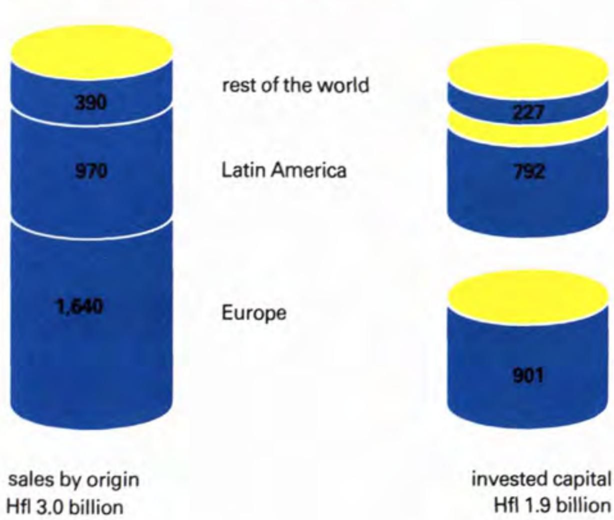
Sales, operating income and invested capital (1981)



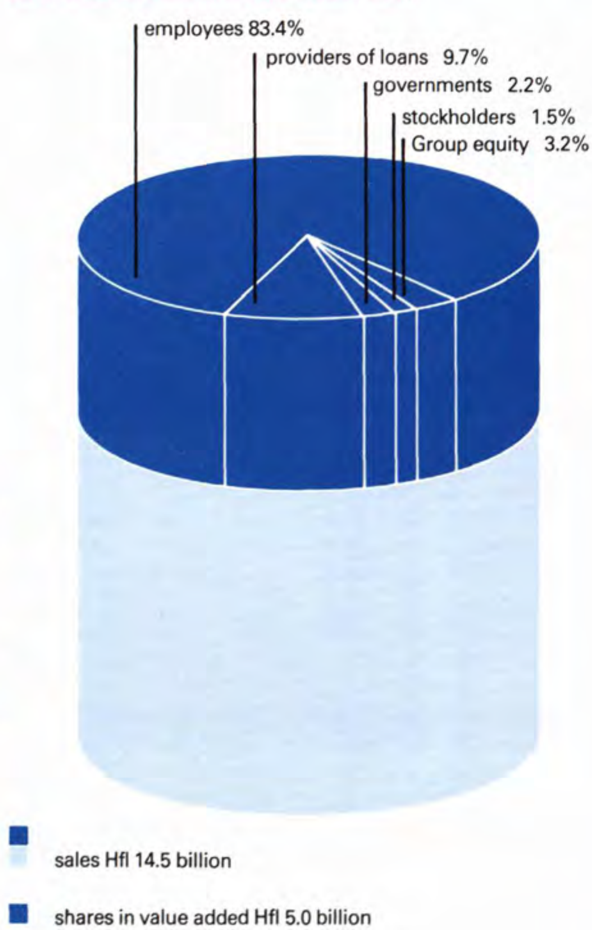
Sales (1981) of nonconsolidated companies



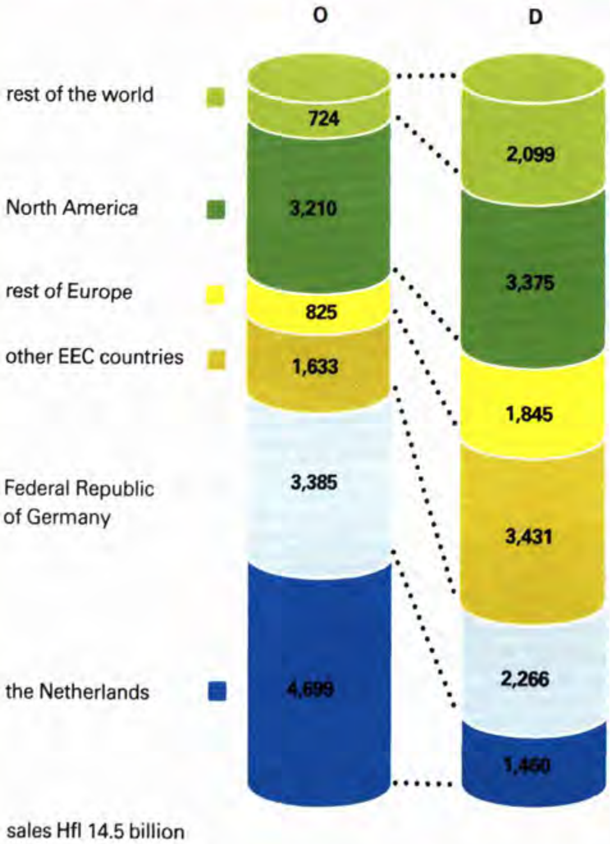
Sales (1981) and invested capital (Dec. 31, 1981) of nonconsolidated companies (in Hfl million)



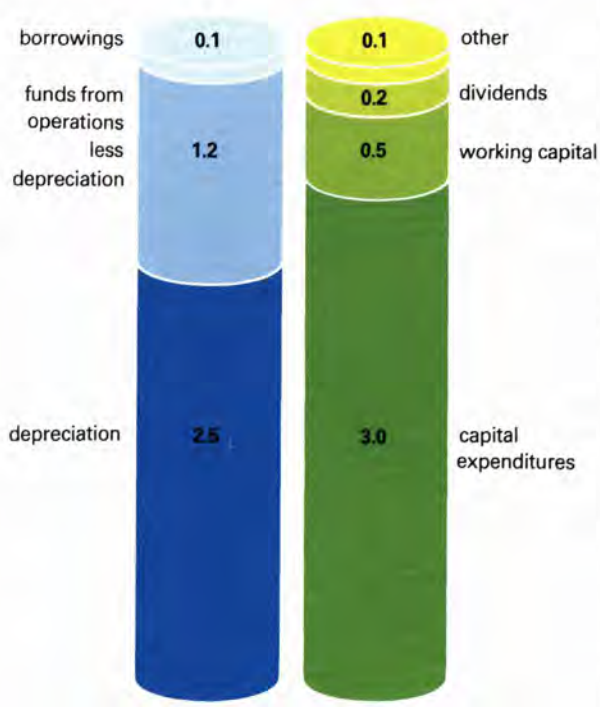
Value added and shares in value added (1981)



Sales (1981), by origin **(O)** *and by destination* **(D)** *- in Hfl million*



Sources and applications of funds, 1977 - 1981 (in Hfl billion)



Despite the recession, operating income in *Brazil* remained at the 1980 level.

Value added

Group value added, defined as sales less the total cost of raw materials, energy, supplies, services, and depreciation, amounted to Hfl 4,746 million in 1981. Expressed as a percentage of sales, it fell by 1.0% to 32.8%.

For the determination of value added available for distribution, equity in earnings of nonconsolidated companies and certain other items of income (Hfl 268 million) have to be added to the above figure. As usual, extraordinary items have not been included because of their nonrecurring nature.

The share of employees in this value added was 83.4%, against 85.8% in 1980.

Financial accounting standards

Accounting standards vary widely from country to country, which gives rise to misunderstandings and hampers comparison of financial reports. There is a growing need for standards that are suitable for international use. Akzo believes in the importance of activities aimed at a harmonization of standards, such as those currently being undertaken by the European Economic Community, the Organisation for Economic Co-operation and Development, and the International Accounting Standards Committee (IASC). The standards issued by the IASC were among those employed in formulating the principles underlying the financial statements of Akzo.

Financing and capital expenditures

The table below presents a survey of Group financing in the last three years.

in Hfl million	1981	1980	1979
working capital at January 1	2,813	2,766	2,108
source			
funds from operations	846	631	976
borrowings	425	593	538
other	6	16	3
	1,277	1,240	1,517
application			
capital expenditures	739	696	529
repayment of borrowings	452	498	202
dividends	76	21	87
other	1	(22)	41
	1,268	1,193	859
working capital at December 31	2,822	2,813	2,766
of which cash and marketable securities	898	883	805

The survey shows a balanced financing picture for 1981, with a fractionally higher working capital and a lower amount of borrowings.

Sources of funds for 1981 include an amount of more than Hfl 100 million resulting from the disposal of participations and the sale of property, plant and equipment.

Capital expenditures

Expenditures for property, plant and equipment rose from Hfl 645 million in 1980 to Hfl 693 million in 1981. Man-made fiber expenditures were on the same level as the previous year. Most of these were in the category of cost-reducing investments in Western Europe and the United States, which are considered of vital importance to our fiber operations. Expenditures for chemical products (up from the previous year) chiefly concerned the Rotterdam electrolysis plant expansion currently under construction.

At Hfl 36 million, expenditures for acquisitions were significantly lower than in 1980, when they were Hfl 94 million.

expenditures for property, plant and equipment, in Hfl million

product groups	1981	1980	1979
man-made fibers	241	241	141
chemical products	239	193	144
coatings	46	50	34
pharmaceuticals	59	64	48
consumer products	22	23	15
miscellaneous products	86	74	79
total	693	645	461

expenditures for property, plant and equipment, in Hfl million

regions	1981	1980	1979
the Netherlands	303	246	170
Federal Republic of Germany	138	130	100
other EEC countries	43	63	44
rest of Europe	52	36	16
North America	139	150	117
rest of the world	18	20	14
total	693	645	461

In 1981, authorizations for additions to property, plant and equipment totaled Hfl 590 million (1980: Hfl 660 million).

Of this amount, 36% related to coatings, pharmaceuticals, consumer products, and various industrial products. The share of man-made fibers was 37%, to be spent primarily on further modernization of equipment and on restructuring projects (Enka). Chemical products were allotted 27%.

Working capital and liquidity

Whereas sales rose Hfl 2.0 billion to Hfl 14.5 billion, working capital showed an increase of a mere Hfl 9 million to Hfl 2,822 million at December 31, 1981.

Cash and marketable securities included in working capital aggregated Hfl 898 million at December 31, 1981, so that ample liquidity was maintained.

Operational working capital, defined as trade receivables, inventories and accounts payable (suppliers), was up Hfl 243 million. Expressed as a percentage of sales, the 1981 figure represents a 2.3% drop to 26.0%.

Changes in the individual components were as follows:

	increase in Hfl million	operational working capital, in % of sales Dec. 31, 1981	Dec. 31, 1980
trade receivables	274	16.4	16.9
inventories	52	17.3	19.7
	326	33.7	36.6
accounts payable (suppliers)	83	7.7	8.3
total	243	26.0	28.3

Substantial effort is being concentrated upon the control of operational working capital.

Borrowings

Because of the Group's favorable liquidity and the amount of credit facilities negotiated in 1980, it was not necessary in the year under review to conclude major new loan agreements. Drawdowns in 1981 decreased by more than Hfl 168 million over 1980.

The aggregate amount of unused medium- and long-term credit facilities stood at Hfl 940 million at December 31, 1981 (unchanged from December 31, 1980).

The average rate of interest on the loans outstanding at year-end continued to rise, from 9.6% in 1980 to 9.9% in 1981.

At December 31, 1981, the share of floating rate debt in the aggregate amount of interest-bearing debt (Hfl 3.8 billion) was approximately one-third. This demonstrates the Group's sensitivity to changes in interest rates in the international money and capital markets.

Financing requirements in 1982

In 1982, substantial amounts of financing will become available under previously negotiated long-term credit agreements. These funds are expected to be used to meet most of our central financing requirements. For the remainder we expect to draw on cash and marketable securities, except to the extent that market conditions justify a call on the capital market.

As in previous years, the geographically highly diversified financing requirements of our subsidiaries outside the Netherlands will be met primarily by means of local bank credits.

Human resources

Employment statistics

The number of employees of our consolidated companies fell by a total of 5,300 in 1981. The following tables illustrate the changes by region and by division.

Employees of consolidated companies in numbers	Dec. 31, 1981	Dec. 31, 1980	change
regions			
the Netherlands	23,000	23,600	− 600
Federal Republic of Germany	20,200	21,000	− 800
other EEC countries	8,200	9,600	− 1,400
rest of Europe	5,800	6,400	− 600
North America	14,900	16,000	− 1,100
rest of the world	5,700	6,500	− 800
total	77,800	83,100	− 5,300
divisions			
Enka	32,700	35,300	− 2,600
Akzo Zout Chemie	5,000	5,300	− 300
Akzo Chemie	4,300	4,700	− 400
Akzo Coatings	8,300	8,700	− 400
Akzo Pharma	8,600	9,000	− 400
Akzo Consumenten Produkten	3,100	3,200	− 100
Akzona	14,700	15,900	− 1,200
other companies	1,100	1,000	+ 100
total	77,800	83,100	− 5,300

In our Annual Report on 1980 we announced that as a result of the necessary restructuring program for Enka Europe more than 4,000 jobs would be lost. In the year under review the consultations with works councils and labor unions in respect of this program took a great deal of time and effort; for certain parts of the program they are still continuing.

The future of Enka – and Akzo – necessitates full implementation of the restructuring measures. We are, however, using our best efforts to make reasonable provision for employees affected by the measures, and to arrange for their transfer to other jobs wherever this is possible. In 1981 the number of Enka employees decreased by some 2,600, principally due to implemented restructuring measures; 1,200 of this total were employees of British Enkalon.

We very much regret the necessity of the personnel reduction at British Enkalon, which mainly affected workers of the plant in Northern Ireland. This regret is only the deeper for the fact that the region is already afflicted with very high unemployment. Because of the bleak outlook we had to decide early in 1982 to terminate production altogether.

With business taking a turn for the worse, Akzo Zout Chemie saw the personnel strength of CIRNE in Brazil decrease by approximately 200.

The number of employees of Akzo Chemie fell by more than 400. The sale of our majority interest in Ketjen Carbon accounted for 220 of this total.

The number of people employed by Akzo Coatings decreased by about 400. This decrease occurred in the division's South American companies. One such company was Miluz in Argentina whose operations were badly affected by the poor economy in that country.

Akzo Pharma's personnel strength was also down by about 400, the result of decreases in various countries.

Akzona reduced staffing levels by more than 1,200, primarily in Brand-Rex and American Enka.

The number of persons employed by nonconsolidated companies was down from 12,500 at December 31, 1980 to 11,600 at December 31, 1981.

Outlook

The continued restructuring of Enka Europe announced in 1981 will produce more job losses in this division in 1982 and beyond. In the two chemical divisions some reduction in personnel strength is also anticipated. For the other divisions we expect job levels to remain unchanged overall.

For the Group as a whole this means that the total number of employees is likely to decrease somewhat.

Social developments

Strengthening industry

In the 1980 Annual Report we discussed at some length the position of industry, particularly in Europe. We noted a growing consciousness of the importance of industry for the preservation of prosperity and employment, and hence a revived interest in its fortunes. We made a plea for realization of the type of climate – economic, social and financial – in which enterprise is once more able to achieve fair returns on invested capital, seize opportunities arising from new developments, and adjust to changed competitive conditions. A reduction in the level of public spending in percentage terms and encouragement of savings in the private sector were named as means to create room for more investment.

This critique has since become even more topical and meaningful. In Europe, but also in the United States, economic conditions only deteriorated in 1981, resulting in unemployment figures which are still climbing. We repeat emphatically that the only way out of the crisis is through a strengthening of industry. Government policy needs to be structurally oriented toward reduction of collective spending, which should help bring down interest rates, and toward the creation of conditions, including fiscal conditions, under which new business ventures, capital investment and industrial research are stimulated. The economic recovery so produced should in the longer term ease the unemployment situation.

Controlling unemployment

The present excessive rate of unemployment – particularly the intolerably high level of juvenile unemployment – causes grave concern on all hands, and also fills us with dismay. Therefore, measures to curb this economic and social evil are urgently needed. For the sake of an economic recovery, however, these measures must be so structured that they do not add to industry costs. So long as that is ensured, we will be able to support government action designed to reduce unemployment.

