

Kemira

Kemira 2002



What we aim to be	2
Kemira serves	3
CEO's review	5
Pulp & Paper Chemicals	7
Kemwater	9
Paints and Coatings	11
Industrial Chemicals	13
Kemira GrowHow (Agro)	15
Business areas in figures	16
Water treatment and social responsibility	18
Environmental report	21
Shareholder information	31
Administration	32
Press releases	36
Glossary	38
Group companies	40
Addresses	42

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

What we aim to be



OUR CORE VALUES

- Respect for individuals
- Innovation
- Working together
- Result orientation

OUR VISION

For our customers, we are a preferred partner that offers complete solutions.

WE AIM TO BE

- The leading chemical and integrated service provider for the pulp & paper industry.
- The world leader in chemical water purification.
- A leading European paints and coatings manufacturer, with an operational focus on the Baltic Rim.
- A world-class performer in industrial chemicals.
- The preferred partner in the food supply chain, offering novel solutions and integrated services.

OUR CORE COMPETENCIES

Water management and chemistry

- Water treatment applications for both drinking water and waste water.
- Water treatment know-how based on expertise and cost-effectiveness that can also be exploited within our core businesses.

Environmental know-how and recycling

- Integrated solutions aimed at recycling raw materials or utilizing waste.
- Environmentally friendlier alternatives for chemicals and their applications.
- Increasingly sustainable integrated solutions.

Internal and external networking

- Our organization is flexible, allowing us to react quickly to changes.
- We implement the best practices throughout the Group.
- We continuously create closer links to our external networks.

Brands and integrated services

- We offer value-added integrated services and high-quality products.
- We develop brands and services.
- We build co-operation by networking within our capital-intensive operations.

FINANCIAL OBJECTIVES

	2002	Target
Net sales, growth %	6	Over 10
Operating income, % of net sales (not including write-down)	5	Over 10
Earnings per share, growth % (not including write-down)	5	Over 10
Cash flow return on capital invested, %	15	Over 10
Gearing, %	72	40 – 100



Industrial customers

Our customers are the pulp and paper industry, water treatment plants and other industry (notably the paints, printing ink, detergent and fine chemicals industries). Pulp and paper chemicals as well as water treatment chemicals are growth areas for the Kemira Group. The Chemicals business area has production facilities in 28 countries.

Paint users

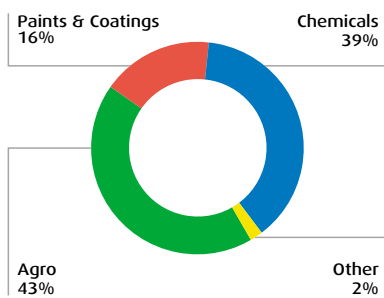
We are a modern paint manufacturer whose brands are household names in its home markets. In our marketing we draw on the advantages of the latest in tinting technology. We are an

industry forerunner as a manufacturer of environmentally sound products. The Paints and Coatings business area has production facilities in nine countries. Paints are one of Kemira's growth areas.

The food supply chain

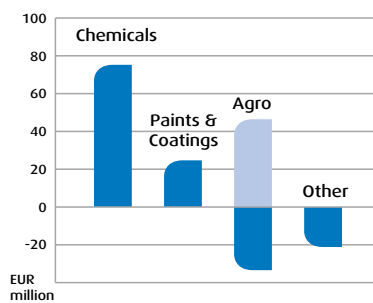
The customers of our GrowHow unit (formerly Agro) are crop farmers, greenhouse and horticultural operators as well as feed producers. GrowHow is turning towards new product and service packages, such as growth programmes for specific plants and varieties. Kemira GrowHow is one of Europe's largest manufacturers of speciality fertilizers and it has production facilities in 12 countries.

Net sales 2002



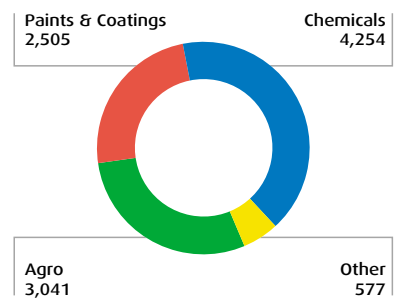
Group net sales: EUR 2,612 million

Operating income 2002



Group operating income: EUR 46 million
 ■ Not including write-down of EUR 78 million

Personnel 2002



Group personnel 10,377 (average)



For Kemira, 2002 was a time of consolidating operations and improving cost-effectiveness in line with our adjusted strategy. We strengthened our core businesses through both organic growth and acquisitions, we improved our productivity and we stepped up research and development activities within our core businesses.

In the pulp and paper industry and the water treatment sector, our objective is to be among the world's top three suppliers. Within paints we are focusing on the markets of the Baltic Rim and eastern Europe in order to bolster our leading geographical position even further. Our aim in the industrial chemicals field is to be amongst the most profitable companies in all our segments.

Serving the food supply chain is part of our operations. We abandoned the systematic search for a strong partner to develop Kemira Agro alongside the Finnish State and Kemira. The downbeat outlook for the European fertilizer business and the prevailing credit squeeze in the financial markets nevertheless did not make it possible to decouple Agro in a way that serves shareholders' best interests. Studies of other decoupling alternatives did not lead to a viable arrangement, either. Signs now point to a revival in the fertilizer market and to an emerging balance between supply and demand thanks to the structural change that has been taking place in the European fertilizer industry.

We are strengthening further our local presence in the markets in accordance with our strategy, thereby ensuring that our integrated services are flexibly available to our customers. Apart from being local, Kemira's know-how, development work and high-quality products form the foundation on which we build all our customer relationships. We want to be our customers' preferred partner in cooperation.

The quest for new things and networking are among our central values. We are now better poised to undertake major new developmental steps following the establishment of a competence centre devoted to pulp and paper chemistry. The Fibre Line Competence Centre will increase our competitive advantage alongside our competence centres that are specialized in water treatment and recycling.

A near-term objective is to increase further our R&D input. We are focusing our research and development work especially on products that are in the ascendant phase of the business development cycle. These rising stars include speciality pigments, integrated solutions for sludge management, calcium sulphate products, formic acid derivatives and new solutions for pulp bleaching and fibre sizing.

We take into account the entire life cycle of our products and develop increasingly sustainable alternatives. We furthermore turn the by-product flows arising in our production into new products, typical examples of which are calcium sulphate pigments and iron-based water treatment chemicals.

Social responsibility is a pronounced feature of our operations. The structural elements of our social responsibility are good business practices, clear financial reporting, transparent corporate governance, safety issues and responsibility for our employees.

We track the profitable growth of our operations and the efficiency of capital employed by means of certain benchmarks. Net sales growth, the

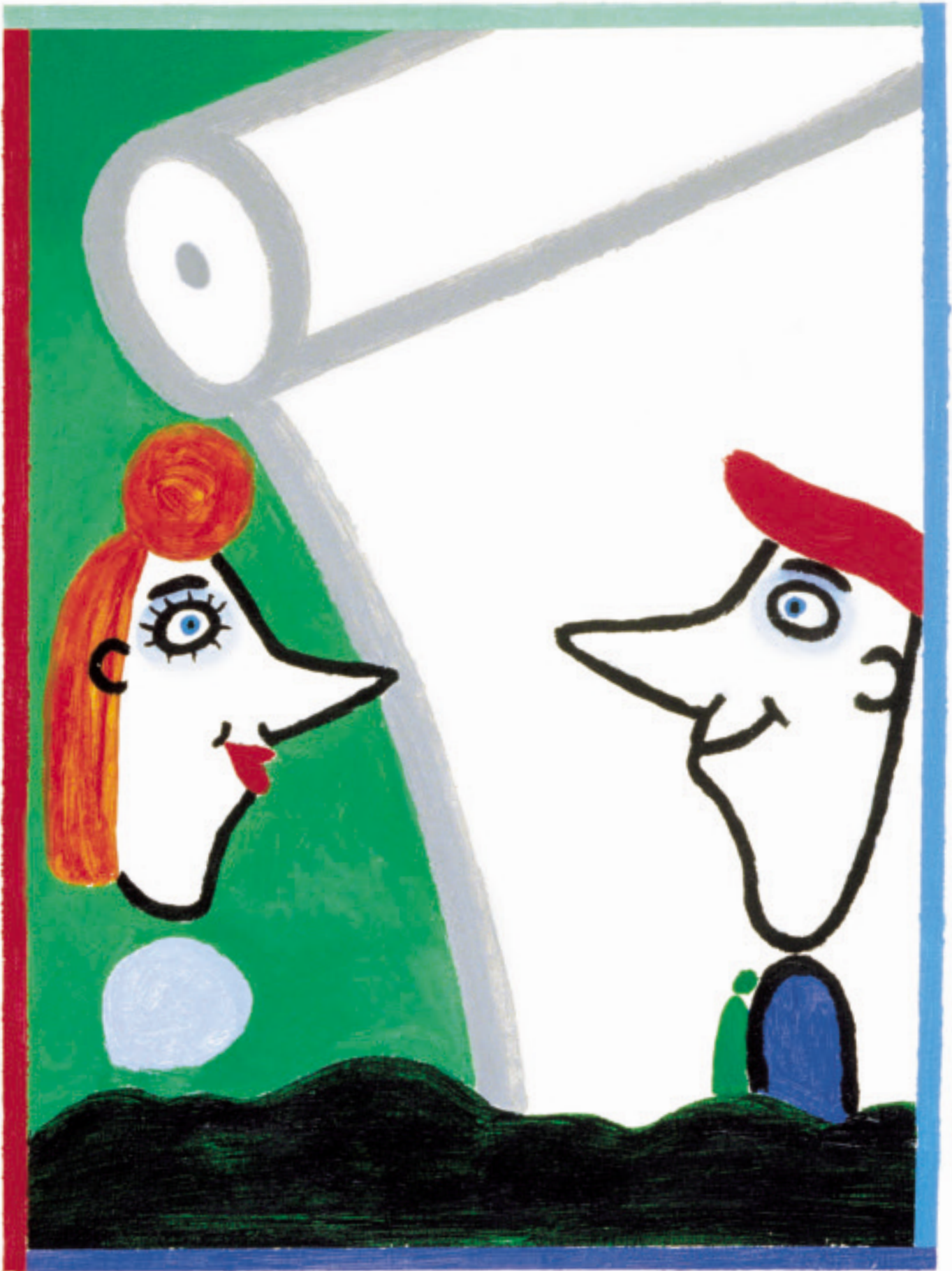
operating income percentage of net sales, earnings-per-share growth and return on investment are our key financial indicators. We consider it our challenge to achieve a level in excess of 10 per cent as measured with all these benchmarks. Reaching these targets will guarantee our success in coming years as well.

