KEMIRA
ANNUAL REPORT
1997

CONTENTS

ANNUAL GENERAL MEETING

The Annual General Meeting of Kemira Oyj will be held on Wednesday, 22 April 1998 at 4.00 p.m. in the Kemira House, Porkkalankatu 3, 00180 Helsinki.

Attendance is open to shareholders who have been entered in the company's Shareholders' Register which is kept by Finnish Central Securities Depository Ltd and have given notification of their intention to attend the meeting no later than by 17 April 1998, 4.00 p.m.

Shareholders wishing to attend the meeting are kindly requested to register with

– Ms Arja Korhonen, Kemira Oyj, P.O. Box 330, FIN-00101 Helsinki, Finland; telefax +358 10 862 1375;
telephone +358 10 862 1703 on weekdays from 8.00 a.m. to 4.00 p.m; e-mail arja.korhonen@kemira.com

– or with Ms Seija Mörsky, telephone +358 10 862 1711 on weekdays from 8.00 a.m. to 4.00 p.m.

PROFIT AND LOSS INFORMATION

Kemira will publish information on its 1998 financial year in Finnish, Swedish and English as follows:

Interim Report 4 months	9 June 1998
Interim Report 8 months	6 October 1998
Financial Statement Bulletin	February 1999
Annual Report	March 1999

These reports can be ordered from Kemira Oyj, Group Communications, tel. +358 10 8611, fax +358 10 86 21797 or www.kemira.com

INVESTOR RELATIONS

Kemira Oyj
Kaj Friman, Group Treasurer, tel. +358 10 862 1704, e-mail: kaj.friman@kemira.com
Jarmo Lappalainen, IR-analyst, tel. +358 10 862 1795, e-mail: jarmo.lappalainen@kemira.com

This report is a translation of the Finnish-language Annual Report.

Operational principles

Kemira is an international chemical group that supplies its customers with tailor-made and quality products and services. In its operations, Kemira observes good business practices and principles that respect the environment.

Objectives

Kemira's prime objective is satisfied customers and good profitability in all the company's business areas with the aim of increasing shareholder value. Kemira strives to be a major player worldwide in its main business areas. It achieves this through motivated, multiskilled personnel and superior technology, and by means of innovative solutions for assuring sustainable development.

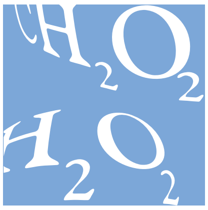
Strategy

Kemira's strategy is to seek profitable and controlled growth for its main businesses in both present and new market areas. This can be achieved by directing capital expenditures at selected growth areas, exploiting the Group's technology and quality management, stressing the importance of environmentally acceptable products, tapping the Group's internal synergy advantages, improving efficiency and strengthening the Group's financial position.

Financial targets

	Target	**1997**	1996	1995
Growth of main business areas, %	5	**11**	3	4
Return on equity, %	14	**11.9**	13.5	13.9
Operating income, % of net sales	10	**8.2**	9.3	10.1
Gearing, %	50–30	**44**	49	56
Interest cover	>7	**6.9**	5.6	3.8

Business areas



KEMIRA CHEMICALS

Kemira Chemicals is a major producer of chemicals for the pulp and paper industry and a manufacturer of other industrial chemicals. It is also the leading European manufacturer of water treatment chemicals. It has production facilities in 19 countries. Net sales in 1997 were FIM 3,461 million, or 23% of the Group's net sales. Operating income was FIM 448 million, or 37% of the operating income of the main business areas. The number of personnel at the end of the year was 2,928 people.

KEMIRA PIGMENTS

Kemira Pigments is the third largest manufacturer of titanium dioxide pigments in its main market areas, Europe and the United States. Its plants are located in Finland, the Netherlands and the United States. The main users of its products are the paint, paper and plastics industries. Net sales in 1997 were FIM 2,451 million, or 16% of consolidated net sales. The business area generated an operating loss of FIM 35 million. The number of personnel at the end of the year was 1,798 people.

KEMIRA AGRO

Kemira Agro is Europe's second largest producer of plant nutrients. It has production facilities in eight countries. The main products are crop and horticultural nutrients as well as process chemicals. Net sales in 1997 were FIM 6,414 million, or 43% of consolidated net sales. Operating income was FIM 505 million, or 42% of the operating income for the Group's main business areas. The number of personnel at the end of the year was 2,995 people.

TIKKURILA

Tikkurila is one of Europe's leading paint manufacturers. Its main products are tinting systems, decorative paints, wood finishes and coatings for the metal industry. Tinting systems and colourants are a fast-growing area in which Tikkurila is at the forefront of technological development worldwide. Tikkurila has production facilities in 12 countries. Net sales in 1997 were FIM 2,075 million, or 14% of consolidated net sales. Operating income was FIM 287 million, or 24% of the operating income of the Group's main business areas. The number of personnel at the end of the year was 1,894 people.

OTHERS

Kemira Metalkat manufactures catalytic converters and Kemira Safety makes respiratory protective equipment. Kemira Oyj is the parent company of the Group, and it is responsible for the Group's strategic management, administration, finance and other corporate services as well as the sale of energy. These three companies had aggregate net sales in 1997 of FIM 423 million, representing 3% of consolidated net sales. The number of personnel at the end of the year was 432 people.

CHAIRMAN'S REVIEW

Photograph: Kristiina Hemminki

1997 was a good year for the European chemical industry. According to an estimate of CEFIC, the industry's umbrella organization, output grew by 4.1%, largely spurred by strong exports. Towards the end of the year, the economic situation in Southeast Asia caused uncertainty in the market, and this is reflected in estimates of future growth. CEFIC forecasts growth of 3.5% for the chemical industry in 1998. The estimate is based on the outlook towards the end of 1997. The extent and duration of the recession in Southeast Asia may, however, have a greater-than-expected impact on world trade.

The Kemira Group's pre-tax income, FIM 864 million, was slightly up on the previous year's record level. Viewed division by division, the years have different profiles, but the structure of four main divisions evens out the annual result and the total level has thus remained good in spite of fluctuations in individual areas.

Kemira Chemicals and Tikkurila were the divisions that continued to generate steadily rising profits. Kemira Agro's result headed downward from the peak level of recent years, mainly due to falling prices of nitrogen fertilizers. Kemira Pigments posted a loss, but during the year the earnings trend swung to profitability as demand grew and stocks shrank to record low levels. It appears that the incipient rise in prices will continue during 1998. The trend towards healthier business operations will also be speeded up by the consolidation of production in the hands of fewer companies.

Kemira streamlined its structure further in 1997 by selling off non-core businesses. In April the remaining 49.9% holding in Vihtavuori Oy was divested and in June Kemira Fibres Oy (Säteri) was sold off. The new owners are more strongly committed to the development of the operations of the companies they own than Kemira was. These divestments resulted in a more cohesive group structure, and I believe that from the investor's viewpoint, this will be a factor which raises the value of the company's share.

The price of Kemira's share rose rapidly in the latter months of 1996 and was FIM 58.30 at the close of the year. At the end of the year under review, the price was FIM 51.20. The three-year share price trend since Kemira listed on the Helsinki Stock Exchange has been positive. The initial share offering was carried out in the autumn 1994 at a price of FIM 38 per share.

In the autumn 1997, Parliament authorized the Ministry of Trade and Industry to lower the State's shareholding to less than 50%. The timing of a possible sale of shares will be determined at the principal owner's discretion.

The most important event in furthering Kemira's environmental commitments was the placing in operation of the water protection investment infrastructure at the Pori plant in Finland, which will make the plant's waste water virtually harmless. Within environment-related operations, Kemira Kemi AB in Sweden has developed a technology that will lead to a considerable improvement in the utilization of municipal sewage sludges.

Over the next few years, Kemira will seek a faster growth rate than it has achieved in the first half of the 1990s. A beefed up balance sheet and a strong cash flow will make possible the level of capital expenditures needed to achieve the target of annual real growth in excess of 5%. The basic level can be attained using our own cash flow, but the present situation also permits larger one-time leaps forward.

In 1997, Kemira continued the good level of earnings it has achieved in recent years. An important contributing factor in this respect has been the support that has come from our owners and other stakeholders, to all of whom I express my warmest thanks.

For their part, Kemira's personnel have daily shown their professional skill and effectiveness, which has made this a successful year. I am grateful to all members of the Kemira team for this good performance both in Finland and in the tens of other countries where Kemira operates.

Heimo Karinen
CEO
Chairman of the Board

BOARD OF DIRECTORS' REVIEW

Kemira Group's profitability continued to be stable during 1997, again demonstrating the benefits of its well balanced business portfolio. Kemira Chemicals and Tikkurila showed healthy improvements in their profits. The strong volume growth of Kemira Pigments was countered by low average prices and the result was unsatisfactory. Kemira Agro's result, particularly in the first half of the year, was good. Net financial charges were again lower than in the previous year. Net income before taxes and minority interest improved to FIM 864 million (FIM 851 million in 1996). Net income after taxes was also slightly higher than in the previous year, at FIM 619 million (FIM 617 million). Earnings per share were FIM 4.8 against FIM 5.1 in the previous year. The Board of Directors proposes raising the dividend for the 1997 financial year to FIM 1.70 per share, or a total of FIM 219 million.

The members of the Board of Directors of Kemira Oyj in 1997 were (from the left) Leif Ekström, Esa Tirkkonen, Sten-Olof Hansén, Chairman Heimo Karinen, Vice Chairman Timo Mattila and Juhani Kari. (Photograph: Hannu Bask)

NET SALES

Group net sales totalled FIM 14,386 million, an increase of 7% on the previous year. The four core businesses reported net sales growth of 11%. Strong volume growth within Kemira Pigments, Kemira Chemicals and Tikkurila as well as the strengthening of the US dollar and the British pound against the Finnish markka in the consolidation of net sales were the main factors contributing to the increase. Some 81% of the Group's net sales came from outside Finland.

The table on page 11 shows the distribution of the Group's net sales by business area.

KEMIRA CHEMICALS

Net sales of Kemira Chemicals grew by 12%, to FIM 3,461 million. All three strategic business units – Pulp & Paper Chemicals, Kemwater and Industrial Chemicals – showed growth. Sales also increased due to the transfer of Kemira Fine Chemicals from Kemira Agro to Kemira Chemicals at the beginning of 1997.

Operating income of Kemira Chemicals was FIM 448 million, 6% higher than in the previous year. The operating margin was 13%, compared with 14% for the previous year.

The growth rate in the Pulp & Paper Chemicals business unit was 4% due to higher operating rates of the pulp & paper industry. The growth was achieved in spite of the lower price level of hydrogen peroxide. Hydrogen peroxide sales are about 15% of Pulp & Paper Chemicals' sales. The unit's other products have continued to perform favourably and it has been able to maintain its operating income close to last year's level. The construction of the new 50,000 t/a hydrogen peroxide plant in southern Sweden was finalized as planned and the plant was started up in June. To optimize its cost structure and adjust its hydrogen peroxide production capacity in line with the current market situation, Kemira Chemicals mothballed its oldest plant in Oulu, Finland. Demand has resumed its rapid growth rate, particularly in Scandinavia, and Kemira Chemicals believes that hydrogen peroxide price levels bottomed out last year. The peracetic acid plant that went into operation at the beginning of 1997 has been establishing its market presence succesfully. In early 1997 a new production unit for formamide was started. Kemira Chemicals bought the remaining 50% stake in SSV-Säilöntä Oy, a company that packages sileage preservation agents. Subsequently, the company has been merged with Kemira Chemicals Oy.

The Kemwater business unit has been actively increasing its geographical presence through new acquisitions. Its sales grew by 15 %. Operating income improved from last year although not by as much because in 1996, a gain on the divestment of Kemira Water Treatment Inc. in the US was included in the operating income figure. In January 1997 Kemwater established its presence in the Italian market by acquiring the water treatment chemicals business of a local manufacturer, Mare S.p.A. The acquisition of the Romanian companies manufacturing water treatment chemicals was finalized at the beginning of the year. Kemwater has increased its ownership in the Brazilian subsidiary Kemwater Brasil S.A. to a majority holding. Kemwater Brasil is constructing a new coagulant plant in São Paulo that will go into operation by the end of 1998. Kemwater is participating in a joint venture to produce water treatment chemicals in Manila, the Philippines, with a 40 % share. The granulated polyaluminium chloride plant in Helsingborg, Sweden, started on schedule at the end of the year.

Net sales of the Industrial Chemicals business unit grew by 7 %. Market conditions have continued to be favourable for phosphoric acid. While the demand for feed and detergent phosphates has been strong, the business has not been able to pass on the increased raw material costs. The construction of the sodium percarbonate plant in Helsingborg, Sweden, was completed and production started as planned at the end of the year.

At the beginning of 1997 Kemira Fine Chemicals Oy, a manufacturer of organic intermediates for agrochemicals, photographic chemicals, pharmaceuticals and specialty chemicals, was transferred from Kemira Agro to Kemira Chemicals. Its net sales in 1997 were FIM 146 million. In January 1998 Kemira Fine Chemicals signed a long term contract with

Rhône Poulenc Agro (RPA) of France for toll-manufacturing of RPA's new corn herbicide isoxaflutole. The contract is an extension to a previous contract and is expected to generate further sales of more than FIM 1 billion for Kemira Fine Chemicals over the foreseeable life of the contract.

KEMIRA PIGMENTS

Net sales of Kemira Pigments increased by 16% and totalled FIM 2,451 million. The increase was caused by higher volumes of titanium dioxide pigments as well as the stronger US dollar against the Finnish markka.

After an extended period of weak demand and decreasing prices, the market conditions started to turn around in 1997. Sales volumes grew by 16% on the previous year. Average prices were about 5% lower in 1997 compared with 1996. Prices during the September–December period were about 5 % higher than in the May–August period and the September–December period of the previous year.

The operating income of Kemira Pigments was a loss of FIM 35 million, compared with a loss of FIM 21 million in the previous year. The operating margin was –1%.

Operating profit in the September–December period was FIM 30 million, about half of which consisted of other operating income, compared with a loss of FIM 8 million for the August–December period last year and a loss of FIM 17 million for the second four months of 1997. A new price increase has been announced both in the US market as well as in the European market. The latest increase is expected to be implemented in the second quarter of 1998.

The delayed debottlenecking project in Pori, Finland has been restarted due to the improved market situation and is expected to be completed by the end of 1999. The new waste acid neutralization plant in Pori became fully operational during the summer. The explosion which occurred at the Rotterdam plant in January shut the plant down for about three months, but due to adequate insurance coverage, the accident did not have any significant effect on the Group's earnings.

The restructuring programme at the Pori plant, which was undertaken with the aim of reducing annual costs considerably starting from 1999, is proceeding as planned. At the end of the year Kemira Pigments sold its pearlescent pigment business to Eckart-Werke GmbH & Co. of Germany.

KEMIRA AGRO

Kemira Agro's net sales were FIM 6,414 million, up by 2% on the previous year. Sales volumes of plant nutrients were roughly at same level as in the previous year. Prices of nitrogen fertilizers have decreased by 10–20 % in a year in the continental European markets, or even more for straight nitrogen products in the UK. NPK prices, however, have been more stable. NPK accounts for about 2/3 of Kemira Agro's fertilizer sales. The price pressure in the global fertilizer markets has been caused mainly by increased product availability and China's absence as a buyer in the nitrogen fertilizer markets.

Operating income was 32% lower than a year ago and totalled FIM 505 million. The operating margin was 8%, reflecting lower price levels. Operating income for the September–December period was FIM 80 million, compared with FIM 207 million for the same period a year earlier.

Kemira Agro is improving its competitiveness by investing FIM 90 million in the Uusikaupunki plants in Finland to achieve more effective and flexible production with a wider range of fertilizer grades. In Denmark, Kemira Agro is revamping the potassium nitrate plant in Fredericia to improve its cost structure and the quality of the product. A decision has been taken to close the production of PK fertilizers in Nørresundby, Denmark, at the end of March 1998, after which the site will be used as a distribution centre.

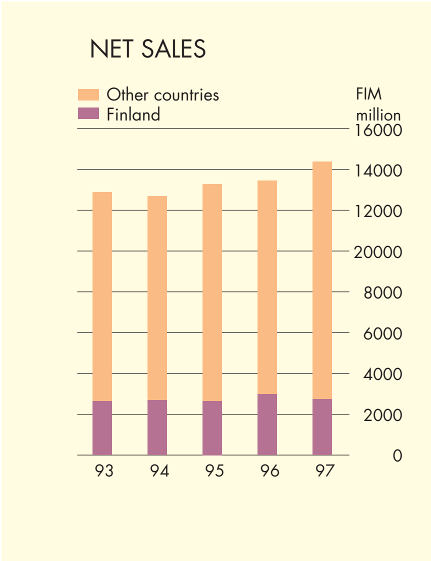
Kemira Agro is increasing its efforts to strengthen its presence and to improve its marketing capabilities in the growing South-East Asian markets for plant nutrients. In China, Kemira Agro established a joint venture fertilizer company. The joint venture is based on an existing facility that will be modernized and expanded.

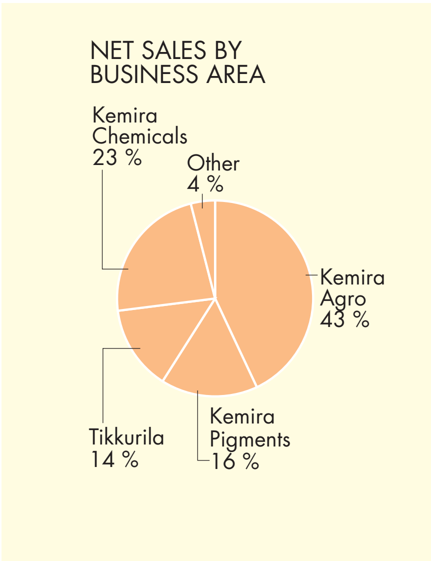
In September Kemira Agro announced its participation in a joint venture with the Kuok group to build a NPK/NK fertilizer plant in Malaysia to serve the local rubber and palm oil plantations.

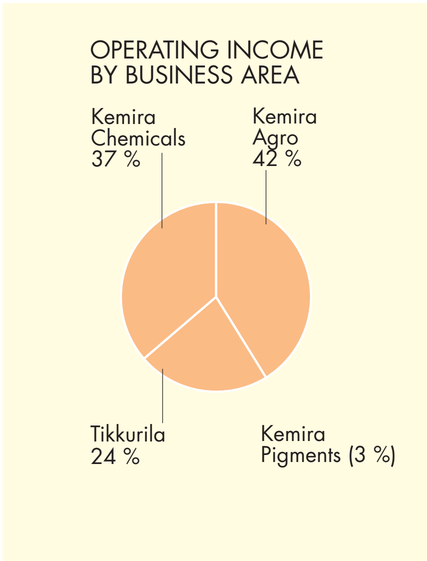
In line with its strategy to expand its market presence also in Central Eastern Europe, Kemira Agro has established a joint venture fertilizer company in Lithuania. The Lithuanian joint venture will own and modify the existing nutrient plant and will build a new warehouse and a bagging station in Kedainia.

TIKKURILA

Tikkurila's net sales grew by 37% on the previous year, reaching FIM 2,075 mil-







lion. Volumes continued to grow for traditional paints sold on the nearby markets. Colour processing systems marketed worldwide grew strongly, boosted by the acquisition of the Italian manufacturer of advanced tinting machines at the end of 1996.

Operating income was FIM 287 million, compared with FIM 222 million in the previous year. The operating margin was 14%. Operating income includes FIM 15 million of gains on sales of assets and other operating income (in 1996 FIM 65 million).

Tikkurila has started production at its new plants that manufacture colourants in Vantaa, Finland, Philadelphia, Pa., USA and Sydney, Australia. Tikkurila now has colourant production on four continents. To keep pace with the rapid growth of the market a new investment has been announced that will more than double the production capacity of colourants at Tikkurila's Dutch unit, Winter-Bouts B.V. The expansion is expected to be completed during the first four months of 1998.

In January of the current year Tikkurila sold its one third holding in McWhorter Technologies AB, a manufacturer of resins for the paint industry.

OTHERS

Kemira Metalkat's net sales were FIM 154 million, an increase of 35 % on last year. The operating loss, including FIM 9 million for additional depreciation, was FIM 4 million, compared with a loss of FIM 5 million last year. Kemira Safety's net sales were FIM 71 million, down 17 % from last year and operating income was FIM 5 million, compared with FIM 10 million last year.

The sale of the shares in Kemira Fibres was completed on 16 June 1997, with economic effect as of 1 May 1997. Net sales and operating income included in the 1997 Group accounts were FIM 193 million and FIM 6 million compared with net sales of FIM 493 million and an operating loss of FIM 58 million in 1996. The effect of the sale of Kemira Fibres is included in Group operating income.

The remaining portion of the capital stock of Vihtavuori Oy was sold to the Finnish State in March. The effect of the transfer of the shares on the income statement was provided for already in 1996.

GROUP FINANCIAL PERFORMANCE

The Group's operating income was FIM 1,179 million (FIM 1,248 million in 1996), representing an 8% margin. Net income before taxes and minority interests was FIM 864 million (FIM 851 million in 1996). The decrease in net financial costs compensated for the lower operating income. The net income after tax was FIM 619 million in 1997 and FIM 617 million in 1996. The tax rate increased from 27% to 28%. Return on equity was 11.9%, compared with 13.5% for 1996.

CAPITAL EXPENDITURE

The Group's capital expenditures totalled FIM 1,257 million (FIM 1,203 million in 1996), or 8.7% of net sales. Disposals of assets were FIM 363 million (FIM 156 million in 1996), leaving FIM 894 million, or 6.2% of net sales, as net capital spending. Group capital spending on environmental protection amounted to FIM 110 million. All major capital expenditure projects have been discussed in the review of the business areas.

The Group's spending on research and development without capital expenditures was approximately FIM 283 million, or about 2% of net sales.

ENVIRONMENTAL AFFAIRS

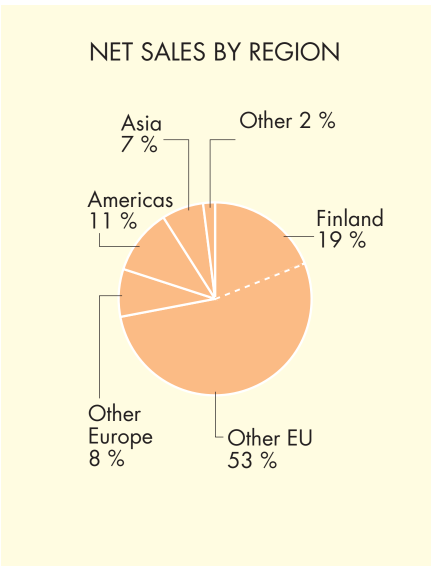
The Kemira Group considers environmental protection to be an important and integral part of its operations. The verified environmental report is part of the annual report (pages 53 – 59).

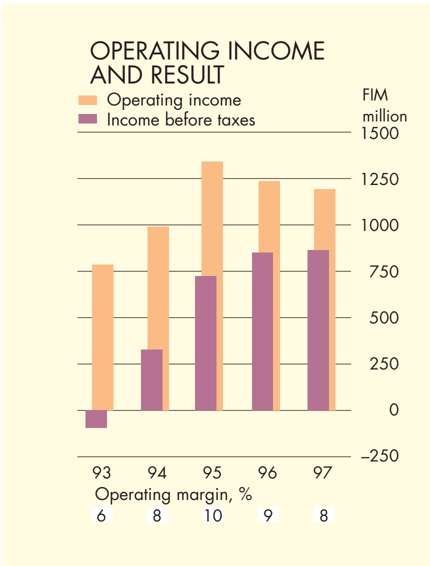
FINANCING

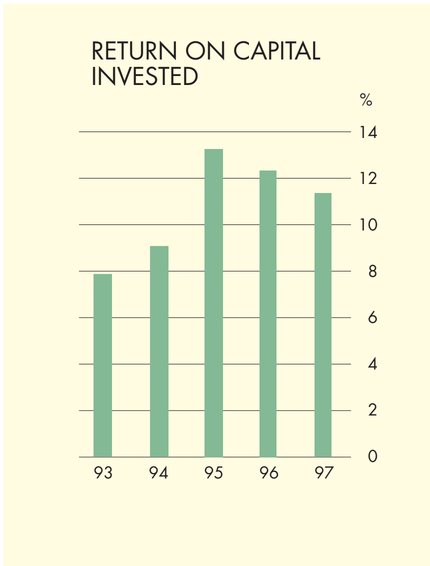
The financial position of the Group remained stable in 1997. Interest-bearing net debt was reduced to FIM 4,430 million at the end of 1997 (FIM 4,747 million at the end of 1996). The stronger US dollar and British pound mean higher consolidation values for debt denominated in those currencies, thus increasing net debt. Cash flow before financing was FIM 637 million (FIM 437 million). The Group's equity ratio rose further by 4 percentage points and was 39% at the end of the year. Gearing (net debt divided by net debt plus equity) was 44%. The level of liquid funds was intentionally reduced during the year. At the end of the year liquid funds amounted to FIM 839 million and unused committed credit lines totalled approximately FIM 1,700 million.

Long-term loans decreased by FIM 601 million during the year. In June, a DEM 825 million multicurrency revolving credit facility was established, which replaced the DEM 350 million facility set up in 1996. The facility was established with eleven banks and it has a seven year maturity.

Net financing costs were FIM 315







million, compared with FIM 397 million the year before. The decrease was mainly due to declining interest rates. Fixed rate loans accounted for approximately 52% of the Group's total long-term interest-bearing liabilities – excluding pension loans, which are regarded as semi-fixed - at the end of the year. Foreign exchange gains were FIM 3 million, compared with losses of FIM 3 million in 1996. Interest cover (operating income plus depreciation divided by net financial expenses) was 6.9.

PARENT COMPANY'S FINANCIAL PERFORMANCE

The parent company's net sales include only sales of energy in Finland, both within and outside the Group. The net sales of the parent company were FIM 197 million (FIM 214 million in 1996). Operating loss was FIM 1 million (a loss of FIM 85 million in 1996). The parent company bears the cost of Group management and administration. In 1996 operating income included an extraordinary contribution to the supplementary pension fund of FIM 44 million, after which the pension fund has no uncovered pension liability.

The parent company's net financial income amounted to FIM 167 million (FIM 55 million in 1996). Net income before taxes and appropriations was FIM 492 million (FIM 294 million in 1996). The parent company's capital expenditure was FIM 89 million, which includes the amounts used for equity increases in the subsidiaries.

PERSONNEL

The Group employed an average of 10,392 people, or 239 fewer than in the previous year. Of the total personnel, an average of 5,216 people were employed by Group companies outside Finland.

The parent company's payroll totalled an average of 136 employees, 3 fewer than a year ago.

Total wages and salaries paid to Group employees on an accrual basis were FIM 1,903 million (FIM 1,878 million in 1996), and to parent company employees FIM 30 million (FIM 26 million). Salaries and emoluments paid to members of the Supervisory Board, the members of the Boards of Directors and the managing directors totalled FIM 50 million for the Group (FIM 37 million) and FIM 5 million for the parent company (FIM 4 million).

During the year the following persons served on the Board of Directors of Kemira Oyj: Heimo Karinen (Chairman), Timo Mattila (Vice Chairman), Juhani Kari, Esa Tirkkonen, Leif Ekström and Sten-Olof Hansén, the last two as non-executive directors. At its meeting on 18 December 1997 the Supervisory Board elected the same six members to the Board for the period of office beginning on 1 January 1998.

Most of the core businesses have developed customer-focused, global business processes. In addition to international networking, this also changes the way in which local plant organizations work.

A number of the core businesses launched new projects that will improve productivity significantly, and the implementation of previous decisions was continued. Productivity has developed well and competitively thanks to the work carried out in previous years.

Many of the core businesses decided to purchase integrated information management systems that comprehensively cover their operations and will help to ensure that the changes which must be carried out before the year 2000 run smoothly. At the same time, these systems will mean a considerable expansion of our personnel's expertise in this area.