Technological innovation

An active industrial policy on the part of the government can be of positive significance to industry. A good illustration is the field of technological innovation where the authorities are making increasing stimulatory efforts. The Dutch government's policy in this area is of great interest to Akzo because of our extensive research activities in the Netherlands.

To advance its aims the government does not solely rely on financial stimulation: it is also seeking to further a better and more efficient use of the available research potential in all facilities, publicly owned or run by private enterprise. We consider better coordination of research programs a matter of the highest importance, especially in fields where government might itself take an active part. It could do so in its regulatory capacity; in its capacity as a big customer; or, as a researcher in its own right, by focusing its research programs more directly on the needs of industry, thus also serving social interests.

International codes of conduct

International codes of conduct were the central topic at the annual convention of top managers of our Group. It is a corporate policy object to familiarize managers with these codes and to promote compliance with them in economic and social life.

Safety and the environment

With regard to safety and the environment, industry bears its own responsibility, which, however, is in large measure defined by government regulations.

Some 300 Group employees are daily engaged upon environmental and safety affairs. Pollution control facilities, so our experience indicates, over the last ten years accounted for about 7% of capital expenditures. The amount of money spent annually on a cleaner environment now averages 1% of sales.

It is the business of the government to make rules for the protection of the environment from the consequences of industrial activities. Product safety and the safety of people at work are two more areas where government plays a major regulatory role. A willingness to cooperate with industry and other interested parties in this area could make an important contribution to a balanced and constructive approach toward the problems.

Our experience with this kind of cooperative effort is positive. Even so, we believe that the authorities do not always give due weight to the cost aspects of regulatory activities. In light of the pressing need for increased profitability of industry, these aspects must be very carefully pondered when any further environmental or safety regulations are considered.

Finally, we wish to emphasize once again the necessity of comprehensive international harmonization of legislation in the areas of safety and the environment, in the first place at European Community level.

Enka's rayon tire yarn plant in Arnhem has succeeded in largely controlling emission of the malodorous sulfur-containing waste gases formed during the spinning process. The waste gas is purified by scrubbing with lye. The sodium sulfide (Na_2S) *thus formed is led to one of the tanks of the waste water purification plant. Air is injected to enable the microorganisms occurring in the waste water to convert the sulfide into sodium sulfate* (Na_2SO_4)*, which in the quantities produced does not affect the environment. Work is under way to apply this waste gas purification method also in another rayon plant.*

Akzo Engineering designed the new Rotterdam electrolysis plant and will also supervise erection. The plant, scheduled for completion in early 1983, is to have an annual capacity of 250,000 metric tons of chlorine and is one of the largest facilities in the world to use the energy-efficient membrane electrolysis process.

Research and technology

The number of employees engaged in research was down 60 to 5,230 at December 31, 1981. R&D costs increased Hfl 70 million to Hfl 585 million. At least 20% of the total related to activities in direct support of existing processes and products to assist marketing and production.

The cost of research activities proper* undertaken by the divisions and Corporate Research amounted to Hfl 455 million, distributed as follows among the various product groups:

	in Hfl million	in % of sales
man-made fibers	85	1.8
chemical products	85	2.1
coatings	50	3.3
pharmaceuticals	150	10.1
consumer products	10	1.0
miscellaneous products	75	3.8
total	455	3.1

Research for *man-made fibers* and *chemical products* is centered on product and process improvements which cut costs or enhance quality; some of the areas under research are industrial fibers, soda, and vinyl chloride monomer. A subsidiary research focus is product innovation (aramid yarns). In process-oriented research, energy conservation is now the main theme. In the case of *specialty chemicals,* research funds (4% of sales) are mostly spent on product innovation for industries buying our specialties, such as petroleum refineries, plastics, rubber and paper manufacturers, and the detergent industry.

Coatings research is primarily aimed at the development of advanced paint systems to combine product properties and application techniques in order that the best results can be achieved as to durability, labor and energy costs, environmental compatibility, and safety. Principal areas of emphasis are product sectors such as automotive paints, auto refinishes and house paints, where demand for improved or new products and systems is greatest.

Pharmaceuticals receive roughly one-third of the Group's overall research budget. Work is concentrated on a number of selected fields, such as fertility/antifertility, the central nervous system, cardiovascular diseases, diagnostics, blood treatment, and vaccines. As the lead time for new products continues to increase, the average period of effective patent protection is further shortened.

Consumer products research, while comparatively modest in terms of manpower and funding, achieved some breakthroughs in developing an enzymatic toothpaste and a phosphate-free detergent.

In *miscellaneous products,* major innovative research efforts concern *membranes* (Federal Republic of Germany and United States), *special machinery and equipment* (Federal Republic of Germany) and *products for the communications industry* (United States).

The principal objective of Corporate Research, besides providing scientific, methodological and instrument support to divisional research, is the pursuit of fundamental investigations in fields which are of importance for the future of the Group and which are relevant to more than one division. Fields in which research is being carried out under programs extending over several years are chemical products and processes, crosslinked polymer systems, polymer product and process additives, composite materials, and biotechnology.

As usual, the product group reports review the major projects and results of divisional research.

Akzo awards

In 1981 the annual Akzo Award was presented to F. Iachello. The nominee for the award is selected by the Dutch Society of Sciences from among persons who in the previous ten years have done original work in any one of several scientific fields.

Professor Iachello was nominated because of his pioneering investigations into the structure of atomic nuclei.

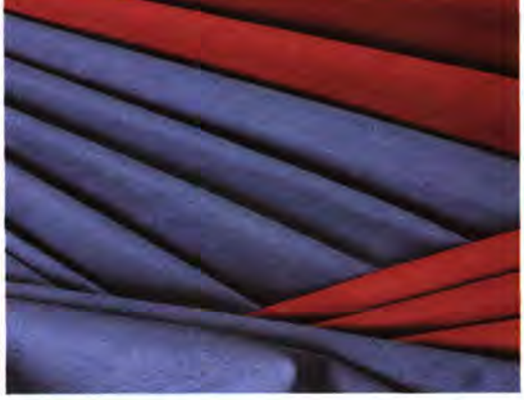
In support of a campaign to reduce energy consumption in the Group, yearly awards were instituted, which early in 1982 were granted for the first time to a number of Akzo operations in Western Europe.

The Akzo Energy Trophy was awarded to the French pharmaceutical company R.E.T.I., which realized proportionally the greatest economies in 1981. Regional awards went to Akzo Zout Chemie, location Rotterdam/Europoort (the Netherlands), Akzo Chemie Düren (Federal Republic of Germany) and La Seda de Barcelona (Spain), while the Enka Emmen plant (the Netherlands) received a merit award.

* as defined by the International Accounting Standards Committee

Akzo has developed a new, phosgene-free process route for the production of special isocyanates. These diisocyanates are processed into cast and thermoplastic polyurethanes. Major areas of application for these elastomers are the automotive, oil, aircraft and mining industries.
View of part of the pilot plant.

For more than eighty years the Wuppertal city scene has been dominated by the "Schwebebahn", a suspended railway over the river Wupper. In the background Enka's headquarters.


Man-made fibers

Sales and income

in Hfl million	1981	1980		1979
sales: textile uses	3,427	2,663	+ 29%	2,817
industrial uses	1,251	1,119	+ 12%	1,035
total	4,678	3,782	+ 24%	3,852
operating income	33	(170)		74
operating income, as percentage of sales	0.7	(4.5)		1.9

Higher selling prices, including dollar translation gains, account for 16% of the substantial increase in sales.

Volume sales of American Enka, which benefited from a recovery of the U.S. fiber market in the first half of 1981, were up 7%. The volume growth registered by Enka Europe (10%) was due in part to reduced U.S. competition in textile fibers because of the higher dollar. Enka's shipments of industrial yarns slowed down as a result of the slump in the automotive industry.

American Enka's improved performance along with the dollar translation gains largely eliminated the loss situation for man-made fibers. However, in the fourth quarter American Enka's earnings again came under heavy downward pressure.

Despite the substantially improved performance of Enka Europe, the negative results for synthetic textile and carpet fibers continue to be a matter of grave concern.

Market situation

With textile imports rising sharply over the last several years and demand virtually stagnating, the Western European fiber industry continued depressed by the overcapacity of synthetic textile and carpet fibers. In the period 1975 through 1980, textile imports rose by 60% to more than 1.4 million metric tons. In 1981, imports declined due to the higher rate of the dollar and a weak business environment in the textile sector. The recessionary trend contributed to the overall 8% drop in production level of the EEC textile industry in 1981.

The market for tire reinforcing materials in Western Europe clearly began to feel the pinch of the slump in the auto and truck industry, while the important replacement market for auto tires also showed a perceptible decline in volume sales in the second half of 1981. Other industries using reinforcing materials adopted a cautious buying policy.

Sustained restructuring measures, plant closures and volume growth helped the Western European fiber industry to keep its 1981 loss to Hfl 1 billion odd, about half the 1980 amount. Even so, this loss, which in large part originated in the synthetic textile and carpet fiber sector, shows the necessity of restructuring this industry. It also demonstrates the necessity of renewing the Multi-Fiber Agreement to regulate the flow of imports in line with the development of textile consumption and with the pace at which the textile and fiber industry is being restructured in Western Europe. In this context we attach great importance to the means of countering a disruptive rise in textile imports, for which the basic agreement concluded at the end of 1981 makes provision.

While the market situation in the United States achieved a better balance, the earning capacity of the fiber industry there will in the short term continue to be squeezed by the recession.

The global recession has also extended to the markets of our (mainly nonconsolidated) companies in Latin America and especially affected our operations in Mexico and Brazil.

The persistently poor business climate in Argentina resulted in the termination of the activities of the joint venture Petroquímica Sudamericana.

Man-made fibers for textile uses, including carpets

Volume sales of Enka Europe's *polyester textile filament* were well ahead of last year. Substantial price rises to offset higher costs resulted in a modest margin improvement, although the loss situation for this product persisted. In the second half of the year there was a marked improvement in performance. Compared with 1980, American Enka was able to considerably reduce its losses on polyester textile filament.

The importance of *polyamide textile filament* will decline further due to the termination of production by British Enkalon, although Enka Europe continues to maintain a healthy market share in some sectors. American Enka maintained its leading position in the U.S. market, particularly with respect to specialty yarns for the intimate apparel and hosiery sectors.

Volume sales of *polyamide carpet filament* on the Western European market were again stagnant and showed a loss. Enka Europe continues to concentrate on carpet yarns for the top segments of the consumer market and the institutional market, which are less sensitive to changes in the general economy. After a series of unprofitable years American Enka was once more able to record a profit in this product sector. However, due to the failure of the U.S. building industry to recover, operating margins were again depressed in the second half of the year. The introduction of *Enkalon®Scotchgard®* antisoiling carpet fibers was successful.

Shipments of *rayon textile filament* (Enka Europe) were up over last year, with earnings remaining satisfactory. Reduced demand from the lining fabrics industry was offset by several factors, the principal one being higher

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

shipments to markets vacated by other suppliers, who terminated production.

For *polyester staple* the market was weak in Western Europe with higher losses for Enka Europe than in 1980. By keeping up a high export level it was possible to maintain an acceptable level of capacity utilization.

Rayon staple (American Enka) again enjoyed a satisfactory year. The plant operated at capacity levels, while selling prices were increased. Development work continues on the *NewCell* fiber project.

Man-made fibers for industrial uses

Enka Europe somewhat increased volume sales in the first half of the year, partly due to stepped-up exports to countries outside of Western Europe. In the second half of the year, production cutbacks in the tire industry due to stockpiling of unsold tires led to reduced shipments and lower capacity utilization levels in our Western European plants both for rayon and for synthetic yarns.

For *rayon yarns,* where Enka is a world leader, substantially higher costs (for instance for cellulose and energy) were not fully reflected in selling prices, resulting in considerably lower earnings.

Income from *synthetic yarns* on average showed a slight improvement. New yarn types were introduced and further modernization of the production facilities in Obernburg and Emmen was decided upon. At COBAFI (Brazil; 45%-owned) an expansion project for nylon tire yarn was approved.

Further market penetration was achieved with our synthetic materials in the comparatively new areas of erosion control and drainage *(Enkamat®),* and soil stabilization *(Stabilenka®).* Volume sales of waterproof lining materials *(Hypofors®)* are also making headway.

Production of *steel cord* was adjusted to the declining, unprofitable sales volume.

Shipments of *Enka®Carbolon®* carbon fibers for use in high-performance composites distinctly surpassed our expectations. The material is provided by our Japanese supplier.


A hawser, one of the myriad applications of industrial polyamide yarns.

Research and development

In the year under review research expenditure for *textile and carpet fibers* was cut back further.

Research on synthetic fibers is concentrated on cost-reducing process improvements in those product sectors where our market position has to be defended or consolidated, as well as on product innovation and development of specialty products. The technology of combined spinning of different polymer components, of which the bicomponent polyester textile yarn *Diolen Ultra®* is an excellent example, offers encouraging prospects, in the carpet sector among others.

Research activities in the field of synthetic *industrial fibers* regularly lead to adaptation and improvement of both products and processes.

One area of the research on *aramid fibers* is the use of these fibers in composites.

Outlook for 1982

Implementation of the restructuring measures and a recovery of the economy in the course of 1982, together with an upswing of business in important sectors like the textile, tire and automotive industries, are prerequisites for a further rebound of Enka Europe's results. For textile fibers the growth in shipments may come to be slowed down by cyclical effects.

American Enka should improve its performance if the U.S. economy recovers.

Chemical products

Sales and income

in Hfl million	1981	1980		1979
sales: salt and heavy chemicals	2,398	2,174	+ 10%	2,237
specialty chemicals	1,613	1,375	+ 17%	1,244
total	4,011	3,549	+ 13%	3,481
operating income	125	183	− 46%	253
operating income, as percentage of sales	3.1	5.2		7.3

This group of products comprises the lines of Akzo Zout Chemie, Akzo Chemie, and the Akzona divisions Armak and International Salt.

The 13% rise in sales was due almost entirely to higher selling prices and a higher rate for the dollar. Commodity chemicals, for the most part produced by Akzo Zout Chemie, registered lower volume sales and substantially reduced prices for vinyl chloride monomer (VCM), the feedstock in PVC manufacture.

The drop in 1981 operating income is wholly attributable to Akzo Zout Chemie because of sizable losses on sales of VCM and acetic acid and of the heavy burden of energy charges in the Netherlands. Given the recession, the other products (and specialty chemicals in particular) turned in a satisfactory overall performance. This also holds good for Armak.

Salt and heavy chemicals

Salt

Salt for industry, for consumer uses and for ice control, from facilities in the Netherlands, the United States, the Federal Republic of Germany, and Denmark, was sold in roughly the same total volume as in 1980. Market conditions often precluded adequate adjustment of selling prices to higher costs, with cost rises especially strong in Western Europe.

The Brazilian solar salt producer CIRNE was confronted with a squeeze on prices as a consequence of a salt glut. In the year under review the implementation of a restructuring plan was started which is intended to shortly improve the earnings picture.

Studies of the economy of various salt production processes, which were started in 1980 in connection with rising energy costs, have not yet been completed.

Chlor-alkali products

With respect to the joint electrolysis products *chlorine and caustic soda,* the latter sold at significantly higher prices because of market weakness for the former, due to the very low price and production level of PVC plastic. The net result was that earnings for the two products together were roughly the same as in the prior year.

Soda was reasonably resistant to the recessionary economy. The higher rate of exchange for the U.S. dollar and the comparative dearth of caustic soda were chief among the factors making possible a margin improvement. It was decided to commence a renovation of the Delfzijl soda plant (aggregate capital investment Hfl 45 million). The project will help realize substantial savings in feedstocks, energy and labor; working conditions and the environment should also benefit. Production capacity will remain unchanged at approximately 400,000 metric tons per annum.

For the years ahead process changes are envisaged which ought to produce a significant cut in energy consumption.