Although the pulp and paper industry is still in a minor key mode, optimism in the sector is growing. Positive signs can be seen in the North American market, and this will begin to show up in the demand for chemicals. In the water treatment chemicals field, the unit that is starting up in Saint Petersburg will open up new and interesting perspectives, and in the paint business, Alcro-Beckers has strengthened our integrated operations substantially.

Looking ahead to earnings in 2003, the biggest potential for improvement lies in industrial chemicals. Four large capital expenditure projects aiming at increasing the production capacity in sodium percarbonate, formic acid, titanium dioxide and the fine chemicals have just now reached completion. The additional capacity is now coming fully on stream and demand for our products looks good.

I wish to express my best thanks to our customers, shareholders and partners – and especially to all our Kemira staff – for your good cooperation in 2002.

Tauno Pihlava



Kemira's product range spans the entire pulp and paper manufacturing process, but the company is specialized in wet-end solutions. At a paper machine's wet end, Kemira has good opportunities to add value to the customer's process by developing new speciality chemicals and offering comprehensive service.

In paper manufacture, controlling the wet-end processes is akin to heart surgery because the key factor is retention, or the binding together of fibres and fillers quickly and without problems by means of speciality chemicals.

Well controlled retention can markedly increase a paper machine's speed, thereby bringing substantial added value to the paper maker.

Paper machines using Kemira's speciality chemicals have racked up a number of speed records. This bears testimony to the company's expertise. Kemira's know-how is based on long experience, the best partners and the company's own competence centres.

Fibre savvy is crucial

Kemira started developing wet-end paper chemicals half a century ago. Since that time, the company has partnered with the world's leading pulp and paper companies, their customers, equipment manufacturers and consultants.

A few years ago, Kemira set up a fibre technology centre. The centre has close contacts with universities engaged in fibre research and with the forest industry's own research institutes around the world.

Kemira has a mastery of all the main elements of a paper machine's wet-end operation: retention, deposit control, water treatment and sizing. This expertise makes Kemira a trusted partner for other stages of the process too, such as in pulp bleaching and paper coating.

Keeping water and sludge under control

Treatment of the raw, process and waste water in the pulp and paper industry and recycling sludge are important application areas for Pulp & Paper Chemicals. These are being developed together with Kemwater and competence centres that are specialized in this field.

It is natural that there is synergy among the units because water treatment chemicals are also used in purifying water used in the paper industry. Similarly, in future the recycling of the waste water sludge from plants and municipalities can be solved by these same types of Kemira-developed means.

Partner of the forest industry

In coming years Kemira wants to be a trusted partner that plays a central role within the specialized chemistry of the entire pulp and paper industry. Only a player with this capability can outpace the average market growth.

Take this example. Kemira has developed a unique method whereby the use of peracetic acid in pulp bleaching leads to an essential improvement in the wet-end.

Kemira thus applies its understanding of the behaviour of cellulose fibres to enhance the use of chemicals on the paper making process.

Kemira's unique product for paper coating is calcium sulphate pigment. When used correctly, it gives paper superior characteristics. A good com-

mand of the wet end, in turn, is necessary for making optimal use of calcium sulphate.

Technology-driven competitiveness

The paper industry is growing at a rate of 2-3% a year, but many wet-end chemicals are growing at 5-10%. Organic growth based on know-how must also be supported by acquisitions, and executing them successfully calls for special expertise too. For example, the integration of the American company Vinings, which was acquired at the beginning of the year, was greatly aided by the fact that Kemira's know-how is widely recognized in the United States.

As a supplier of wet-end speciality chemicals, Kemira is the third-largest company in North America and also worldwide. It has a strong position in northern Europe, and there is market potential in Asia and South America.

Kemira wants to stand out from its competitors as a technology-led company that serves its pulp and paper making customers everywhere in the world by offering them innovative products and service solutions.

The consolidation process amongst customers, leading to ever larger units, is a factor supporting Kemira's role. The giants keep a close eye on one another and all of them want to make sure their paper machines deliver maximum output.



Public and private purification facilities for drinking water and waste water in 26 countries know Kemira as an exceptional supplier of chemicals. Kemira offers speciality chemicals and services as packaged solutions for water treatment, including transfer of necessary knowledge and skills to customers. In addition, Kemira is always working to solve “unsolvable problems”.

“Clean water is our life” is part of the Kemira Kemwater mission statement. Unclean drinking water and untreated waste water are problems affecting all of humanity. Spiraling population growth and urbanization mean that solving these problems is more important than ever both from the point of view of people and the environment.

Leadership is our goal

Kemira is the world’s leading supplier of coagulants and the company plans to further expand its participation in the area of chemical treatment.

To achieve this goal we aim to broaden our activity by continuously improving our productivity and standing out from our competitors in both products and services. In future Kemira will also focus on combined chemical-biological treatment of waste water.

Treatment of drinking and waste water is a growth area all over the world, expanding on average by 4–5% per year.

Synergy from water treatment

New speciality chemicals together with adapted service concepts are the key areas that will help Kemira reach its goals in the water treatment area.

There are also good possibilities for further development, because the Group can draw on multiple synergies.

One of Kemira’s three competence centres is specialized in water and a second in recycling. Kemwater also has a partnership with the Pulp & Paper Chemicals unit, so that the same speciality chemicals used in papermaking can also be used in water treatment.

The challenge of sludge

The treatment of waste water sludge is among those problems that our customers must solve in the short term. It is not just a question of money. Reduction of large masses of sludge, odour control, and recycling all call for completely new technologies.

Kemira is actively developing new solutions in partnership with customers, universities, and research institutes. Kemira has projects with universities in Great Britain, Sweden, Norway, Denmark, Finland, and other countries.

Activities around the world

Most of Kemwater’s water treatment chemicals factories are in Europe. The focus of expansion is in eastern Europe, Asia and the Americas. Kemira

is also involved in the work for cleaning up waste water in St Petersburg.

Kemwater has an important role in realizing Kemira’s strategy, which aims at rapid and sustainable growth. The starting point is the customer’s needs – a local water treatment plant, for example. Kemira aims to find new, different, and more efficient solutions. And it generally succeeds.

Kemira is known as an innovative provider of water purification solutions, always trying to see how it can best help its customers. Having a positive corporate image is an important competitive advantage for Kemira.



In the paint business it is important to know not only chemistry at the molecular level, but also personal chemistry, or how “chemistries blend” together with customers. This in turn is crucial for identifying the customer’s needs.

Customers do not want just paints; they want solutions to their problems. These are the requirements of both direct customers – paint shops, professional painters and industry – and their consumer and corporate customers.

The Tikkurila Symphony colour system is one way to comprehensive colour solutions. By means of it, the paint shop’s personnel can show customers about 2,500 shades, and tint the colours they select right there in the shop. This novelty, which replaces the Monicolor Nova system, was the most important investment made by Kemira’s paint business during the report year, and it was more of a marketing than a technology investment.

On the lookout for trends

The previous year’s investment focus in Finland was on a consumer hotline. This telephone and Internet advisory service supports the paint shop’s sales. At the same time, it gives the consumer a direct contact to the paint factory. The consumer hotline is also used to collect information that will aid product development. We must be up to date on what strikes consumers’ fancy, because the paint trade is largely a trend and brand business.

Changes are constantly taking place in distribution channels as well, and paint manufacturers must know how to be prepared. The paint trade is shifting from specialized stores to the large markets served by retail chains. Apart from the Nordic countries, these chains are expanding into other areas, such as the Baltic countries and Russia.

Paints and Coatings are contributing to the paint dealer’s success by offering a package including the most advanced tinting system on the mar-

ket, trendy brochures and marketing materials, a constantly renewed range of paints, support for consumer marketing, training for sales people and reliable deliveries.

The Temaspeed tinting system that has been developed for the needs of industry comprises not only our own colour cards but also the most recognized international colour charts. This means flexible customer service regardless of the country.

A strong Baltic presence

Kemira’s paint business has a strong presence across its entire operating area: northern and eastern Europe. In a small market it is important to be number one, whereas a big market offers more to share.

Kemira is the market leader in decorative paints not only in Finland but also in Sweden and the Baltic countries. Kemira ranks second in Poland, and in Russia its brands are among the best known.

Within industrial paints, Kemira is the market leader in Finland and the Baltic countries. In Russia it is recognized as one of the top western suppliers. In Poland and the Nordic countries, its position will be strengthened through the acquisition of Akzo Nobel’s speciality coatings.

An industrial clientele

Paints and Coatings’ strong suit within industrial paints are the metal and woodworking industry. We also engage in joint development work together with a number of customers. Sales to the industry are handled directly via the local organization in Finland and also in Europe. In addition, customers are served by a comprehensive net-

work of distributors in 20 countries.

Our products have a long tradition of use in the furniture and joinery industry. Paints for the metal industry are intended for use in conditions varying from normal to extremely severe: machinery, equipment, bridges, the process industry. Applications for coil coatings include roofing and facades.

Growing environmental awareness

Customers also think about the environmental impacts of the product when making a purchase decision. Paints must stand up to an analysis spanning the entire life cycle from raw materials to production, the painting job itself and then on to disposal of paint waste and painted structures.

The EU’s VOC directive is reducing the possibilities of using solvent-borne paints. Accordingly, Paints and Coatings is already offering water-borne alternatives for all of consumers’ painting needs and also for most industrial applications.

The world’s paint markets are growing in step with the rise in the standard of living. Of Kemira’s paint markets, the Baltic countries, and Russia in particular, are showing the fastest growth, but it will take more than just organic growth to reach Kemira’s targets. Acquisitions will also have to be made.

Managing the whole range and a century of paints know-how are a boon when making acquisitions too. A good example of this is the successful merger of Kemira’s paint business with Alcro-Beckers, Sweden’s leading manufacturer of decorative paints. Another is the purchase of Akzo Nobel’s speciality coatings business, which brings with it new expertise.



Everything hinges on customers' need to do things differently than they used to: in general, more efficiently and with less of a load on the environment. This is the driving force enabling Industrial Chemicals, through research and cooperation, to create new products and develop its established products further.

Most of the net sales of the Industrial Chemicals unit come from titanium dioxide pigment, which is used to make products white. Manufactured by means of a demanding process, high-quality Kemira pigment is used primarily in the paint and printing ink industries.

Alongside its profitable – though cyclical – traditional pigments, Kemira is developing new speciality products that offer faster growth. Transparent UV-Titan that filters out ultraviolet light is used in suntan lotions, cosmetics and plastics. FINNTi titanium chemicals are needed in the manufacture of pigments and as catalysts. Photocatalysts are a new product family. One of their many end uses is to provide self-cleaning surfaces.