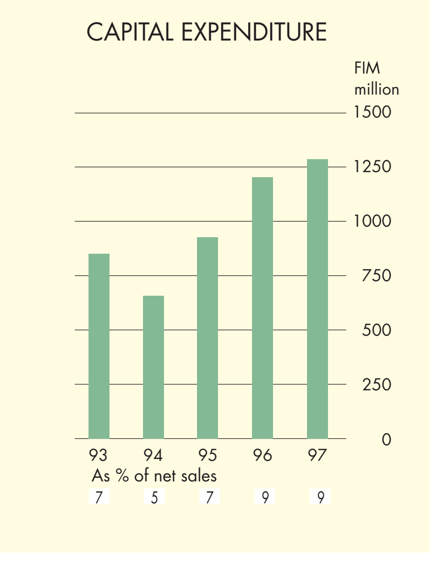
The Group has various incentive compensation systems for a large part of the personnel. These vary from country to country. The management of the core businesses has an annual incentive compensation plan which is based on the economic value added (EVA) concept. In addition the top management is covered by a long-term stock option plan, which is explained more in detail on page 12.

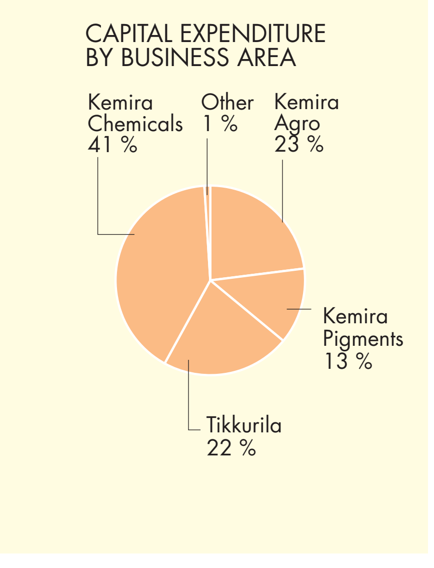
OWNERSHIP

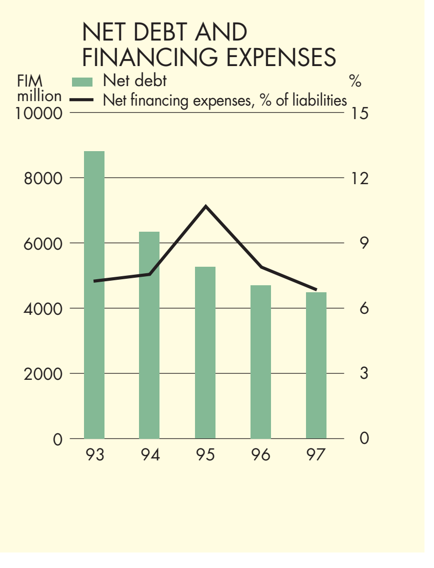
The Finnish Government's holding in Kemira fell to 53.4% as a consequence of the bonus shares issued to private investors. The proportion of institutional investors outside Finland declined to 20.7%, whereas the proportion of Finnish institutional investors and mutual funds increased to 19.7% and private investors' holdings increased to 6.2% of the shares outstanding.

CHANGES IN THE GROUP STRUCTURE

Various companies and participations were established, acquired or divested during the year as discussed in the review of business areas above. The changes in the Group structure are presented in more detail on page 33.







OUTLOOK FOR THE FUTURE

The production volumes of the pulp and paper industry are expected to remain at a good level, though this may be affected by the uncertainties resulting from the Asian turmoil. The sales volumes of pulp and paper chemicals are expected to continue to grow and prices for hydrogen peroxide are expected to strengthen. Geographical expansion of the water treatment chemicals business is expected to continue, while increased competition may reduce margins in some markets. The demand for phosphoric acid is likely to remain at a good level, thus buoying up the earnings of Industrial Chemicals. It is anticipated that the operating income of Kemira Chemicals will increase in 1998.

After a disappointing year, the demand for titanium dioxide pigments is expected to grow further, provided that economic growth continues. The price increases which the industry put into effect in 1997 together with currently announced, but not yet implemented price increases, should mean that the average price level of titanium dioxide pigments in 1998 will be markedly higher than in 1997. This, if realized, will bring the operating income of Kemira Pigments closer to a satisfactory level. Kemira Pigments will continue its efforts to further improve the cost structure and operating rates of its plants. The recent shakeout in the industry is also believed to contribute to a better outlook for the pigments business over the long term.

The prevailing lower prices of straight nitrogen fertilizers mean that Kemira Agro's operating income will remain below last year's level. The European Union has decided to keep the 5 % set-aside requirement unchanged for farmers within the Union for the 1998 farming season. Consequently, nutrient consumption within the EU area should be stable. The European Union is also establishing an anti-dumping duty of ECU 28.2 per tonne on ammonium nitrate from Russia. The set-aside acreage policy of the European Union for the 1998-99 season will depend on the crop and inventory levels in Europe and internationally.

For Tikkurila, the growth in the sales of colour processing systems including colourants is expected to continue. The recovery of the Nordic construction industry is also expected to increase sales by the traditional paint business during 1998. The emerging markets in the Baltic countries and Russia will continue to be target areas for further growth. The good operating income level is expected to continue in spite of some pressure from raw material prices.

The prospects for the Kemira Group in 1998 continue to be good, although there are some uncertainties related to the economic growth in Asia. Capital expenditures in 1998 are expected to be at roughly the same level as in 1997 in order to ensure further growth. The Group will also continue to focus on efficiency improvements and cash flow generation to further strengthen the balance sheet.

The strong operating income in three of the four core businesses is expected to offset Kemira Agro's weaker earnings in 1998. Since net financial charges are expected to remain at last year's level, net income for the Group is expected to remain at a good level.

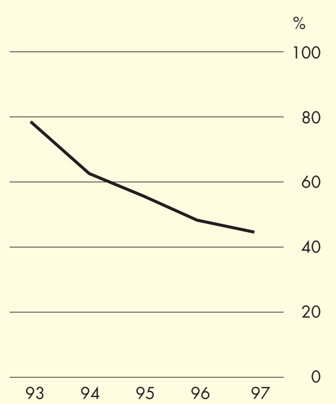
EARNINGS AND PERSONNEL BY BUSINESS AREA IN 1997

FIM million	Net sales	Operating income	Income before extraordinary items	Personnel (average)
Kemira Chemicals	3,461	448	347	2,845
Kemira Pigments	2,451	(35)	(160)	1,851
Kemira Agro	6,414	505	382	3,117
Tikkurila	2,075	287	260	1,902
Other*	663	(26)	35	677
Intra-Group sales	(678)	–	–	–
Total Group	14,386	1,179	864	10,392

*) Includes other businesses, Group administration and eliminations from operating income and income before extraordinary items.

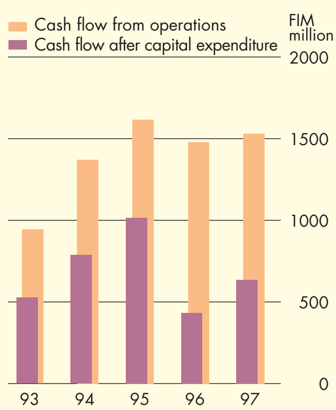
All forecasts and estimates mentioned in this report are based on management's current judgment of the economic environment and the actual results may differ significantly.

GEARING

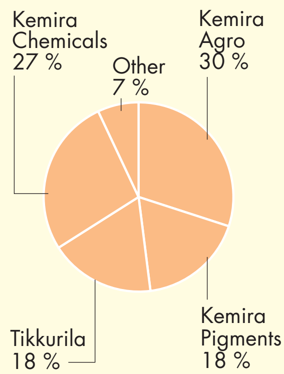


Net debt divided by net debt plus equity.

CASH FLOW



PERSONNEL BY BUSINESS AREA



The total number of personnel at the end of the year was 10,203.

SHARES AND SHAREHOLDERS

SHARES AND VOTING RIGHTS

The nominal value of the Kemira Oyj share is FIM 10 and each share confers one vote at meetings of shareholders. The number of shares in 1997 was 128,800,000. According to the Articles of Association, the company's share capital can be in the range of from FIM 850 million to 3,400 million. The share capital can be changed within these limits without amending the Articles of Association. The share capital of Kemira Oyj at present is FIM 1,288 million. The Articles of Association include a pre-emptive share purchase obligation which enters into effect if a shareholding exceeds 33 1/3 or 50% of all the company's shares (set forth in detail in Sections 21–26 of the Articles of Association). Kemira Oyj shares are registered within the Book Entry system.

DIVIDEND POLICY

Kemira aims to distribute a dividend which in the long term is competitive with that of major Finnish companies and with foreign chemicals groups, nevertheless taking into account the company's result and capital requirement at any given time. The company's Board of Directors proposes to the Annual General Meeting that a dividend of FIM 1.70 per share, or FIM 219 million, be paid for the 1997 financial year. This corresponds to a dividend payout of 35% of the net income for the year. Taking into account the Finnish tax base, this amounts to a taxable dividend of FIM 2.36. The record date for the dividend payout will be 27 April 1998 and the dividend will be paid on 5 May 1998.

INCREASE IN SHARE CAPITAL

The Board of Directors of Kemira Oyj does not at present have authorizations to increase the company's share capital.

CHANGES IN PROPORTIONAL HOLDINGS

In connection with the Sale of Shares in October 1996, the State decided to give all private individuals who purchased Kemira shares one bonus share for each 10 shares purchased, providing that the shares had been held on the same book-entry account for a period of one year. These bonus shares were transferred to the shareholders on 3 November 1997. As a consequence of the transfer of bonus shares, the State's holding in the company fell from 53.8% to 53.4%.

In the supplementary budget that was brought before Parliament in the autumn 1997, Parliament authorized the Ministry of Trade and Industry to decrease the State's holding in Kemira to 33.3%.

LISTING AND SHARE TRADING

Kemira Oyj's shares have been listed on the Helsinki Stock Exchange since 10 November 1994. In addition to Helsinki, trading in the shares is done through the SEAQ International trading system operated by the London Stock Exchange. Kemira is also part of the PORTAL system in the United States. In the United States, Kemira's shares were issued under Regulation 144A, whereby only qualified institutional buyers permitted under this regulation are allowed to buy and sell the shares. Kemira's shares can also be traded in the form of ADS shares. One ADS share corresponds to two Kemira shares.

DISTRIBUTION OF OWNERSHIP 31 DEC 1997

Number of shares	Number of shareholders	% of shareholders	Shares, total	% of shares and votes
1 – 50	1,155	7.49	47,757	0.04
51 – 100	1,190	7.72	90,157	0.07
101 – 1000	10,810	70.11	4,419,371	3.43
1001 – 5000	2,046	13.27	3,478,924	2.70
5001 – 10000	81	0.52	652,994	0.51
10001 – 100000	103	0.67	3,333,408	2.59
100001 – 500000	19	0.12	3,787,600	2.94
500001 – 1000000	8	0.05	6,332,000	4.91
Over 1000000	7	0.05	80,133,720	62.22
Total	15,419	100.00	102,275,931	79.41
Nominee-registered shares			26,524,069	20.59
Grand total			128,800,000	100.00

PRICE TREND AND TRADING VOLUME

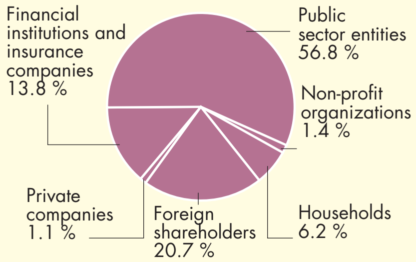
The price of Kemira's share weakened by 10% on the Helsinki Stock Exchange during 1997, whereas during the same period the HEX index rose by 33%. The highest price of the share was FIM 61.50 and the lowest was FIM 45.50. The average price on the last trading day of the year was FIM 51.20. The 1997 taxation value of the share is FIM 36. Turnover of the share on the Helsinki Stock Exchange totalled 33,241,372 shares and the turnover in Finnish markka was FIM 1,781 million. Turnover of the share in the SEAQ trading system on the London Stock Exchange was 16,789,119 shares, which applying the average share price during the year corresponds to a turnover of FIM 899 million in Finnish markka terms. The market capitalization at the end of 1997 was FIM 6.6 billion.

MANAGEMENT STOCK OPTION AND SHARE OWNERSHIP

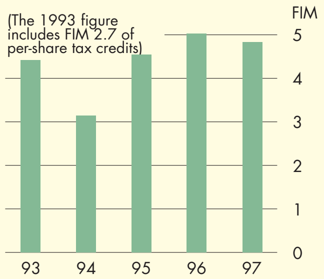
The Annual General Meeting of Kemira Oyj resolved, on 26 April 1995, to float an issue of bonds with warrants targeted at the management of the Kemira Group. The amount of the issue is FIM 600,000. Each member of the Board of Directors who was employed by Kemira Oyj was entitled to subscribe a maximum of FIM 80,000 of options. The maturity of the issue is five years beginning on 2 May 1995, the interest is 6% and the issuing price was 100%. The issue of bonds with warrants gives management the right to subscribe a maximum of 1,200,000 shares in the company between 1 December 1998 and 31 January 2002 at a price of FIM 40 per share. These subscriptions can increase the company's share capital by a maximum of FIM 12 million. The issuers of the loan cannot hand over the bonds with warrants to a third party before 1 December 1998.

The members of the company's Supervisory Board and Board of Directors owned 16,026 shares of Kemira Oyj at the end of the year. This is 0.012% of the company's shares and voting rights. The issue of bonds with warrants entitling holders to Kemira Oyj shares has been subscribed by the members of the Kemira Oyj Board of Directors in the amount of FIM 260,000, which corresponds to 520,000 warrants. These warrants entitle their holders to subscribe 520,000 shares. The members of the Supervisory Board and Board of Directors hold 0.41% of the company's voting rights, including those conferred through the above bond issue.

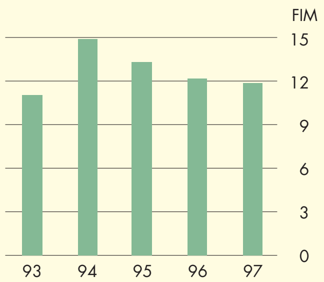
DISTRIBUTION OF SHAREHOLDERS 31 Dec 1997



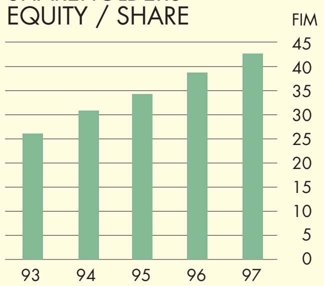
EARNINGS / SHARE



CASH FLOW / SHARE

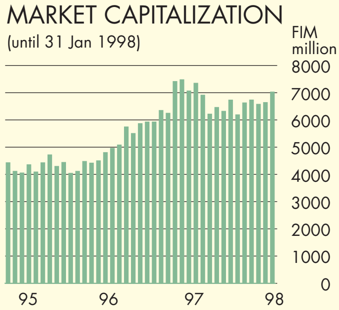


SHAREHOLDERS' EQUITY / SHARE



MARKET CAPITALIZATION

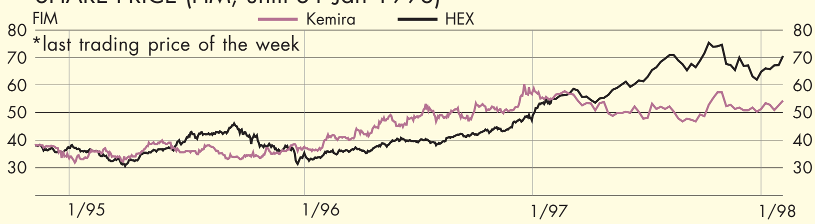
(until 31 Jan 1998)



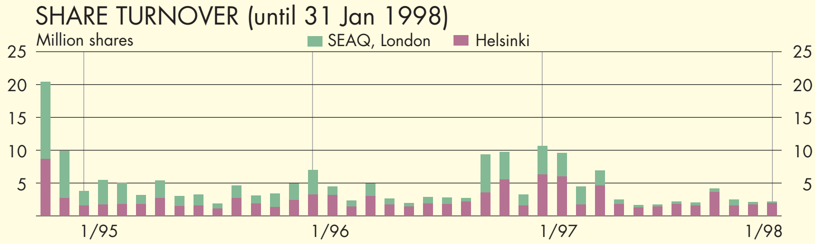
LARGEST SHAREHOLDERS 31 DEC 1997

	Shareholder	Number of shares	% of shares and votes
1.	Finnish State	68,753,920	53.38
2.	Pension Insurance Company Ilmarinen	3,200,000	2.48
3.	Pension Varma Mutual Insurance Company	2,228,300	1.73
4.	Pohjola Insurance Company Ltd	1,780,000	1.38
5.	Industrial Insurance Company Ltd	1,480,000	1.15
6.	The Local Government Pensions Institution	1,431,500	1.11
7.	Suomi Mutual Life Assurance Company	1,260,000	0.98
8.	Pohjola Life Insurance Company Ltd	925,000	0.72
9.	Sampo Life Insurance Company Limited	882,000	0.68
10.	Sampo Enterprise Insurance Company Limited	850,000	0.66
11.	Sampo Insurance Company Ltd	850,000	0.66
12.	Insurance Company Sampo Pension	775,000	0.60
13.	Nova Life Insurance Company Ltd	773,000	0.60
14.	Kaleva Mutual Insurance Company	700,000	0.54
15.	Pension Foundation Neliapila s.r.	577,000	0.45
16.	Otso Loss of Profits Insurance Company Ltd	425,000	0.33
17.	Tapiola General Mutual Insurance Company	327,000	0.25
18.	Tapiola Mutual Pension Insurance Company	300,000	0.23
19.	The Church Central Fund	285,000	0.22
20.	Neste Pension Foundation s.r.	260,000	0.20
21.	Finnish Broadcasting Company Pension Foundation s.r	245,500	0.19
22.	Finnish National Fund for Research	228,600	0.18
23.	Partita Oy	200,000	0.16
24.	The Finnish Cultural Foundation	181,000	0.14
25.	Tapiola Mutual Life Assurance Company	180,000	0.14
26.	Aurum Life Insurance Company Ltd	160,000	0.12
27.	Finnish Export Credit Ltd	156,700	0.12
28.	Enso Oy Pension Foundation	139,000	0.11
29.	Foundation for Economic Education	136,100	0.11
30.	PT Pension Foundation s.r.	121,700	0.09
31.	Verdandi Pension Insurance Company Ltd	118,500	0.09
32.	Stella Life Insurance Company Ltd	110,400	0.09
33.	Mutual Fund Merita Optima	107,600	0.08
34.	Alko Pension Foundation s.r.	105,500	0.08
35.	Mutual Fund Merita Fennia	98,700	0.08
36.	Enterprise Fennia, Mutual Insurance Company	95,500	0.07
37.	Kemira Chemicals Oy Pension Foundation s.r.	92,000	0.07
38.	Finnish Red Cross	90,000	0.07
39.	TT Confederation of Finnish Industry and Employers	89,200	0.07
40.	Federation of Evangelical Lutheran Parishes of Turku and Kaarina	82,000	0.06
41.	The LEL Employment Pension Fund	81,500	0.06
42.	VR Pension Foundation s.r.	81,000	0.06
43.	Aktia Capital	76,600	0.06
44.	Mutual Fund Gyllenberg Optimum	76,500	0.06
45.	Mutual Fund Gyllenberg Finlandia	70,150	0.05
46.	Mutual Fund OP Forest	70,000	0.05
47.	Trevise Aktiefond Finland	70,000	0.05
48.	Tapiola Corporate Life Insurance Company	70,000	0.05
49.	The Seamen's Pension Fund	61,000	0.05
50.	Co-operative Dairies Pension Fund	60,500	0.05
	Nominee-registered shares	26,524,069	20.59
	Others, total	10,757,961	8.35
	Grand total	128,800,000	100

SHARE PRICE*(FIM, until 31 Jan 1998)



SHARE TURNOVER (until 31 Jan 1998)



KEY FIGURES

PER-SHARE DATA

	1997	1996	1995	1994	1993
PER-SHARE DATA [1]					
Earnings per share, FIM [2]	**4.8**	5.1	4.6	3.1	4.4
Net income per share, FIM [2]	**4.8**	5.1	4.6	2.5	1.8
Cash flow from operations per share, FIM [3]	**11.9**	12.2	13.4	14.9	11.1
Dividend per share, FIM [4]	**1.7**	1.6	1.5	0.4	–
Dividend payout ratio, % [4]	**35.3**	31.4	32.8	12.9	–
Dividend yield [4]	**3.3**	2.7	4.1	1.2	–
Equity per share, FIM	**42.6**	38.8	34.3	30.8	26.1
Price per earnings per share (P/E) ratio	**10.6**	11.4	8.0	11.0	–
Price per equity per share	**1.2**	1.5	1.1	1.1	–
Price per cash flow per share [3]	**4.3**	4.8	2.7	2.3	–
Dividend paid, FIM million [4]	**219.0**	206.1	181.2	48.3	–
SHARE PRICE AND TURNOVER					
Share price, year high, FIM	**61.5**	60.0	39.9	38.5	–
Share price, year low, FIM	**45.5**	36.0	31.5	33.0	–
Share price, year average, FIM	**53.6**	47.9	35.8	37.8	–
Share price, end of year, FIM	**51.2**	58.3	36.7	34.1	–
					–
Number of shares traded (1000), Helsinki	**33,241**	33,276	22,480	11,432	–
% of number of shares	**26**	27	19	12	–
Number of shares traded (1000), SEAQ	**16,789**	28,125	24,503	18,824	–
% of number of shares	**13**	23	20	20	–
Market capitalization, end of year, FIM million	**6,595**	7,509	4,409	4,107	–
INCREASES IN SHARE CAPITAL [1]					
Average number of shares (1000)	**128,800**	122,090	120,800	91,877	85,175
Number of shares at end of year (1000)	**128,800**	128,800	120,800	120,800	87,300
Increases in number of shares (1000)	**–**	8,000	–	33,500	8,500
Share capital, FIM million	**1,288**	1,288	1,208	1,208	873
Increases in share capital, FIM million	**–**	80	–	335	85

1) Adjusted for the 20-for-1 share split which took effect in 1994.

2) 1993 earnings per share include FIM 2.7 of per-share tax credits.

3) Dividends paid are presented in the Consolidated Statement of Source and Application of Funds as financing items, whereby they do not reduce the cash flow from operations nor the cash flow after capital investments. In previous years, dividends paid were presented as an item in the cash flow from operations. The cash flows and key ratios for the comparison years have been recalculated according to the same principle.

4) The 1997 dividend is the Board of Directors' proposal to the Annual General Meeting.

FINANCIAL RATIOS

	1997	1996	1995	1994	1993
INCOME STATEMENT					
Net sales, FIM million	**14,386**	13,471	13,284	12,690	12,903
Foreign operations, FIM million	**11,626**	10,488	10,635	9,998	10,261
Sales in Finland, %	**19**	22	20	22	21
Exports from Finland, %	**22**	24	25	23	20
Sales generated outside Finland, %	**59**	54	55	55	59
Operating income, FIM million	**1,179**	1,248	1,337	988	782
% of net sales	**8**	9	10	8	6
Net financing income and expenses, FIM million	**315**	397	619	587	681
% of net sales	**2**	3	5	5	5
Interest cover	**7**	6	4	3	3
Net income before extraordinary items, FIM million	**864**	851	718	402	101
% of net sales	**6**	6	5	3	1
Extraordinary income and expenses, FIM million	**–**	–	3	(74)	(196)
Net income before taxes and minority interests, FIM million	**864**	851	721	327	(95)
% of net sales	**6**	6	5	3	(1)
Net income, FIM million	**619**	617	552	228	149
Return on capital invested, %	**11**	12	13	9	8
Return on equity, % [1]	**12**	14	14	10	17
CASH FLOW [2]					
Cash flow from operations, FIM million	**1,530**	1,484	1,620	1,371	944
Sales of fixed assets, FIM million	**364**	156	371	73	432
Capital expenditure, FIM million	**1,257**	1,203	927	657	850
% of net sales	**9**	9	7	5	7
Cash flow after capital expenditure, FIM million	**637**	437	1,064	787	526
BALANCE SHEET					
Fixed assets and other long-term investments, FIM million	**8,348**	8,119	7,803	8,212	9,114
Shareholders' equity, FIM million	**5,489**	4,997	4,146	3,722	2,274
Liabilities, FIM million	**8,667**	9,520	9,606	10,560	13,724
Total assets, FIM million	**14,204**	14,550	13,772	14,294	16,005
Net liabilities, FIM million	**4,430**	4,747	5,262	6,347	8,810
Equity ratio, %	**39**	35	30	26	14
Gearing, %	**44**	49	56	63	79
PERSONNEL					
Personnel (average)	**10,392**	10,631	10,900	11,156	11,446
of whom in Finland	**5,176**	5,945	6,125	6,141	6,294
EXCHANGE RATES					
Key exchange rates (31 December)					
USD	**5.4207**	4.6439	4.3586	4.7432	5.7845
GBP	**8.9920**	7.8690	6.7410	7.4090	8.5540
NLG	**2.6861**	2.6624	2.7185	2.7337	2.9812
SEK	**0.6863**	0.6748	0.6546	0.6358	0.6945
DKK	**0.7948**	0.7809	0.7862	0.7794	0.8549
BEF	**0.1468**	0.1449	0.1482	0.1490	0.1602

1) In 1993 tax credit increased the return on equity by 11 percentage points.

2) Dividends paid are presented in the Consolidated Statement of Source and Application of Funds as financing items, whereby they do not reduce the cash flow from operations nor the cash flow after capital investments. In previous years, dividends paid were presented as an item in the cash flow from operations. The cash flows and key ratios for the comparison years have been recalculated according to the same principle.