As a producer of *vinyl chloride monomer,* Akzo Zout Chemie is faced with certain adverse developments in the VCM/PVC sector. With the marked reduction in PVC consumption growth in the last few years, there is now a sizable structural overcapacity for VCM/PVC. This, together with the recession, has occasioned severe price competition. Also, many PVC producers entered upon mergers or cooperation with VCM producers, causing the free VCM market to dwindle progressively.

The situation will improve when production capacity begins to be shut down. The chances of this happening are

In the coming years the Delfzijl soda plant will be completely renovated without disturbing production. The project will bring substantial cost savings and improvements in working conditions and environmental impact.

getting better according as more PVC and VCM producers decide to merge.

To consolidate our VCM position, Akzo Zout Chemie studied the possibilities of cooperating with a PVC producer. This has led to agreement with Shell Nederland Chemie B.V., a producer of PVC and a supplier of ethylene feedstock for the production of VCM, on a form of cooperation which should help us defend our competitive position and accomplish a gradual improvement in profitability.

Other commodity chemicals (Akzo Zout Chemie)

The sales and earnings picture for *methanol* was satisfactory. The concentration of the methanol activities in a single company (Methanor), in which besides DSM and Akzo also Dyno Industrier (Norway) and KemaNobel (Sweden) participate, creates better guarantees for the long-term raw materials supply. Studies on the establishment of a third production unit at Delfzijl are still in progress.

Acetic acid production is unprofitable because it is based on a technologically obsolete process. The conversion of the Rotterdam plant, approved in early 1982, should bring about major improvements in raw material efficiency and energy consumption.

Denak (Japan), a producer of *monochloroacetic acid,* should see its business outlook brighten perceptibly as a result of a gradual take-over of production from a third-party-owned plant which is closing down.

Earnings of Delamine, a producer of high-grade *amines,* are on an upward trend.

Other commodity chemicals (Akzo Chemie)

The market for *sulfuric acid* weakened in 1981, due to stagnating sales, high sulfur prices, and the competition of acid formed as a by-product in certain industrial processes. Production in one of our plants was halted. In Amsterdam, the acid decomposer to be used to regenerate spent acid from Group and other sources and thereby prevent its discharge was started up. In spite of an upsurge in raw material prices the market for *carbon disulfide and carbon disulfide derivatives* was stable, in part because of stagnating imports from Eastern Europe. Income from *sulfo products* was up.

Production of *silicates* is now concentrated in the modified and rebuilt facilities at Winschoten (the Netherlands) and Düren (Federal Republic of Germany). The plant at Nieuwendam (the Netherlands) was closed down.

The soybean extraction operation at Emmerich (Federal Republic of Germany) was terminated, after attempts to sell the facility had failed.

Research and development

The growing burden of energy costs continues to focus research efforts on the development of processes which are more energy-efficient and cost-effective. The results of this work are finding practical translation in the current project for the expansion of electrolysis capacity at Rotterdam and will also be used in the Delfzijl soda plant renovation approved in 1981.

The main emphasis is now on energy conservation in the traditional product areas of salt, electrolysis products, vinyl chloride monomer, and acetic acid.

Investigations into the manufacturing processes of the raw materials of aramid yarns were successfully completed.

Specialty chemicals

Products for plastic and elastomer manufacturers and processors

With the intent of bolstering the international market position of Akzo Chemie's *rubber chemicals,* research efforts for these products were intensified a number of years ago. New, often more economical, process routes were developed, making several new *antiozonants (Amantox) and accelerators* available for commercialization. This extension and innovation of the range should broaden the product group's base, which was narrowed by the transfer of carbon black operations to our partner in Ketjen Carbon.

Stabilizers were badly hit by the depression in the PVC industry. We expect improvement in this area in 1982, in part because we are concentrating on those products which show the greatest market strength and because of the introduction of new *tin stabilizers.*

In *organic peroxides* and other specialties for plastics manufacture, market positions and earnings were pegged at the same level or were slightly enhanced, despite poor performance of the plastics industry. To be able to respond fast and flexibly to the growing demand for liquid peroxide specialties, it was decided to build a pilot plant in Deventer (the Netherlands). The facility's primary purpose is to prepare and test-market new products, but it will also serve to optimize peroxide manufacturing processes.

Organic chemicals

The fact that our Belgian producer of *fatty amines,* the Société des Dérivés Azotés, continues in a loss position remains a matter of concern; however, there is evidence of solid advances in terms of both quantity and quality. So far, harsh competition has precluded any significant price increases. The new *amines* manufacturing plant of Lion Akzo Co. (Japan) was brought on stream in the second half of 1981 and already made its first contribution to earnings. Armak completed a 25,000 metric tons expansion of capacity.

Income from *paper chemicals, raw materials for detergents, sequestrants, gluconates, and industrial cleaners* was again up distinctly.

Catalysts

Our strong position as regards production and sales of *desulfurization catalysts* in Western Europe, the United States and Japan, together with earnings which were again higher, constitutes a healthy basis for the expansion investments announced in 1980.

In the year ahead, the renovation and modernization program for the manufacture of *cracking catalysts* at Amsterdam-Noord should improve our competitiveness in Western Europe, which may lead to vital improvements in profitability.

Armak/Akzo Chemie

As a result of the exchange of know-how between Armak and Akzo Chemie, major segments of the two companies' product lines are now identical. Some years ago this approximation provided the rationale for a closer coordination of research efforts. For a number of products major positions were built up worldwide, underscoring the need for joint strategy making.

Research and development

Projects concerned with developments that are entirely new are relatively time-consuming. Cases in point are *telomeric acids and derivatives* for use in high-grade lubricants and *specialty isocyanates* for a new generation of high-strength polyurethanes. Although good progress is being made on these and other themes *(catalysts, tin stabilizers),* a part of our research capability is focused on short-term goals. Examples in the latter category are process improvements with better raw material and energy efficiencies as an additional benefit.

Outlook for 1982

For *commodity chemicals* (Akzo Zout Chemie) we foresee no major earnings improvement in 1982, due to persisting overcapacity in vital sectors and further increases in energy expenses.

For *specialty chemicals* in both Europe (Akzo Chemie) and the United States (Armak) earnings in the year under review were encouraging. Continuation of this trend is largely contingent upon an improvement in the business climate.

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3

The Ketjen Catalyst Group with plants in Japan (1), the United States (2) and the Netherlands (3) has built up a strong position worldwide for its desulfurization catalysts.

The prospects for these catalysts are encouraging, because refineries are processing a growing volume of heavy, less pure oil fractions.

Coatings

Sales and income

in Hfl mln	1981	1980		1979
sales	1,513	1,432	+ 6%	1,221
operating income	110	110		98
operating income, as percentage of sales	7.3	7.7		8.0

In 1981 the recession led to lower demand and stiffer competition. Rising raw material costs could, therefore, not always be passed through to selling prices. While volume sales declined, income remained at the same level, principally due to careful distribution of activities and greater emphasis on specialties.

The dismal economic climate in Argentina necessitated a drastic adjustment of the activities of Miluz. In Brazil, Montesano was able to cushion the negative effects of a drop in volume sales and again attained satisfactory earnings.

House paints and do-it-yourself (DIY) paints

Demand for *trade paints* was down because of a decline in housing starts and a tendency to cut down on professional maintenance. On a positive note, demand for high-quality paint systems was higher, reflecting concern to achieve a reduction in total annual maintenance expense per unit.

In the Federal Republic of Germany the launch of *Sikkens®* "Betonsanierungssystem" met with a favorable response. The system serves to repair and beautify corroded and weatherworn concrete structures.

The *DIY market* showed about the same development as the professional market. The shift in distribution channels away from the traditional paint retail store toward the superstore gained momentum.

Automotive finishes; auto refinishes

The slump in sales of new cars caused declines in volume sales of our products in Western Europe as well as in South America. A leading German auto maker began using our water-thinnable *primer-surfacer.*

In *auto refinishes* we not only maintained our position but were even able to enlarge our market share. The Color Center program, which aims to make our products more widely available, was successfully introduced in France.

As an addition to the line of auxiliary services made available to a select group of consumers, a comprehensive computer system (named "Carinfo") was launched which processes orders as well as accounting and management information.

Export activities again showed a substantial increase. In Australia our systems were introduced by our local licensee.

Other coatings

We are pleased with the international development of *aircraft coatings.*

The *coil coatings* segment experienced a slight downturn brought on by the recession. Results with a modified epoxy primer and with a company-developed high-gloss polyester *(Pyrofil 660)* were encouraging, however.

In *anticorrosion coatings,* our geographical distribution was improved through acquisition of part of the activities of Goldschmidt AG (Federal Republic of Germany).

Earnings from corrosion-resistant *steel coatings* for the automotive industry (Dacral, France) were highly satisfactory.

Synthetic resins

Synthese (the Netherlands) is a producer of *resin specialties,* based on advanced know-how, for paints and other products, including printing inks. Considerable efforts are expended on the further development of adhesive specialties. A new evaluation laboratory was inaugurated in 1981.

Sikkens Award

In 1981 the biennial Sikkens Award was granted. This award is conferred to persons or institutions that have made a special contribution to social, cultural or scientific developments in society in which color as a medium plays a specific role.

Research and development

Our technology permits us to regularly develop new products, including an increasing number of nonpolluting products and systems.

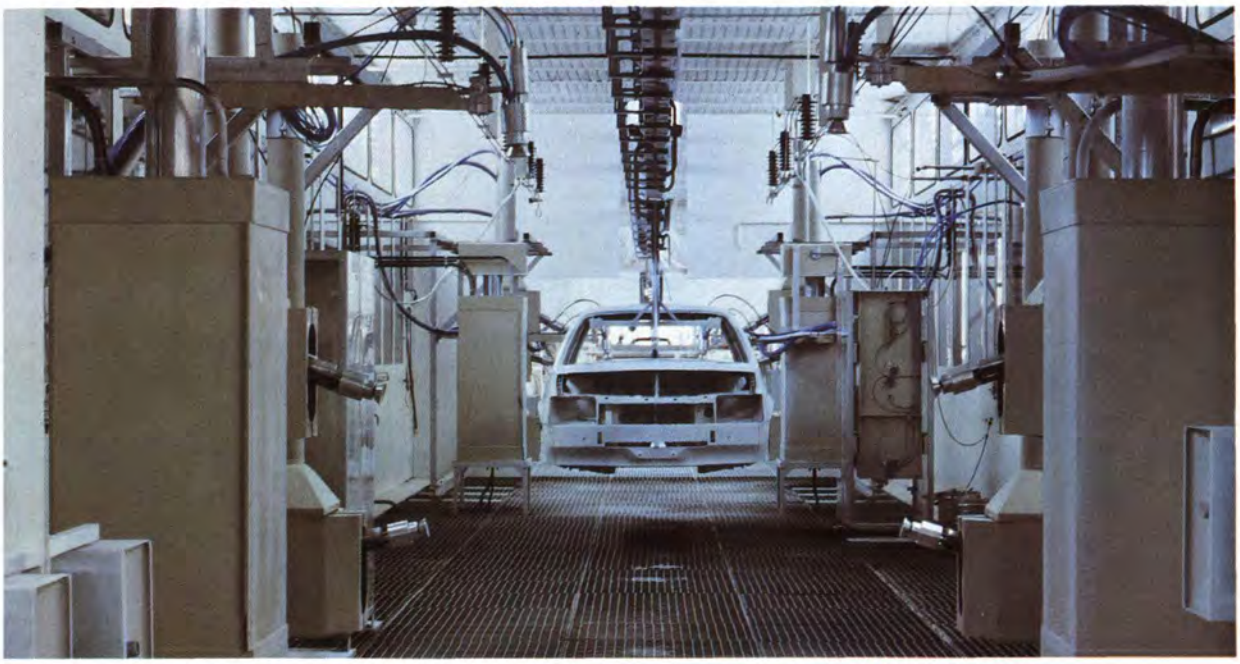
Our *sag control agents* are primarily used in automotive finishes. The possibility of applying thicker coats brings economies which are worth having. A license for the manufacture of sag control agents was granted to a prominent producer of automotive finishes outside Europe.

Deutsche Akzo Coatings (Stuttgart) completed an application center, thus broadening the range of consultancy services available to customers. A major extension of laboratory facilities at Sikkens (Sassenheim) is in the preparatory stages.

Outlook for 1982

In the year ahead the results of operations will in large measure be determined by the development of the economy, notably in such key areas as the automotive and building industries.

Without overly relying on a significant upturn, we believe that sales and income will be about level with 1981.



Application on the assembly line of our primer-surfacer which contains no organic solvents.

In October, 1981, Organon introduced a new contraceptive pill (Marvelon®) *with a low-dose estrogen and a newly developed progestagen (desogestrel). This pill combines excellent reliability and menstrual cycle control with a safer cholesterol profile, reducing the occurrence of side effects such as acne and increased weight.*



Pharmaceuticals

Sales and income

in Hfl million	1981	1980		1979
sales	1,484	1,320	+ 12%	1,274
operating income	190	145	+ 31%	134
operating income, as percentage of sales	12.8	11.0		10.5

In contrast with the sluggish conditions of the last few years, satisfactory growth was recorded in 1981, with all sectors of Akzo Pharma contributing. Sales and operating income benefited from higher rates of exchange for the U.S. dollar, sterling and their linked currencies. Price adjustments, mainly motivated by inflation, were a major factor in the rise of sales.

Organon Inc. (Akzona) had good performance in ethical pharmaceuticals but its other health-care activities resulted in overall dollar earnings significantly below the 1980 level.

Ethical drugs

The development of sales of ethical drugs was favorable, especially in the United Kingdom, France, Scandinavia, Mexico, Pakistan, Bangladesh, and Indonesia.

The earnings improvement was in part attributable to higher volume sales, due to the introduction of new products.

Organon's new and safer *Marvelon®* contraceptive pill is expected to contribute substantially to a strengthening of our position in the birth control market segment. It was introduced in the Federal Republic of Germany, the Netherlands and Finland, and sales progress is meeting projections. Health registration has recently also been obtained in Belgium, the United Kingdom and Switzerland, and market introduction in these countries is in preparation.

Cordium®, Organon's new product for the treatment of angina pectoris, was introduced in France. Other countries are scheduled to follow, and licensing negotiations have begun.

Sales of *Tolvon®* antidepressant continued their favorable development, with the United Kingdom, the Federal Republic of Germany and Italy as the principal markets. The long-awaited registration in the Netherlands has now also been obtained. Preparatory work on registration in the United States and on the sale of a license there continued.

Development work proceeded on a *neuropeptide* to be used in geriatrics, and on an *antithrombosis* compound with very interesting properties.

Licensing agreements relating to our own products as well as products of other manufacture were given greater emphasis.

Our branch in Iran was placed under national control but commercial contacts were not severed. In Pakistan a new pharmaceutical factory was inaugurated. In Venezuela and Scotland capital investment projects were likewise completed.

Organon award for endocrinology

In 1981 the Dutch Endocrinological Association made the first biennial Organon Endocrinology Award. The award is meant to go to young scientists and serves not only as a mark of excellence of past work but also as a stimulus for further endocrinological research.

Hospital supplies

Business results for Organon Teknika were on the whole satisfactory.

Sales of *artificial kidneys* were substantially higher.

Sharper competition resulting from a squeeze on hospital budgets ultimately started to erode prices of almost all products. The rises in the rates of U.S. dollar and yen eased slightly the competitive position of the European producers.

Organon Teknika made a special effort to control expense. In the year under review this yielded a significant improvement in earnings.

Nonprescription drugs

Chefaro sales were depressed, with the pressure being particularly heavy on the market segments of vitamins and anti-acne preparations. Even so, Chefaro's profitability substantially improved, benefiting from strict cost control measures. Preliminary sales of the *Predictor®* pregnancy test in Mexico and Norway were good. A new generation of pregnancy tests was developed which should enable the company to expand its position internationally.