Formic acid is a green chemical

Because it is environmentally sound, formic acid is finding an increasing variety of uses as a replacement for other products both in industry and in agriculture. Kemira expanded its formic acid manufacturing capacity again towards the end of 2002 and is now the world's second-largest producer.

Formic acid's main uses are in the textile, leather, rubber and pharmaceutical industries and for silage.

Its value-added products offer an environmentally safe alternative for de-icing at airports, on bridges and in sensitive groundwater areas. In the ice-making systems of ice stadiums and artificial ice-skating rinks, these

products are replacing previously used, environmentally undesirable substances.

The feed industry is a key area where such innovative products will find increased scope. Products containing formic acid will replace the antibiotics used in animal feeds, particularly in the EU area.

A contract manufacturer of fine chemicals

Kemira delivers custom-manufactured intermediates, notably to large chemicals companies that manufacture pesticides for plant diseases.

Cooperation has also been started with the pharmaceutical industry, which is a promising growth area.

In the contract manufacture of fine chemicals, Kemira has a customer interface extending from research all the way to marketing. Achieving success depends on trust, know-how and the ability to see things through the customer's eyes. Kemira, as it were, joins the customer's workforce.

White laundry with a good conscience

Kemira also has close customer relationships with the detergent industry. A good example is the development of sodium percarbonate-based bleaching in collaboration with detergent manufacturers.

The world's largest detergent manufacturers are Kemira's customers. This calls for genuine partnership both

in terms of delivery reliability and product development.

Sodium percarbonate is a value-added product derived from hydrogen peroxide, the main bleaching chemical used by the pulp and paper industry. Kemira's internal synergies are an important reason why the company is now one of the world's top three manufacturers of sodium percarbonate.

Versatile calcium chloride

Calcium chloride is used for de-icing and dust binding. Apart from Finland, the products are also spread on roads and streets elsewhere in the Nordic countries and Europe. Calcium chloride is also used in drilling for oil, moisture removal and in the food-processing industry.

Another Kemira forte is the ability to develop value-added solutions for its customers – for example, making product distribution easier.

Kemira is Europe's largest producer of calcium chloride, with a market share of over 50%.



The new Kemira GrowHow stands not only for a range of high-quality products. It also means fresh ideas and new ways of working. GrowHow wants to be its customers' preferred partner in the food supply chain, accomplishing this by offering them new integrated solutions for crop cultivation and animal nutrition.

Kemira GrowHow – formerly Kemira Agro – is known as a company that is committed to ensuring the high quality of foodstuffs and food safety. With our assistance, the producer can make sure of the quality of the soil, seed or nutrients at the front end of the food supply chain and maintain quality at later stages of the chain by using the correct cultivation technique, storage and follow-up processing.

GrowHow's product range covers a number of essential parts of the food supply chain. Our know-how spans fertilizers, feed phosphates and acids, crop cultivation services and seed coating technology. In addition, we offer a variety of inorganic process chemicals for industry.

The cornerstones of our operations are partnership, know-how and solutions.

Cooperation leading to partnership

By partnering with its customers, GrowHow works together with them in order to find the best possible solutions to their specific needs. The objective might be improving livestock feeding procedures, the quality of a given cultivated plant and boosting the harvest or increasing the efficiency of production processes.

Partnership also means that GrowHow's people can be reached easily and take local conditions and

market requirements into consideration.

GrowHow is an international company that provides solutions to local needs.

We carry on close cooperation with a number of different organizations in different parts of the world: with other prominent players in the agribusiness, suppliers, advisory organizations, research institutes and the authorities. In the first part of 2003 Kemira GrowHow will be starting up a fertilizer and feed phosphate plant in Jordan that operates as a joint venture.

We continually seek new ways of promoting our customers' business operations. Together with 14 other companies, we have developed the international First4Farming portal for farmers. It makes available a wealth of information and services in the agricultural trade and cultivation sector. In Finland, farmer customers are served by the Farmit portal, which has the backing of a wide group of companies in the agribusiness.

Know-how thrives on knowledge

Kemira GrowHow has built up a vast amount of knowledge ranging from animal nutrition and plant nutrients to cultivation expertise and integrated farming solutions.

We are leveraging this knowledge and these partnerships to develop products and solutions that are ever

safer and better for the environment. Typical examples are livestock feeding solutions that offer an alternative to feed antibiotics, whilst going easy on the environment, as well as farming solutions that increase the safety of foodstuffs. Or information collection and analysis systems that improve traceability, safety and productivity.

Spiralling population growth is making water an increasingly vital commodity. This is why we continuously develop water-saving methods for irrigation fertilizing.

Research and development are an essential part of GrowHow's contribution to the food supply chain. We carry on international co-operation with numerous universities, research centres and local advisory organizations.

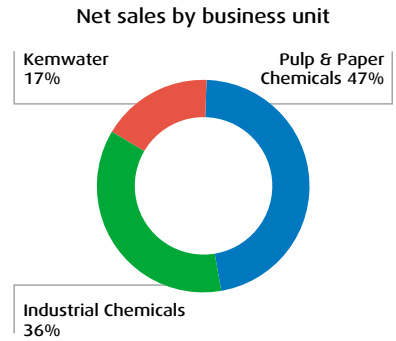
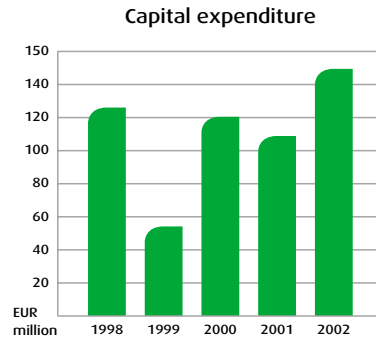
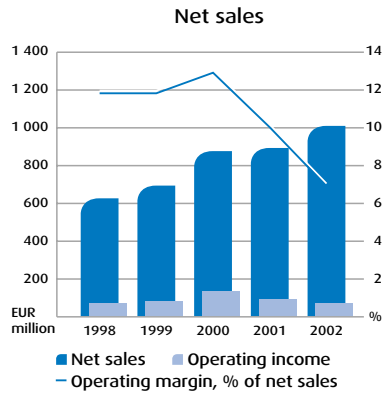
Developing new solutions

GrowHow devotes a great deal of resources to developing new products. We are constantly studying new ideas, techniques and materials and we are expanding our palette of products and services.

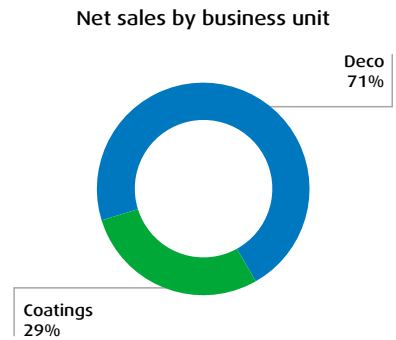
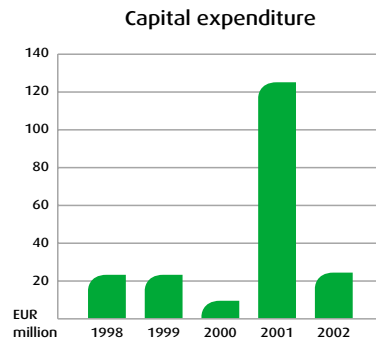
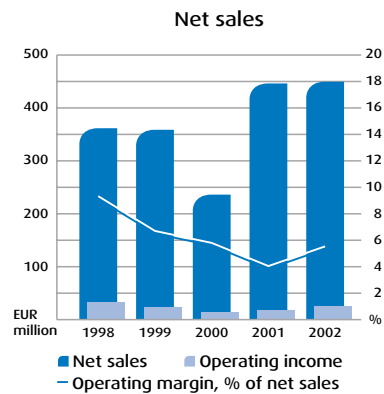
Our customers rely on us for superior service – because they know they will get the solution they require, right when they need it. And they can count on Kemira GrowHow for fast, efficient and knowledgeable answers to their questions and needs.

Business areas in figures

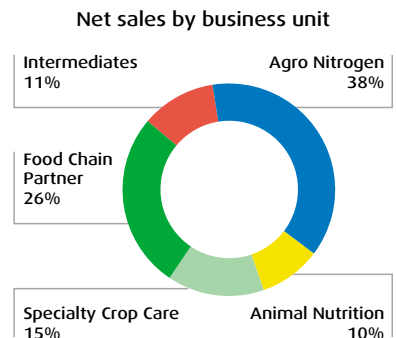
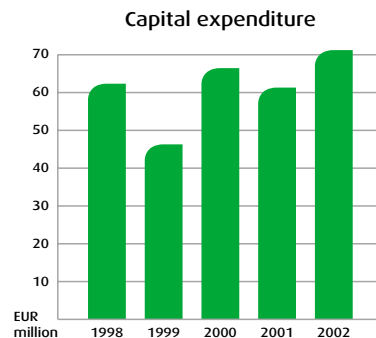
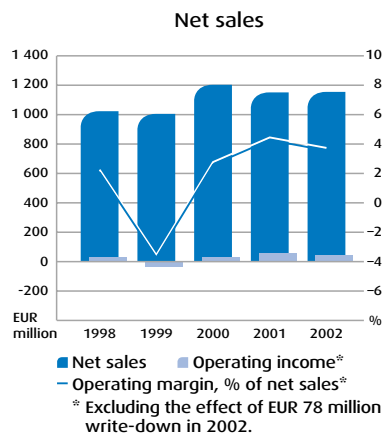
CHEMICALS



PAINTS AND COATINGS



AGRO



Business areas in figures

CHEMICALS	2002	2001	2000	1999*	1998*
EUR million					
Net sales	1,058	901	888	697	630
Costs	-891	-731	-707	-558	-507
Depreciation	-92	-79	-66	-56	-48
Operating income	75	91	115	83	75
Capital employed (average)	936	756	783	632	470
Return on capital employed %	8	12	15	13	16
Capital expenditure	144	109	120	56	126
Personnel (average)	4,254	3,894	3,678	3,138	3,114

* The figures are not fully comparable owing to changes in the business structure.

PAINTS AND COATINGS	2002	2001	2000	1999*	1998*
EUR million					
Net sales	450	445	243	357	361
Costs	-404	-405	-218	-316	-312
Depreciation	-21	-23	-11	-18	-16
Operating income	25	17	14	23	33
Capital employed (average)	325	327	141	253	233
Return on capital employed %	8	5	10	9	14
Capital expenditure	24	126	10	23	23
Personnel (average)	2,505	2,652	1,583	2,301	2,214

* The figures are not fully comparable owing to changes in the business structure.