DEFINITIONS OF KEY RATIOS

Earnings per share (EPS)	= $\dfrac{\text{Net income +/– extraordinary items}}{\text{Adjusted average number of shares}}$
Net income per share	= $\dfrac{\text{Net income}}{\text{Adjusted average number of shares}}$
Cash flow from operations	= Cash flow from operations, after change in net working capital and before capital investments
Cash flow from operations per share	= $\dfrac{\text{Cash flow from operations}}{\text{Adjusted average number of shares}}$
Dividend per share	= $\dfrac{\text{Dividends paid}}{\text{Number of shares at end of year}}$
Dividend payout ratio	= $\dfrac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
Dividend yield	= $\dfrac{\text{Dividend per share}}{\text{Share price at end of year}} \times 100$
Equity per share	= $\dfrac{\text{Equity at end of year}}{\text{Number of shares at end of year}}$
Share price, year average	= $\dfrac{\text{Shares traded (FIM)}}{\text{Shares traded (volume)}}$
Share price, end of year	= Weighted average share price of the last trading day
Price per earnings per share (P/E)	= $\dfrac{\text{Share price at end of year}}{\text{Earnings per share}}$
Price per equity per share	= $\dfrac{\text{Share price at end of year}}{\text{Equity per share}}$
Price per cash flow per share	= $\dfrac{\text{Share price at end of year}}{\text{Cash flow from operations per share}}$
Share turnover	= Number of shares traded during the year and the proportional share of number of shares traded to weighted average number of shares during the year
Net liabilities	= Interest-bearing liabilities – cash, bank and other short-term investments
Equity ratio, %	= $\dfrac{\text{Shareholders' equity + minority interests}}{\text{Total assets less advance payments received}} \times 100$
Gearing, %	= $\dfrac{\text{Net liabilities}}{\text{Shareholders' equity + minority interests + net liabilities}} \times 100$
Interest cover	= $\dfrac{\text{Operating income + depreciation}}{\text{Net financial expenses}}$
Return on capital invested, % (ROI)	= $\dfrac{\text{Income before extraordinary items + interest expenses + other financing expenses}}{\text{Total assets less interest-free liabilities (average)}} \times 100$
Return on equity, % (ROE)	= $\dfrac{\text{Income before extraordinary items less taxes +/– tax effect of extraordinary items}}{\text{Shareholders' equity + minority interests (average)}} \times 100$

CONSOLIDATED INCOME STATEMENT

(FIM million, except for per-share data)	Note	Year ended 31 December 1997	1996
Net sales	1	**14,386.3**	13,471.2
Other income from operations	2	**165.0**	292.4
Cost of sales	3,4	**(12,391.0)**	(11,521.3)
Depreciation	5	**(981.5)**	(994.6)
Operating income		**1,178.8**	1,247.7
Financing income and expenses	6	**(314.7)**	(397.1)
Income before extraordinary items, taxes and minority interests		**864.1**	850.6
Extraordinary income and expenses		**–**	–
Income before taxes and minority interests		**864.1**	850.6
Direct taxes	7	**(237.8)**	(228.8)
Net income before minority interests		**626.3**	621.8
Minority interests		**(7.3)**	(5.2)
Net income		**619.0**	616.6
Earnings per share, FIM	8	**4.8**	5.1

CONSOLIDATED BALANCE SHEET

FIM million	Note	31 December 1997	31 December 1996
ASSETS			
FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS	9		
Intangible assets			
Intangible rights		**72.6**	16.2
Goodwill		**26.6**	28.0
Goodwill on consolidation		**107.0**	48.5
Other long-term expenditures		**52.7**	57.3
Advances paid		**3.1**	–
		262.0	150.0
Tangible assets			
Land and water areas		**588.0**	578.8
Buildings and constructions		**1,813.3**	1,820.8
Machinery and equipment		**4,564.1**	4,369.1
Other tangible assets		**175.1**	194.1
Advances paid and fixed assets under construction		**526.1**	584.0
		7,666.6	7,546.8
Securities and other long-term investments			
Shares and holdings in associated companies	9,16	**230.9**	223.9
Other shares and holdings	9,16	**49.7**	57.7
Loan receivables		**138.4**	140.8
		419.0	422.4
INVENTORIES AND FINANCIAL ASSETS			
Inventories			
Materials and supplies		**892.9**	960.5
Work in process		**131.8**	151.4
Finished goods		**1,241.8**	1,274.5
Advances paid		**17.3**	13.8
		2,283.8	2,400.2
Receivables	10		
Accounts receivable		**2,331.2**	2,044.9
Loan receivables		**22.8**	91.2
Prepaid expenses and accrued income		**146.8**	229.3
Other receivables		**232.2**	188.5
		2,733.0	2,553.9
Securities and other short-term investments		**444.8**	1,193.7
		444.8	1,193.7
Cash and bank		**394.6**	282.5
Total assets		**14,203.8**	14,549.5

FIM million	Note	31 December 1997	1996
LIABILITIES AND SHAREHOLDERS' EQUITY			
SHAREHOLDERS' EQUITY	11,12		
Restricted			
Share capital		**1,288.0**	1,288.0
Share premium account		**1,540.2**	1,531.7
Revaluation reserve		**69.7**	69.3
Total restricted equity		**2,897.9**	2,889.0
Non-restricted			
Retained earnings		**1,972.6**	1,491.5
Net income for the financial year		**619.0**	616.6
Total non-restricted equity		**2,591.6**	2,108.1
Total shareholders' equity		**5,489.5**	4,997.1
MINORITY INTERESTS		**47.0**	32.0
LIABILITIES	12,13		
Long-term			
Debentures and other bond loans		**–**	49.0
Loans from financial institutions		**1,951.8**	1,935.8
Loans from pension institutions		**2,066.1**	2,456.4
Pension liabilities		**58.4**	81.1
Provisions for liabilities and charges		**630.7**	592.9
Other long-term liabilities		**533.5**	452.9
		5,240.5	5,568.1
Current			
Bills of exchange		**8.9**	3.3
Current portion of loans from financial institutions		**104.4**	312.1
Current portion of other long-term loans		**120.7**	62.1
Current portion of loans from pension institutions		**24.1**	34.8
Other interest-bearing liabilities		**459.8**	916.5
Advances received		**166.8**	144.5
Accounts payable		**1,189.0**	1,215.0
Accrued expenses and prepaid income		**1,142.4**	999.7
Other current liabilities		**210.7**	264.3
		3,426.8	3,952.3
Total liabilities		**8,667.3**	9,520.4
Total liabilities and shareholders' equity		**14,203.8**	14,549.5

CONSOLIDATED STATEMENT OF SOURCE AND APPLICATION OF FUNDS

FIM million	Year ended 31 December 1997	1996
BUSINESS OPERATIONS		
Funds from operations		
Operating income	**1,178.8**	1,247.7
Adjustments to operating income 1)	**(60.4)**	(157.8)
Depreciation	**981.5**	994.6
Financing income and expenses	**(323.2)**	(415.8)
Taxes	**(200.2)**	(144.3)
Total funds from operations	**1,576.5**	1,524.4
CHANGE IN NET WORKING CAPITAL		
Inventories	**79.6**	(159.5)
Short-term receivables	**(211.0)**	(74.8)
Non-interest-bearing short-term liabilities	**85.4**	194.1
Change in net working capital, total	**(46.0)**	(40.2)
CASH FLOW FROM OPERATIONS 2)	**1,530.5**	1,484.2
CAPITAL INVESTMENTS		
Investments in fixed assets	**(1,257.0)**	(1,203.0)
Sales of fixed assets	**363.5**	156.1
Capital investments, total	**(893.5)**	(1,046.9)
CASH FLOW BEFORE FINANCING	**637.0**	437.3
FINANCING		
Change in long-term loan receivables	**3.2**	(50.7)
Change in long-term loans	**(601.0)**	(552.4)
Short-term financing, net	**(419.2)**	155.8
Dividends 2)	**(206.1)**	(181.2)
Increase in share capital	**–**	383.4
Other	**(50.7)**	12.9
Financing, total	**(1,273.8)**	(232.2)
Increase / decrease in liquid funds	**(636.8)**	205.1
Liquid funds at end of year	**839.4**	1,476.2
Liquid funds at beginning of year	**1,476.2**	1,271.1
Increase / decrease in liquid funds	**(636.8)**	205.1

1) Non-cash flow items included in operating income (e.g. results of associated companies) and gains and losses on the sale of fixed assets.

2) Dividends paid are presented in the Consolidated Statement of Source and Application of Funds as financing items, whereby they do not reduce the cash flow from operations nor the cash flow after capital investments. In previous years, dividends paid were presented as an item in the cash flow from operations. The cash flows and key ratios for the comparison years have been recalculated according to the same principle.

The above figures cannot be directly derived from the balance sheets owing to changes, e.g., in the Group structure and foreign exchange rates.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

Finnish accounting legislation allows the financial statements of Finnish companies to be prepared in accordance with a set of accounting principles that is substantially in compliance with International Accounting Standards. Kemira Oyj prepares its consolidated financial statements in accordance with accounting principles allowed by the legislation. The consolidated financial position and results of operations of Kemira Oyj as presented in the accompanying consolidated balance sheets and income statements comply, in all material respects, with International Accounting Standards.

The financial statements are presented in Finnish markka and are prepared under the historical cost convention. In certain cases the figures have been modified by the revaluation of certain fixed assets in previous years.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of the parent company, Kemira Oyj, and companies in which it owns, directly or indirectly through subsidiaries, over 50 percent of the voting rights. Certain real estate and housing companies, and captive insurance companies, as well as companies that had no operations during the financial year, have not been consolidated. However, the effect of these companies on the Group's results and distributable reserves, in cases of any significance, has been consolidated using the equity method of accounting. Companies acquired during the accounting period are consolidated from the date the responsibility for their operations was transferred to the Group. Similarly, units or companies sold during the fiscal year are included in the income statement up to the date of disposition.

All intra-Group transactions have been eliminated as part of the consolidation process. Acquisitions of companies are accounted for under the purchase (past-equity) method of accounting. The excess of the acquisition cost over fair value of the net assets acquired is recorded as goodwill and is amortized over its useful life, not exceeding ten years. The interests of minority shareholders in the net assets and profit and loss of consolidated subsidiaries is reflected as a separate item in the Group's consolidated balance sheet and income statement.

Associated companies are those in which the Group has an equity interest of between 20 and 50 percent. Holdings in associated companies are presented in the consolidated financial statements using the equity method of accounting. Under the equity method the Group's proportionate share of the associated companies' net income for the financial year is included in income and expenses from operations. Joint ventures that are owned on a fifty-fifty basis with another shareholder and in which the voting rights and management responsibility are divided evenly between the shareholders have been consolidated according to the proportionate method of accounting. Other companies (voting rights owned less than 20 percent) are stated at cost in the balance sheet and dividends received are included in the income statement.

FOREIGN CURRENCY ITEMS AND DERIVATIVE FINANCIAL INSTRUMENTS

In day-to-day accounting of each Group company, transactions in foreign currencies are translated at the rates of exchange prevailing on the dates of the transactions. At the end of the accounting period the unsettled balances of foreign currency transactions are valued at the rates of exchange prevailing on the balance sheet date. Foreign exchange gains and losses related to normal business operations are treated as adjustments to sales and purchases, while those gains and losses associated with financing and hedging of the total foreign exchange position are recorded as financing income and expenses.

Derivative financial instruments to hedge currency and interest rate risks have been recorded in the income statement simultaneously with the commitment hedged. Derivative financial instruments which are not considered as hedging instruments are valued in the financial statements at the market price in accordance with conservative accounting practice. The interest portion of currency forwards is recorded as interest income and expense over the terms of the contract, and the differences in the foreign exchange rates are booked as a credit or charged to income when the underlying hedged transaction has been credited or charged to income in the financial statements.

In the consolidated financial statements, the income statements of foreign subsidiaries have been translated into Finnish markka amounts from the beginning of 1995 using the average exchange rates and the balance sheets have been translated using the year-end exchange rates. In previous years the income statements too were translated into Finnish markka using the year-end exchange rates. The translation difference, which arises in translating the income statement and balance sheet using the different exchange rates, is entered in non-restricted equity.

The Group seeks to hedge the translation risk of its investment in the net assets of foreign subsidiaries, which includes the original cost of ownership plus any undistributed post-acquisition profits and losses of those subsidiaries. Accordingly, the foreign currency-denominated shareholders' equity items in the Group's non-Finnish subsidiaries are hedged against exchange rate changes using long-term foreign currency-denominated loans as well as forward and currency swap contracts. In the consolidated financial statements, the exchange rate gains and losses of such loans and forward and currency swap contracts are credited or charged against the translation differences arising from the translation of the shareholders' equity amounts of the last confirmed balance sheets of the subsidiaries. Other translation differences affecting shareholders' equity are stated as an increase or decrease in the non-restricted shareholders' equity.

The foreign exchange rates on the balance sheet date are given on page 15.

PENSIONS AND COVERAGE OF PENSION LIABILITIES

The Group has various pension schemes in accordance with the local conditions and practices in the countries in which it operates. Contributions are based on periodic actuarial calculations and are charged against profits. The schemes are generally funded through payments to separate funds or to insurance companies.

The parent company's pension arrangements have been handled within the separate pension funds. Uncovered pension liabilities of the funds are included in the balance sheet as pension liabilities and as valuation items on the assets side.

NET SALES

Net sales include the total invoicing value of products sold and services provided less sales tax, discounts, rebates and foreign exchange differences in accounts receivable.

EXTRAORDINARY INCOME AND EXPENSES

Extraordinary income and expenses consist of items not incurred in the normal course of business, such as exceptionally large one-time expenses arising from the closures of plants and the reorganization of operations and divestments of entire businesses.

Income and expenses of recurring nature and connected with operations, for example, gains and losses on the sales of fixed assets, are included in operating income.

Extraordinary items of the parent company include Group contributions received and paid.

DIRECT TAXES

The consolidated financial statements include direct taxes, which are based on the taxable results of the Group companies for the accounting period calculated according to local tax rules, and the change in the deferred tax liability arising mainly from the untaxed reserves. Provision for deferred tax liability for timing differences has been made, however, deducting, in each year, the impact of any tax losses available for carry forward using the latest tax rate.

The tax charged in the income statement of the parent company comprises direct taxes calculated on an accrual basis. The untaxed reserves of the parent company are shown as a separate item. Provision for deferred tax liability for the untaxed reserves has not been made in the balance sheet of the parent company.

RESEARCH AND DEVELOPMENT EXPENDITURE

Research expenditure is expensed. Development expenditure is also expensed except for major projects for which investment decisions have been made. These are capitalized. Capitalized development costs are presented in the item "Other long-term expenditures" and amortized over their economic life, not exceeding, however, five years.

FIXED ASSETS AND DEPRECIATION

Fixed assets are generally stated at cost, except for certain land and water areas and buildings which are stated at revalued amounts, less accumulated depreciation, as applicable.

Depreciation is calculated on a straight-line basis so as to write off carrying value of fixed assets over their expected useful lives. The depreciation periods adopted are as follows:

Machinery and equipment	3 – 15 years
Buildings and constructions	25 years
Other capitalized expenses	5 – 10 years

As a general rule, interest expense is not capitalized, except in the United States. However, interest expenses related to capital borrowed to finance major capital investment projects can, when specifically approved by the Board, be capitalized as part of the total investment costs.

Gains and losses on the sale of fixed assets are included either in income and expenses of operations or in extraordinary items, depending on the nature of the transaction.

LEASING

Leasing payments are treated as rental expenses except for finance leasing agreements, in which the leased property is presented as part of the Group's fixed assets and the leasing debt is shown as a long-term liability. In respect of finance leasing agreements, the depreciation on the leased property and the interest expense on the debt are shown in the income statement instead of leasing rents.

INVENTORIES

Inventories are stated at the lower of cost or net realizable value. Cost is determined on a first in first out (FIFO) basis. Net realizable value is the amount which can be realized from the sale of the asset in the normal course of business, after allowing for the costs of realization. The cost of finished goods and work in process include an allocable proportion of production overheads.

SECURITIES AND OTHER SHORT-TERM INVESTMENTS

Securities and other short-term investments are a part of the Group's cash management and are stated at lower of cost or market.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	**1997**	1996

1. NET SALES

Net sales by division

Kemira Chemicals	**3,461.3**	3,090.5
Kemira Pigments	**2,450.8**	2,107.8
Kemira Agro	**6,413.8**	6,277.9
Tikkurila	**2,075.1**	1,517.3
Other operations	**663.2**	1,107.0
Intra-Group invoicing	**(677.9)**	(629.3)
Total	**14,386.3**	13,471.2

Distribution of net sales by geographic market areas, as a percentage of total net sales

Finland	**19**	22
Other European Union countries	**53**	54
Other European countries	**8**	7
North and South America	**11**	10
Asia	**7**	6
Other countries	**2**	1
Total	**100**	100

2. OTHER INCOME FROM OPERATIONS

Gains on the sale of fixed assets *)	**18.3**	83.2
Sales of scrap and waste	**5.2**	2.2
Share of associated companies' profits	**36.2**	36.7
Insurance compensation **)	**15.3**	114.6
Income from royalties and licences	**26.2**	18.2
Rent income	**9.8**	10.2
Other income	**54.0**	27.3
Other income from operations, total	**165.0**	292.4

*) Gains on the sale of fixed assets in 1996 include, among other things, the sale of Kemira Water Treatment Inc. and gains on the sale of Tikkurila´s resin business and a piece of real estate.
**) Insurance compensation includes loss-of-profits insurance compensation for which the corresponding costs are shown on the expenses lines of the income statement.

3. COST OF SALES

Materials and supplies		
Purchases during the financial year	**6,584.1**	5,928.2
Change in inventories of materials and supplies	**3.2**	26.1
Change in inventories of finished goods	**14.1**	(85.9)
Own work capitalized *)	**(33.4)**	(50.1)
External services	**677.1**	657.3
Personnel expenses	**2,447.3**	2,397.6
Rents	**132.2**	167.7
Share of associated companies' losses	**5.8**	12.4
Losses on the sales of fixed assets	**10.7**	4.4
Other expenses	**2,549.9**	2,463.6
Cost of sales, total	**12,391.0**	11,521.3

*) Own work capitalized comprises mainly wages, salaries and other personnel expenses and changes in inventories relating to self-constructed fixed assets for own use.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	1997	1996

4. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

Emoluments of the Supervisory Board, boards of directors and managing directors *)	**50.0**	36.8
Other wages and salaries	**1,852.7**	1,841.1
Pension expenses	**191.5**	190.3
Other personnel expenses	**353.1**	329.4
Personnel expenses in the income statement, total	**2,447.3**	2,397.6
Monetary value of fringe benefits	**12.8**	13.7
Total	**2,460.1**	2,411.3

*) Profit sharing bonuses to the management were FIM 3.2 million in 1997 and FIM 2.5 million in 1996.

Management's pension commitments

Whereas pension commitments of the Group companies to their employees vary, the management of each Group company is treated in the same way as the other permanent staff of that particular company. However, for the managing director of Tikkurila Oy, the pension regulations of the parent company apply and the retirement age of the managing director of Viljavuuspalvelu Oy has been lowered from 65 years to 63 years.

Personnel

Personnel, average	**10,392**	10,631
Personnel at year end	**10,203**	10,420

Personnel in Finland, average	**5,176**	5,945
Personnel outside Finland, average	**5,216**	4,686
Total	**10,392**	10,631

5. DEPRECIATION

Scheduled depreciation		
Intangible assets		
Intangible rights	**6.9**	2.7
Goodwill	**3.4**	1.8
Goodwill on consolidation	**17.1**	10.1
Other long-term expenditures	**17.0**	15.9
Tangible assets		
Buildings and constructions	**124.3**	119.4
Machinery and equipment	**791.5**	825.0
Other tangible assets	**21.3**	19.7
Depreciation, total	**981.5**	994.6

6. FINANCING INCOME AND EXPENSES

Financing income and expenses		
Dividend income	**2.0**	2.9
Interest income from long-term investments	**6.9**	3.2
Other interest income	**68.9**	91.2
Other financing income	**0.9**	1.5
Exchange gains and losses	**2.8**	(2.5)
Interest expenses	**(385.1)**	(477.0)
Other financing expenses	**(11.1)**	(16.4)
Financing income and expenses, total	**(314.7)**	(397.1)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)	1997	1996
Net financing expenses as a percentage of net sales	**2.2**	2.9
Net interests as a percentage of net sales	**2.1**	2.8
Exchange gains and losses		
Realized	**(5.6)**	(21.3)
Unrealized	**8.4**	18.8
Exchange gains and losses, total	**2.8**	(2.5)

Interest cost capitalized was FIM 0.3 million (in 1996 FIM 1.0 million).

The exchange differences on foreign currency loans and foreign currency derivatives have been credited or charged directly to shareholders´ equity and matched against the translation differences arising from the consolidation of foreign subsidiaries according to the so called equity hedging method. In 1997 these foreign exchange losses totalled FIM 100.7 million (in 1996 FIM 51.1 million).

7. DIRECT TAXES

Direct taxes, current year	**(196.7)**	(144.2)
Direct taxes, previous years	**(3.5)**	(0.1)
Change in deferred tax	**(37.6)**	(84.5)
Total	**(237.8)**	(228.8)

There was no calculated tax expense related to extraordinary items in 1997 and 1996.

8. EARNINGS PER SHARE

Net income before extraordinary items	**619.0**	616.6
Weighted average number of shares	**128,800,000**	122,089,617
Earnings per share, FIM	**4.8**	5.1

BALANCE SHEET

9. FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS

Intangible rights		
Acquisition cost at beginning of year	**126.7**	117.8
Increases	**63.5**	7.8
Decreases	**(0.2)**	(0.4)
Exchange gains and losses	**4.6**	1.5
Acquisition cost at end of year	**194.6**	126.7
Accumulated depreciation at end of year	**(122.0)**	(110.5)
Net book value at end of year	**72.6**	16.2
Goodwill		
Acquisition cost at beginning of year	**50.4**	33.7
Increases	**–**	15.0
Decreases	**(1.3)**	–
Exchange gains and losses	**7.2**	1.7
Acquisition cost at end of year	**56.3**	50.4
Accumulated depreciation at end of year	**(29.7)**	(22.4)
Net book value at end of year	**26.6**	28.0

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

	1997	1996
Goodwill on consolidation		
Acquisition cost at beginning of year	**298.1**	273.6
Increases	**88.4**	17.2
Decreases	**(17.6)**	(1.9)
Exchange gains and losses	**5.1**	9.2
Acquisition cost at end of year	**374.0**	298.1
Accumulated depreciation at end of year	**(267.0)**	(249.6)
Net book value at end of year	**107.0**	48.5
Other long-term expenditures		
Acquisition cost at beginning of year	**244.5**	226.2
Increases	**15.7**	17.3
Decreases	**(8.6)**	(1.4)
Exchange gains and losses	**3.7**	2.4
Acquisition cost at end of year	**255.3**	244.5
Accumulated depreciation at end of year	**(202.6)**	(187.2)
Net book value at end of year	**52.7**	57.3
Advances paid		
Acquisition cost at beginning of year	**–**	–
Increases	**2.4**	–
Decreases	**–**	–
Exchange gains and losses	**0.7**	–
Net book value at end of year	**3.1**	–
Land and water areas		
Acquisition cost at beginning of year	**578.8**	576.7
Increases	**3.2**	4.5
Decreases	**(6.1)**	(14.1)
Exchange gains and losses	**12.1**	11.7
Net book value at end of year	**588.0**	578.8
Buildings and constructions		
Acquisition cost at beginning of year	**3,316.6**	3,163.6
Increases	**178.2**	149.5
Decreases	**(127.5)**	(33.8)
Exchange gains and losses	**71.7**	37.3
Acquisition cost at end of year	**3,439.0**	3,316.6
Accumulated depreciation at end of year	**(1,625.7)**	(1,495.8)
Net book value at end of year	**1,813.3**	1,820.8
Machinery and equipment		
Acquisition cost at beginning of year	**12,587.2**	11,699.0
Increases	**934.8**	775.7
Decreases	**(438.5)**	(155.2)
Exchange gains and losses	**552.6**	267.7
Acquisition cost at end of year	**13,636.1**	12,587.2
Accumulated depreciation at end of year	**(9,072.0)**	(8,218.1)
Net book value at end of year	**4,564.1**	4,369.1
Other tangible assets		
Acquisition cost at beginning of year	**460.4**	443.8
Increases	**15.6**	24.8
Decreases	**(18.4)**	(11.0)
Exchange gains and losses	**3.9**	2.8
Acquisition cost at end of year	**461.5**	460.4
Accumulated depreciation at end of year	**(286.4)**	(266.3)
Net book value at end of year	**175.1**	194.1

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

	1997	1996
Advances paid and fixed assets under construction		
Acquisition cost at beginning of year	**584.0**	466.0
Change	**(57.0)**	105.6
Exchange gains and losses	**(0.9)**	12.4
Net book value at end of year	**526.1**	584.0
Shares and holdings in associated companies		
Acquisition cost at beginning of year	**223.9**	188.9
Share of net income of associated companies	**30.4**	24.3
Increases	**5.7**	35.6
Decreases	**(2.4)**	(11.4)
Transfers	**(10.9)**	(14.8)
Exchange differences and other changes	**(15.8)**	1.3
Net book value at end of year	**230.9**	223.9
Other shares and holdings		
Acquisition cost at beginning of year	**57.7**	59.3
Increases	**1.9**	2.7
Decreases	**(13.4)**	(0.8)
Transfers	**(0.1)**	(4.3)
Exchange differences and other changes	**3.6**	0.8
Net book value at end of year	**49.7**	57.7

Shares and holdings are specified in Note 16.

10. RECEIVABLES

	1997	1996
Receivables from associated companies		
Accounts receivable from associated companies	**20.3**	25.9
Loan receivables from associated companies	**3.6**	76.2
Other receivables from associated companies	**1.4**	3.2
Loans to the management of the Group companies	**0.2**	0.1
Receivables due in one year or longer		
Loan receivables	**12.6**	–
Prepaid expenses and accrued income	**2.1**	–
Other receivables	**19.6**	3.5
Total	**34.3**	3.5

11. SHAREHOLDERS' EQUITY

	1997	1996
Share capital at beginning of year	**1,288.0**	1,208.0
Increase in share capital	**–**	80.0
Share capital at end of year	**1,288.0**	1,288.0
Share premium account at beginning of year	**1,531.7**	1,235.6
Share premium	**–**	303.4
Transfer from retained earnings	**12.1**	5.4
Transfer to retained earnings	**(5.2)**	(9.5)
Other changes	**1.6**	(3.2)
Share premium account at end of year	**1,540.2**	1,531.7
Revaluation reserve at beginning of year	**69.3**	69.3
Transfer from retained earnings	**–**	0.1
Other changes	**0.4**	(0.1)
Revaluation reserve at end of year	**69.7**	69.3
Restricted equity at end of year	**2,897.9**	2,889.0

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

	1997	1996
Non-restricted equity at beginning of year	**2,108.2**	1,633.1
Net profit for the year	**619.0**	616.6
Dividends paid	**(206.1)**	(181.2)
Exchange differences	**87.7**	40.4
Transfer from restricted equity	**5.2**	9.5
Transfer to restricted equity	**(12.0)**	(5.5)
Other changes	**(10.4)**	(4.8)
Non-restricted equity at end of year	**2,591.6**	2,108.1
Total shareholders' equity at end of year	**5,489.5**	4,997.1

The parent company's payment of a dividend is limited by the Group's distributable equity, FIM 1,836.7 million (1997) and FIM 1,376.5 Mmk (1996), which is obtained when the amount of untaxed reserves transferred to the shareholders' equity account is subtracted from the non-restricted shareholders' equity.

12. UNTAXED RESERVES

In the consolidated financial statements the untaxed reserves of each individual company have been divided into equity and deferred tax liability which is included in provisions for liabilities and charges.

Untaxed reserves in the balance sheets of the Group companies are as follows:

	1997	1996
Cumulative depreciation difference	**1,060.1**	938.7
Transitional reserve	**–**	74.4
Other untaxed reserves	**–**	0.9
Total	**1,060.1**	1,014.0
Of which equity	**754.9**	731.7
Of which deferred tax liability	**305.2**	282.3
Total	**1,060.1**	1,014.0

Change in untaxed reserve, increase (+), decrease (–)

	1997	1996
Cumulative depreciation difference	**121.4**	116.1
Transitional reserve	**(74.4)**	(41.2)
Other untaxed reserves	**(0.9)**	(6.6)
Total	**46.1**	68.3

13. LIABILITIES

Long-term interest-bearing liabilities maturing in

	1997	1996
1999 (1998)	**541.2**	77.7
2000 (1999)	**516.9**	500.7
2001 (2000)	**337.6**	756.6
2002 (2001)	**312.5**	396.8
2003 (2002) or later	**2,843.2**	3,162.3
Total	**4,551.4**	4,894.1
Pension liabilities	**58.4**	81.1
Provisions for liabilities and charges	**630.7**	592.9
Total long-term liabilities	**5,240.5**	5,568.1

Interest-bearing liabilities maturing in 5 years or longer

	1997	1996
Loans from financial institutions	**586.5**	589.7
Loans from pension institutions	**1,979.2**	2,350.6
Other long-term interest-bearing liabilities	**277.5**	222.0
Total	**2,843.2**	3,162.3

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

Pension liabilities

	1997	1996
Uncovered liabilities of pension funds	**4.5**	8.0
Other pension liabilities	**53.9**	73.1
Total	**58.4**	81.1

Provisions for liabilities and charges

	1997	1996
Deferred tax liabilities	**438.9**	405.7
Provisions for reorganization	**129.8**	119.6
Other provisions	**62.0**	67.6
Total	**630.7**	592.9

Provisions for liabilities and charges are expected to fall due in a year at the earliest. Short-term provisions (FIM 121.1 million in 1997 and FIM 92.0 million in 1996) are included in accrued expenses and prepaid income. The deferred tax liabilities related to the untaxed reserves of the Finnish Group companies amounted to FIM 305.2 million in 1997 and to FIM 282.3 million in 1996.

Debentures and other bond loans

Loan	Loan currency	1997	1996
1993–1998	FIM	**49.0**	49.0
Total		**49.0**	49.0

The 1997 bond loan is included in the current portion of loans from financial institutions.