In the Netherlands, *Chefarine 4®* analgesic, the leading over-the-counter brand, was reformulated and packed in "childproof" tear-off strips – a Dutch first.

Raw materials for the pharmaceutical industry

Although sales revenues in this sector continued under pressure, earnings were much improved due to higher volume sales and further streamlining of production.

The unremitting downward pressure on prices of narcotic drugs *(alkaloids)* caused by persistent market saturation was compensated by the higher rate of the U.S. dollar. The supply situation causes us some concern, particularly as one supplier nation has begun processing its raw materials domestically.

Biochemical products turned in a slightly better performance due to increases in revenue and continued improvements in manufacturing operations, whose effect was offset in part by rising raw material costs.

A new process route for the preparation of human insulin is beginning to materialize. Owing to the onset of competition from suppliers in the People's Republic of China and in South Korea, sales of chorionic gonadotrophin, a hormonal substance used, among other purposes, as a sterility cure, failed to hold up. This necessitated cuts in the Dutch organization for the collection of the raw material.

Overall, *chemical products* performed well despite disconcertingly low prices for corticosteroids. In an effort to supplement existing steroid extraction facilities in Mexico and New Zealand we initiated a study of the feasibility of a company-operated sterol fermentation facility.

Veterinary products

Intervet once again recorded gratifying sales growth, largely attributable to new products developed through the company's own research efforts. More than 30% of total sales related to products introduced during the last five years. The most recent additions to the product range are:

- *Nobi®-vac Aujeszky* vaccine against Aujeszky's disease, or pseudorabies, in hogs;
- a parvo vaccine for small domestic animals, an entirely new activity;
- a new treatment of Gumboro's disease, whereby the hens are inoculated with inactivated vaccine so that the chicks are protected during the critical phase;
- *Nobi®-vac LT K88,* an inactivated vaccine against scour in piglets.

In 1982 a growth stimulant produced on the basis of recombinant DNA technology is expected to enter the development stage.

The new vaccine production facility of Inter-Continental Biologics Inc. (United States) received official certification. In early 1982 the first products were supplied to the American poultry industry.

Intervet's new headquarters and a new development laboratory at Boxmeer (the Netherlands) were opened by HRH Prince Claus of the Netherlands.

Outlook for 1982

As 1981 demonstrated, foreign exchange rate fluctuations can play a proportionally more important role in determining earnings than growth in shipments, since less than 10% is sold in the Netherlands.

Based on exchange rate forecasts for 1982, we anticipate a more modest growth of sales and operating income than in 1981.

Intervet International moved into new headquarters and a new laboratory at Boxmeer. HRH Prince Claus of the Netherlands, who performed the opening ceremony, is shown during a tour of the laboratory, which uses the most advanced techniques for the development of new veterinary products, notably vaccines and diagnostics.




Consumer products

Sales and income

in Hfl million	1981	1980		1979
sales	1,013	869	+ 17%	725
operating income	50	40	+ 25%	31
operating income, as percentage of sales	4.9	4.6		4.3

The increase in sales to more than Hfl 1 billion, to which all product sectors contributed, was gratifying. Income was satisfactory, although relative to the other products the contribution made by our Dutch branded articles lagged somewhat behind.

Food sector

Duyvis did reasonably well in the face of the problems caused by the failure of the peanut crop in the United States. *Dry-roasted Duyvis® peanuts* launched in the fall of 1981 met with favorable customer acceptance.

Despite the vigorous competition faced by Mayolande (France) in the year under review, sales of the *Benedicta®* and *Benenuts®* brands were ahead of the previous year. Our market positions were maintained, while earnings were higher than in 1980.

Romi (the Netherlands) again made a significant contribution to income, especially by taking full advantage of the favorable export opportunities for *oils and fats.*

The phosphateless Driehoek® wasbuiltjes *detergent in sachet form was very well received by the public. The sachet contains a mild acid and a soda-based detergent in two different compartments. At the start of the washing cycle the acid is released and dissolves the lime salt deposits on the textile and in the washing machine. The soda detergent is automatically released later in the washing cycle.*

Nonfood sector

Our *detergent* operations abroad performed comparatively better than those in the Netherlands. Ongoing severe competition on the home market exerted a further downward pressure on margins. Even so, *Biotex®* was fairly successful in holding its ground.

A highlight in 1981 was the introduction of *Driehoek® wasbuiltjes.* This phosphateless detergent in sachet form was very well received by trade and consumers, and projected sales are expected to be realized. The feasibility of internationalization will be investigated for this product.

Health and bodycare products posted excellent income gains with a major contribution being made by Ashe Laboratories (United Kingdom), which company was acquired in 1980. Recter (the Netherlands) did better than in 1980. The range of *Zwitsal®* products was successfully extended. *Zendium®* has gained a firm foothold on the Dutch toothpaste market, while further internationalization is under way.

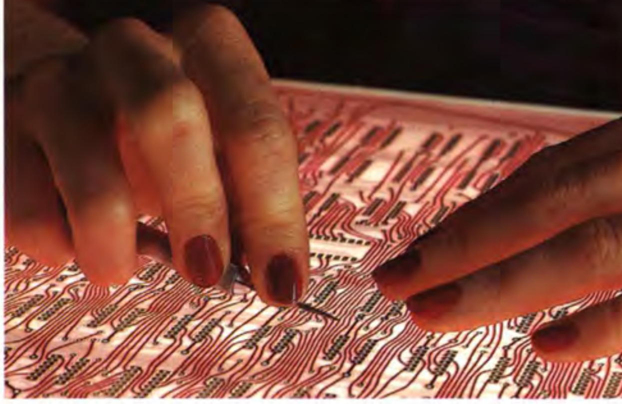
Research and development

Zendium® and *Driehoek® wasbuiltjes* are proprietary research developments. Attention will continue to be focused on possibilities of product innovation.

Outlook for 1982

In 1982, efforts should be concentrated on strengthening the position of our branded articles in the Netherlands. The process of structural erosion of margins on these products over the past few years, in part due to further concentration in distribution channels, calls for measures to join sales and marketing forces.

Our product mix and the strength of our organization make us confident that the results of our operations will again be satisfactory in the year ahead.



Miscellaneous products

Sales and income

in Hfl million	1981	1980		1979
sales	1,959	1,670	+ 17%	1,595
operating income	88	116	– 24%	132
operating income, as percentage of sales	4.5	6.9		8.3

In 1981, sales and income for miscellaneous products were sensibly affected by the higher rate of exchange for the U.S. dollar used in translating the results of the Akzona divisions Brand-Rex (electrical and electronic connectors and systems) and Armira (leather).

Enka products

Barmag Barmer Maschinenfabrik, a producer of *machinery and equipment* for the man-made fibers, plastics, elevator, and automotive industries, came under the pressure of the recession and of high interest rates in the countries where it has operations (Federal Republic of Germany, Switzerland, United States, Brazil) as well as in many export countries. However, in light of the situation in the machine industry, we are not dissatisfied with the results of operations in 1981 and with the order backlog at year-end.

The spectacular volume gains recorded in recent years for *dialysis membranes (Cuprophan®)* for use in artificial kidneys changed to a more gradual growth. In the year under review there was an appreciable shift in demand, especially in the United States and Japan, away from tubular membranes toward hollow fiber material. Sales and income were higher than in 1980. Prospects in this sector are encouraging.

In the field of separation and fractionation of blood plasma the development of a special hollow fiber membrane *(Plasmaphan®)* for the separation process was completed. Introduction of this new product has been started. Work is being carried out on the development of membranes for plasma fractionation as well as for hemofiltration and hemodiafiltration.

Both Akzona and Enka are conducting intensive investigations into the numerous potential applications of *Accurel®* microporous polymer in the technical field. Efforts are mainly concentrated on filtration (including filtration for pollution control purposes), on systems for controlled and uniform release of active substances, and on catalysts (carrier material).

Electric household appliances are a major area of application for specialty plastics (compounds). The heater jacket of the fondue set is made of glassfiber-reinforced Arnite®, *a thermoplastic polyester.*

The performance of Akzo Plastics was better than in 1980. Sales rose by approximately 25% thanks to higher volume sales and the higher value of the dollar, as was especially evidenced by *spinning granules.* For *engineering plastics* a slightly higher sales volume and lower income were recorded in 1981. The specialty products in Akzo Plastics' range showed a reasonable development. To promote this trend, production capacity for compounds will be enlarged, thus permitting further penetration into the electrical products and automotive markets.

Insufficient earnings potential of the joint venture Strongpac Enka-PLM induced us to withdraw from the manufacture of plastic bottles, but we do remain a supplier of the thermoplastic polyester material *(Arnite®).*

Industrial Colloids posted excellent sales and income gains for its drilling mud additives for the oil industry. A basis has been laid for a much greater use of colloids as ore pelletizers *(Peridur®)* in the iron ore processing industry. In the face of the downturn in the building industry (roof coverings), the automotive industry (mats) and the carpet industry (carpet backings), Colbond was able to increase volume sales of *nonwovens* in 1981.

Akzona products

Brand-Rex was affected by the decline in business for the majority of its customers in the communications sector. While sales (expressed in U.S. dollars) remained virtually level with 1980, earnings were substantially lower. In the coming years Brand-Rex will step up efforts to enhance the share of specialties in its product range.

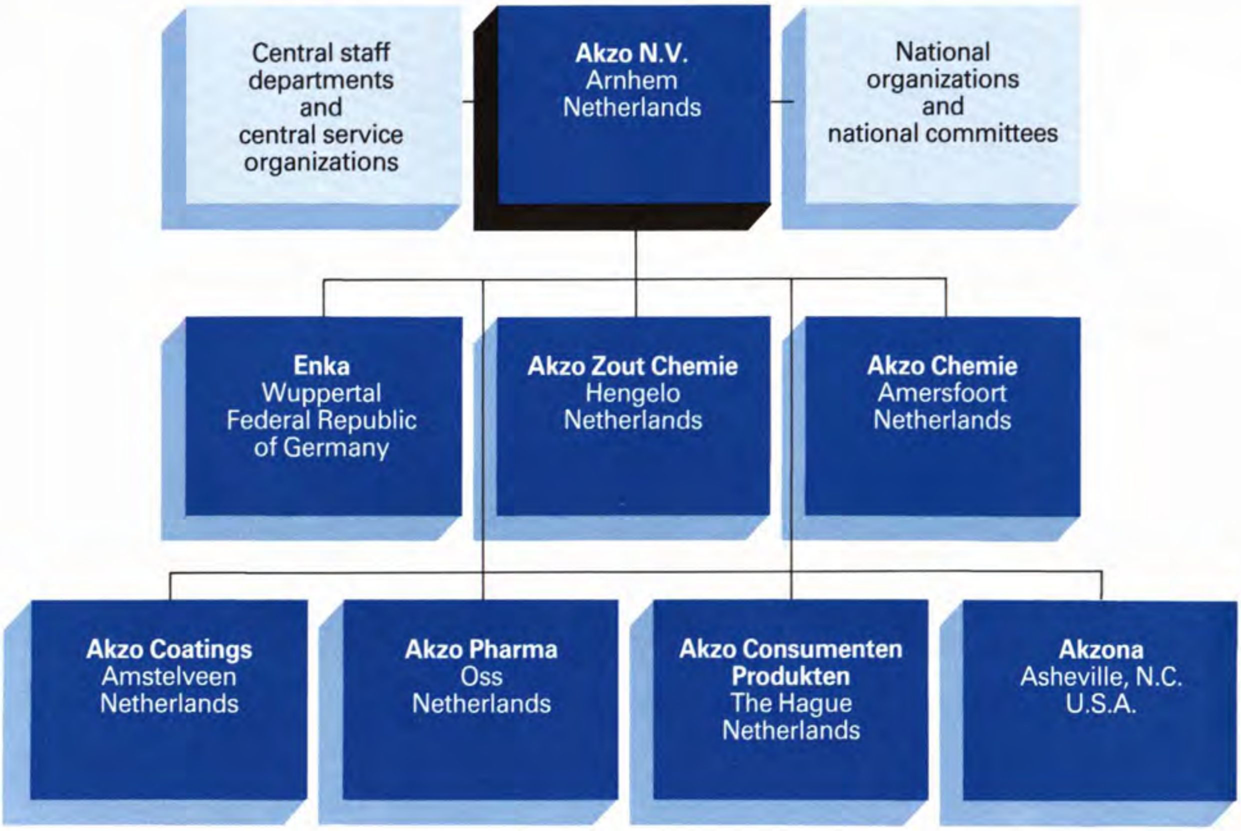
Given the slack export business of the U.S. leather and shoe industries, Armira turned in a reasonable performance.

Arnhem, March 30, 1982

The Board of Management

The new headquarters of Akzona Inc. in Asheville, North Carolina, United States, was opened in June, 1981.

Organization of the Akzo Group



Akzo N.V. is the Group's *holding company* with direct and indirect interests in a number of companies. Together they constitute the Akzo Group.

The business activities of the Group are organized in product-oriented *divisions.* Each division combines all activities relating to the development, manufacture and sale of a number of similar products. The six divisions operate internationally. In North America, nearly all Akzo's interests are incorporated in Akzona Inc., which is 66% owned by Akzo N.V.

The Board of Management of Akzo N.V. is assisted in its management function by *central staff departments* located in Arnhem.

In addition, there are *central service organizations* working for the Group; some of them also work for third parties. They include:

Corporate Research, Arnhem/Obernburg
Akzo Engineering, Arnhem
Akzo Data Services, Arnhem
Akzo Systems (consultancy on information systems), Arnhem
Rijnconsult (organization consultancy), Arnhem.

In some countries national organizations exist which have a coordinating function and render services to local Akzo companies.

Management

March, 1982

Board of Management of Akzo N.V.

The Board of Management is the highest executive body in the Akzo Group. The tasks and responsibilities of the members serving on the Board until June 1, 1982, are as follows:

A.G. van den Bos	president
A.A. Loudon	deputy president

both members of the Executive Committee, which is concerned with the broad issues of the Group's orientation and strategies;

M.W. Geerlings	research and technology
H.J. Kruisinga	financial and accounting policies
H. van Doodewaerd	president of Akzo Consumenten Produkten
J. Veldman	president of Akzo Pharma
H.J.J. van der Werf	president of Akzo Zout Chemie
M.D. Westermann	president of Akzo Chemie
C. Zaal	president of Akzo Coatings
H.G. Zempelin	president of Enka

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

W.K.N. Schmelzer acts as adviser to the Board of Management, specifically in relation to international affairs and issues of a general social nature.

Board of Management effective June 1, 1982

Subject to approval by stockholders at the Annual Meeting of May 18, 1982, the number of members of the Board of Management will be reduced to four. The Board of Management will then be composed as follows:

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

The members will be jointly responsible for directing the Group as a whole. In addition, the members will be individually entrusted with a number of management tasks.

A.A. Loudon will be responsible for strategic planning as well as social and financial policies.

The other members will be charged with the supervision of the activities relating to man-made fibers (Enka group; H.G. Zempelin), chemical products (H.J.J. van der Werf), and coatings, pharmaceuticals and consumer products (J. Veldman).

The coordination of Akzona's activities within the Group will be supervised by Mr. Loudon.

The further distribution of work among the members will take account of geographical and functional policy considerations.