AGRO	2002	2001	2000	1999*	1998*
EUR million					
Net sales	1,165	1,158	1,219	1,015	1,030
Costs**	-1,063	-1,047	-1,113	-990	-954
Depreciation	-58	-62	-73	-64	-57
Operating income**	44	49	33	-39	19
Capital employed (average)	648	572	662	585	584
Return on capital employed %**	7	9	5	-7	3
Capital expenditure	71	61	66	47	62
Personnel (average)	3,041	3,079	3,198	2,951	3,071

* The figures are not fully comparable owing to changes in the business structure.

** Excluding EUR 78 million write-down in 2002.

Water treatment and social responsibility

As part of our reporting on environmental and social responsibility, we have launched a series telling how Kemira's different business areas carry out their social responsibility from the product point of view. First up is water treatment, and the following annual reports will present social profiles portraying the paints, pulp and paper chemicals as well as industrial chemicals businesses.

Water is purified with Kemira products for over 150 million people

Main product groups:

Aluminium salts: Kemwater ALG, ALS and PAX

Iron salts: Kemwater COP, FERIX, PIX

Polymers and other products

Providing pure water is one of the most critical environmental and health problems around the world. The UN's World Summit on Sustainable Development that was held in Johannesburg in 2002 set challenging targets for safeguarding the world's water supply and waste water treatment. In practice the policy statements mean billions of euros of investments in building water treatment plants and networks for the needs of 1–2 billion people.

For companies operating in the water industry, these global objectives promise growth and opportunities for new business. At the same time, the ever tighter quality requirements for water treatment and the privatization of water supply and treatment are increasing the corporate responsibility challenges that companies must meet.

Kemira's water treatment business

Kemira manufactures coagulants for the treatment of drinking and waste water as well as sludge. The most important product groups are aluminium and iron salts as well as polyelectrolytes. We are the world's largest producer of aluminium and iron salts. We also offer numerous other products

and services for water treatment.

The main usage purpose of metal salts is to remove phosphorus, organic impurities and solids from water. Polyelectrolytes are used primarily to improve the drying characteristics of sludge and to step up coagulation.

Basic factors of the product chain

Our water chemicals production conforms to the local legislation and required permits. In addition, we observe Kemira's business principles (Code of Conduct).

Kemira has water chemicals production in 26 countries. Local raw materials are used in the production and the end products are sold to customers nearby. Local production means more efficient utilization of customer feedback in developing products. It also contributes to reducing essentially transport-caused harm to the environment.

We seek to make use of recycled materials as our raw materials. This cuts down the impacts on the environment due to by-products and waste from other production. Our main raw materials are the common elements found in the earth's crust as well as compounds that are relatively harmless

to the environment and health.

We employ life cycle assessment of products in order to improve the eco-efficiency of the manufacturing chain.

Modern water treatment chemical production plants are responsible for fairly limited effluents and emissions, and they are also often waste-free, closed processes. Our worldwide operational network aids the rapid spread of production methods, information and innovations for the benefit of our entire organization and customers.

Ensuring consumer safety

The products and methods used in producing pure water are closely regulated by means of norms and standards. The industry's supervision by the authorities is stringent, in the same way as for monitoring food-stuffs. As a company, we make sure that our products for water treatment are safe to use and conform to the chemical and special regulations in force. We continually monitor product quality by means of laboratory tests and in accordance with quality and environmental systems.

Consumer safety is an integral part of social responsibility. Apart from constant monitoring, the health risks of drinking water are reduced by a multi-stage surface water treatment process and the controlled use of chemicals.

The modern purification of raw water involves the chemical coagulation or precipitation of impurities, clarification, filtering and disinfection along with the correct dimensioning and management of the treatment

processes. When water quality is monitored at several points and the water is retained in the treatment process for a long period, the operating staff get more time to react.

Epidemics caused by bacteria and viruses can be prevented by disinfecting drinking water. The disinfection efficiency can nevertheless end up being weak if organic substances and solids are not first removed efficiently from the water by means of chemical precipitation or coagulation. Disinfection does not combat parasites and their pre-stages, but effective precipitation of solids delivers them a knock-out punch.

The removal of organic matter by coagulation reduces undesirable tastes and odours in drinking water, curbs bacterial growth in the distribution network and limits the formation of harmful by-products during disinfection. Bacterial growth in the water system is often governed by phosphorus, which can likewise be removed efficiently through chemical coagulation.

Until recently the key factor in chemical coagulation for producing drinking water was the control of turbidity. Today, coagulation is monitored by measuring how efficiently organic matter is removed. This means that many water works have gone over from aluminium to iron, which is especially effective in removing humus compounds. The use of iron chemicals is also a sustainable solution from the standpoint of the environment because a recycled product – say, ferrous sulphate that is generated in the production of titanium dioxide – can often be used as a raw material.

Chemical waste water treatment cuts costs and is eco-efficient

Within the spectrum of waste water treatment methods, chemical treatment is a reliable method of starting waste water treatment and it has the advantage of attractive investment costs. By means of chemical precipitation the operation of existing waste water treatment plants can also be enhanced without the need for major

investments. According to in-depth life cycle studies, chemical purification is also a sustainable technology that goes easy on the environment.

Compact chemical or chemical-biological waste water treatment is an especially suitable solution in the teeming urban centres in the developing countries, where there is limited space for construction and no centralized sewer network has been built. Kemira is participating actively in the development of high-load chemical-biological waste water treatment methods.

In the developed countries the interest of environmental authorities and other stakeholders has focused on waste water nutrients: phosphorus and nitrogen. The stringent removal targets for these nutrients will lead to large-scale projects for boosting the efficiency of water treatment plants and for reducing the load exerted by sparsely populated areas. The process disturbances of treatment plants must also be minimized. The high efficiency, dependability and wide operating range of chemical coagulation makes it an excellent solution for the demanding needs of nutrient removal.

Deriving benefit from waste water and sludge

Sustainable economic growth is often dependent on the availability of pure water. This is why there is particular interest in new methods of purifying and recycling waste water for use in irrigation, i.e. food production. Similarly, Kemira's scientists are exploring ways to make use of the organic matter, phosphorus and precipitation chemicals found in waste water sludge. In these fields, Kemira's solutions and development projects are front-ranking worldwide.

The exploitation of waste water sludge in the form of biogas is an everyday affair in a number of cities. The composting of sludge is nevertheless limited by the quality requirements and hygiene factors for compost. Compost has a limited market in landscaping, and is likely to see less and

less use as regulations tighten up and sludge incineration gains ground.

The latest topic in the domestic and waste water sector revolves around hormones and hormone-like substances, pharmaceuticals and personal hygiene products. For these substances, as for the previously widely discussed organic chlorine compounds and heavy metals, chemical precipitation offers apt solutions.

Wide research and cooperation

Apart from the product impact, a further dimension of corporate responsibility is the research and development work that goes into developing more sustainable technology. Kemira pursues cooperation with a large number of universities and research institutes in seeking to meet the challenges of water treatment, both old and new. Amongst our most prominent contributions are the establishment of competence centres for water treatment and recycling as well as creating an endowed professorship in water treatment.

The Kemwater business is based on environmental know-how and providing solutions for customers' environmental needs. To keep abreast of developments, Kemwater offers comprehensive environmental training for its staff. On the other hand there is also a need for wide-ranging international networking in environmental projects. Kemira has engaged in these initiatives, notably, in the Baltic Rim, eastern central Europe and the Far East. The startup of local water chemicals production often involves cooperation with the public sector and lenders.

In Kemira's vision, pure water is a growth area, and water chemistry is an essential, efficient input into the treatment of drinking and waste water. By providing the necessary expertise, the entire delivery chain from raw materials to the final treatment of sludges can be placed on an increasingly sustainable basis.



The report deals with Kemira Group companies in line with financial reporting. The data has been compiled from 73 production plants and sources globally. 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 of the Annual Report. This report has been prepared, where applicable, in accordance with:

- CEFIC (European Chemical Industry Council): Health, Safety and Environment Reporting Guidelines. November 1998.
- Commission recommendation on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. European Commission, 2001/453/EC.

Summary

The Johannesburg summit of last September highlighted global environmental and social issues, which continue to be a growing challenge for multinational corporations. At the same time, the regulatory business environment is changing fast, especially due to the introduction of proposals for greenhouse gas trading and tightened chemicals regulations in Europe.

Kemira's environmental situation was relatively stable in 2002, after step-wise reductions in many releases in 2001. The inclusion for the first time of several US plants did not change the reported figures substantially. The environmental businesses continued to grow across a wide product palette.

While progress was made in many areas of safety, one person died in a regrettable accident at the paint plant in Latvia.

Highlights of activities at the sites

Pulp & Paper Chemicals. Kemira Chemicals Inc., USA, began to put into practice the revised Responsible Care programme. This includes an auditable management system and a security code. At Fortville, closing of the sodium silicate furnace reduces combustion emissions significantly, obviating the need for an air permit. Soil investigations and limited remedial activities took place at some of the sites.

The Krems plant in Austria installed a monitoring system to allow early detection of any contaminants in the cooling water. The record flooding of the Danube did not cause significant damage at the site.

In Finland, the Vaasa plants are preparing an application for a new integrated environmental permit covering the best available techniques. The sedi-

ment remediation studies of the nearby lake continued.

The hydrogen peroxide plant in Maitland, Canada, improved energy efficiency and investigated successfully the landfilling criteria of spent alumina, a presently sold byproduct. At the Ulsan plant in South Korea, no significant problems were observed in an odour study. The Rozenburg plant reduced losses of catalyst and solvent, and proceeded with ISO 14001. At Oulu, Finland, more efforts were made to prevent occasional organic releases into water from the hydrogen peroxide plant.

Kemwater. In Sweden, Kemwater Närke optimized scrubbing systems and improved safety in loading and unloading. The Goole plant in UK now recycles all waste water into production. ISO 14001 and 9001 certificates were issued to the Rheinberg plants in Germany. In France, the Lauterbourg plant investigated potential for reducing energy and water consumption. A restricted leak of hydrochloric acid occurred in September. The three plants in the Czech Republic reduced steam consumption substantially.

Kemira Ibérica minimized dust at the Tarragona site and obtained new permits for some of the six sites in Spain and Portugal. Additional information on waste classifications and emissions was compiled for the authorities. The Cremona plant in Italy improved safety by changing over to liquid sodium chlorate raw material.

The São Paulo plant in Brazil is getting ready for ISO 14001 certification. An occasional discharge of ferrous sulfate was caused by heavy rain.

Industrial Chemicals. The Kemira Pigments plant in Pori, Finland, invested in more effective pigment dust

separation as part of its project for increasing capacity. The waste water purification systems have been working excellently, and the discharge point was moved closer to the shore. Plans were also outlined for closing the existing ferrous sulphate piling areas. R&D projects for decreasing the amount of solid effluents and for developing new co-products continued.