Long-term loans by currency, %

	1997	1996
FIM	**42**	46
SEK	**17**	15
BEF	**8**	8
USD	**8**	10
DKK	**7**	6
GBP	**8**	8
NLG	**6**	4
DEM	**3**	2
Other	**1**	1
Total	**100**	100

Other long-term liabilities include a FIM 0.6 million issue of bonds with warrants offered to senior management. The issue is described in greater detail on page 12.

The Group has no convertible bonds.

Liabilities to associated companies

	1997	1996
Accounts payable to associated companies	**5.2**	5.8
Other short-term liabilities to associated companies	**3.5**	3.3

Current liabilities

	1997	1996
Interest-free liabilities	**2,708.9**	2,623.6
Current portion of long-term loans	**249.2**	409.0
Other interest-bearing liabilities	**468.7**	919.7
Total	**3,426.8**	3,952.3

Net liabilities

	1997	1996
Interest-bearing long-term liabilities	**4,551.4**	4,894.1
Interest-bearing short-term liabilities	**717.9**	1,328.8
Securities and other short-term investments	**(444.8)**	(1,193.7)
Cash and bank	**(394.6)**	(282.5)
Total	**4,429.9**	4,746.7

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(FIM million)

14. COLLATERAL AND CONTINGENT LIABILITIES

	1997	1996
Mortgages as collateral		
Loans secured by mortgages in the balance sheet	**696.7**	775.2
For which mortgages given as collateral	**968.0**	992.0
Contingent liabilities		
Assets pledged		
On behalf of own commitments	**64.8**	62.9
On behalf of others	**25.0**	25.0
Guarantees		
On behalf of associated companies	**112.5**	104.0
On behalf of others	**52.9**	53.1
Leasing obligations*)	**34.0**	42.0
Other obligations		
On behalf of associated companies	**–**	0.3
On behalf of others	**7.0**	5.7

*) Leasing payments in future years amount to FIM 100.0 million.

Litigation

The Group has extensive international operations and is a defendant or plaintiff in a number of proceedings incidental to those operations. The Group does not expect the outcome of any legal proceedings currently pending, either individually or in the aggregate, to have material adverse effect upon the Group's consolidated financial position or results of operations.

15. MANAGEMENT OF FINANCIAL RISKS

The Group's treasury functions are handled on a centralized basis. The objectives of Kemira's treasury operations and the policy guiding them are defined by the company's Board of Directors. In addition, an action plan for treasury operations is confirmed each year. The objective of financial risk management is to protect the company from unfavourable changes occurring in the financial markets and thus to contribute to safeguarding the company's earnings trend and its shareholders' equity. The company employs various financial instruments, such as forward rate agreements, options and futures, within the framework of the limits which have been set. Only such instruments are used whose market values and risks can be tracked continually and reliably within the company's risk management system.

Foreign exchange risk

Because a large part of the Group's production outside Finland is also sold outside Finland, the foreign currency risk in respect of the Finnish markka is confined to exports from Finland and to translating the result of foreign companies into Finnish markka. Imports to Finland reduce this risk in part. The uncovered position is hedged selectively in such a way that already assured foreign currency flows are hedged completely and a part of the forecast cash flows are hedged: to an increasing extent, the more probable it is that the flow will materialize. The Group strives to hedge balance sheet risk by keeping foreign currency-denominated liabilities in the balance sheet in balance currency by currency with the asset items in the balance sheet. The foreign currency-denominated shareholders' equity items of subsidiaries are hedged against foreign exchange fluctuations in accordance with the so-called equity hedging method by means of long-term foreign currency-denominated loans as well as by forward rate agreements and currency swaps. Because Finnish markka interest rates are clearly lower than the interest rates for the US dollar and the British pound, hedging resulted in a substantial cost in 1997.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(FIM million)

Interest rate risk

In accordance with the Group's risk management policy, the objective is to hedge against significant interest rate risks. In order to manage interest rate risks, the Group's borrowing and investments are spread out between fixed and variable interest rate instruments. In addition, interest rate swaps and forward rate agreements are used actively, as are other derivatives. As a consequence of this policy, the Group's average interest has in general been higher than the market level of short-term interest rates when low rates prevail and, on the other hand, lower than it when high rates prevail.

Credit risk

The credit risks incurred in treasury operations are mainly connected with investment activities and the counterparty of derivative contracts. The Group uses as its counterparties only financial institutions having a good credit rating. In addition, short-term investments are made in low-risk liquid instruments. During the financial year, credit risks in treasury operations did not lead to credit losses.

Funding risk

The Group diversifies its funding risk by obtaining financing from different sources in different markets. The objective is to balance the maturity schedule of the bond and loan portfolio and to maintain a sufficiently long maturity for long-term loans. The Group's solvency and funding arrangements are safeguarded by maintaining good liquidity and by means of standby credit facilities.

Financial instruments	**31.12.1997**		31.12.1996	
	Nominal value	**Fair value**	Nominal value	Fair value
Currency instruments				
Forward contracts	**3,636.4**	**8.7**	2,731.0	109.2
Of which for hedging of future currency flows	**1,479.2**	**44.2**	744.9	87.4
Currency options				
Bought	**309.0**	**7.6**	–	–
Sold	**498.7**	**(8.3)**	–	–
Currency swaps	**2,087.6**	**(31.7)**	2,607.9	(37.3)
Interest rate instruments				
Interest rate swaps	**1,936.4**	**(58.0)**	3,281.0	(89.4)
Caps and floors				
Bought	**–**	**–**	106.5	(2.0)
Sold	**–**	**–**	53.2	(1.6)
Forward rate agreements	**15,180.6**	**1.2**	18,500.8	10.6
Of which open	**1,851.9**	**0.0**	1,671.2	2.9
Bond futures	**2,029.1**	**0.2**	1,300.0	0.7
Of which open	**207.1**	**0.0**	–	–

Nominal values of the financial instruments do not necessarily correspond with the actual cash flows between the counterparties and do not therefore give a fair view of the risk position of the Group.

Fair values are based on market valuation on the date of reporting for the instruments which are publicly traded. Other instruments have been valued based on net present values of future cash flows. A valuation model has been used to estimate the fair values of options.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(FIM million)

16. SHARES AND HOLDINGS OF GROUP COMPANIES

Associated companies*)		Holding %	Book value FIM million
Aluminium Sulphate Co. of Egypt, S.A.E.	Egypt	26	21.1
Alufluor AB	Sweden	50	25.2
Aquanorm V.O.F.	The Netherlands	50	0.0
A/S Ammonia	Denmark	33	2.6
Cobelaz S.A.	Belgium	100	1.5
DA Kemikaalide AS	Estonia	40	0.1
IFK I/S	Denmark	50	0.7
Kemax B.V.	The Netherlands	50	0.0
Kemira Algérie S.p.A.	Algeria	40	0.2
Kemira-Ube, Ltd	Japan	50	24.2
Kemira Trading Oy	Finland	100	3.0
Spruce Vakuutus Oy	Finland	100	24.7
McWhorter Technologies AB	Sweden	33	24.5
Oy Polargas Ab	Finland	30	79.6
SECO S.A.	France	50	9.6
Spruce Insurance Limited	Ireland	100	7.0
Superstar Fertilizers Co. Ltd	Thailand	46	1.2
Kemira Thai Co. Ltd	Thailand	50	0.1
Movere Oy	Finland	40	0.5
UAB Kemira Lifosa	Lithuania	31	5.1
Varteko Valduse AS	Estonia	42	0.0
PK Düngerhandelsgesellschaft mbH	Germany	50	0.0
Total			230.9

Other shares and holdings		Holding %	Book value FIM million
Ekokem Oy Ab	Finland	3	1.1
Hage Co. Ltd	Hungary		0.7
Peder P. Hedegaard A/S	Denmark	5	9.2
Primex Ltd	Barbados	7	2.7
Vierumäen Kuntokylä Oy	Finland	8	1.8
Other shares of Kemira Oyj			18.8
Other			15.4
Total			49.7
Total Kemira Group shares and holdings			280.6

*) Including such wholly owned companies that have been consolidated according to the equity method.

Real estate and housing companies are included in other shares.

17. CHANGES IN THE GROUP STRUCTURE IN 1997

Acquisitions and divestments of Group companies; new subsidiaries

– Kemira Oyj sold Vihtavuori Oy to the Finnish State. The total holding in Vihtavuori Oy was transferred to the Finnish State on 1 April 1997.
– Kemira Kemi AB acquired Mare WTS S.p.A. and Lacipac S.p.A. in Italy. The acquired companies were merged. The new company was named Kemira Chimica S.p.A. It is owned by Kemira Ibérica Internacional S.L.
– SSV-Säilöntä Oy became a wholly-owned subsidiary of Kemira Chemicals Oy when its holding increased by 50%. SSV-Säilöntä Oy was merged with Kemira Chemicals Oy on 31 December 1997.
– Kemira Oyj sold Kemira Fibres Oy to PT Inti Indorayon Utama of Indonesia with economic effect as of 1 May 1997.
– Kemira Chemicals Oy established a wholly-owned marketing subsidiary, Kemira Chemie Ges.mbH, in Austria.
– Kemira Kemi AB's holding in Kemwater Brasil S.A. was increased from 40% to 51%.
– Kemira Pigments Oy established a marketing subsidiary named Kemira Pigments Asia Pacific Pte. Ltd in Singapore.
– Kemira Agro Oy's subsidiary Kemira Thai Co. Ltd was changed into an associated company. Kemira Agro Oy owns 49.5% of the company.
– Tikkurila Paints Oy and Tikkurila Coatings Oy acquired marketing companies in Hungary, which are now operating as Tikkurila Festék KFT and Tikkurila Coatings KFT.
– Kemira Chemicals B.V. established Prospector B.V.
– Kemira Bio Control B.V. wound up its operations on 1 January 1997.
– Kemira Agro Holding B.V. established a new subsidiary, Kencica Speciaalmeststoffen B.V., on 1 January 1998.
– Vakuutusosakeyhtiö Tulenvara was renamed Spruce Vakuutus Oy. The business operations of Spruce Insurance Limited were transferred to Spruce Vakuutus Oy on 1 January 1998.

Ownership changes of subsidiaries

– Aliada Quimica de Portugal Lda. as well as the associated company (40% holding) Kemira Algérie S.A were transferred from the ownership of Kemira Ibérica S.A. to the ownership of Kemira Ibérica Internacional S.L.
– Kemira Fine Chemicals Oy was transferred from the ownership of Kemira Agro Oy to the ownership of Kemira Chemicals Oy.
– Kemira Deutschland GmbH was transferred from the ownership of Kemira Danmark A/S to the ownership of Kemira Agro Holding B.V.
– Kaanaan Ruskorae Oy, which was previously owned in equal shares by Kemira Chemicals Oy and Kemira Pigments Oy, was transferred to the ownership of Kemira Chemicals Oy.
– Winter-Bouts B.V. was merged with Kemira Color Europe B.V. The new company was named Winter-Bouts B.V.

Name changes

– Kemira Ince Ltd was renamed Kemira Agro U.K. Ltd and the holding company Kemira Agro U.K. Ltd was renamed Kemira Agro Holdings Ltd.
– Kemira Oy was renamed Kemira Oyj due to the change in the Finnish Companies' Act.
– Ferriklor AB was renamed Kemwater Närke AB, effective 1 January 1998.

KEMIRA OYJ FINANCIAL STATEMENTS

INCOME STATEMENT

FIM million	Note	Year ended 31 December 1997	1996
Net sales	1	**197.2**	213.8
Other income from operations	2	**38.1**	5.6
Cost of sales	3,4	**(225.7)**	(293.6)
Depreciation	5	**(10.2)**	(10.9)
Operating income		**(0.6)**	(85.1)
Financing income and expenses	6	**167,2**	55.4
Income before extraordinary items, untaxed reserves and taxes		**166.6**	(29.7)
Extraordinary income and expenses	7	**325.6**	323.8
Income before untaxed reserves and taxes		**492.2**	294.1
Decrease in the cumulative depreciation difference	5	**4.3**	10.1
Change in other untaxed reserves	8	**55.0**	–
Direct taxes	9	**(151.2)**	(82.7)
Net income		**400.3**	221.5

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

FIM million	Year ended 31 December 1997	1996
BUSINESS OPERATIONS		
Funds from operations		
Operating income	**(0.6)**	(85.1)
Adjustments to operating income	**42.0**	–
Depreciation	**10.2**	10.9
Financing income and expenses	**168.6**	51.4
Taxes	**(74.7)**	(46.8)
Total funds from operations	**145.5**	(69.6)
Change in net working capital		
Short-term receivables	**(61.4)**	(175.4)
Non-interest-bearing short-term liabilities	**(44.9)**	34.5
Change in net working capital, total	**(106.3)**	(140.9)
CASH FLOW FROM OPERATIONS	**39.2**	(210.5)
CAPITAL INVESTMENTS		
Investments in fixed assets	**(88.6)**	(464.6)
Sales of fixed assets	**205.9**	358.4
Capital investments, total	**117.3**	(106.2)
CASH FLOW BEFORE FINANCING	**156.5**	(316.7)
FINANCING		
Change in long-term loan receivables	**238.6**	(1 258.5)
Change in long-term loans	**93.1**	1 060.9
Short-term financing, net	**(1 360.1)**	517.1
Group contribution	**445.1**	323.7
Dividends	**(206.1)**	(181.2)
Increase in share capital	**–**	383.4
Other	**(0.1)**	(0.7)
Financing, total	**(789.5)**	844.7
Increase / decrease in liquid funds	**(633.0)**	528.0
Liquid funds at end of year	**936.2**	1 569.2
Liquid funds at beginning of year	**1 569.2**	1 041.2
Increase / decrease in liquid funds	**(633.0)**	528.0

BALANCE SHEET

FIM million	Note	31 December 1997	1996
ASSETS			
FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS	10		
Intangible assets			
Intangible rights		**2.7**	1.1
Other long-term expenditures		**0.6**	0.8
		3.3	1.9
Tangible assets			
Land and water areas		**16.2**	16.2
Buildings and constructions		**106.7**	112.1
Machinery and equipment		**13.1**	14.4
Other tangible assets		**0.6**	0.7
Advances paid and fixed assets under construction		**–**	0.3
		136.6	143.7
Securities and other long-term investments			
Shares and holdings in associated companies	17	**2,248.0**	2,419.8
Other shares and holdings	17	**18.3**	18.3
Loan receivables		**2,017.8**	2,256.4
		4,284.1	4,694.5
VALUATION ITEMS	11	**8.1**	10.0
RECEIVABLES	12		
Accounts receivable		**30.3**	20.3
Advances paid		**1.3**	0.6
Loan receivables		**752.4**	79.4
Prepaid expenses and accrued income		**684.6**	745.3
		1,468.6	845.6
Securities and other short-term investments		**903.2**	1,535.4
		903.2	1,535.4
Cash and bank		**33.0**	33.8
Total assets		**6,836.9**	7,264.9
LIABILITIES AND SHAREHOLDERS' EQUITY			
SHAREHOLDERS' EQUITY	13		
Restricted			
Share capital		**1,288.0**	1,288.0
Share premium account		**1,503.4**	1,503.4
Restricted total		**2,791.4**	2,791.4
Non-restricted			
Retained earnings		**708.2**	692.9
Net income for the financial year		**400.3**	221.5
Non-restricted total		**1,108.5**	914.4
Total shareholders' equity		**3,899.9**	3,705.8
UNTAXED RESERVES			
Cumulative depreciation difference	14	**7.4**	11.7
Other untaxed reserves	14	**–**	55.0
Total untaxed reserves		**7.4**	66.7
LIABILITIES	15		
Long-term			
Debentures and other bond loans		**–**	49.0
Loans from financial institutions		**1,404.8**	1,260.6
Loans from pension institutions		**411.4**	453.7
Pension liabilities		**8.1**	10.0
Other long-term liabilities		**0.6**	0.6
		1,824.9	1,773.9
Current			
Loans from financial institutions		**181.0**	459.9
Current portion of other long-term loans		**94.4**	54.3
Other interest-bearing liabilities		**432.6**	839.3
Accounts payable		**18.3**	23.7
Accrued expenses and prepaid income		**375.2**	340.3
Other current liabilities		**3.2**	1.0
		1,104.7	1,718.5
Total liabilities and shareholders' equity		**6,836.9**	7,264.9

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS

INCOME STATEMENT (FIM million)

1. NET SALES

	1997	1996
Net sales	**197.2**	213.8

Net sales consist of sale of electricity to Finnish Group companies and other external customers in Finland.

2. OTHER INCOME FROM OPERATIONS

	1997	1996
Gains on the sale of fixed assets	**34.5**	0.4
Other income	**3.6**	5.2
Other income from operations, total	**38.1**	5.6

3. COST OF SALES

	1997	1996
Materials and supplies		
Purchases during the financial year	**148.4**	184.1
External services	**11.5**	13.0
Personnel expenses	**32.6**	72.9
Rents	**13.8**	14.0
Losses on the sales of fixed assets	**14.0**	0.3
Other expenses	**5.4**	9.3
Cost of sales, total	**225.7**	293.6

4. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

	1997	1996
Emoluments of the Supervisory Board, board of directors and managing director *)	**4.6**	4.0
Other wages and salaries	**25.1**	22.3
Pension expenses	**0.2**	43.2
Other personnel expenses	**2.7**	3.4
Personnel expenses in the income statement, total	**32.6**	72.9
Monetary value of fringe benefits	**0.7**	0.6
Total	**33.3**	73.5

*) Total sum of which FIM 0.1 million as profit sharing bonuses in 1997 and FIM 0.4 million in 1996.

In 1996, pension expenses include extraordinary payment to the supplementary pension funds of FIM 43.5 million, after which there is no unfunded pension liability.

Management's pension commitments

The pension commitments to the management of the company do not differ from those to the other permanent staff.

Personnel

	1997	1996
Personnel, average	**136**	139
Personnel at year end	**137**	135

5. DEPRECIATION

	1997	1996
Scheduled depreciation		
Intangible assets		
Intangible rights	**0.2**	0.3
Other long-term expenditures	**0.4**	0.6
Tangible assets		
Buildings and constructions	**5.5**	5.5
Machinery and equipment	**4.0**	4.4
Other tangible assets	**0.1**	0.1
Depreciation, total	**10.2**	10.9
Decrease in difference between scheduled and actual depreciation		
Intangible rights	**(0.2)**	0.2
Other long-term expenditures	**(0.2)**	0.5
Buildings and constructions	**2.4**	5.5
Machinery and equipment	**2.3**	3.8
Other tangible assets	**–**	0.1
Total change	**4.3**	10.1

6. FINANCING INCOME AND EXPENSES

	1997	1996
Financing income and expenses		
Dividend income from Group companies	**60.2**	5.5
Dividend income from others	**1.0**	0.6
Tax credit of dividend income	**16.4**	1.6
Interest income from long-term investments, Group companies	**144.5**	111.6
Interest income from long-term investments, others	**–**	–
Interest income from short-term investments, Group companies	**40.9**	49.9
Interest income from short-term investments, others	**39.8**	52.3
Other financing income from Group companies	**1.0**	1.5
Other financing income	**0.3**	–
Exchange differences	**29.3**	21.1
Interest expenses to Group companies	**7.7**	(22.1)
Interest expenses to others	**(167.9)**	(160.1)
Other financing expenses	**(6.0)**	(6.5)
Financing income and expenses, total	**167.2**	55.4
Exchange gains and losses		
Realized	**(30.6)**	0.5
Unrealized	**59.9**	20.6
Exchange gains and losses, total	**29.3**	21.1

7. EXTRAORDINARY INCOME AND EXPENSES

	1997	1996
Extraordinary income		
Group contributions received	**495.9**	574.4
Extraordinary expenses		
Group contributions granted	**(120.3)**	(149.3)
Write-downs on shares	**(50.0)**	(101.3)
Extraordinary income and expenses, total	**325.6**	323.8

8. CHANGE IN UNTAXED RESERVES

	1997	1996
Decrease in cumulative depreciation difference	**4.3**	10.1
Decrease in transitional reserve	**55.0**	–
Total	**59.3**	10.1

9. DIRECT TAXES

	1997	1996
Direct taxes, current year	**149.2**	82.5
Direct taxes, previous years	**1.6**	0.2
Other	**0.4**	–
Total	**151.2**	82.7

BALANCE SHEET (FIM million)

10. FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS

	1997	1996
Intangible rights		
Acquisition cost at beginning of year	**2.8**	4.6
Increases	**1.8**	0.4
Decreases	**–**	(2.2)
Acquisition cost at end of year	**4.6**	2.8
Accumulated depreciation at end of year	**(1.9)**	(1.7)
Net book value at end of year	**2.7**	1.1
Other long-term expenditures		
Acquisition cost at beginning of year	**6.9**	28.5
Increases	**0.2**	–
Decreases	**–**	(21.6)
Acquisition cost at end of year	**7.1**	6.9
Accumulated depreciation at end of year	**(6.5)**	(6.1)
Net book value at end of year	**0.6**	0.8
Land and water areas		
Net book value at beginning and at end of year	**16.2**	16.2
Buildings and constructions		
Acquisition cost at beginning of year	**167.8**	167.8
Accumulated depreciation at end of year	**(61.1)**	(55.7)
Net book value at end of year	**106.7**	112.1
Machinery and equipment		
Acquisition cost at beginning of year	**53.4**	80.7
Increases	**3.0**	2.0
Decreases	**(2.0)**	(29.3)
Acquisition cost at end of year	**54.4**	53.4
Accumulated depreciation at end of year	**(41.3)**	(39.0)
Net book value at end of year	**13.1**	14.4

The book value of production machinery was FIM 0.4 million as at 31 December 1997 and FIM 0.8 million as at 31 December 1996.

	1997	1996
Other tangible assets		
Acquisition cost at beginning of year	**2.8**	2.8
Accumulated depreciation at end of year	**(2.2)**	(2.1)
Net book value at end of year	**0.6**	0.7
Advances paid and fixed assets under construction		
Acquisition cost at beginning of year	**0.3**	–
Change	**(0.3)**	0.3
Net book value at end of year	**–**	0.3
Shares in Group companies		
Net book value at beginnig of year	**2 419.8**	2 316.1
Increases	**83.5**	461.5
Decreases	**(205.3)**	(256.5)
Depreciation	**(50.0)**	(101.3)
Net book value at end of year	**2 248.0**	2 419.8
Other shares and holdings		
Net book value at beginnig of year	**18.3**	18.1
Increases	**–**	0.4
Decreases	**–**	(0.2)
Net book value at end of year	**18.3**	18.3

NOTES TO KEMIRA OYJ FINANCIAL STATEMENTS

BALANCE SHEET (FIM million)

	1997	1996
Taxable values of real estate and securities included in long-term investments		
Land and water areas	**3.2**	3.2
Buildings and constructions	**83.4**	84.4
Shares in subsidiaries	**2,393.9**	2,479.1
Other shares and holdings	**25.6**	33.1

To the extent that taxation values have not been confirmed for shares and holdings, book values have been used.

Fixed asset revaluations		
Land and water areas	**3.5**	3.5
Buildings	**30.0**	30.0

11. VALUATION ITEMS

Pension liabilities at beginning of year	**10.0**	45.3
Decrease during year	**(1.9)**	(35.3)
Pension liabilities at end of year	**8.1**	10.0

The decrease in pension liabilities in 1996 is explained by extraordinary pension contribution to the pension fund.

12. RECEIVABLES

Receivables from Group and associated companies		
Accounts receivable from Group companies	**14.9**	18.0
Accounts receivable from associated companies	**1.7**	1.9
Loan receivables from Group companies	**2,017.8**	2,256.3
Other receivables from Group companies	**1,980.8**	1,368.3
Loans to the management	**–**	–
Receivables due in one year or longer	**–**	–

13. SHAREHOLDERS' EQUITY

Share capital at beginning of year	**1,288.0**	1,208.0
Increase in share capital	**–**	80.0
Share capital at end of year	**1,288.0**	1,288.0
Share premium account at beginning of year	**1,503.4**	1,200.0
Share premium	**–**	303.4
Share premium account at end of year	**1,503.4**	1,503.4
Restricted equity at end of year	**2,791.4**	2,791.4
Non-restricted equity at beginning of year	**914.4**	874.8
Net profit for the year	**400.3**	221.5
Dividends paid	**(206.1)**	(181.2)
Donations	**(0.1)**	(0.7)
Non-resricted equity at end of year	**1,108.5**	914.4
Total shareholders' equity at end of year	**3,899.9**	3,705.8

14. UNTAXED RESERVES

Untaxed reserves		
The cumulative depreciation difference by fixed assets items		
Buildings and constructions	**1.4**	3.8
Machinery and equipment	**5.9**	8.1
Other tangible assets	**0.4**	0.5
Intangible rights	**–**	(0.2)
Other long-term expenditures	**(0.3)**	(0.5)
Total	**7.4**	11.7
Other untaxed reserves		
Transitional reserve	**–**	55.0
Total	**7.4**	66.7

Change in untaxed reserves

Untaxed reserves at beginning of year	**66.7**	76.8
Change of untaxed reserves in income statement	**(59.3)**	(10.1)
Untaxed reserves at end of year	**7.4**	66.7

15. LIABILITIES

	1997	1996
Long-term interest-bearing liabilities maturing in		
1999 (1998)	**412.3**	(10.3)
2000 (1999)	**85.3**	442.2
2001 (2000)	**133.6**	85.5
2002 (2001)	**200.0**	218.3
2003 (2002) or later	**985.6**	1,028.2
Total	**1,816.8**	1,763.9
Pension liabilities	**8.1**	10.0
Total long-term liabilities	**1,824.9**	1,773.9

Interest-bearing liabilities maturing in 5 years or longer		
Loans from pension institutions	**411.4**	453.6
Other long-term interest-bearing liabilities	**574.2**	574.6
Total	**985.6**	1,028.2

Pension liabilities		
Uncovered liabilities of pension funds	**0.4**	0.5
Other pension liabilities	**7.7**	9.5
Total	**8.1**	10.0

Debentures and other bond loans

Loan			Loan currency	
8300	1993–1998	FIM	**49.0**	49.0
Total			**49.0**	49.0

The 1997 bond loan is included in the repayment items for loans from financial institutions.

Other long-term liabilities include a FIM 0.6 million issue of bonds with warrants offered to senior management. The issue is described in more detail on page 12.

The company has no convertible bonds.

Liabilities to Group and associated companies		
Accrued expenses and prepaid income, Group companies	**145.0**	194.9
Accounts payable to Group companies	**0.5**	0.6
Other short-term liabilities to Group companies	**387.5**	714.6
Current liabilities		
Interest-free liabilities	**396.7**	365.0
Current portion of long-term loans	**94.4**	54.3
Other interest-bearing liabilities	**613.6**	1,299.2
Total	**1,104.7**	1,718.5

16. ASSETS PLEDGED AND CONTINGENT LIABILITIES

Assets pledged		
On behalf of Group companies	**60.0**	65.0
Guarantees		
On behalf of Group companies for loans	**1,026.6**	1,629.1
On behalf of Group companies for leasing agreements	**333.7**	301.9
On behalf of Group companies for other commitments	**106.0**	150.3
On behalf of associated companies	**73.5**	94.5
On behalf of others	**14.6**	14.0
Total	**1,554.4**	2,189.8
Mortgages		
Loans secured by mortgages	**20.0**	6.5
Mortgages given as security	**30.0**	30.0
Letter of Comfort obligations *)		
On behalf of Group companies for credits	**105.4**	27.4
On behalf of Group companies for leasing agreements	**38.3**	40.2
Total	**143.7**	67.6

*) Letter of Comfort obligations do not constitute a legal guarantee.

The nominal values and market values of financing instruments are included in the Notes to the consolidated financial statements.