Management Committee

In addition to the new Board of Management, a Management Committee will be formed as from the same date, which will assist the Board in policy-making. The Management Committee will be composed as follows:

A.A. Loudon	chairman
J. Veldman	vice chairman
H.J.J. van der Werf	vice chairman
H.G. Zempelin	vice chairman
S. Bergsma*	financial affairs
F.A.G. Collot d'Escury*	president of Akzo Zout Chemie
M.W. Geerlings	research and technology
J.R. Hutter	deputy president of Enka
H.B. Jacobs*	president of Akzo Consumenten Produkten
A.G. Vermeeren*	president of Akzo Pharma
M.D. Westermann	president of Akzo Chemie
C. Zaal	president of Akzo Coatings

Central staff departments

Officers

M.W. Arts	internal auditing
Mrs. M.A. van Damme-van Weele	chemical development
A.M. van Haastrecht	organization
F.H. Hensel	financial affairs
C. Hoek	legal affairs
H.S. Jongepier	safety and environmental affairs
J.H. Katgert	accounting and management information
J.K.G. Meijnen	insurance affairs
H.W. Muzerie	group development
O.H. Nijman	fiscal affairs
R.J. Ovezall	corporate personnel affairs and public affairs
P.J.S.Th. Stehouwer	research and development
T.M. Tieleman	economic affairs and planning
A.W. Zijlker	computer affairs

Other staff officers

B. Klaverstijn	information
E.W. Meier	international relations
P.W. Pfeiffer	energy and quality control
R. Sieders	patents

Akzo Engineering
J.R. Eppenga

* to be appointed in their new functions effective June 1, 1982

Managements of divisions

Enka

H.G. Zempelin	president
J.R. Hutter	deputy president
H. Stöhr	
G. Tückmantel	
J. Verhaar	
A. Bendziula	
D. Sorgdrager	

A distinct unit of Enka is

Enka International

R. van Wingerde	president
G.G. Cerutti	

Akzo Zout Chemie

H.J.J. van der Werf	president until June 1, 1982
F.A.G. Collot d'Escury	president, effective June 1, 1982
L.J. Boone	
A. van Es	

Akzo Chemie

M.D. Westermann	president
J.C.P. van Oosterom	
H.C. Bijvank	
M.E. Hartman	
J. den Hoed	
D.B. Kagenaar	
A. Moolenburgh	
H.A. Praetorius	
E. Snoeck	

Akzo Coatings

C. Zaal	president
K. Bakker	
J.W. Berghuis	
R. de Bonneval	
W.L.W. Ludekens	
K.G. Schultze	

Akzo Pharma

J. Veldman	president until June 1, 1982
J.H.H. Florax	
W. Smit	
B.H.M. van Dommelen	
H.E. Foord	
F.L. Vekemans	
A.G. Vermeeren	president, effective June 1, 1982

Akzo Consumenten Produkten

H. van Doodewaerd	president until June 1, 1982
M.A. Hoolboom	
P.B. van Hulst	
H.B. Jacobs	president, effective June 1, 1982
A.M. van der Linden	
J.E.H. Sikkink	

Managements of national organizations

Akzo Nederland

W.J. Wolff	president
A. van Es	
P. Hollander	
D.B. Kagenaar	
A.M. van der Linden	
W. Smit	
D. Sorgdrager	
G. Tellegen	

Akzo België

F.C.L. De Deken	president

Akzo Indústria e Comércio, Brazil

J.W. Bootz	president

Mercator Internationaal, Japan

T. Haruki	managing director

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 voting stock. 100% of the assets, the liabilities and the results of the consolidated companies are included. Minority interest in Group equity and Group income (loss) is shown separately.
The principal affiliated companies are listed on pages 55 and 56. A list of names and registered offices of affiliates, drawn up in conformity with article 2:320, paragraph 2, and using paragraph 3, subpara a, of the Dutch Civil Code, has been filed at the Trade Registry of Arnhem.

Principles of valuation and determination of income

The valuation principles for property, plant and equipment, investments in nonconsolidated companies, other noncurrent assets, inventories, prepaid expenses, securities included in cash and marketable securities, and provisions are stated separately in the notes to the consolidated balance sheet.
Receivables, cash and liabilities are stated at face amounts, less such provisions for receivables as are deemed necessary. The parts of long-term receivables and long-term debt becoming due within one year are included under short-term receivables and other current liabilities, respectively.
Preparation and start-up expenses of large investment projects are capitalized and charged against income, in not more than five equal annual installments, after the facilities concerned have been put into service.
Other intangible assets are not capitalized; they are charged against operating income.
Purchased goodwill is charged directly against Group equity.

In the consolidated balance sheet, amounts in foreign currencies have been translated into guilders at rates virtually equal to the rates of exchange in force at year's end. The valuation in guilders of the U.S. dollar convertible debentures is based, however, on a rate of U.S. $ 1 = Hfl 3.60, except for the portion due within one year.
In the consolidated statement of income, foreign currencies have been translated into guilders at rates of exchange fixed for each quarter as typical of the rates then applicable.
Foreign exchange differences are included in income, except for foreign exchange differences resulting from translation into guilders, at changed exchange rates, of stockholders' equities of affiliated companies outside the Netherlands; the latter differences are directly added to, or deducted from, Group equity.
The principal exchange rates used in drawing up the balance sheet and statement of income are:

		balance sheet		statement of income	
	unit	Dec. 31, 1981	Dec. 31, 1980	1981*	1980*
U.S. dollar	1	2.47	2.13	2.50	1.99
Deutsche mark	1	1.10	1.09	1.11	1.09
Pound sterling	1	4.73	5.07	5.05	4.65
French franc	1	0.43	0.47	0.46	0.47
Swiss franc	1	1.37	1.20	1.28	1.19
Spanish peseta	100	2.55	2.70	2.71	2.78
Braz. cruzeiro	100	1.94	3.26	2.73	3.80
Arg. peso	10,000	2.33	11.00	6.08	11.00

* average exchange rates

Current-value information

The principles of valuation and determination of income used in the consolidated financial statements shown on pages 34 through 43 are based on historical cost. The effect of price rises on Group equity and income is shown on pages 44 and 45.

Net income (loss) per share of common stock

Net income per share of common stock is calculated by dividing net income, less the part thereof distributed in the form of dividends on priority and cumulative preferred stock, by the number of shares of common stock outstanding at December 31.
Net loss per share of common stock is calculated by dividing net loss by the number of shares of common stock outstanding at December 31.

Consolidated balance sheet of the Akzo Group

after allocation of profit (1981) and loss (1980)

see notes on pages 37 through 41

in Hfl million	December 31, 1981		December 31, 1980	
noncurrent assets				
property, plant and equipment	3,673.4		3,440.4	
investments in nonconsolidated companies	351.1		356.9	
other noncurrent assets	134.5		119.4	
		4,159.0		3,916.7
current assets				
inventories	2,506.5		2,454.8	
short-term receivables	2,570.4		2,288.9	
prepaid expenses	62.8		67.7	
cash and marketable securities	897.5		882.6	
		6,037.2		5,694.0
total assets		10,196.2		9,610.7
Group equity				
Akzo N.V. stockholders' equity	2,448.7		2,266.2	
minority interest in Group equity	406.8		392.8	
		2,855.5		2,659.0
long-term liabilities				
provisions	1,335.1		1,328.7	
subordinated loans	75.0		25.0*	
other long-term debt	2,715.2		2,716.8*	
		4,125.3		4,070.5
current liabilities				
bank borrowings and overdrafts	613.2		573.7	
other current liabilities	2,602.2		2,307.5	
		3,215.4		2,881.2
total Group equity and liabilities		10,196.2		9,610.7

* restated for comparison

Consolidated statement of income of the Akzo Group

see notes on pages 41 and 42

in Hfl million		1981		1980
sales		14,475.7		12,452.7
operating costs				
salaries, wages and social charges	(4,181.6)		(3,788.9)	
depreciation	(526.6)		(503.6)	
other costs	(9,203.4)		(7,743.9)	
		(13,911.6)		(12,036.4)
operating income		564.1		416.3
interest		(328.8)		(261.0)
operating income less interest		235.3		155.3
taxes on operating income less interest		(79.4)		(48.2)
		155.9		107.1
equity in earnings of nonconsolidated companies		82.4		72.4
Group income (loss) before extraordinary items		238.3		179.5
extraordinary items		7.2		(246.2)
Group income (loss)		245.5		(66.7)
of which minority interest		(6.8)		(2.9)
Akzo N.V. net income (loss)		238.7		(69.6)
net income (loss) before extraordinary items		224.2		170.7
extraordinary items	7.2		(246.2)	
of which minority interest	7.3		5.9	
		14.5		(240.3)
Akzo N.V. net income (loss)		238.7		(69.6)

	1981	1980
net income (loss) before extraordinary items, per common share of Hfl 20 par value, in Hfl	7.58	5.77
net income (loss) per common share of Hfl 20 par value, in Hfl	8.07	(2.35)

Consolidated statement of changes in financial position of the Akzo Group

see notes on page 43

in Hfl million		1981		1980
working capital (excess of current assets over current liabilities) at January 1		2,813		2,766
source of funds				
Group income (loss) before extraordinary items		239		179
depreciation and disposals	566		533	
other noncash items	63		(30)	
		629		503
		868		682
extraordinary items affecting funds		(22)		(51)
funds from operations		846		631
disposal of participations	14		15	
working capital of consolidated companies disposed of	(10)		–	
		4		15
borrowings		425		593
issuance of stock by Group companies		2		1
		1,277		1,240
application of funds				
expenditures for property, plant and equipment		693		645
acquisitions	36		94	
working capital of new consolidated companies	–		(17)	
		36		77
other noncurrent assets		10		(26)
		739		696
repayment of borrowings		452		498
dividends paid to:				
stockholders of Akzo N.V.	59		–	
minority stockholders of Group companies	17		21	
		76		21
other applications		1		(22)
		1,268		1,193
working capital at December 31		2,822		2,813

Notes to the consolidated financial statements of the Akzo Group

General

Changes in consolidated companies

In 1981, our interest in Ketjen Carbon B.V., the Netherlands, was sold; consequently that company is no longer included in the consolidated balance sheet at December 31, 1981.
There were no other material changes.

Consolidated balance sheet

Property, plant and equipment

Property, plant and equipment are stated at cost, less depreciation, with a revaluation of approximately Hfl 70 million for land acquired long ago. In addition, the legally permitted revaluations in Brazil and Argentina have been taken into account.
Effective January 1, 1980, cost includes the financing expenses of capital investment projects under construction. Government subsidies, etc. are deducted from cost of acquisition.
Depreciation is calculated by the straight-line method based on estimated life, which in the majority of cases is 10 years for plant equipment and machinery and ranges from 20 to 30 years for buildings. In cases where the book value calculated in this way exceeded the value to the business, additional write-offs were made.

The table below shows the changes in 1981.

in Hfl million	total	land	buildings	plant equipment and machinery	means of transport	assets not used in the production process
situation at December 31, 1980						
cost of acquisition	10,305.7	207.8	2,064.3	7,692.8	113.0	227.8
depreciation	(6,865.3)		(1,044.4)	(5,560.9)	(80.0)	(180.0)
book value	3,440.4	207.8	1,019.9	2,131.9	33.0	47.8
changes in book value						
changes in consolidated companies	(13.7)		(3.0)	(10.7)		
capital expenditures	692.8	1.3	79.6	593.8	14.5	3.6
depreciation	(526.6)		(71.9)	(431.7)	(11.6)	(11.4)
disposals	(39.3)	(8.2)	(3.3)	(23.0)	(3.0)	(1.8)
additional write-offs	(15.0)		(3.7)	(9.6)	(0.5)	(1.2)
changes in exchange rates and revaluations	136.2	6.9	33.2	94.1	1.7	0.3
other	(1.4)	0.7	(0.7)	(6.2)	(0.5)	5.3
total changes in 1981	233.0	0.7	30.2	206.7	0.6	(5.2)
situation at December 31, 1981						
cost of acquisition	10,955.6	208.5	2,183.4	8,218.6	119.0	226.1
depreciation	(7,282.2)		(1,133.3)	(5,880.0)	(85.4)	(183.5)
book value	3,673.4	208.5	1,050.1	2,338.6	33.6	42.6

Capital investment projects under construction included in cost of acquisition and book value totaled Hfl 415.2 million at December 31, 1981 (at December 31, 1980: Hfl 302.8 million).

Purchase commitments not included in the consolidated balance sheet totaled Hfl 203.7 million at December 31, 1981 (at December 31, 1980: Hfl 195.3 million).

Investments in nonconsolidated companies

This item includes the nonconsolidated companies and the loans to these companies. Investments in nonconsolidated companies are stated at the amount of Akzo's share in stockholders' equity, less provisions in the amount of Hfl 4 million (at December 31, 1980: Hfl 7 million).
The calculation of stockholders' equity has been based as much as possible on the Akzo principles of valuation. Loans to nonconsolidated companies totaled Hfl 3.9 million (at December 31, 1980: Hfl 9.9 million).

in Hfl million	
situation at December 31, 1980	356.9
investments	35.7
equity in 1981 earnings	80.7
dividends received	(93.5)
changes in exchange rates and revaluations	(29.4)
other changes	0.7
situation at December 31, 1981	351.1

Other noncurrent assets

This item includes mainly long-term receivables, less Hfl 22.6 million for discounted receivables (at December 31, 1980: Hfl 26.5 million), and other assets that are not directly realizable. Other noncurrent assets are stated at cost or estimated value, whichever was lower.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is defined as full cost exclusive of interest, research expenditure and general administrative expense, taking into account the stage of processing. The cost of inventories has been accounted for using the FIFO formula. 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 million	Dec. 31, 1981	Dec. 31, 1980
raw materials and supplies	738.4	758.3
work in process	616.5	620.7
finished goods	1,151.6	1,075.8
	2,506.5	2,454.8

Short-term receivables

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
trade receivables	2,376.3	2,102.5
receivables from nonconsolidated companies	74.7	73.1
other receivables	427.1	392.3
	2,878.1	2,567.9
of which discounted	307.7	279.0
	2,570.4	2,288.9

Prepaid expenses

Prepaid expenses are stated at face amounts. This item includes Hfl 14 million (at December 31, 1980: Hfl 16 million) in respect of discount on borrowings and costs of negotiating loans, which are charged to income over the life of the loans.

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.

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
securities	58.8	55.4
short-term investments	719.0	669.5
cash on hand and in banks	119.7	157.7
	897.5	882.6

The total amount of medium- and long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 940 million at December 31, 1981 (at December 31, 1980, likewise approximately Hfl 940 million).

Group equity

in Hfl million	capital stock	capital surplus, paid in	other reserves	stock-holders' equity	minority interest	Group equity
situation at December 31, 1980	592.5	658.0	1,015.7	2,266.2	392.8	2,659.0
issuance of stock of Group companies to third parties					1.7	1.7
goodwill resulting from acquisition of companies			(2.0)	(2.0)	(0.3)	(2.3)
purchase of cumulative preferred stock	(0.0)		0.0	(0.0)		(0.0)
retained earnings			179.4	179.4	(9.8)	169.6
changes in exchange rates and revaluations			4.3	4.3	31.7	36.0
other changes			0.8	0.8	(9.3)	(8.5)
situation at December 31, 1981	592.5	658.0	1,198.2	2,448.7	406.8	2,855.5

At least Hfl 210 million of the capital surplus, paid in (at December 31, 1980: Hfl 210 million) can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law (Wet op de Inkomstenbelasting 1964).

Provisions

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

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
deferred taxes	335.3	330.1
pension rights	435.2	411.7
other provisions	564.6	586.9
	1,335.1	1,328.7

The current portions of provisions in respect of pension rights and other provisions amount to approximately Hfl 140 million (at December 31, 1980: approximately Hfl 150 million).

in Hfl million	
situation at December 31, 1980	1,328.7
changes in consolidated companies	(7.8)
changes in exchange rates	11.4
additions less amounts used	(5.7)
other changes	8.5
situation at December 31, 1981	1,335.1

Provisions for deferred taxes

This item includes the tax liabilities, less the part expected to be settled in 1982. These liabilities are stated at face amounts. See also the note to taxes on income (page 42).