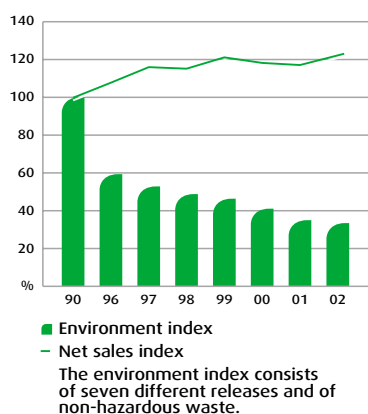
The Helsingborg plant in Sweden improved treatment of waste water from the hydrochloric acid plant. The sodium tripolyphosphate plant was closed, resulting in lower dust emissions and waste generation. A minor on-site landfill was closed and a renovation plan for the separate Rökille landfill was prepared to implement the EU regulations, with no immediate action required.

The Oulu plant expanded formic acid capacity without significant environmental changes. An investment project was started for improving soot treatment. The site's cooling water was accidentally directed into the municipal sewage system in January.

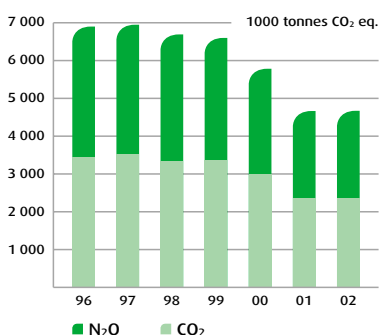
The Kokkola plants obtained a new permit for the sulphuric acid plant. The waste water permit for the whole site, issued in 2001, is pending due to appeals. A development project was started to close part of the waste disposal areas in 2004–2007.

The Kemira Fine Chemicals plant at the Kokkola site obtained ISO 14001 certification in September. The plant also installed a washing system for reducing VOC compounds from equipment maintenance. Environmental development projects included combustion experiments and studies of biodegradability and recycling of contaminated waste water.

Environmental load and net sales



Greenhouse gas emissions



Paints and Coatings. Logistic improvements in the paint business in Sweden, Finland and Poland were also beneficial to the environment. At the Lövholmen plant, changes in the equipment washing process minimized waste and product losses. The Vantaa site increased reuse of washing solvent and treatment of water-based waste and launched a programme for reducing occupational incidents.

In the UK, the Bury and West Bromwich sites carried out VOC monitoring and introduced comprehensive waste management plans. At Debica, Poland, soil and ground water studies were conducted to initiate a clean-up of areas contaminated mainly by oil and petroleum hydrocarbons from past production. The closing of production at Dordrecht, the Netherlands, includes limited remedial action.

Agro. The Uusikaupunki plant reduced environmental risks by investing in automation and logistic safety. Isolation of the process water basin was completed to prevent nitrogen leaching. The site was in good compliance with the recently tightened permit limits, although one leak of phosphorous water through the dike occurred. A voluntary energy efficiency study covered all major production processes.

The Harjavalta plant expanded paving of the production areas and investigated soil contamination at the bagging unit. Preparatory work on the new integrated permit application included a review of the best available technologies and risks from gaseous leaks. The plant also got a good ISRS safety rating. At Kokkola, the feed phosphate plant obtained a new environmental permit as well as a certificate for good manufacturing practice (GMP).

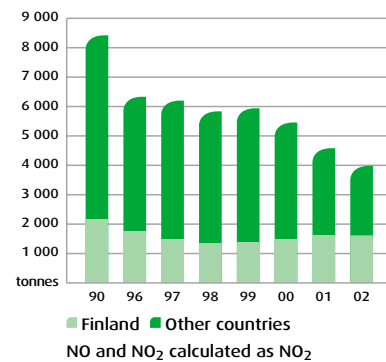
The Siilinjärvi plant had record production levels in the phosphoric acid chain. Emissions into air diminished further, apart from sulphur dioxide due to equipment failure in the sulphuric acid plant. Discharges of phosphorus, nitrogen and trace metals were the lowest observed. The plant launched an environmental impact assessment project in connection with the planned expansion of mining and byproduct areas. Rehabilitation work proceeded in accordance with the long-term plans. A good rating was achieved in safety and environmental audits.

Production of the recently acquired Kynoch Feeds feed phosphate plant in Durban, South Africa, is based on clean phosphate raw material.

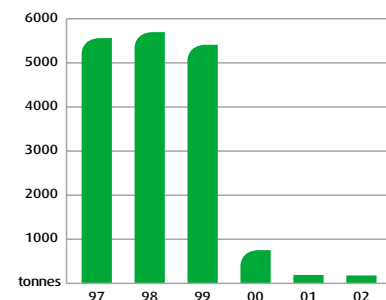
The Fredericia plant in Denmark reduced noise levels and the demand for cooling water. Completed soil investigations did not reveal significant contamination. Occasional dust releases and overshooting of permit limits were observed. The Ince plant in Chester, the UK, submitted a conditioning plan to the authorities concerning the small on-site landfill. Noise problems caused by a new heat exchanger are being tackled.

At Tertre, Belgium, the relocation and shutdown of nitric acid plants are resulting in substantially lower emissions of nitrogen oxides. The site obtained a very good safety rating, and it continued demolition work on old buildings. Closing and remedial activities took place at the smaller units in Belgium.

NO_x emissions



COD discharges



Environmental business

Sales of environment-related products continued on a solid growth curve: up 8% on a comparable basis. These product groups, including environment-friendly paints and coatings for the first time, now amount to about EUR 526 million, or 20% of the Group's net sales.

About one half of these products are used directly for environmental protection purposes. Sales of water treatment chemicals increased by approximately 7% globally. Apart from growth in coagulants, Kemira expanded the range of water treatment services, for example, by establishing new partnership companies to combined chemical-biological water treatment and microbial gene testing instruments. Sales of catalytic converters dropped.

Environmentally benign products, existing on the market as an alternative to conventional products, contribute indirectly but significantly to environmental protection. In environmental chemicals, sales of hydrogen peroxide and certain speciality chemicals for the pulp and paper industry were relatively flat. Sodium percarbonate, an environmental alternative to borates in the detergent industry, boosted its sales due to successful capacity increases and favourable markets. Marketing of environmentally beneficial formic derivatives will be enhanced by an agreement with Arteco N.V., Belgium.

Within Paints and Coatings, sales of solvent-free, water-based applications now amount to as much as

approx. EUR 145 million. Tikkurila and Alcro-Beckers have formed the leading Nordic paint business in this area too.

Sales of products derived from waste or by-products, such as gypsum or ferrous sulphate, increased by up to one third. Growth could be observed in all applications. An investment of EUR 5 million will boost the production capacity of calcium sulphate pigment at Siilinjärvi to 100 000 tonnes per year.

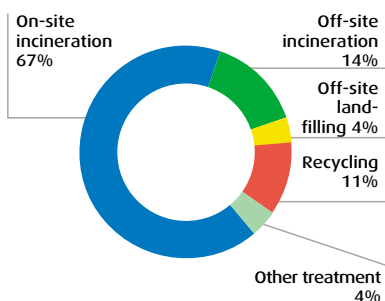
The biocontrol business was placed in a separate company, Verdera Oy, and partly spun off.

In addition to these developments, a substantial number of environmentally driven R&D efforts are going on. Just to mention a few of them, sustainable solutions for sludge treatment and nitrogen removal are being investigated in several water treatment projects. Photocatalytic properties of titanium dioxide may open new environmental applications for Kemira Pigments' speciality products. Kemira Agro has made innovations resulting in the iSeed™ concept for seed coating. It improves the plants' phosphorus uptake and cuts nutrient releases into the environment.

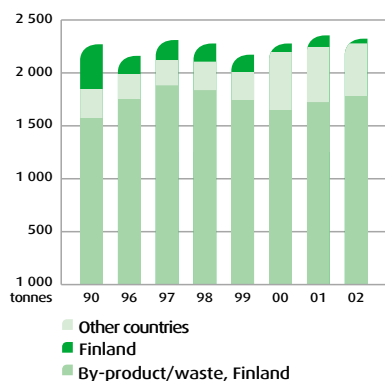
Product safety

The discussion surrounding the EU White Paper on chemicals dominated the year in Europe. The first legislative proposals are expected in the first quarter of 2003. To anticipate forthcoming changes, Kemira is stepping up its participation in the chemical industry's voluntary ICCA HPV testing programme. Earlier changes in the reg-

Hazardous waste treatment in 2002



Non-hazardous waste generation



ulations on the environmental hazards of preparations caused a lot of extra pressure on the updating of material safety data sheets.

Kemira set up a global network of product safety experts based on the existing business units. The Group's product safety portal is being finalised as a networking tool that will support experts and help to share information worldwide.

There were no major product liability cases or issues concerning the environmental or health impacts of Kemira products. Public discussion on the health effects of acryl amide in food is not connected with Kemira's businesses. Recent food safety discussions and regulations, such as those concerning feed antibiotics or the BSE disease, have promoted Kemira's formic acid and feed phosphate businesses.

Environmental statistics

The environmental data presented here has been compiled from 73 production plants globally. Thirteen small or medium-sized plants were reporting for the first time, including the eight sites of Kemira Chemicals Inc, USA. Otherwise the data is comparable with the figures for the previous year.

The overall production figures increased slightly mainly due to acquisitions and to plants reporting for the first time. Total energy consumption increased as well. A more detailed form of energy reporting guidance was introduced.

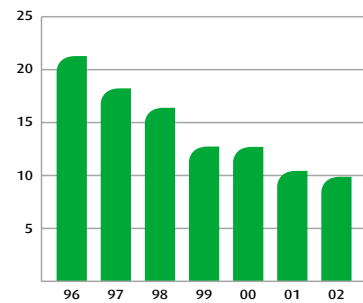
The volumes of waste water and cooling water were about 10% lower

than in 2001. Most releases into water also decreased slightly, apart from nitrogen, where a 5% increase came mainly from nitrogen fertilizer production.

The emissions into air remained at the levels of the previous year. Sulphur dioxide was up 7%, increasing mainly in sulphuric acid production. The 14% reduction in nitrogen dioxide was a result of improvements in nitric acid production in Belgium. Greenhouse gas releases were slightly higher due to increased energy production. VOC levels were unchanged on a comparable basis, with only minor increases from the US operations. New sources of VOCs were studied in ammonia production.

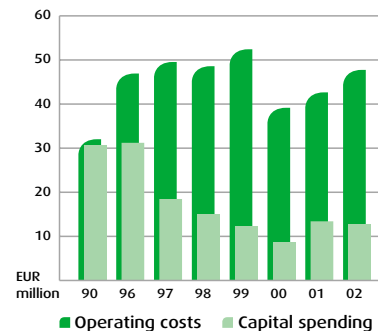
Non-hazardous waste generation was practically stable. On-site land-filling decreased somewhat thanks to recycling efforts, while off-site landfilling increased mainly in pigment production. The formation of hazardous wastes increased by about 24%. This occurred mainly in fine chemicals production, where on-site incineration also increased a similar amount. The recycling of spent alumina from hydrogen peroxide production also added to the reported figures.