17. SHARES AND HOLDINGS OF KEMIRA OYJ

		Net income for the year *) FIM million	Number of shares	Holding %	Nominal value million		Book value FIM million
Share in subsidiaries							
Kemira Agro Oy	Finland	382	7,900,000	100	FIM	790	800.0
Kemira Chemicals Oy	Finland	347	4,011,000	100	FIM	401	405.3
Kemira Pigments Holding B.V.	The Netherlands		80,000	18 **)	NLG	80	105.2
Kemira Metalkat Oy	Finland	(5)	400,000	100	FIM	40	102.0
Kemira Pigments Oy	Finland	(160)	4,922,500	100	FIM	492	502.2
Kemira Safety Oy	Finland	4	150,000	100	FIM	15	17.2
Tikkurila Oy	Finland	260	1,024,998	100	FIM	205	289.5
Spruce Insurance Limited	Ireland	2	50,000	100	FIM	5	5.0
Spruce Vakuutus Oy	Finland	2	200,648	100	FIM	20	21.6
Total							2,248.0
Other shares and holdings							
Ekokem Oy Ab	Finland		250	1	FIM	1	0.5
Forcit Oy	Finland		7,614	15	FIM	1	1.7
Innopoli Oy	Finland		6,667	1	FIM	1	0.7
Liikkeenjohdon koulutuskeskus	Finland		3	2	FIM	0	0.2
Tahkoluodon Polttoöljy Oy	Finland		135	7	FIM	0	0.1
Teollisuuden Voima Oy	Finland		13,278,464	2	FIM	13	13.4
Shares in housing and real estate companies							1.0
Shares in telephone companies							0.1
Other							0.6
Total							18.3
Total Kemira Oyj shares and holdings							2,266.3

*) Net income before extraordinary items, changes in untaxed reserves and taxes. If a direct subsidiary of Kemira Oyj forms a subgroup, the net income is the consolidated result.

**) The ownership of the Group is 100%.

PROPOSAL FOR THE DISTRIBUTION OF PROFITS

The net profit of Kemira Oyj for the 1997 financial year was FIM 400,433,700 and the distributable equity at 31 December 1997 was FIM 1,108,478,055. The Group's non-restricted equity at 31 December 1997 was FIM 2,591,600,000. The parent company's payment of a dividend is limited by the Group's distributable equity, FIM 1,836,696,000, which is obtained when the share of voluntary reserves that has been transferred to shareholders' equity is subtracted from the non-restricted equity shown in the Consolidated Balance Sheet.

It is proposed to the Annual General Meeting that a dividend for the financial year of 17%, or FIM 218,960,000, be paid on the registered share capital of FIM 1,288,000,000. It is proposed that FIM 2,500,000 be reserved for use by the Board of Directors for purposes promoting the common good (among other things, for donations to the Kemira Oyj Foundation).

Helsinki, 16 February 1998

Heimo Karinen

Timo Mattila *Juhani Kari*

Esa Tirkkonen *Leif Ekström*

Sten-Olof Hansén

AUDITORS' REPORT

To the shareholders of Kemira Oyj

We have audited the accounting records and the financial statements, as well as the administration by the Supervisory Board, the Board of Directors and the Managing Director of Kemira Oyj for the year ended 31 December 1997. The financial statements, which include the report of the Board of Directors, consolidated and parent company income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the Managing Director. Based on our audit we express an opinion on these financial statements and the company's administration.

We have conducted our audit in accordance with Finnish Generally Accepted Auditing Standards. Those standards require that we plan and perform the audit in order to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. The purpose of our audit of the administration has been to examine that the Supervisory Board, the Board of Directors and the Managing Director have complied with the rules of the Finnish Companies Act.

In our opinion, the financial statements have been prepared in accordance with the Finnish Accounting Act and other rules and regulations governing the preparation of financial statements in Finland. The financial statements give a true and fair view, as defined in the Accounting Act, of both the consolidated and parent company result of operations, as well as of the financial position. The financial statements can be adopted and the members of the Supervisory Board, the Board of Directors and the Managing Director of the parent company can be discharged from liability for the period audited by us. The proposal made by the Board of Directors on how to deal with the retained earnings is in compliance with the Finnish Companies Act.

We have acquainted ourselves with the interim financial statements made public by the company during the year. It is our understanding that the interim financial statements have been prepared in accordance with the rules and regulations governing the preparation of such statements in Finland.

Helsinki, 17 February 1998

KPMG WIDERI OY AB
Hannu Niilekselä
Authorized Public Accountant

STATEMENT OF THE SUPERVISORY BOARD

The Supervisory Board of Kemira Oyj has read the financial statements of the parent company and the Group for 1997 and studied the Auditors' report at its meeting today.

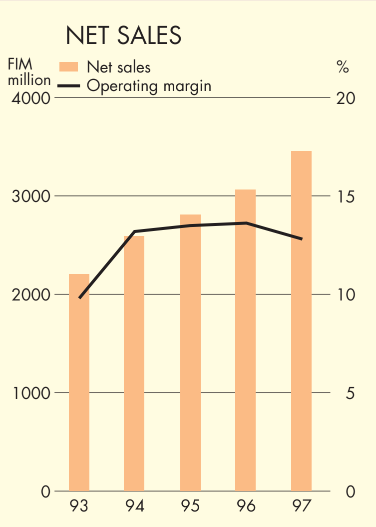
The Supervisory Board advises the 1998 Annual General Meeting that the company has been managed well and that it has no comments to make on the financial statements of the parent company and the Group for 1997. The Supervisory Board proposes that the financial statements of the parent company and the Group be adopted and that the Board of Directors, the Managing Director and his deputies be discharged from liability. The Supervisory Board concurs with the proposal of the Board of Directors for the distribution of profit funds.

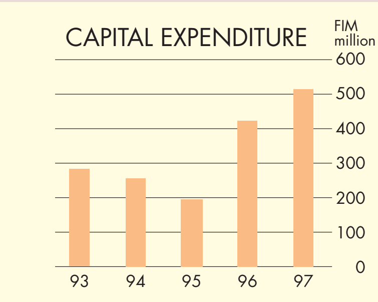
Helsinki, 19 February 1998

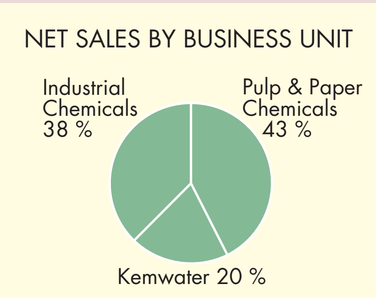
Timo Kalli	*Kari Rajamäki*
Risto Ranki	*Sirpa Hertell*
Pekka Kainulainen	*Hanna Kivisilta*

Mikko Långström

KEMIRA CHEMICALS







MANAGEMENT

President: Yrjö Sipilä
Pulp & Paper Chemicals: Juhani Lindholm
Kemwater: Kjell Stendahl
Industrial Chemicals: Ingvar Pettersson

Yrjö Sipilä

The Kemwater unit's operations have expanded to different parts of the world according to plans. On the Old Continent, sales of water treatment chemicals have grown, particularly in the Eastern part of Europe. (Photograph: Seppo Kaksonen)

NET SALES AND RESULT

Kemira Chemicals continued its strong growth in 1997. Net sales rose by 12% and were FIM 3,461 million (1996: FIM 3,090 million). Operating income grew for the seventh year running and was FIM 448 million (FIM 421 million).

Sales by all the strategic business units, Pulp & Paper Chemicals, Kemwater and Industrial Chemicals, increased. Pulp & Paper Chemicals' net sales rose by 4% and were FIM 1,511 million. Kemwater's net sales were up 15%, reaching FIM 702 million. Industrial Chemicals had net sales of FIM 1,343 million, an increase of 7%.

Another factor responsible for the total growth was the transfer of Kemira Fine Chemicals Oy from Kemira Agro to Kemira Chemicals. Kemira Chemi-

KEMIRA CHEMICALS FIM million	1997	1996	1995	1994
Net sales	**3,461**	3,090	2,809	2,591
Cost of sales	**(2,744)**	(2,419)	(2,205)	(2,017)
Depreciation	**(269)**	(250)	(225)	(233)
Operating income	**448**	421	379	341
Net financing expenses	**(101)**	(121)	(163)	(156)
Income before extraordinary items	**347**	300	216	185
Capital invested (average)	**2,692**	2,465	2,407	2,451
Return on capital invested %	**17**	18	16	15
Capital expenditure	**514**	426	195	256
Personnel (average)	**2,845**	2,283	2,251	2,221

cals also took over the management of the Kokkola plant from Kemira Agro, but this did not have an effect on net sales or income.

MARKETS

Pulp & Paper Chemicals. For the pulp and paper industry, the year began on a low note, but the business cycle and companies' order books improved towards the end of the year. From the midpoint of the year on, most of our customers' mills have operated at a high degree of capacity utilization, and this has stepped up the demand for chemicals. The demand for bleaching chemicals, especially hydrogen peroxide, slid downhill in 1996, but during the report year demand again swung to growth and the price of hydrogen peroxide began to notch up. The demand for other chemicals used by the pulp and paper industry also increased in step with the rise in capacity utilization.

Kemwater. The Nordic market for municipal water treatment is in a fairly mature stage. The market in Western Europe, on the other hand, developed favourably, and the acquisition in Italy at the beginning of the year opened up a new market area to Kemwater. The price level in Western Europe varied from country to country, and even large price fluctuations could not be avoided. In Central Europe there continued to be brisk growth in demand. The companies in the Czech Republic and Poland performed particularly well.

Kemwater's development outside Europe moved ahead rapidly. A new plant is under construction in Brazil and the market is developing at a quick rate. In the Philippines, a new company was founded during the year with the aim of serving the area's ever-growing need for water treatment chemicals.

Industrial Chemicals. Industrial Chemicals' most important product was phosphoric acid. It continued to enjoy strong growth and this kept the price level stable. The high level of capacity utilization helped the Siilinjärvi phosphoric acid plant to reach a production record during the year under review. Demand for feed phosphates and detergent phosphates also remained good, but for these products there were difficulties in feeding the increased price of phosphoric acid into product prices. Sales of calcium chloride for dust binding on roads continued at the previous year's level.

BUSINESS DEVELOPMENT

Pulp & Paper Chemicals. The largest single capital expenditure for Kemira Chemicals and the entire Kemira Group in 1997, the hydrogen peroxide plant in Helsingborg, Sweden, was completed a bit ahead of schedule. Sweden's Princess Christina inaugurated the plant in September.

The peracetic acid plant that was completed at the turn of the year 1996-97 is operating well and it has led to a substantial increase in the number of customers. This new product aids in improving the quality of chlorine-free pulp – particularly its brightness – at a reasonable cost.

The Formics unit developed strongly. At the start of the year, a formamide production plant was completed in Oulu and it has operated according to expectations. Marketing under the new AIV trademark is in full swing, and SSV-Säilöntä Oy, which packages silage additives, was merged with Kemira Chemicals Oy.

Kemwater. The business unit's expansion in line with its strategy moved ahead in 1997. At the start of the year under review, Kemwater acquired an Italian water chemicals manufacturing company that has plants in Millesimo and Ossona. The aluminium sulphate company in the Philippines will be developed, on a joint venture basis, into a versatile water chemicals production plant to serve the growing needs of the Philippines.

A plant that will manufacture solid polyaluminium chloride was completed in Sweden at the very end of the year and deliveries started right at the beginning of 1998. In the UK, Brazil and Thailand, investments to expand production were made. In Pori, Finland, the capacity for producing Ferix granules was raised from 50,000 to 80,000 tonnes.

The Krepro project that is connected with the recycling of wastewater sludge and the removal of heavy metals from sludge is entering into the commercialization phase, and it appears that there is a good deal of demand for the product .

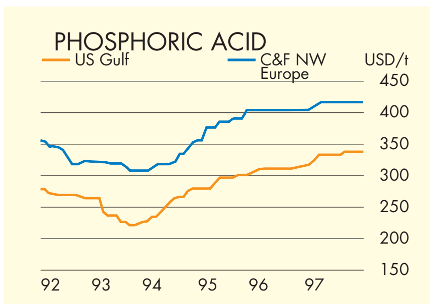
Industrial Chemicals. The major capital expenditure made by the business unit, the sodium percarbonate plant in Helsingborg, Sweden, was completed at the turn of the year 1997–98. Sodium percarbonate is used in the manufacture of detergents, and both of its main raw materials, hydrogen peroxide and soda, give a good washing result and are also environmentally friendly.

The marketing of feed phosphates was developed energetically, notably by taking control of the marketing in Germany and by signing an agreement on the establishment of a marketing company together with a South African company in the field. A joint office that will bring together Kemira Chemicals' different business units and largely be responsible for the sale of Industrial Chemicals' products in France was established in Paris. An agreement was reached with the sister company Kemira Agro according to which Kemira Chemicals will market the feed phosphate that is manufactured in Denmark.

Kemira Fine Chemicals Oy, which was made a part of the Kemira Chemicals' organization at the beginning of the year, performed well. All the production lines at the Kokkola plant were in use in the last months of the year, something which has not happened at the unit for many years. In January 1998 an important long-term delivery agreement was signed with Rhône Poulenc Agro.

PERSONNEL

Kemira Chemicals' payroll at the end of the year was 2,928 people, an increase of 703 employees compared with the previous year. The increase was due to the transfer of the Kokkola operation and acquisitions. The number of employees at the mainline units hardly rose at all.



Source: Fertilizer Week

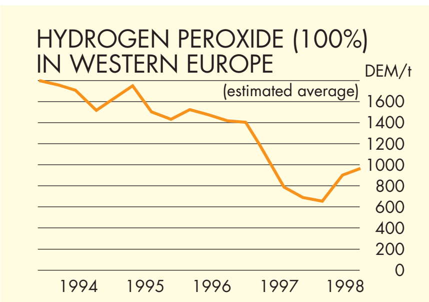
RESEARCH AND DEVELOPMENT

Research and Development are the most important individual factors contributing to Kemira Chemicals' growth. Research funding was increased by 19% on the previous year. In part this figure is attributable to the hefty research input by Kemira Fine Chemicals. The research has also brought results: sodium percarbonate and formamide have been developed in our own research laboratories, and the company's fifth hydrogen peroxide plant, which was completed in Sweden, incorporates a number of technical improvements that have been developed by Kemira.

OUTLOOK FOR THE FUTURE

The business cycle for the pulp and paper industry continued to be stable in the latter months of the year and the business outlook appears good. Nonetheless, the price of pulp again headed downward during the last days of the year, largely as a consequence of problems in Southeast Asia. It is nevertheless expected that 1998 will be a good year for our major customers, the pulp and paper mills in the Nordic countries. The demand for hydrogen peroxide is again edging upward and prices are clearly on the rise. This firming up of the hydrogen peroxide market will contribute to improving Kemira Chemicals' earnings in 1998.

The demand for water treatment chemicals is expected to remain stable in the Nordic countries, and it is also believed that the trend of the west European market will be positive. Strong growth is likely to continue in Eastern Europe. Worldwide demand for the phosphoric acid produced by Industrial Chemicals is anticipated to ensure a steady price level and strong demand for this product. The demand for feed phosphates and detergent phosphates is anticipated to be flat in 1998. In its development projects, Kemira Chemicals will focus particularly on Kemwater's new projects as well as on the development of the Specialty Paper Chemicals unit.



Original source: Bleaching Chemicals

In the chemistry classroom located at the Kemira Research Centre in Espoo, schoolagers can perform various experiments, some of which are connected with water treatment. (Photograph: Vuokko Puranen)

During the report year a new factory that manufactures hydrogen peroxide was started up in Helsingborg, Sweden. The product is used above all in the pulp and paper industry as an environmentally sound bleaching agent that replaces chlorine chemicals. (Photograph: Håkan Borg)

Titanium dioxide pigment is a raw material in many everyday articles. White plastics contain an especially large amount of it. (Photograph: Seppo Kaksonen)

KEMIRA PIGMENTS FIM million	**1997**	1996	1995	1994
Net sales	**2,451**	2,108	2,279	2,379
Cost of sales	**(2,225)**	(1,889)	(1,818)	(1,981)
Depreciation	**(261)**	(240)	(206)	(199)
Operating income	**(35)**	(21)	255	199
Net financing expenses	**(125)**	(111)	(103)	(95)
Income before extraordinary items	**(160)**	(132)	152	104
Capital invested (average)	**2,376**	2,445	2,333	2,453
Return on capital invested %	**(2)**	(1)	11	10
Capital expenditure	**158**	358	360	146
Personnel (average)	**1,851**	1,939	1,971	1,971

NET SALES AND RESULT

Kemira Pigments had net sales of FIM 2,451 million, up 16% on the previous year (FIM 2,108 million). The 16% rise in sales volumes increased the net sales figure. Sale prices rose during the year but were lower at year-end than they were at the beginning of 1996. The strengthening of the US dollar also contributed to higher net sales.

Full-year operating income was FIM 35 million in the red (FIM 21 million negative). Operating income for the January–August period was a loss of FIM 65 million, as against a positive result of FIM 30 million in the September–December third of the year. About half of the latter figure consisted of other operating income.

MARKET SITUATION

The weakening in the demand for titanium dioxide pigment that began at the end of 1995 and continued throughout the following year came to a halt and swung upward during 1997. Demand revived in all the market areas, and this meant that producers' capacity has been in full use, with stocks in both Europe and the United States at a low level. Producers have had to limit their deliveries. During 1997 producers announced price rises, many of which came into effect during the past year.

The world market for titanium dioxide pigments was in the grips of structural changes, and several mergers of titanium dioxide producers were announced. The largest producer on the market (Du Pont, United States) announced that it would buy all the production plants of Tioxide (ICI, Great Britain) outside North America. Millennium Inorganic Chemicals (United States) bought Rhône Poulenc's production plants in France.

The supply and demand situation for titanium dioxide ores was in equilibrium, but the prices of raw materials containing abundant titanium dioxide, such as rutile, were still high. In part this was due to the postponement of reopening the mine in Sierra Leone owing to the country's political unrest.

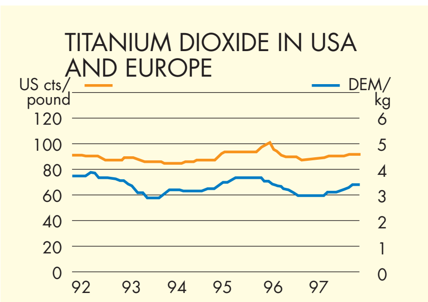
In January of the year under review, an explosion occurred at the Rotterdam plant, causing production to come to a halt for three months. One person died

Demand for titanium dioxide was brisk and producers' capacity was in full use. Kemira Pigments is boosting its production capacity through debottlenecking. (Photograph: Seppo Kaksonen)

in the accident. The plant was started up in April and it was running at full production capacity at the beginning of May. During the standstill, deliveries to customers were handled from the Kemira Pigments plants in Savannah and Pori.

BUSINESS DEVELOPMENT

Kemira Pigments renewed its organization. An important part of the change involved establishing a global marketing organization. The four main sales areas are North America, Europe, the Far East and Latin America. At the same time, technical customer service was made a part of the marketing organization to assure a close customer interface.

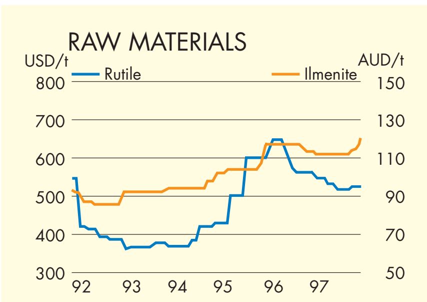


Source: ICIS–LOR

Kemira Pigments' specialty products were organized into a separate worldwide business unit. The specialty product business of the Pori plant continued to develop favourably. The unit's sales grew rapidly and its profitability was good. An especially strong increase was achieved in deliveries of microfine titanium dioxide and the highly purified cosmetics grade. Microfine UV-TITAN has achieved a secure position within the European automotive industry and is in wide use in sunscreen and cosmetics products around the world.

A new sales company was established in Singapore to cope with the growing demand in the Far East.

Cooperation in pigment sales has been started with Kemira Chemicals' Spanish subsidiary Kemira Ibérica in Spain.



Source: Industrial Minerals

The ferrosulphate that is generated in the production of titanium dioxide pigment will be refined for utilization in Pori, and Kemira Chemicals will market it for use in water treatment.

The debottlenecking project at the Pori plant, which was put on ice owing to the weakened market situation, was relaunched. The debottlenecking measures will increase the production capacity at the Pori plant from the present 100,000 tonne level to 120,000 tonnes a year. The additional capacity will come on stream to the full extent by the end of 1999. When the project is completed, Kemira Pigments will have a total production capacity of 321,000 tonnes a year. The new waste water treatment plant connected with the product was inaugurated. The treatment plant will reduce effluents to a nearly harmless level at the Pori plant.

Towards the end of the year, Kemira Pigments sold its pearlescent pigments business to the German company Eckart-Werke, which will continue and develop the pearlescent pigments business in Pori. The sale involved the transfer of the production unit's staff of some 20 people to the new owner's employ.

Kemira Pigments' payroll decreased by about one hundred people and was 1,798 employees at the end of 1997.

RESEARCH AND DEVELOPMENT

Product development in all the main usage areas moved ahead energetically. New products were brought out on the market, notably for decorative paints, industrial coatings and plastics. The use of slurries made from rutile pigment increased within the paper industry. The universal pigments for paints and plastics, which were brought out on the market in the two previous years, firmly established their position.

Production technology has been upgraded by making improvements to the automation and control systems for the sulphate process and by further developing the chloride process. The expansion investment in Rotterdam was completed, raising the plant's capacity to 56,000 tonnes a year. The expansion will make it possible to manufacture

Kemira Pigments established a sales company in Singapore to meet the growing demand in the Far East. The light, durable shades of the painted surface of this Malaysian shopping centre is based on titanium dioxide pigments. (Photograph: Seppo Kaksonen)

products of higher quality and to add greater breadth and depth to the product range. Kemira Pigments made capital expenditures totalling FIM 158 million in 1997.

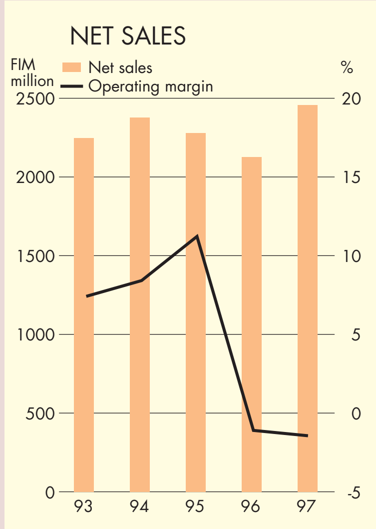
OUTLOOK FOR 1998

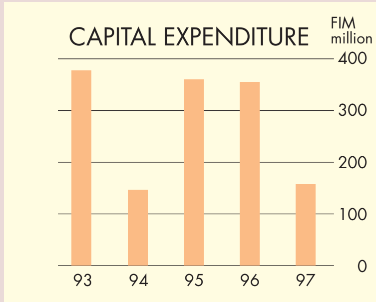
The market outlook for 1998 is better than it was a year earlier. The market prices of titanium dioxide pigment have continued to move upward in the early months of 1998. Since producers' capacity is in full use and significant new capacity is not likely to become operational in 1998, it is believed that the price level will even improve in the current period.

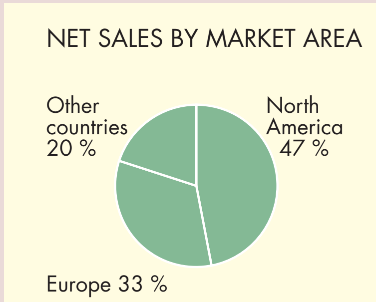
The consolidation within the industry will also improve its operating environment by dampening price fluctuations. New production capacity will appear in the industry only to a marginal extent, and solely as a result of debottlenecking measures.

The efficiency-boosting programme that was started at the Pori site in 1996 is progressing according to plan. The programme seeks to achieve significant cost savings and to ensure the company's competitiveness. From 1999 onward it is expected to yield some FIM 100 million of cost savings compared with the 1996 level.

Kemira Pigments' financial result is expected to improve significantly in 1998.





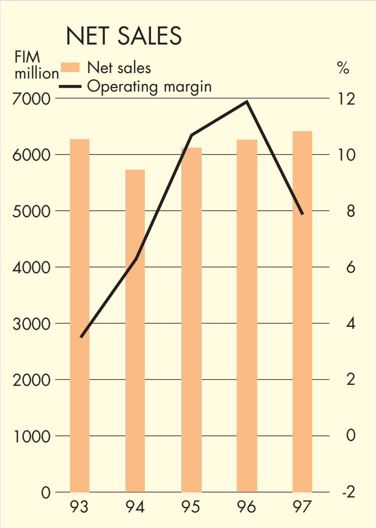


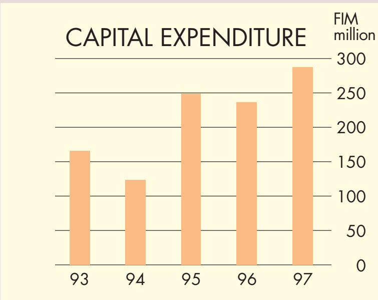
MANAGEMENT

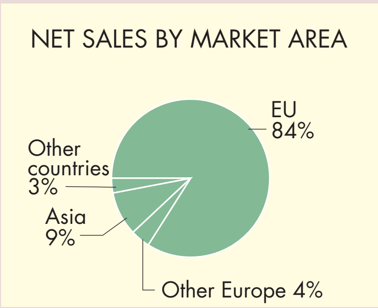
President: Risto Keränen
Marketing: Matti Lapinleimu
Savannah plant:
Norman L. Christensen
Pori plant: Eero Sipilä
Rotterdam plant:
Seppo Matikainen

Risto Keränen

KEMIRA AGRO







MANAGEMENT

President: Tauno Pihlava
Executive Vice President:
Rauno Valkonen
Agriculture: Timo Lainto
Horticulture: Henry Cambier
Process Chemicals: Henry Cambier
Agro Ventures: Frits Visser

Tauno Pihlava

NET SALES AND RESULT

Kemira Agro's net sales were up 2% on the previous year and totalled FIM 6,414 million (1996: FIM 6,278 million). The trend in the traditional home markets in Europe was negative both in terms of sales volumes and, in particular, prices. Operating income declined by 32% and was FIM 505 million (FIM 746 million).

MARKET SITUATION

The use of plant nutrients is estimated to have increased further around the world in 1997. The use of nitrogen grew by 1.3%, according to an IFA estimate. The consumption of other nutrients is estimated to have risen even more – phosphorus by 2.9% and potassium by 9.2%. The production volumes of both wheat and rice increased, slightly easing the world's depleted grain inventory situation.

The largest purchaser of nitrogen in the fertilizer market, China, refrained completely from purchasing urea products after the spring. This caused the price to drop to the level of 1993 with the consequence that urea production contracted, making ammonia available in greater quantities for other types of consumption. Accordingly, the price of ammonia also sank to the 1993 level.

In Europe, the consumption of nutrients was at the previous year's level. The price level of ammonium nitrate in the UK plummeted more than 20% by the autumn. Elsewhere in Europe, the prices of nitrogen products declined by over 10% owing to excess supply. By contrast, the prices of compound fertilizers were stable. About two thirds of Kemira Agro's sales consist of compound fertilizers.

BUSINESS UNITS

Agriculture. In line with its strategy, the business unit made heavy outlays on developing its operations in the Far East as well as in the Baltic countries and Poland. Sales in Eastern Europe doubled. An all-time record was set within exports to distant markets, the bulk of them going to China.

During the year joint ventures were established to start fertilizer production in Lithuania, China and Malaysia.

In the European market a further shift was made towards production tailored to customer needs. To this end, new Kemistar units were set up in Germany, the Netherlands and Switzerland.

The computer-based KEMIRA LORIS system for precision farming was further developed. It is based on proprietary technology and international expertise. The system was presented at agricultural events around Europe.

New markets and products were not yet able to buffer the weakening market trend and eroding price level in Western Europe. Net sales remained at the previous level, but operating income weakened significantly.

Process Chemicals. The demand for process chemicals showed clear growth during the year. This is attributable particularly to the use of aqueous ammonia for the purification of atmospheric emissions. Other nitrogen products also showed a positive trend.