Provisions in respect of pension rights

Most Group companies have arranged appropriate pension plans for their employees, with due observance of the statutory regulations and customs in the countries concerned, including the computational methods and interest rates used. The ensuing liabilities and the required contributions and admission fees are generally computed on an actuarial basis.
The item salaries, wages and social charges in the consolidated statement of income includes Hfl 340 million (1980: Hfl 320 million) for pension expense.
At December 31, 1981, as at December 31, 1980, the present value of the pension benefits was on balance fully covered by:
- provisions, in the aggregate amount of Hfl 435 million (at December 31, 1980: Hfl 412 million), made by Group companies in their balance sheets;
- the funds accumulated in independent pension funds through payment of contributions.

Other provisions

This item includes provisions for liabilities whose extent cannot be ascertained with accuracy, and provisions for various operating risks. The amounts of the provisions are fixed in relation to the liabilities and risks concerned.
The principal provisions are for restructuring of activities and total Hfl 325 million (at December 31, 1980: Hfl 368 million). In 1981, Hfl 66 million was used, while Hfl 22 million was added.
The provisions also include amounts for liabilities in respect of guarantees, and for self-insurance and litigation.

Subordinated loans

This item is composed of the amounts borrowed so far (1981: Hfl 50 million; 1980: Hfl 25 million) in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Enka B.V. or Akzo Zout Chemie Nederland B.V., in the aggregate amount of Hfl 225 million. Akzo N.V. has agreed to be jointly and severally liable for these loans. They are subordinated to all third-party debts of the companies named.
The interest payable on borrowings under these loan agreements is based on the going rate for comparable credit facilities and averages 12.0% (1980: 11.4%).
Repayment will take place in the years 1983 through 1992.
Redemption before maturity is permitted as from September 1, 1987.

Other long-term debt

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
convertible debentures	193.8	215.4
other debentures	697.9	687.2
installment buying and leasing arrangements	37.3	44.4
private borrowings and other long-term debts	2,184.7	2,124.9
	3,113.7	3,071.9
current portion	398.5	355.1
	2,715.2	2,716.8

in Hfl million	
situation at December 31, 1980	2,716.8
changes in exchange rates	77.8
borrowings	374.7
repayment of borrowings	(452.4)
other changes	(1.7)
situation at December 31, 1981	2,715.2

The breakdown by country is shown in the following table.

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
the Netherlands	1,581.6	1,666.5
Fed. Rep. of Germany	194.4	226.9
United States	637.3	543.0
other countries	301.9	280.4
	2,715.2	2,716.8

Aggregate maturities after 1982 are as follows:

during the years 1983 through 1987	Hfl 1,652 million
during the years 1988 through 1992	Hfl 881 million
after 1992	Hfl 182 million
	Hfl 2,715 million

The average interest rate is 9.9% (1980: 9.6%).
The book value of assets financed by installment buying and leasing amounts to approximately Hfl 32 million (at December 31, 1980: approximately Hfl 44 million).
Private borrowings and other long-term debts have been secured to an aggregate amount of Hfl 275 million (at December 31, 1980: Hfl 339 million) by means of mortgages, etc.
Loan agreements of Akzona Inc. in the aggregate amount of Hfl 530 million (at December 31, 1980: Hfl 473 million) contain covenants which restrict the amount of secured debt the company may incur.

Convertible debentures	*in Hfl million*
The amount outstanding at December 31, 1981, of 4¾% debentures Akzo N.V. 1969 convertible into Akzo N.V. common stock was U.S. $ 56 million. The conversion price is Hfl 127.10 per share of Hfl 20 par value, based on an exchange rate of U.S. $ 1 = Hfl 3.60. The valuation of these debentures in guilders is based on the same exchange rate, except for the portion due within one year. Redemption at par (by drawing) occurs in 10 equal annual installments of U.S. $ 7 million, the first of which became due in 1980. Redemption before maturity is permitted. This borrowing includes the debentures held available for exchange of the remaining 4¾% convertible debentures Zout-Organon B.V. of U.S. $ 1,000 each; 24 of these debentures have not been exchanged.	193.8

Other debentures	*in Hfl million*
Currently outstanding amount of 11¼% debentures Akzo N.V. 1974. These debentures are payable in 10 approximately equal annual installments, the first of which became due on November 1, 1975. Redemption before maturity is not permitted.	22.5
Sfr 60 million principal amount of 7¾% debentures Akzo N.V. 1975. Subject to certain conditions, these debentures will be repaid in 4 annual installments of Sfr 2 million each in the years 1982 through 1985 and in 4 annual installments of Sfr 4 million each in the years 1986 through 1989. The remaining amount will be payable at May 9, 1990. Redemption before maturity is permitted.	82.2
to be carried forward	104.7

carried forward	104.7
Hfl 125 million principal amount of 9¼% debentures Akzo N.V. 1976. These debentures are payable in 5 approximately equal annual installments, the first of which will become due on July 15, 1982. Redemption before maturity is not permitted.	125.0
Hfl 125 million principal amount of 9½% debentures Akzo N.V. 1979. These debentures will be repaid in 4 approximately equal annual installments in the years 1983 through 1986. Redemption before maturity is not permitted.	125.0
Currently outstanding amount (Lfrs 470 million) of 9¼% debentures Akzo N.V. 1979/1987. These debentures will be repaid in 5 annual installments of Lfrs 30 million each in the years 1982 through 1986. The remaining amount will be payable at October 25, 1987. Redemption before maturity is permitted as from October 25, 1983.	30.2
DM 125 million principal amount of 9% debentures Akzo N.V. 1980/1990. These debentures will be repaid in 5 annual installments in the years 1986 through 1990: DM 12.5 million in 1986, DM 25 million annually in 1987 through 1989, and the remaining amount of DM 37.5 million in 1990. Redemption before maturity is permitted as from May 15, 1985.	137.1
Profit-sharing employee debentures Akzo N.V.	1.4
Total other debentures Akzo N.V.	523.4
Other debentures issued by consolidated companies	174.5
	697.9

Other current liabilities

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
suppliers	1,115.5	1,032.6
nonconsolidated companies	42.0	46.2
taxes on income*	40.4	29.6
Akzo N.V. dividend	59.3	–
current portion of long-term debt	398.5	355.1
pensions	1.8	4.3
other liabilities and accrued charges	944.7	839.7
	2,602.2	2,307.5

* less tax receivables of Hfl 40 million (at December 31, 1980: Hfl 43 million)

Liabilities not shown in the balance sheet

With regard to nonconsolidated companies and third parties, guarantees were given and liabilities contracted to an aggregate amount of Hfl 278 million (at December 31, 1980: Hfl 255 million), of which Hfl 156 million (at December 31, 1980: Hfl 125 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 approximately Hfl 63 million (at December 31, 1980: approximately Hfl 63 million) per year.

Consolidated statement of income

Sales

This item shows the total of amounts invoiced to third parties, including nonconsolidated companies, in respect of goods supplied and services rendered, less sales taxes and excise duties. There are practically no differences in timing of invoicing and delivery.

in Hfl million	1981	1980
man-made fibers	4,678	3,782
chemical products	4,011	3,549
coatings	1,513	1,432
pharmaceuticals	1,484	1,320
consumer products	1,013	869
miscellaneous products	1,959	1,670
	14,658	12,622
intra-Group deliveries	(182)	(169)
	14,476	12,453

Depreciation

in Hfl million	1981	1980
buildings	71.9	67.7
plant equipment and machinery	431.7	420.4
means of transport	11.6	11.2
assets not used in the production process	11.4	4.3
	526.6	503.6

For the method of calculation of depreciation, see page 37.

Operating income

in Hfl million	1981	1980
man-made fibers	33	(170)
chemical products	125	183
coatings	110	110
pharmaceuticals	190	145
consumer products	50	40
miscellaneous products	88	116
	596	424
nonallocated costs	(32)	(8)
	564	416

Interest

in Hfl million	1981	1980
interest paid	(486.3)	(377.9)
interest received, including income from securities, etc.	157.5	116.9
	(328.8)	(261.0)

Interest paid decreased by Hfl 38 million (1980: Hfl 33 million) due to the capitalization of financing expenses of capital investment projects under construction.

Taxes on income

The taxes on earnings included in this item consist of both current and deferred tax liabilities. From the losses incurred, taxes have been deducted to the extent that they can be offset against taxes charged to income in previous years. No tax deductions are made from earnings to the extent that these earnings can be offset against losses suffered in previous years. Therefore, a portion of income (loss) is not included in taxable income.
On balance, no tax deductions had to be made in 1981 for earnings aggregating approximately Hfl 50 million, while no tax deductions were possible in 1980 in respect of losses aggregating approximately Hfl 200 million.
Losses not yet compensated amounted to approximately Hfl 800 million at December 31, 1981 (at December 31, 1980: approximately Hfl 950 million); within the compensation periods provided by law, earnings to be achieved in the coming years can therefore be included up to this amount in the statement of income without tax deductions.

The taxes included in the statement of income break down as follows:

in Hfl million	1981	1980
taxes on operating income less interest	(79.4)	(48.2)
taxes on equity in earnings of nonconsolidated companies	(28.8)	(22.7)
taxes included in extraordinary items	6.8	29.6
	(101.4)	(41.3)

Equity in earnings of nonconsolidated companies

Under this heading are included the Group's equity in earnings of nonconsolidated companies and interest received on loans granted to these companies, with due allowance made for taxes on these items.

Extraordinary items

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

in Hfl million	1981	1980
extraordinary gains	57.3	42.5
extraordinary losses	(50.1)	(288.7)
	7.2	(246.2)

Extraordinary gains in 1981 largely relate to book profits on disposals, including the sale of our interest in Ketjen Carbon B.V. and of the butanol plant as well as the reduction of our interest in the methanol activities.
Extraordinary losses in 1981 are principally due to additions to the provisions for the restructuring of activities.

Consolidated statement of changes in financial position

Working capital

in Hfl million	Dec. 31, 1981	Dec. 31, 1980
inventories	2,506	2,454
short-term receivables	2,570	2,289
prepaid expenses	63	68
cash and marketable securities	898	883
bank borrowings and overdrafts	(613)	(574)
other current liabilities	(2,602)	(2,307)
	2,822	2,813

Funds from operations

This item is computed from Group income, with adjustments for items which in years prior to the fiscal year caused, or which will yet cause, increases or decreases in funds.
For this purpose, Group income before extraordinary items is augmented by the amount for depreciation and disposals, and further adjusted in recognition of the changes detailed below.

in Hfl million	1981	1980
changes in provisions from normal operational activities	38	1
retained earnings of nonconsolidated companies	13	(20)
other	12	(11)
	63	(30)

Extraordinary items affecting funds are determined from the extraordinary items as follows:

in Hfl million	1981	1980
extraordinary items	7	(246)
changes in provisions of an unusual character	(44)	154
other	15	41
	(22)	(51)

Disposal of participations

This item primarily concerns the book value of our 60% interest in Ketjen Carbon B.V., the Netherlands, which was sold in 1981.

Acquisitions

in Hfl million	1981	1980
investments in nonconsolidated companies	36	27
acquisition of consolidated companies	–	67
	36	94

Acquisitions in 1981 include increases in the equity of a number of nonconsolidated companies.

Current-value information

Because of continued inflation in virtually all countries, the current value of property, plant and equipment and of investments in nonconsolidated companies, included in noncurrent assets, is higher than is shown in the consolidated balance sheet. Hence, Group equity is correspondingly higher.
Income is lower if costs are determined in relation to current prices. There exists no generally accepted method to show the effects of price rises on Group equity and income. The method of calculation adopted in this section is set forth below.

Method of calculation

Condensed consolidated balance sheet

Noncurrent assets
The current value of land has generally been approximated on the basis of appraisals.
To calculate the current value of buildings, machinery and equipment, indexes from external sources in the principal countries of establishment were used. A decrease in value as a result of technological advances, estimated to be 1% annually for buildings and 2% annually for machinery and equipment, was deducted from the current values so obtained, where the indexes did not themselves reflect such a decrease.
In cases where the current value thus calculated exceeded the value to the business, the latter value was used. This applies in particular to part of the buildings, machinery and equipment in Europe for the production of man-made fibers.
Current value in foreign currencies has been translated into guilders at rates virtually equal to the rates of exchange in force at year's end.
For nonconsolidated companies, an overall revaluation was made on the basis of the estimated current value of their property, plant and equipment, with due allowance made for taxes.

Current assets
For inventories, no revaluation was made, as the value shown in the consolidated balance sheet does not differ materially from the current value of inventories.

Stockholders' equity
Stockholders' equity on a current-value basis has been determined by adding to stockholders' equity as shown in the consolidated balance sheet, the amount of the revaluation of noncurrent assets. From this amount, deductions were made for deferred taxes arising from the revaluation of property, plant and equipment, which were calculated at an average rate of 50%, and for minority interest.

Liabilities
Liabilities on a current-value basis have been determined by adding to liabilities as shown in the consolidated balance sheet the amount for deferred taxes arising from the revaluation of property, plant and equipment.

Condensed consolidated statement of income

Operating costs
The amount of the adjustment to current prices of depreciation and other operating costs includes:
- the additional depreciation needed if depreciation is computed on the current value of property, plant and equipment;
- the increase in the value of inventories computed for the normal inventory level.

Taxes
The amount of the adjustment of taxes is computed on the basis of a rate of 50% applied to additional depreciation and to the increase in the value of inventories.

Equity in earnings of nonconsolidated companies
The amount of the adjustment to current prices of equity in earnings of nonconsolidated companies reflects the effect of additional depreciation and of the increase in the value of inventories on earnings of these companies, with due allowance made for taxes.

Financial ratios		1981		1980
	on the basis of historical cost	on the basis of current value	on the basis of historical cost	on the basis of current value
Group equity : liabilities	0.39	0.46	0.38	0.45
stockholders' equity per common share of Hfl 20 par value, in Hfl	82.72	108.32	76.56	98.93
operating income as percentage of sales	3.9	1.3	3.3	1.3
net income (loss) before extraordinary items:				
per common share of Hfl 20 par value, in Hfl	7.58	1.62	5.77	1.80
as percentage of stockholders' equity	9.2	1.5	7.5	1.8
net income (loss) after extraordinary items:				
per common share of Hfl 20 par value, in Hfl	8.07	2.11	(2.35)	(6.32)
as percentage of stockholders' equity	9.7	1.9	(3.1)	(6.4)

Condensed consolidated balance sheet

in Hfl million	December 31, 1981 on the basis of historical cost	December 31, 1981 on the basis of current value	December 31, 1980 on the basis of historical cost	December 31, 1980 on the basis of current value
noncurrent assets	4,159	5,848	3,917	5,403
current assets	6,037	6,037	5,694	5,694
total assets	10,196	11,885	9,611	11,097
Akzo N.V. stockholders' equity	2,449	3,206	2,266	2,929
minority interest	407	551	393	519
Group equity	2,856	3,757	2,659	3,448
liabilities	7,340	8,128	6,952	7,649
total Group equity and liabilities	10,196	11,885	9,611	11,097

Condensed consolidated statement of income

in Hfl million	1981 on the basis of historical cost	1981 on the basis of current value	1980 on the basis of historical cost	1980 on the basis of current value
sales	14,476	14,476	12,453	12,453
operating costs				
depreciation	(527)	(701)	(504)	(654)
other costs	(13,385)	(13,582)	(11,533)	(11,638)
operating income	564	193	416	161
interest	(329)	(329)	(261)	(261)
taxes	(79)	106	(48)	80
equity in earnings of nonconsolidated companies	83	68	72	62
extraordinary items	7	7	(246)	(246)
Group income (loss)	246	45	(67)	(204)
minority interest	(7)	17	(3)	17
Akzo N.V. net income (loss)	239	62	(70)	(187)
net income (loss) before extraordinary items	224	47	170	53
extraordinary items less minority interest	15	15	(240)	(240)
Akzo N.V. net income (loss)	239	62	(70)	(187)

Changes in stockholders' equity

in Hfl million		1981		1980
stockholders' equity on a current-value basis at January 1		2,929		2,828
net income (loss)	62		(187)	
goodwill resulting from acquisition of companies	(2)		(34)	
dividend	(59)		–	
other changes	276		322	
		277		101
stockholders' equity on a current-value basis at December 31		3,206		2,929

Other changes include the revaluation of noncurrent assets, the increase in the value of inventories, and the effect of changes in exchange rates.