Lost-time incidents



Per million working hours at production sites. The 2002 figure includes large offices and research centres.

Environmental capital spending and operating costs



Investments and operating costs

Capital expenditures on environmental protection decreased somewhat, to EUR 12.3 million, or 5.0% of all investments. There were no major projects pending.

Environmental operating costs totaled EUR 47.3 million, up 11% on the previous year. The increase is attributable to general production and cost increases at many plants, to the acquisitions completed, as well as to a change in the accounting practice of one major site.

Environmental costs totaled about EUR 60 million, or 2.3% of consolidated net sales. In addition, environmental taxes and fees amounted to approximately EUR 10 million, down 7% on the previous year.

Safety and occupational health

The overall safety performance of the Group did not change significantly. There were no major industrial accidents in 2002, and, as a result, Kemira's captive insurance company had the first recorded year without compensation payments. However, on 4 February 2003, a major roof fire on one production line of the titanium dioxide plant at Pori, Finland, caused property damage and partial production losses for about one week. The costs are covered by insurance.

One lethal accident occurred at the SIA Vivacolor paint plant in Riga, Latvia, on 19. November. One person died

when an expansion vessel of the water heating unit exploded. Kemira deeply regrets the loss of life.

The frequency of lost-time incidents (LTA) remained at the previous year level, 9.7 incidents per million working hours. The result is not satisfactory and tighter targets have been set to continue the downward trend. The reported LTA figures now include main offices and research centres.

Safety management and rating systems were developed at many sites (see above). Training of transport safety experts was enhanced due to major changes in the European legislation, and more safety efforts are being directed towards co-operation with transport companies.

Of the reported incidents, the following cases may have caused some local concern:

On 11 October, a truck of an external transport company carrying liquid SO₂ sold by Kemira Chemicals, Harjavalta, ran off the road close to the town. A leak of approximately 11 tonnes of sulphur dioxide did not cause significant harm to the public or the environment, but the road was closed and a regional alarm issued for a short period.

On 27 November, a leak of 25–30 m³ of phosphoric acid was observed in the transfer pipeline at the Kokkola plants in Finland. The pumping was stopped, the leaked acid isolated and the contaminated soil removed without major environmental impacts.

Environmental risks, liabilities and legal cases

See the financial disclosure for this information (Notes to the Consolidated Financial Statements, Note 24).

Corporate responsibility

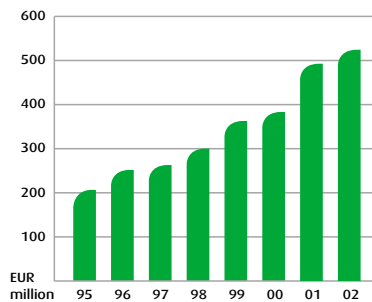
Kemira’s business principles (Code of Conduct) are now available on the intranet, as well as on our web site. The principles take into account the OECD guidelines for multinational companies. In what has become a tradition now, Kemira’s environmental report received a good rating in a comparison of annual reports in Finland.

Recent guidelines for sustainability reporting, including those of GRI, were reviewed with the aim of starting the development of selected social indicators. The safety and health of employees are already measured and managed systematically.

Social responsibility is also becoming part of our key customer interaction. Kemira will publish annual overviews of the role of key products in society, starting with water treatment (see page 18).

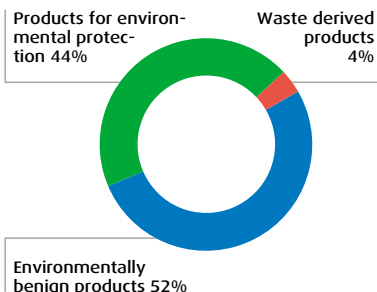
Kemira has an ongoing programme of donations to science and culture at the Group, SBU and site levels. Some forms of sponsorship are regular, such as grants for scientific research by the Kemira Foundation, maintaining a chemistry class for young students at the Espoo Research Centre, or our partnership with the Tapiola Sinfonietta orchestra in Espoo, Finland. In 2002, Kemira Chemie GmbH made specific

Growth of environmental business



Includes environmentally benign paints and coatings.

Environment-related business 2002



donations to help those who suffered locally from the damage caused by the record flooding of the Danube in the Krems region.

Kemira Chemicals Brasil Ltda (KCBL) adopted a public elementary school in the very poor São Silvestre neighbourhood of Telemãco Borba. KCBL started construction of sanitary facilities for 400 pupils and helps the school in many other ways.

Environmental report

Environmental and safety management systems at production sites in 2002

Site	Environment	Safety
Chemicals		
Oulu, Finland	ISO 14001 ¹	DNV ISRS ²
Kokkola, Finland	ISO 14000	DNV ISRS
Pori, Finland	ISO 14001	DNV ISRS
Vaasa, Finland	ISO 14001	
Helsingborg, Sweden	ISO 14001	
Lauterbourg, France	ISO 14001	
Fredrikstad, Norway	ISO 14001	
Flix, Spain	ISO 14001, EMAS ³	
Kvarntorp, Sweden	ISO 14001	
Krems, Austria	ISO 14001	
Swiecie, Poland	ISO 14001	Other
Ulsan, Korea	ISO 14001	Other
Esbjerg, Denmark	ISO 14001	
Prerov, Czech Republic	ISO 14001	Other
Police, Poland	ISO 14001	
Fine Chemicals, Kokkola, Finland	ISO 14001	DNV ISRS
Rheinberg, Germany	ISO 14001	
Paints and Coatings		
Vantaa, Finland	ISO 14001, EMAS	
Tallinn, Estonia	ISO 14001	
Riga, Latvia	ISO 14001	
Stockholm + Nykvarn, Sweden	ISO 14001	
Agro		
Uusikaupunki, Finland	ISO 14001	DNV ISRS
Harjavalta, Finland	ISO 14001	DNV ISRS
Siilinjärvi, Finland	ISO 14001	DNV ISRS
Ince, UK		DNV ISRS
Hull, UK	EMAS	
Tertre, Belgium	ISO 14001	DNV ISRS
Fredericia, Denmark	ISO 14001	DNV ISRS
Metalkat		
Laukaa, Finland	ISO 14001	

1) International Organization for Standardization, Environmental management systems.

2) Det Norske Veritas, International Safety Rating System.

3) European Union, Eco-Management and Audit Scheme.

Environmental data for the Kemira Group

	1990	1999	2000	2001	2002
Releases into water, tonnes					
Chemical Oxygen Demand (COD) ¹	-	5,397	749	168	159
Nitrogen (N)	2,500	1,019	948	718	753
Phosphorus (P)	4,952	1,967	1,176	17	16
Suspended solids, 1,000 tonnes	934	773	403	1.2	0.9
Metals (Hg+Cd+Pb+Cr+As)	49	5.3	0.9	0.6	0.4
Metals (Hg+Cd+Pb+Cr+As+Cu+Ni+Zn)	-	66.8	6.8	3.7	2.8
Releases into air, tonnes					
Particulates	1,950	936	895	854	850
Sulphur dioxide (SO ₂) ²	23,138	5,687	4,359	4,272	4,580
Nitrogen oxides (NO ₂) ³	8,546	5,951	5,455	4,583	3,950
Carbon dioxide (CO ₂), 1,000 tonnes	-	3,344	2,992	2,343	2,369
Volatile organics (VOC) ⁴	-	321	298	240	235
Volatile inorganics (VIC) ⁵	-	2,594	2,663	2,671	2,581
Waste⁶, tonnes					
Hazardous wastes, total	8,669	26,092	5,719	4,737	5,858
- Off-site landfill	-	19,479	518	1,103	1,038
- Off-site incineration	-	5,630	4,292	2,829	3,752
- On-site landfill	-	118	0	2	29
- Other treatment	-	864	909	803	1,040
Non-hazardous wastes, 1,000 tonnes	2,254	2,170	2,277	2,352	2,289
Natural resources					
Fuel consumption, ktoe ⁷	-	1,773	1,571	1,160	542
Fuel consumption as raw material, ktoe	-	-	-	-	716
Purchased electricity, TJ	-	5,800	5,300	4,400	4,654
Total, ktoe	-	2,150	1,913	1,446	844
Cooling water volume, million m ³ , approx.	-	398	387	377	336
Waste water volume, million m ³ , approx.	-	76	34	16	15
Safety					
Number of accidents ⁸ per million working hours	-	12.7	12.7	10.4	9.7
Reference data, EUR million					
Group net sales	2,087	2,526	2,486	2,454	2,612
Environmental capital expenditure	31.1	12.6	8.9	13.5	12.3
Environmental operating costs	32.3	52.6	39.3	42.8	47.3
Total environmental costs, % of net sales	3.0	2.6	1.9	2.3	2.3

1) Estimate. In this case, mainly caused by inorganic discharges, and hence not a very relevant parameter for the Group.

2) All sulphur compounds calculated as SO₂.

3) Nitric oxide and nitrogen dioxide calculated as NO₂.

4) VOC is a sum of volatile organic compounds. Does not include all VOC sources in ammonia production.

5) Sum of ammonia, hydrogen chloride and six other simple inorganic compounds, mostly ammonia in this case.

6) Reported figures do 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.

7) 1,000 tonnes of oil equivalent. Includes fuel as a raw material in 1999–2001.

8) Accidents causing an employee absence of at least one day (LTA1).

Includes figures for production sites 1999–2001. 2002 also major offices and research centres.

Environmental report

Assurance statement

At the request of Kemira Oyj, we have reviewed the information, systems and methodologies behind the environmental, health and safety data and statements presented in the Kemira Group Environmental Report 2002. The report is the responsibility of and has been approved by the Board of Directors of Kemira Oyj. The inherent limitations of completeness and the 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 in Finland and one site in Poland, selected by us.

The report has been prepared in line with the CEFIC Health, Safety and Environmental Reporting Guidelines, excluding information on occupational illnesses and distribution incidents. Kemira complies, where appropriate, with the European Commission recommendation on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies (2001/453/EC).

Based on our activities undertaken, nothing has come to our attention that causes us to believe that the presented data and statements in the Kemira Group Environmental Report 2002 would not provide a fair and balanced view on the group's environmental, health and safety performance.