The carbon dioxide investment projects in Tertre, Belgium, and Ince in the UK will reach the completion stage during the first quarter of 1998. They will ensure continued growth during the current year.

A new initiative in the Netherlands was the start-up of sales operations for pure liquid nutrients. The solutions are used for the bacteria-based purification of contaminated soils and polluted industrial effluents.

The sales and marketing organization was further developed in Denmark, Germany and France, making use of synergy with Kemira Chemicals' Industrial Chemicals unit. In Denmark the sale of feed phosphates was combined, whereas in Germany and France joint sales offices were established.

KEMIRA AGRO FIM million	**1997**	1996	1995	1994
Net sales	**6,414**	6,278	6,123	5,736
Cost of sales	**(5,591)**	(5,179)	(5,044)	(4,980)
Depreciation	**(318)**	(353)	(424)	(388)
Operating income	**505**	746	655	368
Net financing expenses	**(123)**	(136)	(160)	(228)
Income before extraordinary items	**382**	610	495	140
Capital invested (average)	**3,582**	3,537	3,877	4,672
Return on capital invested %	**14**	21	18	9
Capital expenditure	**288**	236	249	123
Personnel (average)	**3,117**	3,415	3,475	3,648

Kemira Agro Horticulture manufactures plant nutrients for the gardening needs of both professional horticulturalists and home gardeners. (Photograph: Seppo Kaksonen)

Although sales amounts of process chemicals grew, the total gross profit remained at the previous year's level due to the fall in urea and ammonia prices.

Horticulture. The horticultural fertilizer business further expanded its operations energetically in the Baltic countries and Eastern Europe. Sales of the Kemira Grow-How product range for professional growers rose significantly also in Germany and Southern Europe.

Water soluble products enjoyed good sales. The production plants both in Finland and Dubai ran at full capacity during the past year. On the potassium nitrate market, demand exceeded supply, pushing prices up. Liquid fertilizer production in the Netherlands reached a new record.

The horticultural fertilizer business increased both its sales and operating income compared with the previous year.

Agro Ventures. The new business unit that was established in the previous year has defined its central project areas for development in coming years and for creating new business potential. The key areas are water management and irrigation needs in agriculture in conjunction with plant nutrients as well as recycled nutrients.

OPERATIONS BY REGIONAL UNITS

Kemira Agro Finland, managing director Rauno Valkonen. Net sales were FIM 2,056 million. The 5% drop was due to the transfer of the Fine Chemicals unit to Kemira Chemicals. Operating income remained at roughly the previous level. Structurally, both net sales and operating income changed considerably. The contraction in sales in Finland was offset by growth in the Baltic countries and Poland as well as in exports to distant markets.

The fertilizer range that was renewed in accordance with environmental regulations was well received by farmers. New projects were started with the food and feed industry with the aim of utilizing plant nutrients in improving the quality of end products.

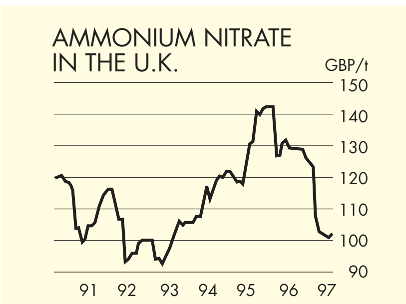
It was decided to modernize the older fertilizer line in Uusikaupunki at a cost of FIM 90 million to increase competitiveness and production flexibility.

Kemira Agro Danmark, managing director Keld Berg Poulsen. Net sales were down 21% during the past year and totalled DKK 1,324 million (FIM 1,041 million). The drop was mainly due to the transfer of the marketing company in Germany to the ownership of Kemira Agro Holland. Operating income declined and was in the red owing to the fall in prices.

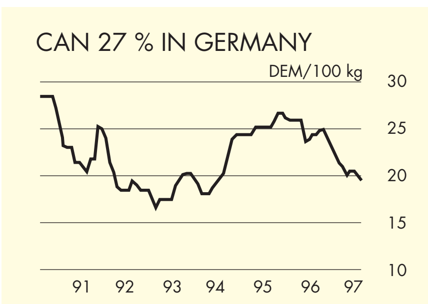
Potassium nitrate production has enjoyed good success and a decision was accordingly taken to invest DKK 43 million (FIM 34 million) to develop production and quality and to be able to offer more versatile packaging alternatives. In the early autumn a decision was taken to wind up PK production in Nørresundby in the spring 1998. The plant has operated at a low utilization level and the PK fertilizers needed for the Danish market will in future be imported from the plant in Lithuania.

Kemira Agro Belgium, managing director Vincent Reuter. Net sales fell 10% and were BEF 7,161 million (FIM 1,039 million). The main reason for the change was the fall in the price of nitrogen fertilizers. The market was also slower than usual in the autumn as the good harvest filled up storages. In spite of the success of process chemicals, operating income also declined on the previous year.

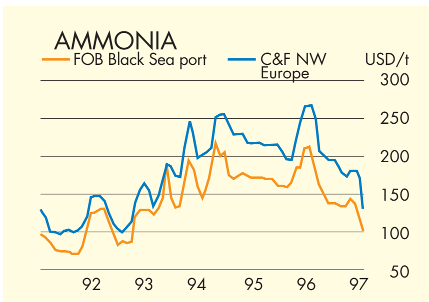
Kemira Agro Holland, managing director Jean-Luc Bovens. Net sales grew by 18% and were NLG 603 mil-



Source: Farm Brief



Source: Fertecon



Source: Fertecon

lion (FIM 1,605 million). The growth was mainly attributable to the transfer of the marketing company in Germany from the Danish company to Kemira Agro Holland. The fall in prices led to weaker operating income. The Pernis plant achieved high degrees of capacity utilization and new production records were set.

Owing to weak demand for nitrogen fertilizers, however, a number of production and maintenance shutdowns were made at the Rozenberg plant.

Kemira Agro UK, managing director John B. Davies. The downturn in the European fertilizer market was felt most clearly in the UK. Net sales were down 14% and totalled GBP 168 million (FIM 1,414 million). Operating income also slumped considerably compared with the previous year.

The rapid appreciation in the British pound beginning in the latter half of 1996, the ECU linkage of the minimum import price of ammonium nitrate and the large import stockpiles that were handed down from 1996 caused the price of ammonium nitrate to collapse in the course of the spring. The fall also had an impact on the price of high-nitrogen NPK fertilizers.

Kemira Agro Global, vice president Timo Törmälä. Kemira Agro Global, which has developed from a Kemira Agro overseas export unit into an independent profit centre, expanded its operations significantly over the year. Export volumes were up 20% on the previous year. Notably, exports to China hit a new record.

Joint ventures were established in China and Malaysia in accordance with Kemira Agro's strategy. Agro will have a minority holding in the Chinese company, as it will in Malaysia, too. The partner in China is Zanhua Enterprises and in Malaysia it is Kuok.

New projects in both countries focused on special product areas (such as fruit and vegetable cultivation as well as rubber and oil palm plantations) and it is not believed that their profitability will suffer from the economic crisis in the Far East. The economic recession will, however, have a negative impact on exports. The price level of exports of NPK fertilizers fell by more than 10% during the year under review.

BUSINESS DEVELOPMENT

The capital expenditures launched during the past year aim mainly at achieving two strategic goals. In the traditional home market in Europe, Agro is seeking strong cost competitiveness combined with production flexibility to achieve customer focus and differentiation in its product ranges. Examples of this are the modernization of the fertilizer plant in Uusikaupunki to achieve greater versatility as well as the investment in the quality and productivity of potassium nitrate production in Fredericia.

The objective of the investments in new growth areas is to turn them into home markets.

The development projects undertaken by Agro Ventures aim to stake out new business operations based on Kemira's know-how. Priority is accorded to projects connected with global agricultural and environmental issues.

Kemira Agro presented its satellite-controlled LORIS precision farming system, which is based on proprietary know-how, at agricultural events in different parts of Europe. (Photograph: Kemira Agri EU 10/K-Création)

PERSONNEL

The number of personnel at the end of 1997 was 2,995 people (3,345 people in 1996). The largest change, a reduction of about 300 employees, was due to the transfer of the Kokkola plant to Kemira Chemicals.

OUTLOOK FOR THE FUTURE

The set-aside acreage obligation in the European Union area will remain at 5% again in 1998. Kemira Agro expects to maintain its current market share in Western Europe. The European Union is establishing an anti-dumping duty on ammonium nitrate from Russia. Sales to the Baltic countries and Eastern Central Europe are likely to develop favourably. Sales volumes in the Far East are not expected to swing upward until 1999, when investment projects will be completed. Because of the lower price level, the result will probably fall short of last year's result. The Process Chemicals and Horticulture units are expected to have stable development.

TIKKURILA

Bright new colourant factories were completed for Tikkurila CPS in Australia, the United States and Finland (in the picture) in 1997. (Photograph: Peter Forsgård)

TIKKURILA FIM million	**1997**	1996	1995	1994
Net sales	**2,075**	1,517	1,408	1,315
Cost of sales	**(1,708)**	(1,233)	(1,197)	(1,114)
Depreciation	**(80)**	(62)	(67)	(58)
Operating income	**287**	222	144	143
Net financing expenses	**(27)**	(23)	(26)	(35)
Income before extraordinary items	**260**	199	118	108
Capital invested (average)	**1,077**	1,013	1,022	1,089
Return on capital invested %	**27**	22	15	13
Capital expenditure	**277**	146	60	85
Personnel (average)	**1,902**	1,520	1,585	1,590

NET SALES AND RESULT

As from the beginning of 1997 Tikkurila's business operations were reorganized into three units: Tikkurila Paints Oy (decorative paints), Tikkurila Coatings Oy (industrial coatings) and Tikkurila CPS Oy (colour processing systems).

Tikkurila's net sales grew by 37% in 1997 and were FIM 2,075 million (1996: FIM 1,517 million). Growth took place in all the business areas, with the colour processing system business showing the strongest growth. One reason for this was the acquisition of the Taotek group of Italy at the end of 1996.

Tikkurila's operating income was FIM 287 million (FIM 222 million), or 14% of net sales. The figure includes a total of FIM 15 million (FIM 65 million) of other income from operations.

MARKET SITUATION

Tikkurila Paints. Tikkurila Paints markets paint products to consumers and professional painters. Its market areas are Finland with its nearby areas and Eastern Europe. The company has production units in Finland, Estonia, Latvia and Russia. It furthermore has sales companies in Sweden, Lithuania and Hungary.

Sales of Tikkurila Paints' products developed positively outside Finland, particularly in Eastern Europe. To satisfy demand, the production of consumer paints was expanded by opening a new plant in St Petersburg.

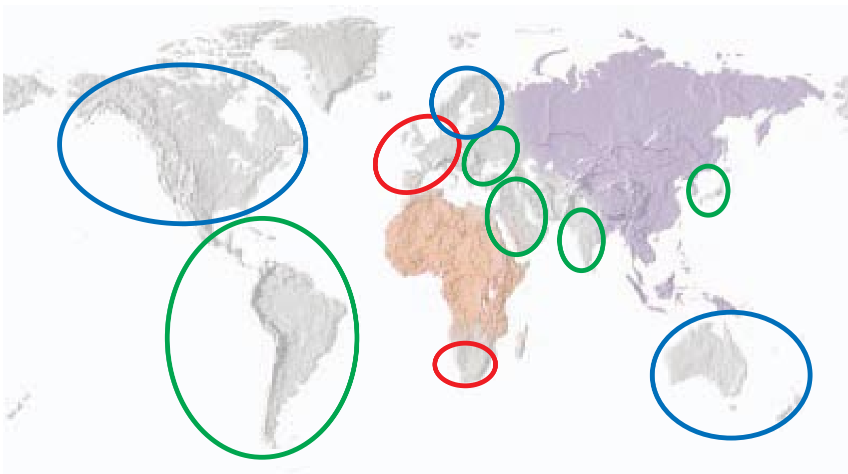
The sales and result posted by Baltic Color, which operates in the Baltic countries, continued to develop in line with expectations. The "Värvikool" painting school that was opened in Tallinn for customer training has awakened a good deal of positive interest.

In Finland construction has picked up considerably, but this did not yet show up in the demand for paints during the year under review. Tikkurila Paints expects demand to increase in 1998.

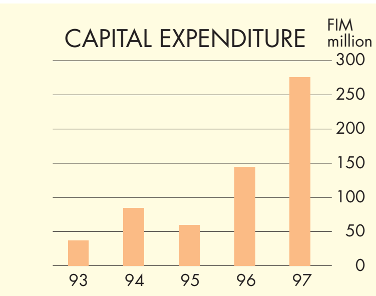
The most important innovation on Finland's decorative paint market was the bringing out of the Tikkurila-developed Monicolor Symphony tinting system, which is the world's most advanced of its kind. Monicolor Symphony brings significant advantages both

The Kärkistensalmi Bridge in Korpilahti, Finland, which became operational in August, is protected by Tikkurila anticorrosion paints. (Photograph: Lentokuva Vallas Oy)

TINTING SYSTEMS PENETRATION (DECORATIVE PAINTS)



Well established
Developing
Starting
Promising potential
In the future



to users of paint and to companies that sell paint.

Tikkurila Coatings. Tikkurila Coatings produces and markets paints and coatings to industry. Its market areas are Europe and the Far East. The company has production units in Finland, the UK, the Netherlands and Belgium. In addition, it has sales companies in Sweden, Estonia, Russia and Hungary.

Tikkurila Coatings further developed its distributor network in Eastern Europe and Russia. Sales of industrial paints and coatings were in line with expectations.

Tikkurila strengthened its position as a supplier of coil coatings when Tikkurila Coatings acquired the coil coating business of the Norwegian company Scanox A/S.

In Finland the recovery of industry from the recession was reflected by the strengthening in Tikkurila Coatings' market position. Another factor that contributed to this was the cooperation agreements that were concluded with customers with the aim to develop new, less environmentally taxing surface treatment for the needs of industry.

Tikkurila CPS. Tikkurila CPS is the world's leading supplier of advanced colour processing systems and its products are delivered to paint factories on all continents. The product range includes all the components of colour processing systems: colourants, machines, software and marketing material. The company has production units in the Netherlands, Australia, South Africa, Italy, Finland, Uruguay and the United States. In addition it has sales companies in Brazil and Hong Kong.

Sales of colour processing systems continued to grow during 1997. Deliveries to the paint industry increased strongly. To satisfy the growing interest, Tikkurila CPS beefed up its network of representatives and moved part of its production closer to customers on different continents.

The long years of work on the Asian market have begun to produce results. Deliveries connected with the launching of colour processing systems have been made to nearly all the countries of Asia.

The acquisition of the Taotek group enabled Tikkurila to diversify its product range. Tikkurila now also has its own tinting machine and colour card production so that it is in a better position to supply tinting systems that are tailored to customer needs.

CAPITAL EXPENDITURE

During 1997 Tikkurila CPS started the production of colourants at three new plants: in Vantaa (Finland), Sydney (Australia) and Philadelphia (USA). Winter-Bouts B.V. began building an extension to its colourant plant in Sittard, the Netherlands. When completed, the extension will more than double the unit's production capacity.

Taotek began the production of tinting machines at a new factory in Italy and in the United States.

Tikkurila Paints' new production and office facilities were completed in St Petersburg, Russia, during 1997.

PERSONNEL

Tikkurila had a payroll of 1,894 people at the end of 1997, or 207 more than in the previous year. The number of employees working in Finland was 873.

The silky matte Eko-Joker indoor paint, manufactured by Tikkurila Paints, received the EU's official ecoproduct label in March 1997, becoming the first Finnish product to gain this recognition. (Photograph: Tikkurila Paints archives)

RESEARCH AND DEVELOPMENT

The reduction of VOC emissions occupied a central place in Tikkurila's product development. New waterborne products and high-solids products were developed for painting the products of the metal industry as well as for painting machines and equipment. The use of waterborne products has increased within the woodworking industry and Tikkurila Coatings brought out on the market waterborne and UV-cured lacquers and paints.

The new Monicolor Symphony tinting system that was developed to comply with the increasingly stringent occupational health and environmental requirements in the next decade was brought out on Finland's decorative paints market. The system makes use of two base paints instead of the previous five, and 12 of its 16 colourants are completely solvent-free.

Tikkurila Paints' solvent-free Eko-Joker interior paint was the first Finnish product to receive the right to use the EU's environmental label.

OUTLOOK FOR THE FUTURE

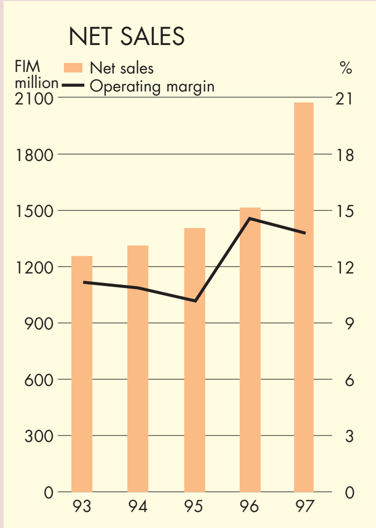
Following the reorganization that was carried out at the beginning of 1997, each business area will be able to develop its operations more consistently than up to now and to expand its markets in accordance with the strategy it has mapped out.

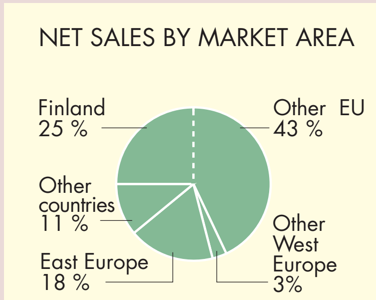
Sales of colour processing systems will continue to grow. The use of tinting will continue to spread in Europe and South America, and there are promising new market areas in Asia and elsewhere. Production investments and acquisitions will further strengthen Tikkurila's position in the different sectors of the colour processing business and improve its global customer service.

The good trend in sales of decorative paints is likely to continue in all the market areas. Competition will be keener because growing demand will draw new companies into Tikkurila's markets, particularly in Finland's nearby areas and in Eastern Europe.

The favourable sales trend for industrial coatings will also continue. Additional growth will mainly come from outside Finland.

Tikkurila's result is expected to remain good.





MANAGEMENT

Tikkurila Oy
President: Raimo Piironen

Tikkurila Coatings Oy
President: Tapio Käär

Tikkurila CPS Oy
President: Raimo Piironen
Vice President: Vesa Aulanko

Tikkurila Paints Oy
President: Visa Pekkarinen
Vice President: Per-Olof Palin

Tikkurila Services Oy
President: Tom Nurmi

Raimo Piironen

OTHERS

KEMIRA METALKAT

Kemira Metalkat's net sales were up 35% on the previous year and totalled FIM 154 million (1996: FIM 114 million). A good part of the growth was attributable to deliveries to new customers in Poland and Brazil. Operating income increased by FIM 1 million on the previous year. The result was weakened by a FIM 9 million one-time write-down. Capital expenditures amounted to FIM 8 million.

R&D played a clearly more prominent role in marketing and business development because the automotive industry's purchasing activities have become global in recent years and this calls for extensive cooperation between suppliers and the manufacturer.

During the report year Metalkat's factory in Vihtavuori was awarded a quality certificate according to the QS 9000 standard.

The payroll at the end of the year was 199 people (1996: 157 people).

1998 has started off well for the catalytic converter business and Kemira Metalkat's result is expected to be on a par with last year.

KEMIRA SAFETY

Kemira Safety posted only a satisfactory result in 1997. Net sales were FIM 71 million, as against FIM 85 million a year earlier. The fall in net sales was due to smaller volumes of protective mask sales in Finland. Exports to Scandinavia grew slightly, whereas exports to Central Europe increased significantly. There was strong growth in the UK, France and Germany, and growth is expected to continue in the current year. Operating income was FIM 5 million, compared with FIM 10 million in 1996. Capital expenditures amounted to FIM 6 million.

Of the three main product groups, the sales volumes of protective masks declined. The two other product groups, filters and battery-powered ProFlow power packs, however, increased their market share in all the main markets. In volume terms, the growth in sales exceeded 30% in both product groups. It appears that their brisk growth pace will continue in the current year. Sales of protective masks are also expected to head upward.

The most important capital expenditures went for new products and information technology. Towards the end of the year a new generation of power-assisted respirators, ProFlow, was introduced. The product will round out the Autoflow product family and strengthen the respirator product group, which is enjoying strong growth in its existing product lines.

The number of personnel at the end of the year was 96 (105).

The main market is still Western Europe, where market share can be increased by means of a strong product palette, short delivery times and dependable deliveries. The result is expected to improve over the present level.

KEMIRA OYJ

Kemira Oyj comprises Group management and administration as well as certain service functions. Kemira Oyj's net sales consist of the sale of electricity to the Group's companies in Finland and to outside companies. Net sales for 1997 were FIM 197 million (FIM 214 million), of which 60% came from outside the Group.

The parent company's paramount task is the Group's strategic management. It sets objectives for the Group and the subsidiaries, defines operating principles and contributes to exploiting the Group's internal synergies. In addition to the energy business, the parent company handles the Group's financing and certain other headquarters service functions.

Kemira Oyj employed 137 people at the end of the year (135).

INTRODUCTION AND PURPOSE

The fifth environmental report of the Kemira Group continues our chosen reporting policy of providing our interest groups with a compact and factual environmental disclosure every year. The report therefore focuses on the most important environmental changes that took place at the Group companies in 1997. By sticking to a consistant report format and structure, we hope to give our readers a convenient way of monitoring Kemira's environmental progress.

The report also contains information on environmental investments, operating costs, liabilities and risks. From this perspective it is significant that since the report for 1993 the reporting as a whole has been subject to external verification, as described in the statement at the end of this report.

This report follows the very recent guidelines of the European Commission[1]and the voluntary guidelines in the European chemical industry[2]. The environmental report deals with Kemira Group companies in line with the consolidation policy adopted in financial reporting[3].

SUMMARY

Kemira's environmental performance continued to make gradual progress in 1997. Although the Group's net sales increased, most of the important releases into air and water diminished further (see Fig. 1). This change is partly explained by the Group's divestment of the viscose business.

Capital expenditure on environmental protection decreased by 40% from the previous year. A slight but steady rise of the environmental operating costs continued.

Sales of environment-related products amounted to FIM 1,370 million, up 3% on the previous year, or approximately 8% on a comparable basis.

Although the accident rate fell by 30%, two employees died in regrettable accidents at the production plants in Belgium and Holland.

Further steps were taken in putting in place voluntary environmental management systems, and Kemira Oyj again achieved an award for good environmental reporting in Finland.

ENVIRONMENTAL POLICY AND MANAGEMENT SYSTEMS

At the Group level, the environmental commitment and policy remained unchanged[4]. Detailed check-lists on environmental due diligence and site assessment procedures were prepared and launched to support the Group companies in their business transactions.

Kemwater, the water chemicals business unit of Kemira Chemicals Oy, obtained ISO 14001 certification for the plants in Helsingborg, Sweden and Esbjerg, Denmark. The objective is to get the EMAS registration for the whole site in Helsingborg in the near future. In addition, work towards ISO 14001 is being done at many other Kemira Chemicals' plants.

After obtaining the ISO 14001 certification at the Pori plants in Finland in December, 1996, Kemira Pigments started integrating safety into the existing quality and environmental management systems.

ENVIRONMENTAL PROTECTION AT THE PRODUCTION PLANTS

Kemira Chemicals. At Kemira Kemi AB, Helsingborg, Sweden, environmental releases from the new hydrogen peroxide plant are low and well below the levels set in the permit. A recovery plant for carbon dioxide – owned and operated by Air Liquide – also came on stream, reducing greenhouse gas emissions from the dicalcium phosphate production. Technical improvements were made in dust filtration and noise abatement.

The Kemwater business unit operates more than thirty water treatment chemical plants around the world. Recycling of pickling liquor as a secondary raw

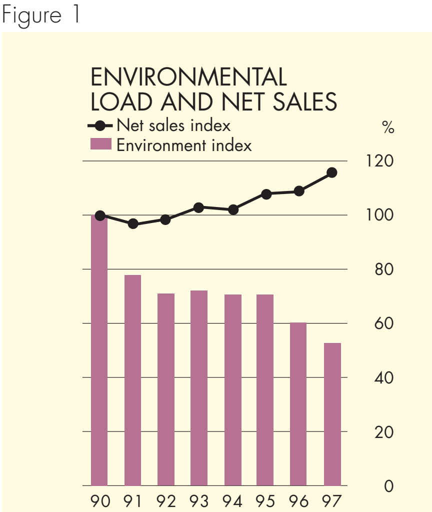
[1] "Interpretative Communication of Certain Articles in the Fourth and Seventh Accounting Directives". European Commission, 98/C 16/04. See also" Environmental Issues in Financial Reporting". Accounting Advisory Forum (AAF) of the European Commission. Draft, 1995.

[2] CEFIC (European Chemical Industry Council) Guidelines on Environmental Reporting for the European Chemical Industry, 1993. A revision of this document is expected in 1998.

[3] Except for the exclusion of Kemira Fibres Oy, which was sold during the year. If associated companies are taken into account, the Group has production at about 80 sites all over the world. The subsidiary sites do not include big industrial complexes or other major sources of emissions. The two most important joint ventures excluded in 1997 were SECO S.A., a medium-sized fertilizer joint venture in France, and Kemira-UBE Ltd., a 50/50 joint hydrogen peroxide plant in Japan.

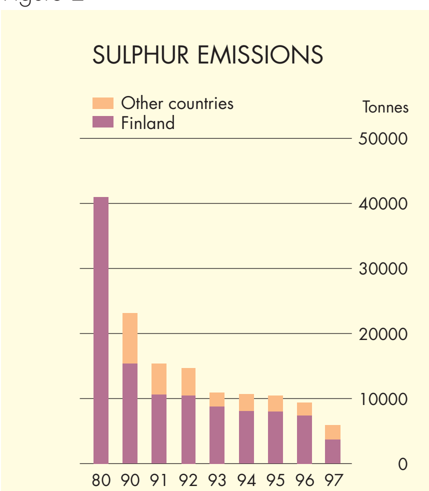
[4] Since Kemira Oyj is a strategically managed holding company, it does not set operative or quantitative environmental targets for the Group as a whole. Continuous changes in the business portfolio make the use of such targets extremely difficult. The Group environment policy, which has been in place since 1994, contains several minimum requirements and procedures in respect of the companies and their sites.

Figure 1



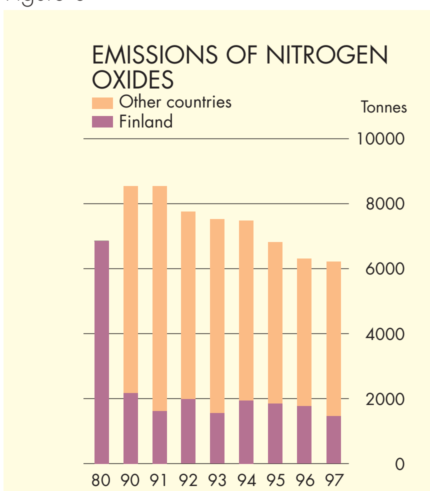
The environment index consists of seven different releases and of non-hazardous waste.

Figure 2



All sulphur compounds calculated as SO_2.

Figure 3



NO and NO_2 calculated as NO_2.

material in coagulant production increased. Total renovation of the Kvarntorp plant for this purpose represented the biggest single step (FIM 25 million). At Fredriksstad, Norway, chlorine was replaced by oxygen as an oxidizing agent. Improved gas scrubbers and recovery systems were placed in use at four plants, while some others improved their spill control systems.

At Kemira Chemicals B.V., Rozenburg, recycling of aluminum oxide waste from hydrogen peroxide production increased, and a new environmental permit was obtained.

At the Oulu plants in Finland, discharges of nitrogen into water diminished as a result of stopping the production of concentrated nitrogen solutions. At the Siilinjärvi plants and mine, releases into air and water remained low in spite of the record production of phosphoric acid. Important waste management and waste water permits are pending.

The Vaasa plant reduced waste water discharges further, and minimized the generation of hazardous wastes. At the Kokkola plants, all-time-low emissions of sulphur dioxide were achieved in sulphuric acid production.