Akzo N.V. balance sheet

after allocation of profit (1981) and loss (1980)

see notes on page 48

in Hfl million	December 31, 1981		December 31, 1980	
affiliated companies				
consolidated companies	3,029.3		2,820.0	
nonconsolidated companies	68.6		69.1	
loans to affiliated companies	885.2		1,029.2	
		3,983.1		3,918.3
short-term receivables and prepaid expenses				
receivables from affiliated companies	17.5		34.9	
other receivables	72.9		37.8	
prepaid expenses	18.6		16.3	
		109.0		89.0
cash and marketable securities				
marketable securities	0.7		0.2	
short-term investments	639.5		608.2	
cash on hand and in banks	15.8		29.9	
		656.0		638.3
total assets		4,748.1		4,645.6
stockholders' equity				
common stock	591.9		591.9	
cumulative preferred stock	0.6		0.6	
priority stock	0.0		0.0	
capital stock	592.5		592.5	
capital surplus, paid in	658.0		658.0	
other reserves	1,198.2		1,015.7	
		2,448.7		2,266.2
borrowings				
convertible debentures	193.8		215.4	
other debentures	523.4		523.6	
borrowings from affiliated companies	385.3		502.1	
other borrowings	979.6		981.7	
		2,082.1		2,222.8
current liabilities				
amounts due to affiliated companies	4.6		4.1	
dividend	59.3		–	
bank borrowings and overdrafts	57.3		68.4	
other liabilities and accrued charges	96.1		84.1	
		217.3		156.6
total stockholders' equity and debts		4,748.1		4,645.6

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

see notes on page 48

in Hfl		1981	1980
net income (loss)		238,700,000	(69,600,000)
reservation, pursuant to art. 39, para 1, of the articles of association		(176,300,000)	
profit remaining for allocation		62,400,000	
with due observance of art. 39, para 2, of the articles of association, it is proposed to allocate this amount as follows:			
to be distributed:			
dividend on priority stock – Hfl 120 per share of Hfl 1,000 par value*	5,760		
dividend on cum. pref. stock – Hfl 120 per share of Hfl 1,000 par value*	72,240		
dividend on common stock – Hfl 2 per share of Hlf 20 par value	59,187,172		
		59,265,172	
to be retained		3,134,828	

* including unpaid 1980 dividend

Following the acceptance of this proposal, the holders of common stock will receive a dividend of Hfl 2 per share of Hfl 20 par value.

The dividend will be made available on dividend coupon no. 15 from June 1, 1982.

Arnhem, March 30, 1982

The Board of Management:

A.G. van den Bos
A.A. Loudon
H. van Doodewaerd
M.W. Geerlings
H.J. Kruisinga
J. Veldman
H.J.J. van der Werf
M.D. Westermann
C. Zaal
H.G. Zempelin

The Supervisory Council:

G. Kraijenhoff
J.R.M. van den Brink
Y. Scholten
S.C. Bakkenist
P.M.H. van Boven
A. Herrhausen
H.L. Merkle
H.J. Schlange-Schöningen
K. Schudel-van Zwanenberg
E.G.G. Werner
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, and net income (loss) has been determined, in accordance with the principles of valuation and determination of income mentioned on page 33. Thus stockholders' equity and net income (loss) are equal to stockholders' equity and net income (loss) as shown in the consolidated financial statements on pages 34 and 35.

Nonconsolidated companies

in Hfl million

situation at December 31, 1980	69.1
equity in 1981 earnings	5.5
dividends received	(7.6)
changes in exchange rates and revaluations	1.6
situation at December 31, 1981	68.6

Cash and marketable securities

Short-term investments include time deposits in the amount of Hfl 54.8 million (December 31, 1980: Hfl 54.2 million), which are not freely available to Akzo N.V.

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, 602 shares of cumulative preferred stock, and 29,593,586 shares of common stock.
In 1981, a total of 16 shares of cumulative preferred stock were offered to the Company. They were purchased for an amount of Hfl 12,000.
The priority stock is held by "Akzostichting" (Akzo Foundation), which is controlled by the members of the Supervisory Council and the Board of Management. The meeting of holders of priority stock has the right to draw up binding lists of nominees for appointment to the Supervisory Council and the Board of Management.

Borrowings

For information on the convertible and other debentures, see the notes to the consolidated financial statements (pages 40 and 41).
Borrowings from affiliated companies have no fixed repayment schedule. A portion of these borrowings bears no interest. To the extent that interest is charged, it averages 10.6% (1980: 9.9%).
Interest on other borrowings averages 9.7% (1980: 8.7%).
The repayment schedule for the other borrowings is as follows:

in 1982	Hfl 116 million
during the years 1983 through 1987	Hfl 458 million
during the years 1988 through 1992	Hfl 406 million
	Hfl 980 million

Remuneration of Supervisory Council

For 1981, the members of the Supervisory Council were paid a total amount of Hfl 537,250, of which Hfl 471,250 was a fixed amount and Hfl 66,000 was a variable remuneration.
For 1980, the members of the Supervisory Council were paid a fixed remuneration only, in the aggregate amount of Hfl 480,000.
All members receive remuneration.
At end-1981 the Council numbered 11 members (end-1980: 11).

Provisions of the articles of association with regard to profit allocation

Article 39

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

2
The remainder of the profits shall, to the extent possible, be allocated as follows:
a
to the holders of priority shares:
six per cent per share or the statutory interest as stated in article 8, paragraph 1, whichever is lower, plus any accrued and unpaid dividends;
b
to the holders of cumulative preferred shares:
six per cent per share, plus any accrued and unpaid dividends;
c
to the holders of ordinary shares:
a dividend of such an amount per share as the remaining profit, less the aforesaid payments and less such amounts as the general meeting of shareholders may decide to carry to reserves, shall permit.

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

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

Auditors' report

We have examined the foregoing 1981 financial statements of Akzo N.V., Arnhem. For the purpose of our examination we also have made use of the reports of other independent auditors with respect to a number of subsidiaries.
In our opinion, these financial statements present fairly the financial position of Akzo N.V. at December 31, 1981, and the results of its operations for the year then ended.

Arnhem, March 30, 1982

Klynveld Kraayenhof & Co.

Ten-year financial summary

The figures set forth below are based on historical cost;
for figures based on current value, see page 52.

consolidated balance sheet December 31	1981	1980	1979	1978	1977	1976	1975	1974	1973**	1972**
in Hfl million										
property, plant and equipment	3,673	3,441	3,273	3,360	3,577	3,904	4,396	4,322	4,235	4,250
investments in nonconsolidated companies	351	357	297	338	321	288	307	285	282	341
other noncurrent assets	135	119	144	152	148	162	125	175	155	130
noncurrent assets	4,159	3,917	3,714	3,850	4,046	4,354	4,828	4,782	4,672	4,721
inventories	2,506	2,454	2,233	1,902	1,920	1,949	2,113	2,562	1,641	1,615
short-term receivables	2,570	2,289	2,231	1,992	1,882	1,787	1,906	1,831	1,954	1,728
prepaid expenses	63	68	46	48	60	59	51	56	52	54
cash and marketable securities	898	883	805	598	580	611	539	524	840	645
current assets	6,037	5,694	5,315	4,540	4,442	4,406	4,609	4,973	4,487	4,042
total assets	10,196	9,611	9,029	8,390	8,488	8,760	9,437	9,755	9,159	8,763
capital stock	593	593	593	593	593	593	593	593	562	542
capital surplus, paid in	658	658	658	658	658	658	658	658	689	710
other reserves	1,198	1,015	1,074	980	1,074	1,377	1,733	2,223	2,036	1,813
stockholders' equity	2,449	2,266	2,325	2,231	2,325	2,628	2,984	3,474	3,287	3,065
minority interest in Group equity	407	393	408	397	414	486	541	565	573	570
Group equity	2,856	2,659	2,733	2,628	2,739	3,114	3,525	4,039	3,860	3,635
provisions	1,335	1,329	1,147	1,054	1,039	942	1,052	958	991	809
subordinated loans	75	25	–	–	–	–	–	–	–	–
other long-term debt	2,715	2,717	2,600	2,276	2,496	2,626	2,693	2,124	2,047	2,407
long-term liabilities	4,125	4,071	3,747	3,330	3,535	3,568	3,745	3,082	3,038	3,216
bank borrowings and overdrafts	613	574	453	386	347	310	308	410	162	223
other current liabilities	2,602	2,307	2,096	2,046	1,867	1,768	1,859	2,224	2,099	1,689
current liabilities	3,215	2,881	2,549	2,432	2,214	2,078	2,167	2,634	2,261	1,912
total Group equity and liabilities	10,196	9,611	9,029	8,390	8,488	8,760	9,437	9,755	9,159	8,763
invested capital*:										
of consolidated companies	6,744	6,418	6,074	5,777	6,014	6,415	7,013	7,033	6,221	6,316
in nonconsolidated companies	351	357	297	338	321	288	307	285	282	341
total	7,095	6,775	6,371	6,115	6,335	6,703	7,320	7,318	6,503	6,657
property, plant and equipment										
capital expenditures	693	645	461	434	409	413	745	799	549	555
depreciation	527	504	506	486	494	533	519	531	540	527
ratios										
sales : invested capital	2.15	1.94	1.98	1.85	1.73	1.68	1.39	1.53	1.51	1.30
Group equity : liabilities	0.39	0.38	0.43	0.46	0.48	0.55	0.60	0.71	0.73	0.71
Group equity : noncurrent assets	0.69	0.68	0.74	0.68	0.68	0.72	0.73	0.84	0.83	0.77
current assets : current liabilities	1.88	1.98	2.09	1.87	2.01	2.12	2.13	1.89	1.98	2.11

development of stockholders' equity (in Hfl million)	1972-1981	1981	1980	1979	1978	1977	1972-1976
stockholders' equity at January 1	2,992	2,266	2,325	2,231	2,325	2,628	2,992
stock dividends	136						136
retained earnings	99	179	(70)	158	24	(166)	(26)
goodwill resulting from acquisition of companies	(151)	(2)	(34)	(6)	(17)	(12)	(80)
change in exchange rates and revaluations	(679)	4	44	(62)	(105)	(76)	(484)
other changes	52	2	1	4	4	(49)	90
stockholders' equity at December 31	2,449	2,449	2,266	2,325	2,231	2,325	2,628

* as from 1981 defined as total assets less cash and marketable securities, and less non-interest-bearing other current liabilities; figures of preceding years have been restated

** based on cash dividend

consolidated statement of income	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
in Hfl million										
sales	14,476	12,453	12,015	10,666	10,433	10,750	9,717	10,761	9,418	8,235
salaries, wages and social charges	(4,182)	(3,789)	(3,572)	(3,395)	(3,277)	(3,277)	(3,109)	(3,144)	(2,764)	(2,478)
depreciation	(527)	(504)	(506)	(486)	(494)	(533)	(519)	(531)	(540)	(527)
other costs	(9,203)	(7,744)	(7,248)	(6,364)	(6,422)	(6,635)	(6,106)	(6,314)	(5,350)	(4,645)
operating income (loss)	564	416	689	421	240	305	(17)	772	764	585
interest	(329)	(261)	(259)	(248)	(245)	(249)	(234)	(147)	(147)	(172)
taxes on operating income less interest	(79)	(48)	(136)	(113)	(65)	(59)	58	(226)	(283)	(181)
equity in earnings of nonconsolidated companies	83	72	32	28	34	24	13	42	42	29
Group income (loss) before extraordinary items	239	179	326	88	(36)	21	(180)	441	376	261
extraordinary items	7	(246)	(60)	(25)	(122)	(167)	(253)	8	(3)	7
Group income (loss)	246	(67)	266	63	(158)	(146)	(433)	449	373	268
of which minority interest	(7)	(3)	(36)	(39)	(8)	(7)	(7)	(69)	(82)	(51)
net income (loss)	239	(70)	230	24	(166)	(153)	(440)	380	291	217
profit available for allocation	62	–	82	–	–	–	–	210	241	188
distributed income	59	–	71	–	–	–	–	118	107*	97*
common stock, in thousands of shares of Hfl 20 par value	29,594	29,594	29,594	29,594	29,594	29,594	29,594	29,594	28,062	26,989
number of employees	77,800	83,100	83,000	83,200	84,400	91,100	98,200	105,400	105,800	101,000
per common share of Hfl 20 par value, in Hfl										
net income (loss) before extraordinary items	7.58	5.77	9.75	1.66	(1.75)	0.20	(6.53)	12.55	10.48	7.70
net income (loss) after extraordinary items	8.07	(2.35)	7.74	0.82	(5.63)	(5.16)	(14.86)	12.83	10.37	8.02
profit available for allocation	2.11	–	2.74	–	–	–	–	7.08	8.59	6.94
dividend	2.00	–	2.40	–	–	–	–	4.00	3.80	3.60
of which, at stockholder's option, in common stock									2.60	2.40
number of shares entitling holder to one new share									18	25
stockholders' equity	82.72	76.56	78.55	75.35	78.52	88.78	100.80	117.36	117.08	113.49
ratios										
operating income (loss), as percentage of sales	3.9	3.3	5.7	3.9	2.3	2.8	(0.2)	7.2	8.1	7.1
operating income (loss), as percentage of invested capital	8.4	6.5	11.3	7.3	4.0	4.8	(0.2)	11.0	12.3	9.3
salaries, wages and social charges, as percentage of sales	28.9	30.4	29.7	31.8	31.4	30.5	32.0	29.2	29.3	30.1
net income (loss) before extraordinary items, as percentage of stockholders' equity	9.2	7.5	12.4	2.2	(2.2)	0.2	(6.5)	10.7	9.0	6.8
net income (loss) after extraordinary items, as percentage of stockholders' equity	9.7	(3.1)	9.9	1.1	(7.2)	(5.8)	(14.7)	10.9	8.9	7.1

* of which Hfl 35 million (1973) and Hfl 33 million (1972) in cash

consolidated statement of changes in financial position	1981	1980	1979	1978	1977	1976	1975	1974
in Hfl million								
working capital (excess of current assets over current liabilities) at January 1	2,813	2,766	2,108	2,228	2,327	2,441	2,339	2,226
source of funds								
funds from operations	846	631	976	659	539	503	370	1,024
borrowings	425	593	538	390	289	496	826	422
funds retained through payment of Akzo N.V. final 1973 dividend in stock								72
other sources	6	16	3	19	62	41	17	20
	1,277	1,240	1,517	1,068	890	1,040	1,213	1,538
application of funds								
expenditures for property, plant and equipment	693	645	461	434	409	413	745	799
acquisitions	36	77	76	90	60	50	92	65
other noncurrent assets	10	(26)	(8)	4	(12)	41	(43)	20
repayment of borrowings	452	498	202	557	408	446	277	306
dividends paid to stockholders of Akzo N.V.	59	–	71	–	–	–	–	118
other applications	18	(1)	57	103	124	204	40	117
	1,268	1,193	859	1,188	989	1,154	1,111	1,425
working capital at December 31	2,822	2,813	2,766	2,108	2,228	2,327	2,441	2,339

figures on a current-value basis	1981	1980	1979	1978*	1977*	1976*	1975*	1974*
Group equity, in Hfl million	3,757	3,448	3,357	3,290	3,369	3,764	4,225	4,559
stockholders' equity, in Hfl million	3,206	2,929	2,828	2,803	2,870	3,193	3,585	3,928
Group equity : liabilities	0.46	0.45	0.49	0.52	0.54	0.61	0.64	0.74
stockholders' equity, per common share of Hfl 20 par value, in Hfl	108.32	98.93	95.54	94.69	96.95	107.87	121.14	132.73
operating income (loss)								
in Hfl million	193	161	363	269	104	77	(315)	402
as percentage of sales	1.3	1.3	3.0	2.5	1.0	0.7	(3.2)	3.7
net income (loss) before extraordinary items								
in Hfl million	47	53	141	(28)	(124)	(105)	(339)	216
per common share of Hfl 20 par value, in Hfl	1.62	1.80	4.75	(0.95)	(4.19)	(3.55)	(11.46)	7.30
as percentage of stockholders' equity	1.5	1.8	5.0	(1.0)	(4.3)	(3.3)	(9.5)	5.5
net income (loss) after extraordinary items								
in Hfl million	62	(187)	82	(53)	(239)	(264)	(585)	224
per common share of Hfl 20 par value, in Hfl	2.11	(6.32)	2.76	(1.79)	(8.08)	(8.92)	(19.77)	7.57
as percentage of stockholders' equity	1.9	(6.4)	2.9	(1.9)	(8.3)	(8.3)	(16.3)	5.7