Helsinki, 13 February 2003

KPMG WIDERI OY AB

Hannu Niilekselä
Authorized Public Accountant

Jari Tuomala
Manager, Sustainability Assurance

Shareholder information

Annual general meeting

The Annual General Meeting of Kemira Oyj will be held on Tuesday 8 April 2003 at 4.00 p.m. in Kemira House, Porkkalankatu 3, Helsinki. Attendance is open to shareholders who by 28 March 2003 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 3 April 2003, 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; e-mail arja.korhonen@kemira.com; telefax +358 10 862 1375; or telephone +358 10 862 1703 on weekdays from 9 a.m. to noon and from 1 to 4 p.m.

The proposal of the Board of Directors of Kemira Oyj for the dividend to be paid out for the 2003 financial year is EUR 0.30 per share. The record date of the dividend payout is 11 April 2003

and the proposed date of the payout is 23 April 2003.

Profit and loss information

Kemira will publish information on its 2003 financial year in Finnish, Swedish and English as follows:

Interim Report	
3 months	6 May 2003 around 9.00 a.m.
Interim Report	
6 months	30 July 2003 around 9.00 a.m.
Interim Report	
9 months	4 November 2003 around 9.00 a.m.
Financial Statement	
Bulletin	February 2004
Annual Report	March 2004

These reports can be ordered from Kemira Oyj, Group Communications, tel. +358 10 8611, fax +358 10 862 1797, e-mail mailroom@kemira.com.

Financial reports and press releases will be published in Finnish and English on Kemira's Internet pages at www.kemira.com. At the same address readers can register to receive reports and press releases by e-mail.

Investor relations

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Investment analysis

The following banks and brokerage firms are known to have prepared an investment analysis of Kemira in 2002:

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Conventum Securities Ltd
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Opstock Oy
www.oko.fi
Tel. +358 9 404 4409

Rabo Securities NV
www.rabobank.com
Tel. +31 20 460 4823

Schroder Salomon Smith Barney
www.ssmb.com
Tel. +44 20 7986 3933

Administration

According to the Articles of Association of Kemira Oyj, the company's affairs are managed by a Supervisory Board, a Board of Directors and a managing director, who is called the chief executive officer. A managing director's deputy who is called the deputy chief executive officer has been appointed for the Company. The Supervisory Board is composed of a minimum of eight and a maximum of ten members, all of whom are elected by the Annual General Meeting for one year at a time, counting from the Annual General Meeting at which the election was held. The Annual General Meeting elects one member as chairman and a maximum of two vice chairmen.

The Board of Directors, which is elected by the Annual General Meeting for one year at a time, comprises a minimum of four and a maximum of eight members. The Annual General Meeting elects one member as the chairman of the Board and one member as vice chairman.

The managing director and the managing director's deputy are appointed by the Board of Directors.

Supervisory Board

According to the Articles of Association, the task of the Supervisory Board is to attend to the duties belonging to the Supervisory Board under the Companies Act. These include overseeing management of the company's affairs by the Board of Directors and the managing director as well as delivering to the Annual General Meeting its statement on the annual accounts and the auditors' report. The Supervisory Board can furthermore give the Board of Directors instructions in matters of wide-ranging import or which are important in principle. The emoluments of the Supervisory Board are decided by the Annual General Meeting. During the past financial year the Supervisory Board met six times.

Members of the Supervisory Board

Timo Kalli, Chairman, b. 1947, farmer. Member of Parliament. 0 Kemira shares.

Kari Rajamäki, I Vice Chairman, b. 1948, M.Sc.(Admin.). Member of Parliament. 400 Kemira shares.

Hanna Markkula-Kivisilta, II Vice Chairman, b. 1965, M.Sc.(Pol.Sc.). Member of Parliament. 0 Kemira shares.

Risto Ranki, b. 1948, Doctor in Political Science, B.Sc. (Nat. Sciences). Deputy Director General of the Ministry of Trade and Industry. 0 Kemira shares.

Sirpa Hertell, b. 1955, horticulturist. Secretary General: The National Council of Women in Finland. 0 Kemira shares.

Pekka Kainulainen, b. 1941, Lic.Tech. Managing Director: Oy Liikkeenjohdon koulutuskeskus Ab. Chairman of the Board: Amer Group Plc. Member of the Board: Yleiselektro-
niikka Oy. 1,700 Kemira shares.

Mikko Långström, b. 1940, M.Sc.(Econ.), B.Sc.(Eng.). Managing Director: Longinvest Oy. 12,100 Kemira shares.

Susanna Rahkonen, b. 1968, LL. M. Member of Parliament. 0 Kemira shares.

Employee representatives (right of attendance and expression of views, no voting rights):

Pertti Kautto, b. 1945, safety manager. Represents managerial employees. 815 Kemira shares.

Jorma Luukkonen, b. 1945, work planner. Represents technical employees. 500 Kemira shares.

Marja-Leena Tuominen, b. 1949, head of purchasing. Salaried industrial employees' representative. 0 Kemira shares.

Tauno Korhonen, b. 1946, operator. Represents workers. 0 Kemira shares.

Teuvo Virtala, b. 1952, process tender. Represents workers. 0 Kemira shares.

Jouni Kukkonen, b. 1947, responsible foreman. Deputy representative elected by the salaried employees. 20 Kemira shares.

Ari-Pekka Kauppinen, b. 1963, operator. Deputy representative elected by the workers. 0 Kemira shares.

Board of Directors

According to the Articles of Association, the duties of the Board of Directors are to attend to the tasks in its competence under the Companies Act. The Board of Directors is in charge of Corporate Governance and the due arrangement of the company's affairs. The Board of Directors prepares the matters to be dealt with at general meetings of shareholders, decides on convening general meetings and attends to the implementation of resolutions of general meetings. In addition the Board of Directors grants and cancels authorizations to sign the company's business name.

The Board of Directors also handles the other tasks in its competence under the Companies Act. The Board of Directors is responsible for duly organizing the company's accounting and overseeing the management of its funds. The Board of Directors is responsible for seeing to it that the

company's financial statements give correct and sufficient information and that they have been prepared in conformity with the acts and regulations in force in Finland and following the Group's uniform accounting practices, which are based on International Accounting Standards (IAS). At its meetings the Board of Directors deals monthly with the reports that track the Company's earnings trend and the managing director discusses them in detail.

The Board of Directors' Compensation Committee, whose members are

confirmed by the Board of Directors and in accordance with its annual plan. The unit is staffed by two auditors, in addition to which external experts are used. The internal audit discusses its audit programme and observations during the year with the company's elected auditors.

Members of the Board

Sten-Olof Hansén, Chairman, b. 1939, D.Sc.(Econ.), Professor: Turku School of Economics and Business Administration. Chairman of the Board: Innomedica Oy,

(Association of Finland's Board Professionals). 2,700 Kemira shares.

Anssi Soila, b. 1949, M.Sc.(Eng.& Econ.). Chairman of the Board: Normet Oy, Sponda Oy, ÅR-carton AB. Member of the Board: Eimo Oy, Lindström Oy, Medone Oy. 6,000 Kemira shares.

Matti Packalén, b. 1947, M.Sc.(Eng.& Econ.). Chairman of the Board: GoodMood Oy, Setec Oy, Teamware Oy. Member of the Board: John Nurminen Oy, Novo Oy, Vapo Oy. 0 Kemira shares.



Sten-Olof Hansén, Niilo Pellonmaa and Ritva Hainari, prepare proposals on top management's salaries and bonuses for decision by the Board of Directors.

The Board of Directors as a rule meets once a year without representatives of the Company's management. The Board of Directors discusses the company's audit with the auditor.

The company maintains an internal control system for the purpose of ensuring the reliability of financial reporting and to provide protection against significant misuse or loss of company assets. The internal control system is supported by approved policies and procedures which are observed at all Group companies as well as by an internal audit department whose staff operate in accordance with the procedures and principles

Oy Lanh Ship Ab, Vetcare Oy. Member of the Board: Finnzymes Oy, Foundation for Economic Education, Perlos Oy. 5,105 Kemira shares.

Niilo Pellonmaa, Vice Chairman, b. 1941, M.Sc. (Econ.). Chairman of the Board: PMJ-Automec Oy, Rocla Oy. Member of the Board: Uponor Oy. 12,000 Kemira shares and, additionally, 100 shares through DHA-Invest Oy.

Ritva Hainari, b. 1948, M.Sc.(Eng. & Econ.). Industrial counsellor, Ministry of Trade and Industry. Member of the Board: Patria Industries Oy, State Nuclear Waste Management Fund. 0 Kemira shares.

Eija Malmivirta, b. 1941, M.Sc.(Eng.). Chairman of the Board: National Emergency Supply Agency, Finnish National Theatre Ltd, VR-Group Ltd. Member of Hallitusammattilaiset

The members of Kemira Oyj Board of Directors in 2002 were (from the left) Matti Packalén, Ritva Hainari, Sten-Olof Hansén, Niilo Pellonmaa, Eija Malmivirta and Anssi Soila.



The members of the Kemira Oyj Management Board in January 2003: in front (from the left) Esa Tirkkonen, Tauno Pihlava and Visa Pekkarinen, in the middle Tomas Forsgård and Yrjö Sipilä, in the rear Anne Haggrén, Hannu Toivonen and Heikki Sirviö.

Managing Director

According to the Articles of Association, the task of the managing director is to manage and develop the Company and the Group in accordance with the instructions and regulations issued by the Board of Directors. The managing director is responsible for ensuring that the interests of the company and the Group are taken into account at subsidiaries and associated companies that are owned by the parent company. The managing director likewise implements the decisions of the Board of Directors. The managing director of Kemira Oyj since 1 January 2000 has been **Tauno Pihlava**. The managing director's deputy has been **Esa Tirkkonen** from the same date.

Persons belonging to the Company's management, including parties closely associated with them, are not involved in substantial business relationships with the Company.

Auditors

The Annual General Meeting elects as auditors a minimum of one and a maximum of three auditors. One of the auditors must be a firm of independent public accountants approved by the Central Chamber of Commerce. The auditor of Kemira Oyj is the firm of public accountants KPMG Wideri Oy Ab, with **Hannu Niilekselä** acting as chief auditor.

Management Board

The Management Board is a body that prepares matters that are brought before the Group's Board of Directors. It attends to the planning and implementation of strategy, the setting of targets, business development, the allocation and prioritization of resources, the utilization of synergies and the management of stakeholder relations.

Management Board members from 14 February 2003

Tauno Pihlava, Chairman, b. 1946, M.Sc.(Eng.). Chief Executive Officer. 3,200 Kemira shares and 150,000 share options.

Esa Tirkkonen, Vice Chairman, b. 1949, M.Sc.(Eng.), Deputy Chief Executive Officer. Oversees: legal affairs, finance, treasury, information technology, risk management, energy. 1,075 Kemira shares and 120,000 share options.

Tomas Forsgård, b. 1966, BBA. Senior Vice President, Strategy and Performance. Oversees: strategy, purchasing and logistics. 0 Kemira shares and 0 share options.