Kemira Pigments. Kemira Pigments Inc., Savannah, installed and began operating a new waste water settling pond dredge and filter press in October. The capital expenditure was USD 1.5 million. The company's permit to use ground water was renewed without significant alterations.

At the Pori plants in Finland, the waste water treatment plant became operational in January. The waste water has been made practically harmless to the environment thanks to this last, major phase of the investment programme. The authorities indicated that they will remove the site from their hot spot list of the biggest point sources of Baltic Sea pollution. The renewal of reactor gas scrubbers at one production unit was completed in September. A drying unit for neutralization sludge was constructed to enable recycling of this new waste stream. A permit for future final disposal of neutralization sludge was also obtained.

Kemira Pigments B.V., Botlek, the Netherlands, made significant improvements in the recycling and immobilization of solid and liquid wastes. Discharges of nickel were reduced and they were in compliance with the authority limits.

Kemira Agro. At the Uusikaupunki plants in Finland, the overall nutrient releases into the local environment diminished slightly. Management of nitrogen-containing waste water and run-off water will be a primary focus over the next years. Sea water quality near the phosphogypsum pile is approaching background levels. The isolated pile has also developed into an important 'ecological pilot' area, where the flora and birds are subject to continuous studies, and even many rare species occur frequently.

At the Harjavalta plants, sulphuric acid and sulphur dioxide storage safety was upgraded as well as systems for dust filtration and nutrient loss control. Odours from the production of organo-mineral fertilizers diminished significantly due to changes in raw materials and equipment.

Kemira Danmark A/S completed a HAZOP safety and risk assessment for the whole Fredericia site as a part of the environmental permit procedure. An on-line ammonia analyzer was installed to optimize the municipal treatment of the plant's waste waters. The production activities at Nørresundby will be stopped during 1998.

The environmental situation was stable at Kemira Ince in Chester, UK, after emission reductions reported last year. The plant obtained a very good rating in an external safety audit.

Kemira S.A./N.V. improved recycling of condensates and cooling water management at its Tertre plants in southern Belgium. Additional soil surveys are progressing in Tertre and Willebroek.

Kemira Agro Pernis B.V. made several improvements for reducing ammonia and dust emissions from the NPK and AN fertilizer production. On the other hand, the discharges of gypsum and associated phosphorus were somewhat higher than in 1996, mostly due to increased production of phosphoric acid. Project studies of the markets and technologies for recycling phosphogypsum continued. In addition, the demolition of closed sulphuric acid and urea plants proceeded. The site environmental permit was postponed to be applied simultaneously with the Company Environmental Plan (1998–2001), and the permits for discharging waste water and radioactive elements are also pending.

Kemira Agro Rozenburg B.V., Holland, is constructing gas scrubbers for CAN production to lower ammonia emissions. The plant also improved sewer systems, removed underground oil tanks and installed low-noise fans. Preparatory surveys were conducted for

Figure 4

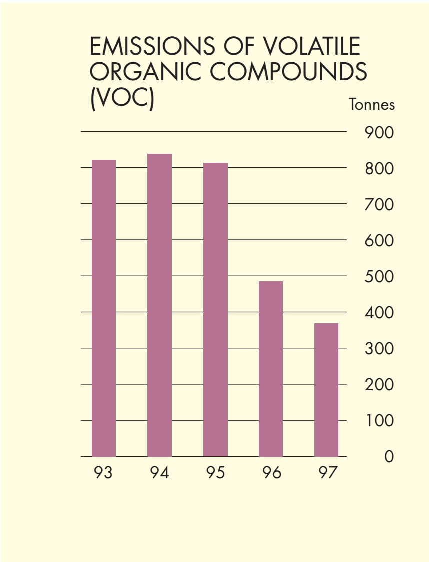


Figure 5

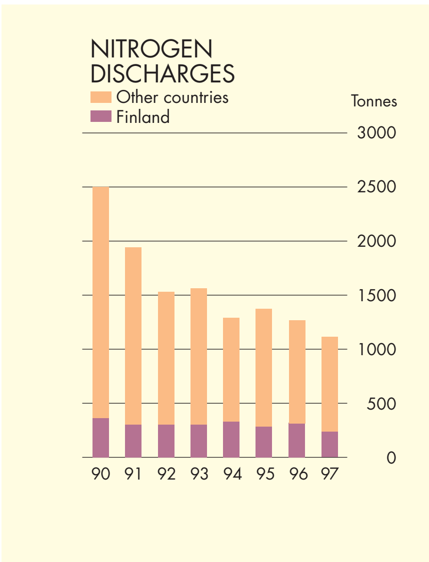
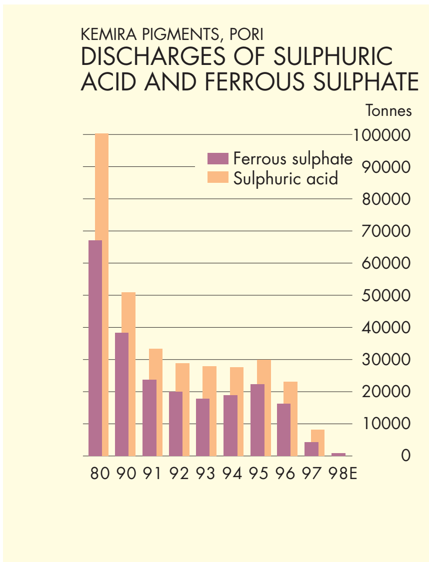


Figure 6



reducing the emissions of dust and nitrogen oxides, as well as for upgrading the unloading and storage tank areas.

Tikkurila. Tikkurila CPS Oy established three new production units (Australia, Finland, USA). These have been built according to good environmental standards. Within Tikkurila Coatings, structural changes continued to concentrate the production in the UK at two plants.

At the main site in Finland, Tikkurila Oy continued environmental projects according to the targets and action plans set out in the company's EHS programme. Special attention was given to the pretreatment of waste waters from the production of waterborne paints, especially to diminish the amounts of zinc.

Kemira Fibres. This business was sold in June 1997. See later chapters for some additional details.

PRODUCT DEVELOPMENT[5] AND ENVIRONMENT BUSINESS

Kemira is well established in green chemicals and some other sectors of the environmental business[6]. The Group's sales of environment- and safety-related products and services totaled approximately FIM 1,370 million in 1997 (see Figure 12). Despite the divestment of some of the businesses included in this category, growth on the previous year was 3%. On a comparable basis, the growth figure would be about 8%. The increase was mainly due to the higher sales of Kemwater and Kemira Metalkat Oy. The green business now accounts for 10% of Group net sales, after a period of continuous growth for five consecutive years.

At Kemira Chemicals, the globalization of the Kemwater business unit continued, especially outside Western Europe, with Brazil, Thailand, Philippines, Romania and Italy as the latest expansions. Kemwater Solid PAX products is a new family of specialty prepolymerized coagulants, which have many benefits, including reduced dosage and sludge quantities. KREPRO is a technological innovation of Kemwater and a novel concept for selected recycling and treatment of municipal sewage sludge. During 1997, KREPRO was developed to the commercial stage following intensive pilot studies in Sweden.

New plants for producing peracetic acid and sodium percarbonate came on stream in Finland and Sweden. Both are environmentally benign products. The Pulp and Paper business unit also continued substantial R&D efforts to develop other environment-driven products and services.

Good progress was also made in the sales of environmental equipment, showing an increase of 19%. This was mainly due to sales of catalytic converters, which rose by one third. The market for waste-derived products was rather stagnant.

Kemira Agro modified the fertilizer portfolio to help its customers deal with the environmental incentive conditions of agriculture in the EU. Sales of industrial chemicals for environmental applications increased. A novel application is the use for pure fertilizer liquids to speed up the microbial, on-site bioremediation of contaminated soils.

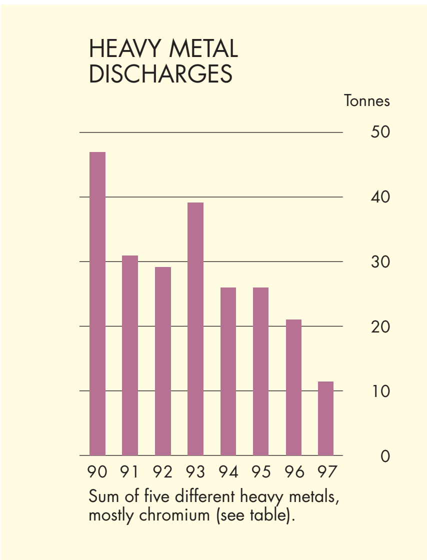
The Horticulture business unit expanded the sales of forest applications and introduced a new Kemifix product in the autumn. This is a methyleneurea based slow-release product for improving the microbial activity of forest soil and for minimizing nitrogen leaching into the environment. The markets for the biocontrol products Mycostop, GlioMix and Rotstop expanded, and development of other microbial products continued.

The indoor paint Eko-Jokeri by Tikkurila Paints was the first Finnish product to obtain the Eco-label of the European Union. Most of Tikkurila's indoor paints are now ranked by the construction authorities the best emission class. Tikkurila CPS brought solvent-free colorants out on the market. The Monicolor Symphony product line, for example, contains a completely solvent-free alternative, with most of the constituent chemicals also replaced by less hazardous ones. Tikkurila Coatings launched several new waterborne coating products for the metal and woodworking industries. In Europe, growth of the market for solvent-free coatings depends largely on the implementation of the the European Union's VOC-directive.

[5] Apart from products discussed here, Kemira makes substantial outlays on environment-oriented R&D in all its businesses. It is impossible to calculate their amount exactly, and these figures are not included in the environmental costs given in this report.

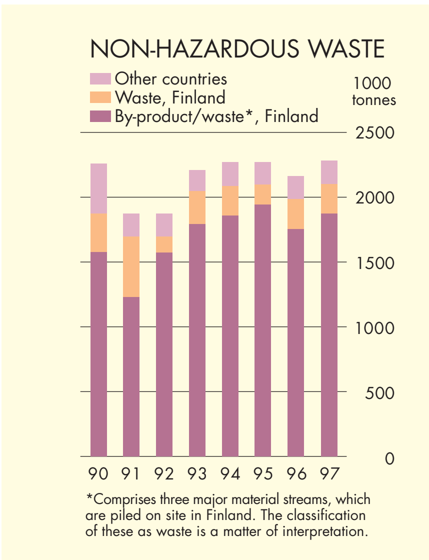
[6] There is no internationally agreed definition of these products, which are commonly referred to as environmental business. (Sometimes the term environmental technology is used as a synonym, but it represents a much narrower branch of business).

Figure 7



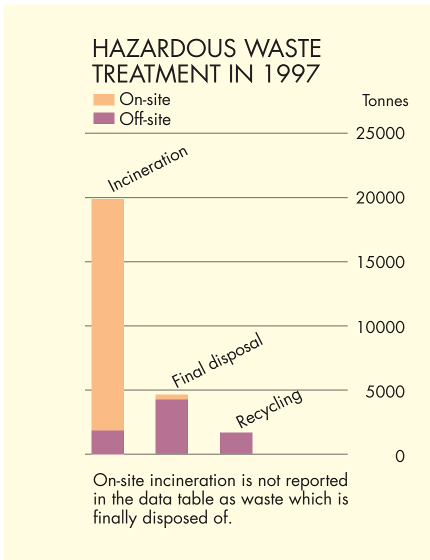
Sum of five different heavy metals, mostly chromium (see table).

Figure 8



*Comprises three major material streams, which are piled on site in Finland. The classification of these as waste is a matter of interpretation.

Figure 9



On-site incineration is not reported in the data table as waste which is finally disposed of.

DATA[7] ON ENVIRONMENTAL RELEASES, WASTE, ENERGY AND SAFETY

The Kemira Group companies now operate about 70 production sites in 28 countries, excluding associated companies. Since 1990, the Group environmental reporting system covers all major sites (16) and most of the smaller ones (39). From an environmental point of view, all important sources are involved (see footnote 3). For the reasons explained below, the data are not directly comparable with the previous year's figures.

The data are summarized in Table 1 and in Figures 1–12. The production volumes were somewhat higher than in 1996, which is also reflected in the slight growth in fuel and electricity consumption.

Apart from carbon dioxide emissions, all important releases into the air were again lower than before. This can be attributed to recent business divestments (SO_2, NO_2 dust and VOC), and improvements in gas cleaning (VIC-compounds, mostly consisting of ammonia).

Waste water discharges were also lower than in 1996, except for phosphorus and solids originating mainly from Kemira Agro Pernis B.V. The reduction is most striking in heavy metals, which is explained by the new treatment plant at Kemira Pigments, Pori.

The amounts of non-hazardous waste were slightly higher than in 1996 due to increased production, but generation of hazardous waste dropped by more than one half. As we have seen before, this indicator is very sensitive to year-to-year fluctuations, for instance, in the external disposal of contaminated soil and demolition wastes. But this year there were also some examples of successful waste minimization and recycling projects.

In summary, the value of the environmental index that was developed last year is six percentage points better than in the previous year. This corresponds to an improvement of 47% in environmental perfomance since 1990 (Figure 1). This trend represents the average of percentage changes in eight individual releases, taking 1990 as a baseline.

The change from 1996 is to a large extent explained by the Group's divestment of the viscose business. This business was the biggest single source (41%) of sulphur emissions within the Group, and also a major contributor to the discharges of oxygen consuming substances and zinc. If this change in the portfolio is excluded, the environmental index would still be three percentage units lower than in 1996. In addition, the Group's business volume has grown by about 7%.

ENVIRONMENTAL INVESTMENTS AND OPERATING COSTS

Environmental capital expenditures totaled FIM 110 million, down 40% on the previous year (Figure 10). The decrease was not unexpected, largely because big environmental projects were completed in the titanium dioxide business, where most of the capital has been employed recently. Environmental investments represented about 9% of all the investments made by the Group during the year. At present, there are no environmental investment projects in progress or pending which are significant at the Group level.

Environmental operating costs amounted to FIM 296 million. The increase on the previous year is 6%, mostly reflecting new costs incurred as a result of recent investments.

Overall environmental costs thus totaled FIM 406 million, or 2.8% of consolidated net sales.

ENVIRONMENTAL RISKS, LIABILITIES AND LEGAL ISSUES

Trends in environmental legislation

The year was benchmarked to the international Kyoto agreement for reducing global emissions of carbon dioxide and other greenhouse gases. If ratified and implemented, this agreement will have a significant effect on all industry especially in the developed countries. Many details remain to be clarified, but at least the joint implementation scheme will undoubtedly be a challenge, both for the committed nations and international companies. Kemira is not a particularly energy-intensive company, and most of the company's CO_2 emissions originate in the production of ammonia from natural gas. Here, the technological and commercial possibilities of the eventual recovery of CO_2 are better than in the production of energy from fossil fuels.

One of the major issues in the EU was environmental enlargement, or the environmental consequences of the

[7] The data in this report have been compiled from statistics from many sites and sources. Whilst every effort has been made to ensure that the information is neither incomplete nor misleading, it cannot be considered as reliable as the financial data published in the annual report.

Figure 10

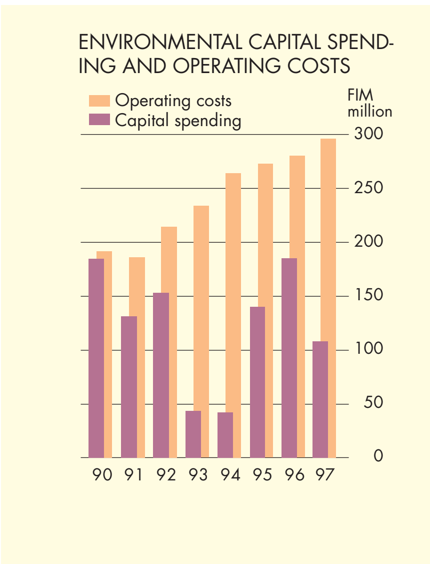


Figure 11

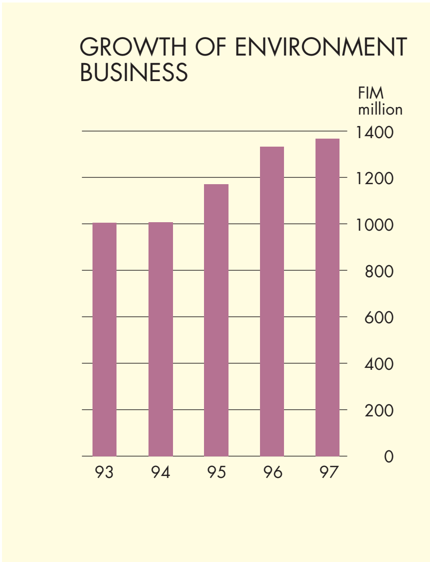
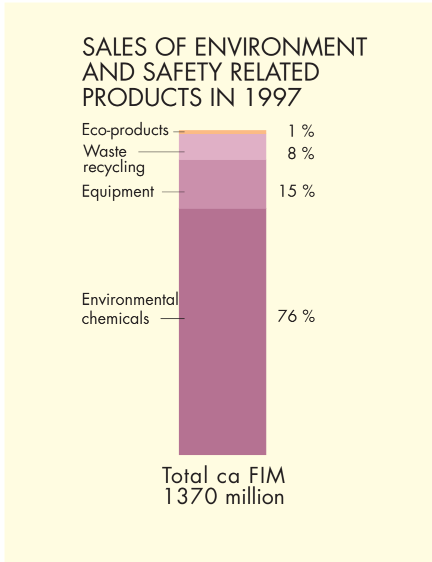


Figure 12



eastward extension of the Union. It is hoped that the increased presence of western companies, Kemira among them, in Central and Eastern Europe will help the new Member States in environmental upgrading, and in the approximation of their environmental legislation with that of the Union.

Many specific environmental regulations or directives came into force or are in the pipeline in the countries where the Group operates. To mention just two of them, the European Union's VOC- directive is not expected to have significant effects on Tikkurila's production units (or other Kemira units), but merely leads to a change in the product portfolio within the paint business. The second version of the landfill directive, still under preparation, will undoubtedly mean an upgrading or closure of many existing landfills in the EU. Kemira does not operate significant landfills in this respect, but in Finland, where a corresponding Council regulation came into force, storage of byproducts at two sites may be subject to new requirements in the future.

Compliance and permits

The production sites of the Group companies were in satisfactory overall compliance with the relevant environmental laws and permits. At those sites where periods of non-compliance were observed, the authorities are aware of the situation and corrective action has been initiated. Apart from notices and minor fines, there is no serious authority action pending against the company.

In addition, several new site-specific environmental permits or permit renewals came into force or are pending. These permits did not contain materially adverse requirements. At Kemira Agro Pernis B.V., the Netherlands, the ongoing permit procedures may have a significant negative effect on that particular business. The outcome of this case cannot yet be fully predicted, but management does not expect significant adverse financial effects for the Group as a whole. No significant difficulties were encountered in obtaining necessary permits to expand or continue industrial operations.

Accidents, occasional releases and damages

Several sites reported occasional releases or spills, but no significant environmental or public health impacts were observed. The Group companies paid a total of approximately 0,5 million FIM in compensation for damage, or as penalties.

The accident rate of the Group decreased by a sizable one third from the previous year (see table 1). However, one employee died of an accident on 30 May 1997 at Kemira S.A./N.V., Tertre, Belgium, when he fell from a cooling tower during maintenance work. The Kemira Group deeply regrets this loss of life.

As described in the previous report, an explosion took place at Kemira Pigments B.V., Rotterdam, the Netherlands, on 28 January 1997. The explosion, killing one and injuring two employees, was subject to extensive investigations by the authorities and experts. According to the final reports, the accident was caused by a hydrolysis reaction of chemicals and water in a vent line, leading to a violent pressure increase. Damage to equipment was significant and production stopped for three months. The explosion did not cause any harm to the public or damage to the environment.

Environmental liabilities

The Group has assessed environmental risks and liabilities related to past operations at all important Group-owned properties. Several complementary investigations and surveys were conducted to clarify the situation further.

The acquisitions completed during 1997 did not change the environmental liabilities substantially. Existing risks of such liabilities were reduced significantly by contractual means.

The Group's divestment of the viscose business, formerly Kemira Fibers Oy, was subject to an extensive environmental due diligence procedure. In the form agreed by the parties, the environmental liabilities remained in the sold company.

The Group makes provisions in its financial accounting for soil clean-up operations and corresponding decommissioning when the following conditions have been met:

1. The company has a legal or contractual obligation to undertake a clean-up, or
2. The company management has decided that a liability exists and is committed to remedial action, and
3. The amount of loss or debt has been reasonably estimated.

At present, such a requirement or commitment to undertake a limited clean-up exists at three sites, and appropriate provisions have been made. Remedial action or demolition were carried out at seven sites. The costs of current clean-up activities are reported as environmental operating costs (see above). The Group also continued to build up a reserve for unforeseen remediation costs.

Kemira Chemicals Oy, together with the environmental authorities, continued to assess alternative remediation technologies for the contaminated sediment of the small lake at Vaasa, in Finland. No new external requirements were presented in this case. The costs for Kemira of the potential remedial action cannot yet be estimated reasonably, but they are not anticipated to be material for the Group as a whole.

Legal cases

In the United States, the individual claims and the class action petition against Kemira Pigments Inc., Savannah, concerning environmental releases was ended during 1997. The Georgia State Court ruled in 1996 that it would not grant class certification to the plaintiffs in a class action law suit that was filed in March, 1994. During 1997, all of the individual plaintiffs voluntarily dismissed their law suits, or the suits have been rejected.

Environmental taxes and fees

Environmental taxes set by the authorities in various countries amounted to approximately FIM 56 million within the Group, calculated on a net basis. A rise of 12% from the previous year was mainly due to the heavier environmental taxation of energy and waste in Finland.

Increases in environmental taxation have been proposed in many of the countries where Group companies operate. Although the impact of the proposed taxes cannot be fully predicted, the costs are not expected to distort the competitive position of the Group.

ENVIRONMENTAL COMMUNICATION

Kemira Oyj received for the second time an award for good environmental reporting in Finland. Environmental issues were also extensively discussed in Group-published journals and on its web pages.

The Group companies and their business units publish several customer-oriented newsletters, which deal extensively with specific environmental issues. One example is the WaterNet, a Kemwater journal that is devoted to water purification.

Kemira's chemistry class at the Espoo Research Center in Finland has become very popular and also provides good environmental laboratory and testing facilities for numerous school classes and student groups.

ENVIRONMENTAL DATA FOR THE KEMIRA GROUP

	1990	1994	1995	1996	**1997**
Releases into water (tonnes)					
Chemical Oxygen Demand (COD)[1]	••	8,907	10,192	9,776	**5,616**
Nitrogen (N)	2,500	1,288	1,374	1,258	**1,121**
Phosphorus (P)[2]	4,952	1,796	1,703	1,717	**1,993**
Suspended solids, 1,000 tonnes[2]	934	739	783	795	**841**
Metals (Hg+Cd+Pb+Cr+As)[3]	49	26	26	21	**12**
Releases into air (tonnes)					
Particulates	1,950	1,536	1,762	1,504	**1,364**
Sulphur dioxide (SO_2)[4]	23,138	10,719	10,454	9,106	**5,765**
Nitrogen oxides (NO_2)[5]	8,546	7,481	6,814	6,345	**6,202**
Carbon dioxide (CO_2), 1,000 tonnes		••	3,540	3,445	**3,508**
Volatile organics (VOC)[6]	••	839	812	484	**369**
Volatile inorganics (VIC)[7]	••	6,555	4,503	4,305	**3,508**
Heavy metals[8]	••	<1	<1	<1	**<1**
Waste[9] (tonnes)					
Hazardous wastes, total	8,669	8,247	9,742	21,185	**8,135**
– Off-site landfill	••	3,892	5,111	12,105	**4,274**
– Off-site incineration	••	4,354	3,440	3,206	**1,845**
– On-site landfill	••	••	727	2,390	**362**
– Other treatment	••	••	464	3,484	**1,672**
Non-hazardous wastes, 1,000 tonnes	2,254	2,265	2,269	2,159	**2,308**
Natural resources					
Fuel consumption (TJ)[10]		••	76,000	73,600	**75,000**
Purchased electricity (TJ)		••	6,000	5,300	**5,500**
Total		••	82,000	78,900	**80,500**
Cooling water volume, million m^3, appr.		••	413*	407*	**399**
Waste water volume, million m^3, appr.		••	91*	86*	**78**
Safety					
Number of accidents[11] per million working hours		••	21,8	17,0	**13,6**
Reference data					
Group net sales, FIM million	12,406	12,690	13,284	13,471	**14,386**
Environmental capital expenditure	185	43	140	186	**110**
Environmental operating costs	192	263	272	280	**296**
Total environmental costs, % of net sales	3.0	2.4	3.1	3.5	**2.8**

1 Estimate. In this case, mainly caused by inorganic discharges, and hence not a very relevant parameter for the Group.
2 Originates mostly from phosphogypsum.
3 Mostly chromium (Cr^{3+}).
4 All sulphur compounds calculated as SO_2.
5 Nitric oxide and nitrogen dioxide calculated as NO_2.
6 VOC is a sum of volatile organic compounds.
7 Sum of ammonia, hydrogen chloride and six other simple inorganic compounds, mostly ammonia in this case.
8 Sum of Pb, Hg, Cd, Cr, As, Co, Ni.
9 Waste as defined in EU legislation. Does not include mining by-products, on-site incineration, waste which is further processed into products at the sites, or sold as a co-product to external recycling. Figures are on wet basis.
10 Terajoules, or 10^{12} Joules. Includes fuel as a raw material.
11 Accidents causing an employee absence of three or more days, including the day of incidence.
* These figures have been corrected on the basis of more accurate measurements.

VERIFICATION STATEMENT

Together with KPMG Environmental Advisers (UK), we have reviewed the basis of the "Kemira Group Environmental Report 1997". We have conducted our review based on the request of Kemira. The report is the responsibility of and has been approved by the Board of Directors of Kemira Oyj. The inherent limitations of completeness and accuracy of the data are set out in the report.

Our review has consisted of the following procedures:
– making enquiries of management responsible for compiling the report;
– an examination of relevant supporting information;
– review in more detail of the systems for gathering and reporting environmental data at operating level at one site outside Finland and one site in Finland, selected by us.

Based on our review we have satisfied ourselves that:
– the statements made in the report are supported by underlying information;
– the data have been properly collated from information provided by the sites;
– for the two sites visited, data have been properly extracted from their information systems;
– Kemira has made reasonable endeavours to give a fair and balanced disclosure of information on environmental performance, where material;
– the report is consistent with the CEFIC guidelines on environmental reporting for the European Chemical Industry and with the guidance on environmental matters in the European Commission interpretative communication concerning certain articles of the fourth and seventh Council Directives on accounting.

Helsinki, 17 February 1998

KPMG WIDERI OY AB

Hannu Niilekselä
Authorized Public Accountant

1997 IN BRIEF

January

• Kemira Pigments began Cooperation within Enterprises negotiations with the aim of improving the profitability of the Pori plant in Finland by lowering annual costs by FIM 100 million. Pigments announced that it would report a loss.

• Kemira Chemicals acquired the Italian water treatment chemicals manufacturer MARE WTS, thereby strengthening its market position in southern Europe.

• An explosion occurred at the Kemira Pigments titanium dioxide plant in Rotterdam during maintenance works. One person was killed in the accident and part of the plant came to a standstill for a few months.

March

• Tikkurila Coatings acquired the Norwegian Sanox A/S coil coating business. Coil coating is a method of painting steel sheet.

April

• Kemira continued to focus on its core businesses and sold the remaining 49.9% of its holding in Vihtavuori Oy to the Finnish state.

• The Annual General Meeting of Kemira Oy confirmed the Board of Directors' proposed dividend payout of FIM 1.6 per share, which corresponds to a dividend of 33.4% of the net income for the year.

June

• Kemira signed a DEM 825 million multicurrency revolving credit facility which will be used to repay the corresponding DEM 350 million loan that was signed in the previous year.