* restated for comparison

product group statistics	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
in Hfl million										
sales										
man-made fibers										
textile uses	3,427	2,663	2,817	2,633	2,590	2,834	2,880	3,386	3,497	3,060
industrial uses	1,251	1,119	1,035	934	1,008	970	827	1,142	901	738
	4,678	3,782	3,852	3,567	3,598	3,804	3,707	4,528	4,398	3,798
chemical products										
salt and heavy chemicals	2,398	2,174	2,237	1,794	1,854	1,722	1,428	1,653	1,204	1,147
specialty chemicals	1,613	1,375	1,244	1,122	1,144	1,061	824	991	753	645
	4,011	3,549	3,481	2,916	2,998	2,783	2,252	2,644	1,957	1,792
coatings	1,513	1,432	1,221	1,049	975	941	836	772	638	575
pharmaceuticals	1,484	1,320	1,274	1,211	1,099	1,071	971	819	706	624
consumer products	1,013	869	725	696	611	789	779	679	539	490
miscellaneous products	1,959	1,670	1,595	1,349	1,274	1,362	1,172	1,319	1,180	956
	5,969	5,291	4,815	4,305	3,959	4,163	3,758	3,589	3,063	2,645
total	14,658	12,622	12,148	10,788	10,555					
intra-Group deliveries	(182)	(169)	(133)	(122)	(122)					
sales to third parties	14,476	12,453	12,015	10,666	10,433	10,750	9,717	10,761	9,418	8,235
operating income (loss)										
man-made fibers	33	(170)	74	10	(88)	(142)	(326)	223	390	231
chemical products	125	183	253	122	110	134	54	304	145	140
coatings	110	110	98	64	45					
pharmaceuticals	190	145	134	140	133					
consumer products	50	40	31	31	16					
miscellaneous products	88	116	132	107	80					
	438	411	395	342	274	313	255	245	229	214
total	596	424	722	474	296					
nonallocated costs	(32)	(8)	(33)	(53)	(56)					
operating income (loss)	564	416	689	421	240	305	(17)	772	764	585
invested capital										
man-made fibers	2,328	2,123								
chemical products	1,851	1,749								
coatings	569	585								
pharmaceuticals	714	733								
consumer products	289	261								
miscellaneous products	1,058	973								
	2,630	2,552								
total	6,809	6,424								
nonallocated invested capital	(65)	(6)								
invested capital	6,744	6,418	6,074	5,777	6,014	6,415	7,013	7,033	6,221	6,316

For the years 1972 through 1976, intra-Group deliveries and nonallocated costs are deducted from sales and operating income, respectively, of the several product groups. This does not materially affect the comparability with subsequent years.

geographical statistics	1981	1980	1979	1978	1977	1976	1975	1974	1973
in Hfl million									
the Netherlands									
sales by area of destination	1,460	1,454	1,419	1,289	1,284	1,295	1,218	1,302	1,126
sales by area of origin	4,699	4,255	4,212	3,623	3,585	3,706	3,237	3,554	2,903
operating income (loss)	133	117							
expenditures for property, plant and equipment	303	246	170	180					
invested capital	2,143	2,095	2,069	1,983	1,962	2,286	2,255	2,277	1,990
number of employees	23,000	23,600	23,700	24,300	25,400	27,600	29,700	30,600	29,700
Federal Republic of Germany									
sales by area of destination	2,266	2,198	2,243	1,966	1,932	2,056	1,939	2,115	1,925
sales by area of origin	3,385	3,106	3,087	2,825	2,658	2,727	2,547	2,819	2,520
operating income (loss)	105	66							
expenditures for property, plant and equipment	138	130	100	96					
invested capital	1,660	1,578	1,613	1,576	1,690	1,622	1,835	1,846	1,627
number of employees	20,200	21,000	21,200	21,300	21,800	23,800	26,000	28,800	28,500
other EEC countries									
sales by area of destination	3,431	2,966	2,791	2,348	2,143	2,198	2,020	2,229	1,904
sales by area of origin	1,633	1,498	1,287	1,161	1,055	1,003	994	1,124	1,093
operating income (loss)	78	46							
expenditures for property, plant and equipment	43	63	44	36					
invested capital	601	632	583	541	521	393	633	743	636
number of employees	8,200	9,600	9,600	10,200	10,000	11,000	13,400	14,700	14,400
rest of Europe									
sales by area of destination	1,845	1,750	1,732	1,384	1,473	1,646	1,432	1,531	1,302
sales by area of origin	825	718	711	573	561	712	685	691	617
operating income (loss)	31	37	56	40	(2)	16	10	68	
expenditures for property, plant and equipment	52	36	16	11	11	36	76		
invested capital	332	309	329	254	303	433	507	495	459
number of employees	5,800	6,400	6,300	6,000	6,300	7,600	7,800	8,100	8,200
North America									
sales by area of destination	3,375	2,362	2,413	2,315	2,334	2,292	2,018	2,318	2,182
sales by area of origin	3,210	2,253	2,224	2,027	2,133	2,147	1,909	2,163	2,008
operating income (loss)	99	45	113	99	87	53	103	166	
expenditures for property, plant and equipment	139	150	117	93	87	103	134		
invested capital	1,721	1,542	1,291	1,188	1,339	1,459	1,556	1,387	1,294
number of employees	14,900	16,000	16,200	15,600	15,300	15,500	16,100	17,100	20,100
rest of the world									
sales by area of destination	2,099	1,723	1,417	1,364	1,267	1,263	1,090	1,266	979
sales by area of origin	724	623	494	457	441	455	345	410	277
operating income (loss)	118	105	79	86	72	90	57	64	
expenditures for property, plant and equipment	18	20	14	18	20	15	54		
invested capital	287	262	189	235	199	222	227	285	215
number of employees	5,700	6,500	6,000	5,800	5,600	5,600	5,200	6,100	4,900

Principal companies of the Akzo Group

December 31, 1981

Percentages of participation are only stated for companies in which Akzo N.V. holds a direct and/or indirect interest of less than 95% in voting stock.

Enka, Wuppertal	**Federal Republic of Germany (F.R.G.)**	
man-made fibers, machinery, dialysis membranes, plastics, nonwovens, films, various industrial products		
Enka B.V., Arnhem	Netherlands	
Enka International B.V., Arnhem	Netherlands	
Akzo Plastics B.V., Arnhem	Netherlands	
Enka AG, Wuppertal	F.R.G.	
Barmag Barmer Maschinenfabrik AG, Remscheid-Lennep	F.R.G.	
with establishments in Switzerland[a], U.S.A., Brazil[a], and Hong Kong		
Membrana GmbH, Wuppertal[b]	F.R.G.	
Italenka S.p.A., Milan	Italy	
British Enkalon Ltd, Leicester	U.K.	(82)
Brand-Rex Ltd, Glenrothes[c]	U.K.	
Enka Austria AG, Vienna	Austria	(93)
La Seda de Barcelona S.A., Barcelona	Spain	(57)
Cyanenka S.A., Prat de Llobregat	Spain	(44)
Fibras Químicas S.A., Monterrey	Mexico	(40)
Polyenka S.A., Indústria Química e Têxtil, São Paulo	Brazil	(51)
COBAFI Companhia Bahiana de Fibras S.A., Camaçari	Brazil	(45)
Enka de Colombia S.A., Medellín	Colombia	(48)
Enkador S.A., Quito	Ecuador	(48)
Century Enka Ltd, Calcutta	India	(39)

Akzo Zout Chemie, Hengelo (O)	**Netherlands**	
salt, chlorine, alkali products, petrochemicals		
Akzo Zout Chemie Nederland B.V., Hengelo	Netherlands	
Methanol Chemie Nederland v.o.f., Delfzijl	Netherlands	(50)
Methanor v.o.f., Delfzijl	Netherlands	(28)
Delamine B.V., Delfzijl	Netherlands	(35)
Norddeutsche Salinen GmbH, Stade	F.R.G.	
Elektro-Chemie Ibbenb. GmbH, Ibbenbüren	F.R.G.	(50)
Konezo, division of Akzo België N.V., Brussels	Belgium	
Dansk Salt I/S, PR Mariager	Denmark	(50)
CIRNE – Companhia Industrial do Rio Grande do Norte, Macau	Brazil	
Denak Co. Ltd, Tokyo	Japan	(50)

Akzo Chemie, Amersfoort	**Netherlands**	
specialty chemicals, organic chemicals, industrial chemicals, catalysts, glass fibers		
Akzo Chemie Nederland B.V., Amersfoort	Netherlands	
Cyanamid-Ketjen Katalysator B.V., Amsterdam	Netherlands	(50)
Silenka B.V., Hoogezand	Netherlands	(33)
Akzo Chemie GmbH, Düren	F.R.G.	
Carbosulf Chemische Werke GmbH, Cologne	F.R.G.	(67)
Rhodanid Chemie GmbH, Cologne	F.R.G.	(67)
Akzo Chemie, division of Akzo België N.V., Mons	Belgium	
Amdic S.A., Mons	Belgium	(50)
Soc. des Dérivés Azotés S.A., Mons	Belgium	(50)
Akzo Chemie France S.à.r.l., Compiègne	France	
Akzo Chemie Italia S.p.A., Arese	Italy	
Akzo Chemie U.K. Ltd, London	U.K.	
Interstab Chemicals Inc., N. Brunswick, New Jersey	U.S.A.	
Poliquíma Indústria e Comércio, division of Akzo Indústria e Comércio Ltda, São Paulo	Brazil	
Nippon Ketjen Co. Ltd, Tokyo	Japan	(50)
Kayaku Noury Corp., Tokyo	Japan	(50)
Lion Akzo Co. Ltd, Tokyo	Japan	(50)

Akzo Coatings, Amstelveen	**Netherlands**	
paints, stains, synthetic resins, adhesives		
Sikkens B.V., Sassenheim	Netherlands	
Koninklijke Talens B.V., Apeldoorn	Netherlands	
Kunstharsfabriek Synthese B.V., Bergen op Zoom	Netherlands	
Akzo Farben Beteiligungs-GmbH, Stuttgart	F.R.G.	
Deutsche Akzo Coatings GmbH, Stuttgart	F.R.G.	
Austro-Lesonal GmbH, Salzburg	Austria	
Akzo Coatings, division of Akzo België N.V., Ternat	Belgium	
Astral S.A., Paris	France	
with establishments in Morocco[a], Senegal[a], Ivory Coast[a], and Cameroun[a]		
Dacral S.A., Paris	France	(48)
Sikkens U.K. Ltd, London	U.K.	
Akzo Coatings Italia S.r.l., Milan	Italy	
Ivanow S.A., Barcelona	Spain	
Svenska Sikkens AB, Tyresö	Sweden	(50)
Miluz S.A.I.C.I. y F., Buenos Aires	Argentina	
R. Montesano S.A. – Tintas Wanda, São Paulo	Brazil	
Metropolitan Paint Factory Ltd, Bangkok	Thailand	(55)
Toa Akzo Coatings Ltd, Tokyo	Japan	(50)

a participation less than 95%

b affiliate of Enka AG (52%) and Akzona Inc. (48%)

c affiliate of British Enkalon Ltd (60%) and Akzona Inc. (40%)

d affiliate of Akzona Inc. (52%) and Enka AG (48%)

Akzo Pharma, Oss **Netherlands**

ethical drugs
(Organon International B.V., Oss, the Netherlands)
hospital supplies and equipment
(Organon Teknika N.V., Turnhout, Belgium)
nonprescription drugs
(Chefaro International B.V., Rotterdam, the Netherlands)
raw materials for the pharmaceutical industry
(Diosynth B.V., Oss, the Netherlands)
veterinary products
(Intervet International B.V., Boxmeer, the Netherlands)

Sales offices or production plants of one or more of the above companies are established in:

- the Netherlands, Federal Republic of Germany, Belgium, France, Italy, United Kingdom, Republic of Ireland, Denmark, Norway, Sweden, Finland, Switzerland, Spain, Portugal, Greece, Turkey
- United States
- Mexico, Argentina, Brazil, Chile, Ecuador, Venezuela
- Lebanon, Iran[a], Bangladesh[a], India[a], Pakistan[a], Thailand, Indonesia[a], Philippines, Hong Kong, Japan[a]
- Australia, New Zealand
- Morocco, Nigeria[a], South Africa

Akzo Consumenten Produkten, The Hague **Netherlands**

detergents and cleaning products, health and bodycare products, foodstuffs

Kortman & Schulte B.V., Dordrecht	Netherlands	
Otarès B.V., Enschede	Netherlands	
Grada Producten B.V., Amsterdam	Netherlands	
Recter B.V., Veenendaal	Netherlands	
Aerofako B.V., Apeldoorn	Netherlands	
Kon. Eau de Colognefabriek J.C. Boldoot B.V., Apeldoorn	Netherlands	
Kon. Fabr. T. Duyvis Jz. B.V., Zaanstad	Netherlands	
Rotterdamsche Margarine Industrie ROMI B.V., Vlaardingen	Netherlands	
Kortman, division of Akzo België N.V., Brussels	Belgium	
Ashe Laboratories Ltd, Leatherhead	U.K.	
Mayolande S.A., Seclin	France	(90)
A/S Blumøller, Odense	Denmark	
Tomten A/S, Sandvika	Norway	

Akzona Inc., Asheville, North Carolina **U.S.A.** (66)

man-made fibers, specialty chemicals, leather, wire, cable and electronic/electrical devices, salt, pharmaceuticals, various industrial products

American Enka Co., Enka, North Carolina	U.S.A.
Armak Co., Chicago, Illinois with establishment in Canada	U.S.A.
Armira Corp., Sheboygan, Wisconsin	U.S.A.
Brand-Rex Co., Willimantic, Connecticut with establishments in Canada, United Kingdom[c] and Switzerland	U.S.A.
International Salt Co., Clarks Summit, Pennsylvania with establishments in Canada and the Netherlands Antilles	U.S.A.
Organon Inc., West Orange, New Jersey with establishment in Canada	U.S.A.
Membrana Inc., Chicago, Illinois[d]	U.S.A.

Other companies

N.V. Verenigde Instrumentenfabrieken Enraf-Nonius, Delft (medical equipment, etc.)	Netherlands	(15)
Akzo Engineering B.V., Arnhem	Netherlands	
Akzo Systems B.V., Arnhem	Netherlands	
Rijnconsult B.V., Arnhem	Netherlands	

Dividends are paid through the following banks:

the Netherlands

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

Federal Republic of Germany

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

Belgium

Generale Bankmaatschappij
Bank van Parijs en de Nederlanden België
Kredietbank
at their offices in Brussels and Antwerp

Luxemburg

Banque Générale du Luxembourg, Luxemburg

United Kingdom

Barclays Bank
Midland Bank
at their offices in London

France

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

Austria

Creditanstalt-Bankverein, Vienna

Switzerland

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

U.S.A.

The Chase Manhattan Bank, New York

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

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

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