• An agreement was signed concerning the sale of Kemira Fibres' entire shares outstanding to the Indonesian company PT Inti Indorayon Utama. The sale of the viscose fibre business was an important step in developing the Group's production and balance sheet structure and will enable it to concentrate more on its core businesses.

• As part of the expansion of its water treatment business in South America, Kemira Chemicals acquired a majority holding in its Brazilian associated company Kemwater Brasil SA. The company's plans call for putting a new production plant into operation in São Paulo by the end of 1998, and prior to this it will build several ferrisulphate dissolving stations in Brazil.

• A decision was taken to modernize Kemira Agro's fertilizer plant in Uusikaupunki, Finland, by carrying out a FIM 90 million programme. The object of the investment is to boost product quality and production flexibility whilst improving cost-effectiveness.

• Production started up at the new Tikkurila CPS colourant plant in Vantaa.

August

• Kemira Agro signed a letter of intent with the Chinese company Zhanhua Enterprises Group concerning the establishment of a joint venture that will manufacture plant nutrients in southern China's Guangdong province.

• Kemira Agro and the Lithuanian company Lifosa signed an agreement on the establishment of a joint venture that will produce plant nutrients in Lithuania.

• Kemira Chemicals announced it was temporarily suspending the production of hydrogen peroxide on one of its two production lines in Oulu. The objective of the action was to optimize the cost structure and to bring hydrogen peroxide production capacity into balance with the market situation.

September

• Tikkurila CPS brought out on the market its newly developed Monicolor Symphony colour processing system for decorative paints.

• Tikkurila CPS decided to invest FIM 45 million to expand its colourant plant in the Netherlands.

• The new wastewater treatment plant at Kemira Pigments' Pori facility was inaugurated. The treatment plant is the last stage in a development programme that has resulted, practically speaking, in completely harmless waste water.

•The new Kemira Chemicals hydrogen peroxide plant was inaugurated in Helsingborg, Sweden.

• Kemira Agro decided to spend FIM 34 million on modernizing its specialty fertilizer plant in Fredericia, Denmark, and to discontinue the manufacture of PK fertilizers in Nørresundby in April 1998.

• Kemira Agro, Suomen Rehu Oy and Telecom Finland Oy established the logistics management and development company Movere Oy. The company optimizes goods flows to the industrial units of its owner companies and develops logistics cooperation with other sectors with the aim of realizing cost savings.

October

• Kemira Chemicals signed a cooperation agreement with the Russian chemicals company ZAO Polihim concerning the building of an aluminium sulphate dissolving station in St Petersburg. Aluminium sulphate is used in the treatment of drinking water.

• Malaysia-based Kuok and Kemira Agro decided to establish a company that will manufacture NPK plant nutrients in the vicinity of Kuala Lumpur.

• Kemira announced that the Finnish state was seeking authorizations from Parliament to lower the minimum limit of its holding in Kemira Oyj from 50.1% to one third.

November

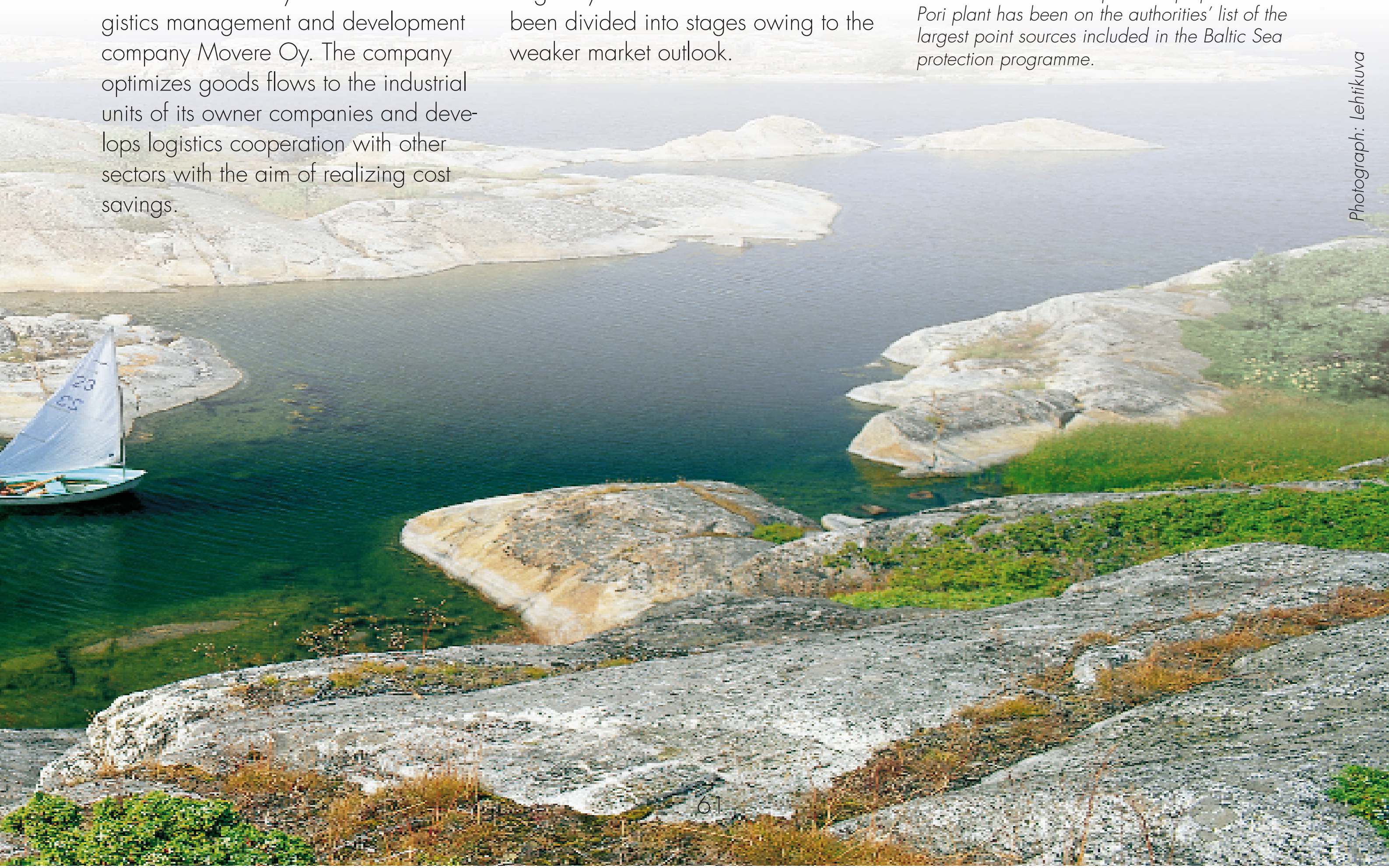
• Kemira Chemicals announced it was establishing a joint venture that will manufacture water treatment chemicals in Manila, the Philippines, together with the local Chemphil Group.

• Kemira Pigments announced that it would resume the FIM 400 million debottlenecking programme which was originally started in 1995 and had been divided into stages owing to the weaker market outlook.

December

• It was agreed with Partek Nordkalk that it would build a limestone grinding plant in the Kemira Chemicals plant area in Kokkola. Ground limestone is used as a raw material in making feed phosphate.

• Kemira Pigments and the German company Eckart-Werke agreed on the sale of the pearlescent pigments business to Eckart-Werke as from the beginning of 1998.



Improving the state of the shallow Baltic Sea will require the efforts of all the seaboard states. In many countries in Eastern Europe, the nutrient load can be reduced fastest and most economically by removing phosphorus and organic compounds from waste water by means of chemical coagulation. The waste water treatment plants in the Nordic countries are capable of recovering 95% of such phosphorus. Estonia and Poland are paying increasing attention to the purification of municipal waste water. Kemira Chemicals manufactures water treatment chemicals in both countries.
In 1997 the Kemira Pigments titanium dioxide plant in Pori placed in use a water treatment plant that has made the water discharged into the sea harmless for all practical purposes. The Pori plant has been on the authorities' list of the largest point sources included in the Baltic Sea protection programme.

Photograph: Lehtikuva

ADMINISTRATION

According to the Articles of Association of Kemira Oyj, the company's affairs are managed by a Supervisory Board, Board of Directors and managing director. The Annual General Meeting elects the Supervisory Board to a one-year term of office, at the same time electing one member as chairman and a maximum of two members as vice chairmen. The Supervisory Board selects the members of the Board of Directors annually and appoints its chairman and vice chairman. The Supervisory Board appoints the managing director to serve until further notice. The Board of Directors confirms the areas of responsibility of its members.

The task of the Supervisory Board is to oversee that the company's affairs are managed according to sound business principles and with a view to profitability. It also decides on matters concerning a considerable constriction or expansion of operations, and decides on instructions to be given to the Board of Directors concerning matters of wide-ranging import or which are important in principle. The emoluments of the Supervisory Board are decided by the Annual General Meeting. The emoluments and benefits of the members of the Board of Directors and the managing director are decided by the Supervisory Board.

SUPERVISORY BOARD

Timo Kalli, Chairman
Kari Rajamäki, Vice Chairman
Hanna Markkula-Kivisilta,
Vice Chairman
Helena Rissanen
Risto Ranki (33)*
Sirpa Hertell
Pekka Kainulainen
Mikko Långström (4 000)*
Niilo Pellonmaa (1 375)*

Staff representatives
(right of attendance and expression of views, no voting rights)
Pertti Kautto (215)*
Jorma Luukkonen (500)*
Oili Kuusjärvi
Jukka Virta (165)*
Tauno Korhonen

AUDITORS

KPMG Wideri Oy Ab
responsible auditor
Hannu Niilekselä
Authorized Public Accountant

* Number of Kemira shares owned.

BOARD OF DIRECTORS

Heimo Karinen
Born 1939, M.Sc.(eng.)
With Kemira since 1964
Chief Executive Officer,
Chairman of the Board since 1991

Oversees Kemira Chemicals, Kemira Pigments, corporate planning, business development, personnel and communications

Owns 3,702 Kemira shares and 160,000 options

Timo Mattila
Born 1943, Lic.Tech.
With Kemira since 1972
Executive Vice President since 1990
Vice Chairman of the Board since 1991

Oversees Kemira Safety, Kemira Metalkat, corporate R&D, environmental management and audit management

Owns 2,489 Kemira shares and 120,000 options

Juhani Kari
Born 1944, LL.M.
With Kemira since 1969
Member of the Board since 1990
Executive Vice President since 1995

Oversees Tikkurila and legal and insurance affairs

Owns 1,075 Kemira shares and 120,000 options

Esa Tirkkonen
Born 1949, M.Sc.(eng.)
With Kemira since 1974
Member of the Board since 1991
Executive Vice President since 1995

Oversees Kemira Agro, finance, treasury, energy and Group synergy

Owns 1,075 Kemira shares and 120,000 options

Leif Ekström
Born 1942, M.Sc.(econ.)
Member of the Board since 1994

Does not own Kemira shares

Sten-Olof Hansén
Born 1939, D.Sc.(econ.)
Member of the Board since 1994

Owns 605 Kemira shares

OTHER GROUP ADMINISTRATION

Raija Arasjärvi
Born 1957, M.Sc.(econ.)
Finance

Kari Autio
Born 1945, M.Sc.(eng.)
Business development

Kaj Friman
Born 1953, LL.M., B.Sc.(econ.)
Secretary to the Supervisory Board and Board of Directors
Treasury

Timo Leppä
Born 1957, M.Sc.(eng.), CEFA
Corporate planning

Orvo Rauma
Born 1940, B.Sc.(econ.)
Personnel

Aarno Salminen
Born 1956, M.A.
Environmental management

Botho Simolin
Born 1938
Group communications

Mikko Sivonen
Born 1941, M.Sc.(eng.)
Energy

MANAGEMENT OF THE CORE BUSINESS AREAS

Yrjö Sipilä
Born 1949, B.Sc.(econ.)
With Kemira since 1975
President of Kemira Chemicals Oy since 1990*

Risto Keränen
Born 1949, Lic.tech.
With Kemira since 1984
President of Kemira Pigments Oy since 1997

Tauno Pihlava
Born 1946, M.Sc.(eng.)
With Kemira since 1970
President of Kemira Agro Oy since 1994

Raimo Piironen
Born 1949, B.Sc.(econ.)
With Kemira since 1982
President of Tikkurila Oy since 1988

* Year of appointment as head of the division according to the previous organizational structure

BOARDS OF DIRECTORS OF THE PRINCIPAL SUBSIDIARIES IN 1997

KEMIRA CHEMICALS OY
Heimo Karinen
Timo Mattila
Juhani Kari
Yrjö Sipilä
Carsten Olsson (until 1 Nov.)

KEMIRA PIGMENTS OY
Heimo Karinen
Timo Mattila
Esa Tirkkonen
Kaj Friman
Risto Keränen
Risto Ojala

KEMIRA AGRO OY
Heimo Karinen
Esa Tirkkonen
Raija Arasjärvi
Tauno Pihlava
Timo Lainto
Rauno Valkonen

TIKKURILA OY
Juhani Kari
Esa Tirkkonen
Kaj Friman
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Arctos Securities Ltd
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GLOSSARY

Aluminium sulphate
Mainly used in the paper industry. Also used as a coagulant in water purification. It is generally made from aluminium hydroxide using sulphuric acid.

Ammonia
A basic chemical that is produced from natural gas and is mainly a nitrogen-containing raw material in fertilizers.

Ammonium nitrate (AN)
A nitrogen fertilizer.

Audit
A systematic, independent and documented inspection or evaluation in which operations are compared with given requirements or guidelines. An audit can be performed by an external party or by an internal expert.

Calcium ammonium nitrate (CAN)
An AN fertilizer to which ground limestone has been added in the manufacturing process.

Calcium chloride
An industrial salt that is made from limestone using hydrochloric acid. It has a variety of uses such as in dust binding on roads, oil drilling and applications in the food-processing industry.

CEFIC
The umbrella organization of the European Chemical industry (Confédération Européenne des Fédérations de l'Industrie Chimique).

Chemical Oxygen Demand (COD)
A quantity connected with waste waters. It mainly serves to measure the ability of organic substances to consume oxygen in water.

Coil coating
A method of coating metal sheets.

Compound fertilizer, complex fertilizer
A fertilizer that contains in every granule a number of elements that are essential for plants.

CPS
Colour Processing Systems.

Dicalcium phosphate (DCP)
A raw material for animal feed, manufactured from raw phosphate and limestone.

EHS
Environment, Health and Safety.

EMAS (Eco-Management and Audit Scheme)
An environmental management system that is based on a European Community regulation. Industrial companies can register for it voluntarily.

Environmental report
A company's public report that is free-form in terms of its content and deals with environmental issues connected with the company's operations. It is published either separately or as part of the Annual Report at discretionary intervals.

Environmental business
The sale of products and services that are used directly for environmental protection or are closely related to it.

Environmental chemical
A chemical that is used for environmental protection purposes or closely connected to it. For example, chemicals used in treating waste water.

Environmental disclosure
A yearly report by a company on the releases caused by its operations as well as their environmental impacts, liabilities, costs, legislative compliance and other related environmental issues of major importance. It is becoming an increasingly integral part of the financial reporting.

Environmental management system
A company's regular, documented description of how it acts in managing environmental affairs. The main components are the drawing up of an environmental policy, the setting and measuring of objectives as well as auditing.

Environmental technology
Equipment used for environmental protection purposes.

Ferix
A granular iron sulphate, a water treatment chemical.

Ferrous sulphate
An iron-based water treatment chemical or a raw material used in such chemicals. It is generated as a byproduct in the manufacture of titanium dioxide pigment. Also used in feeds.

Formamide
A solvent and raw material used in the chemical and pharmaceutical industries, a derivative of formic acid.

Formic acid
Manufactured from carbon monoxide and methanol. Mainly used in silage additives as well as in the textile, pharmaceutical and rubber industries.

Greenhouse gases
Gases that promote heating of the atmosphere, the most important of which are carbon dioxide, methane and laughing gas (nitrous oxide).

HAZOP
A risk analysis method that is used in the process industry to improve working methods and the technical safety of equipment.

Hydrogen peroxide (H_2O_2)
A reactive oxygen chemical that is used especially in the environmentally sound bleaching of pulp, and also as a disinfectant and in environmental applications. Its raw materials are hydrogen and the oxygen found in air.

IFA
International Fertilizer Industry Association

Ilmenite
The raw material of titanium dioxide pigment, an ore which has a relatively low concentration of titanium.

ISO
The international Standards Organization.

ISO 14001
An international standard that defines the requirements of an environmental management system. A company or institution that complies with the requirements can obtain a certificate according to the standard.

KREPRO
The Kemwater Recycling Process separates metals, heavy metals, phosphorus and carbon out from waste water sludge and recirculates them for useful purposes.

LORIS (KEMIRA LORIS)
Local Resource Information System) A satellite-controlled precision farming system.

Methylene urea
A slow-acting nitrogen fertilizer.

Monocalcium phosphate (MCP)
A feed raw material that is manufactured using limestone and pure phosphoric acid.

Nitric acid
A basic chemical that is made from ammonia by catalytic combustion. An important intermediate in fertilizer manufacture.

Nitrogen oxides
Mainly nitrogen monoxide (NO) and nitrogen dioxide (NO2). Nitrogen gases that are formed as emissions in combustion and, for example, in the manufacture of nitric acid. Nitric oxides cause acidification and impairs air quality.

Nitrogen (N)
An element that is essential for the growth of plants.

NK fertilizer
Fertilizer containing nitrogen and potassium.

NPK fertilizer
A compound fertilizer containing nitrogen, phosphorus and potassium as its main nutrients. A number of trace elements can also be added to it.

Peracetic acid
A reactive acid chemical that is used in the environmentally sound bleaching of pulp.

Phosphate
A phosphorus compound which occurs in natural ores and is used as a raw material in fertilizers, animal feeds and detergents.

Phosphogypsum
A gypsum that is formed as a byproduct in the manufacture of phosphoric acid.

Phosphoric acid
An acid that is manufactured from phosphate concentrate using sulphuric acid and is used as a raw material in products such as compound fertilizers, feed phosphates, detergents and processed foods.

Phosphorus (P)
An element that is essential for life. One of the three main nutrients in fertilizers. It is obtained by processing phosphate-containing ores.

Pickling liquor
An acidic solution that is used to surface coat metals.

PK fertilizer
Fertilizer containing phosphorus and potassium.

Polyaluminium chloride
A chemical coagulant that is used in the treatment of drinking water and waste water.

Potassium (K)
An element. One of the three main nutrients in compound fertilizers. It is excavated mainly in salt mines in the form of potassium chloride.

Potassium nitrate
A nitrogen and potassium fertilizer that is used in horticulture.

Responsible Care (RC)
The chemical industry's voluntary, worldwide environmental and safety programme.

Rutile ore
A raw material in titanium dioxide pigment. It contains a large amount of titanium dioxide.

Sodium percarbonate
A raw material in detergents. It is made from soda using hydrogen peroxide.

Straight fertilizer
A fertilizer containing one plant nutrient.

Sulphur dioxide
An industrial gas which is used mainly by the forest industry and is manufactured, for example, by burning elementary sulphur or by means of its recovery from process gases. It is also an acidification-causing emission that is produced when sulphur-containing fuels are burnt.

Sulphuric acid
A widely used basic chemical that is produced from sulphur dioxide gas. The raw gas is obtained from the roasting of certain ores, or by burning elementary sulphur.

Tinting system
A method of producing coloured paint. The system comprises (base paints,) tinting colourants, tinting formulae, dispensing machines, shakers, colour matching systems, PC software, and colour cards.

TiO_2
Titanium dioxide

Titanium dioxide pigment
A white pigment. An important raw material in the manufacture of paint, paper, plastics and printing ink. It is manufactured from titanium-containing ores and slag in a complex process involving the use of sulphuric acid or chlorine and numerous auxiliary chemicals. The methods of manufacture are the sulphate process and the chloride process.

Ultrafine TiO_2
A very fine crystal titanium dioxide that is invisible in the product application and protects against UV radiation.

Urea
A single-nutrient fertilizer that contains a large amount of nitrogen and is manufactured from ammonia and carbon dioxide. It is also used in resin adhosives.

UC cured product
Lacquer of paint cured by ultraviolet radiation.

Water chemical
A chemical used in treating water.

VIC (Volatile Inorganic Compounds)
These compounds include ammonia, chlorine and fluorine that are formed as emissions mainly from the processes of the basic inorganic industries.

VOC (Volatile Organic Compounds)
These compounds are mainly solvents which in normal conditions evaporate into the air, notably with effects on the generation of ozone.

GROUP COMPANIES

31 January 1998

Company	Group holding %	Country	
Kemira Oyj		Finland	
Kemira Chemicals Oy	100	Finland	■
Kemira Kemi AB	100	Sweden	■
Kemira Chimie S.A.	100	France	■
Kemira Chemicals AS	100	Norway	■
Kemwater Cristal S.A.	55	Rumania	■
Alchim S.R.L.	55	Rumania	■
Societatea Comercala Chimbis S.A.	43	Rumania	■
Kemira Miljö A/S	100	Denmark	■
Scandinavian Silver Eel AB	100	Sweden	■
Aliada Quimica S.A.	100	Spain	●
Kemira Ibérica S.A.	100	Spain	■
Kemira Ibérica Internacional S.L.	100	Spain	●
Aliada Quimica de Portugal Lda.	74	Portugal	■
Kemira Chimica S.p.A.	100	Italy	■
Kemifloc a.s.	51	Czech Republic	■
Kemwater Närke AB	92	Sweden	■
Kemipol Sp.z.o.o.	51	Poland	■
Kemira Kopparverket KB	100	Sweden	●
Ahlbo Kemi AB	100	Sweden	●
Kemwater Brasil S.A.	51	Brazil	■
Kemira Fine Chemicals Oy	100	Finland	■
Kemira Chemicals (UK) Ltd	100	United Kingdom	▲
Kemira Chemie GmbH	100	Germany	▲
Kemira Chemie Ges.mbH	100	Austria	▲
Kemira Chem Holding B.V.	100	The Netherlands	●
Kemira Chemicals B.V.	100	The Netherlands	■
Prospector B.V.	100	The Netherlands	●
Kemwater B.V.	100	The Netherlands	■
Kemira Kemax B.V.	100	The Netherlands	●
Kemira Chemicals Inc.	100	United States	●
Kemira Paper Chemicals Inc.	100	United States	▲
Kemira Paper Chemicals Canada Inc.	100	Canada	▲
Kaanaan Ruskorae Oy	100	Finland	■
AS Kemivesi	50	Estonia	■
Kemwater (Thailand) Ltd	49	Thailand	■
Kemira Pigments Oy	100	Finland	■
Kemira Holdings Inc.	100	United States	●
Kemira Pigments Inc.	100	United States	■
Kemira Pigments AB	100	Sweden	▲
Kemira Pigments Kereskedelmi KFT	100	Hungary	▲
Kemira Pigments Holding B.V.	100	The Netherlands	●
Kemira Pigments B.V.	100	The Netherlands	■
Kemira Pigmente GmbH	100	Germany	▲
Kemira Services Holland B.V.	100	The Netherlands	□
Kemira International Finance B.V.	100	The Netherlands	□
Kemira Agro Rozenburg B.V.	100	The Netherlands	■
Kemira Agro Pernis B.V.	100	The Netherlands	■
Kemira Finance B.V.	100	The Netherlands	●
Kemira International Services S.A.	100	Belgium	□
Kemira Pigments S.A. [1]	100	Belgium	▲
Kemira Pigments Asia Pacific Pte. Ltd.	100	Singapore	▲
Kemira Agro Oy	100	Finland	■
Kemira Agro Holdings Ltd	100	United Kingdom	●
Kemira Agro U.K. Ltd	100	United Kingdom	■
Kemira Ltd	100	United Kingdom	■
Kemira N.I. Ltd	100	United Kingdom	■
Kemira Ireland Ltd	100	Ireland	▲
Kemira Danmark A/S	100	Denmark	■
Kemira S.A./N.V.	100	Belgium	■
Battaille S.A.	100	Belgium	■
Engrais Battaille S.A.	100	Belgium	■
Kemira Engrais S.A.	100	France	▲
Kemira Agro Holding B.V.	100	The Netherlands	●

■ = production
▲ = marketing
● = holding
□ = service

■ Kemira Chemicals
■ Kemira Pigments
■ Kemira Agro
■ Tikkurila
■ Other

Kemira B.V.	100	The Netherlands	●
Multirange B.V.	100	The Netherlands	□
Kemira Pernis B.V.	100	The Netherlands	●
Kencica Speciaal Meststoffen B.V.	100	The Netherlands	▲
Kemira Deutschland GmbH	100	Germany	▲
Comercial de Fertilizantes Liquidos S.A.	50	Spain	▲
Viljavuuspalvelu Oy	80	Finland	□
Mykora Oy	100	Finland	■
A. Jalander Oy	100	Finland	■
SiA Kemira Agro Latvija	100	Latvia	▲
ZAO Kemira Agro	100	Russia	▲
Kemira Agro Poland Sp. z.o.o.	100	Poland	▲
Kemira Sdn. Bhd.	100	Malaysia	▲
Kemira Agro Hungary Ltd Co.	100	Hungary	▲
AS Kemira Agro Eesti	100	Estonia	▲
UAB Kemira Agro Vilnius	100	Lithuania	▲
Tikkurila Oy	100	Finland	□
Tikkurila Paints Oy	100	Finland	■
AS Baltic Color	50	Estonia	■
UAB Baltic Color	50	Lithuania	▲
ZAO Finncolor	100	Russia	■
Tikkurila Festék KFT	100	Hungary	▲
A/S Baltic Color [2]	50	Latvia	■
Tikkurila Coatings Oy	100	Finland	■
Kemira Coatings Ltd	100	United Kingdom	■
Kemira Coatings (Ireland) Ltd	100	Ireland	▲
Northern Universal Coatings Ltd	100	United Kingdom	▲
Industrial Coatings Eastern Ltd	100	United Kingdom	▲
Industrial Coatings Northern Ltd	75	United Kingdom	▲
Industrial Coatings Western Ltd	75	United Kingdom	▲
Southern Coatings and Services Ltd	75	United Kingdom	▲
Universal Surface Coatings Ltd	100	United Kingdom	▲
Dickursby Färg AB [3]	100	Sweden	▲
Tikkurila Ltd	100	United Kingdom	●
Becker Acroma Ltd [2]	50	United Kingdom	■
Becker Acroma (Ireland) Ltd [2]	50	Ireland	▲
AS Tikkurila Industrial Coatings	100	Estonia	▲
Tikkurila Coatings KFT	100	Hungary	▲
Tikkurila CPS Oy	100	Finland	■
Winter-Bouts B.V.	100	The Netherlands	■
Kemira Color B.V.	100	The Netherlands	■
Winter-Bouts GmbH	100	Germany	▲
Tikkurila Ltda	100	Brazil	▲
Tikkurila Pty Ltd	100	Australia	■
Taotek S.p.A.	100	Italy	●
Corob S.p.A.	100	Italy	■
Corob S.A.	100	Uruguay	■
Spetra S.r.l.	100	Italy	■
Taotek North America Inc.	100	United States	■
Taotek Asia Ltd	100	Hong Kong	▲
Matherson S.p.A.	100	Italy	■
Tikkurila Inc.	100	United States	■
Tikkurila Services Oy	100	Finland	□
Kemira Engineering Oy [4]	100	Finland	□
Kemira Metalkat Oy	100	Finland	■
Metpela Oy	100	Finland	■
Convertitori Catalitici Europa S.r.l.	100	Italy	■
Kemira Katalysatoren GmbH	100	Germany	▲
Kemira Safety Oy	100	Finland	■
Kemira Safety Ltd	100	United Kingdom	▲

[1] Owned in equal shares by Kemira Pigments Oy and Kemira Pigments B.V.
[2] Joint venture.
[3] Owned in equal shares by Tikkurila Coatings Oy and Tikkurila Paints Oy.
[4] Owned in equal shares by Kemira Chemicals Oy, Kemira Pigments Oy and Kemira Agro Oy.

Companies not operative in 1997 are excluded.

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