Anne Haggrén, b. 1951, M.Sc. (Econ.). Senior Vice President, Human Resources. Oversees: human resources development and communications. 0 Kemira shares and 80,000 share options.

Lennart Johansson, b. 1960, M.Sc. (Eng.), Executive Vice President, Kemwater. 0 Kemira shares and 60,000 share options.

Harri Kerminen, b. 1951, M.Sc. (Eng.), MBA, Executive Vice President, Industrial Chemicals. 1,569 Kemira shares and 60,000 share options.

Juhani Lindholm, b. 1956, M.Sc. (Eng.), Executive Vice President, Pulp and Paper Chemicals. 0 Kemira shares and 60,000 share options.

Visa Pekkarinen, b. 1951, M.Sc. (Econ.), Executive Vice President, Paints and Coatings. 3,088 Kemira shares and 100,000 share options.

Heikki Sirviö, b. 1955, M.Sc. (Eng.), Executive Vice President, Kemira GrowHow. 0 Kemira shares and 100,000 share options.

Hannu Toivonen, b. 1947, D. Sc. (Tech.), Senior Vice President, Research and Technology. Oversees: research, product development; environmental, occupational health and safety affairs. 0 Kemira shares and 80,000 share options.

Kemira Corporate Centre

The Corporate Centre sees to the exploitation of the Group's internal synergies and manages and coordinates certain Group-wide functions such as legal affairs, finance, treasury, risk management, environmental protection, energy procurement, purchasing, logistics, communications and information technology.

Raija Arasjärvi, b. 1957, M.Sc.(Econ.)
Finance

Jori Fabricius, b. 1963, M.Sc.(Eng.)
Purchasing and Logistics

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

Esa Karhula, b. 1954, M.Sc. (Econ.).
Internal Audit

Juhani Kari, b. 1944, LL.M.
Legal Affairs

Leena Laakso, b. 1943, M.Sc.(Eng.)
Risk Management

Timo Leppä, b. 1957, M.Sc.(Eng.), CEFA
Group Communications

Jukka Liimatainen, b. 1946, M.Sc. (Eng.)
Energy

Tauno Lovén, b. 1944, M.Sc. (Econ.)
Information Technology

Aarno Salminen, b. 1956, M.A.
Environmental Protection, Occupational Health and Safety

Yrjö Sipilä, b. 1949, B.Sc.(Econ.)
Acquisition Projects

Administrative services centre

The Kemira Service administrative services centre offers the business units services connected with financial administration, information technology, human resources administration and technical planning. The head of the administrative services centre is **Matti Lapinleimu** M.Sc. (Econ.), LL.M.

Insiders

The statutory insiders of Kemira Oyj include the members of the Supervisory Board and the Board of Directors, the Chief Executive, the Chief Executive's deputy, and the following persons:

Raija Arasjärvi, Group Controller (660 Kemira shares and 70,000 share options), Marja Eklund, secretary (0 Kemira shares and 0 share options), Kaj Friman, Group Treasurer (1,702 Kemira shares and 70,000 share options), Ingrid Gustavsson, secretary (0 Kemira shares and 0 share options), Anneli Juutinen, secretary (0 Kemira shares and 0 share options), Kirsti Kalaniemi, secretary (0 Kemira shares and 0 share options), Juhani Kari, Senior Vice President (1075 Kemira shares and 100,000 share options), Liisa Karonen, secretary (0 Kemira shares and 0 share options), Arja Korhonen, secretary (0 Kemira shares and 0 share options), Timo Leppä, Vice President (0 Kemira shares and 80,000 share options), Jutta Mäkinen, secretary (0 Kemira shares and 0 share options), Hannu Niilekselä, auditor, KPMG Wideri Oy Ab (0 Kemira shares and 0 share options) and Yrjö Sipilä, Senior Vice President (1,575 Kemira shares and 100,000 share options).



Kemira's business management: (from the left) Harri Kerminen, Visa Pekkarinen, Juhani Lindholm, Lennart Johansson and Heikki Sirviö. Kerminen, Lindholm and Johansson were appointed members of Kemira's Management Board in February 2003.

Press releases

January

■ Kemira announced it was strengthening its animal feed business by building a 40,000 tonne plant in Helsingborg, Sweden. The main products will be Bolifor Feed Acids which improve feed quality and performance and are sold in the form of both liquid and solid products. The plant started up in the second half of 2002.

■ Kemira signed with Pigment Corporation of Russia an agreement under which Kemira will purchase Pigment's water treatment chemicals business located in St Petersburg. In addition, Kemira will build a new water treatment chemicals plant in St Petersburg. The total value of the transaction and investment is about 10 million euros. The agreement signed will strengthen Kemira's position in the water chemicals market in the Baltic Rim.

■ The transaction between Kemira and the private equity company J.P. Morgan Partners concerning the acquisition of Vinings Industries of North America was closed. By way of the transaction, Kemira grew from being a strong European supplier of speciality chemicals serving the forest industry to one of the biggest players in this sector worldwide. The purchase price was USD 138 million, or EUR 153 million.

February

■ Kemira announced it was stepping up the pace of its growth in its main business areas. Within pulp and paper chemicals as well as water treatment chemicals, the company is seeking to be one of the world's top three companies. The industrial chemicals business will be developed primarily through organic growth.

The objective for the paints and coatings business is to grow to become one of the leading European companies, with a focus on the operating environment in northern and eastern Europe.

In respect of Kemira Agro, the company is exploring the possibilities of spinning off the entire business into an independent company in which an external industrial partner would join Kemira and the Finnish State as the major shareholders.

March

■ Sonera Corporation sold its 20% stake in the agricultural logistics company Movere Oy to Kemira Agro Oy and Suomen Rehu Oy. Following the deal these companies each own half of Movere Oy.

■ Kemwater Services Oy, which is owned by Kemira and Helsinki Water, and YIT Environment Oy signed a Letter of Intent with the City of Haapavesi and Valio Ltd concerning the outsourcing of the City of Haapavesi's waste water treatment functions. This is the first project in Finland in which a municipality outsources its water treatment, employing private financing for carrying out the investments.

April

■ Kemira Agro Oy founded a new company, Verdera Oy, to be in charge of the company's business connected with biological pesticides. Verdera, which presently has a staff of 16 employees, develops, manufactures and markets biological pesticides. New business partners will also be sought for the business.

June

■ Kemira Chemie GmbH located in Hanau, Germany, and the German, Munich-based company Vermicon AG have agreed on a partnership for the development and marketing of test kits for micro-organisms relevant for waste water treatment.

■ Kemira announced it was revamping its Group management by combining the administrative organizations of Kemira Oyj as well as its chemicals and paints businesses. The new, leaner Group management will be responsible for the company's strategic management, developing productivity, operations control and boosting Group-wide synergies, notably, through acquisitions and within logistics.

With the aim of gaining greater efficiency in administration and services, the Kemira Service unit was set up. The project was launched as part of Kemira Agro's decoupling process, and Agro started development work on its own corresponding organization at the same time.

■ Mykora Oy, Kemira Agro's champignon-producing subsidiary, was taken over by a new company whose owners are Timo Rapila and his companies that are specialized in greenhouse cultivation, notably, Honkatarhat Oy.

August

■ Kemira initiated codetermination negotiations within its administration and service organizations because combining the administration organizations of the parent company and the core businesses was estimated to lead to about 40 redundancies. In addition, the company began surveying ways to outsource about 50 job positions.

October

■ Sonera Corporation sold its 33.3% holding in Farmit Website Oy, which produces an electronic service channel for Finnish farmers, to Kemira Agro Oy and the feed producer Suomen Rehu Oy. Following the deal, both companies own half of Farmit.

■ Kemira Agro's Animal Nutrition business unit purchased the AECl company's subsidiary Kynoch Feeds, which is located in South Africa. The company supplies high-quality feed phosphates and also offers a wide range of other products for animal nutrition. Kynoch Feeds has net sales of 45 million US dollars and employs 233 people.

■ The Kemira Group's unit Tikkurila Coatings Oy, which is responsible for industrial coatings, acquired the Akzo Nobel Coatings' general industrial liquid coatings activities in the Nordic countries. The deal strengthens Kemira's paints business in the Baltic Sea area, which is its main market area.

November

■ Kemira Agro sold a 20% stake in its biotechnology company Verdera Oy to a fund run by BioFund Management Oy. Verdera has net sales of well over 2 million euros and it is the largest company in its field in the Nordic countries. Verdera exports its products to 15 countries. The company's core operations are profitable – an exception in this field.

■ Kemira's Swedish subsidiary Kemira Kemi AB and Anox AB decided to found a joint venture named Akvab to develop and market integrated chemical/biological solutions for water treatment. Kemira has a 60% stake in Akvab and Anox 40%.

■ Kemira started up a new formic acid production line in Oulu. The total costs of the project came to 17 million euros and it was completed several months ahead of schedule. The plant's capacity rose from 60,000 tonnes to 80,000

tonnes a year. The increase makes Kemira easily the world's second largest producer of formic acid.

December

■ Hankkija-Maatalous Oy purchased a third of the shares in Movere Oy, which is specialized in agricultural logistics, after which Movere's shareholders, with equal holdings, are Kemira Agro Oy, Suomen Rehu Oy and Hankkija-Maatalous Oy.

■ The codetermination negotiations concerning Kemira's administration and service organization were seen to completion. The reorganization will mean a reduction of a total of 30 jobs at different locations.

■ Kemira announced it was investing 5 million euros in expanding its CoCoat pigment plant in Siilinjärvi. The new production line will raise the plant's total capacity to 100,000 tonnes and it will start up at the end of 2003. CoCoat calcium sulphate pigment is used for coating printing papers to improve the paper's brightness, opacity and printability. Kemira has developed the CoCoat manufacturing technology.

February 2003

■ Kemira announced in its financial statement bulletin that the spin-off of Agro could not be accomplished in a manner that would increase shareholder value and that Agro would be developed further as an independent unit called Kemira GrowHow and as a part of the Kemira Group.

Glossary

ACE

Agricultural, construction and earthmoving (equipment).

AKD wax

The active ingredient in AKD sizing used in paper manufacture. Sizing makes paper less water absorbing and controls its printing properties. AKD = alkylketenedimer.

Alkyd paint

An outdoor or indoor paint that is based on an air-drying alkyd binder. Alkyd is an oil-modified polyester resin. Alkyd paint dries faster than conventional oil paint.

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.

Anatase

A certain type of titanium dioxide pigment used by the paper industry in particular.

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.

BAT

Best Available Techniques.

BSE

Bovine Spongiform Encephalopathy.

Calcium ammonium nitrate (CAN)

A nitrogen fertilizer. Ammonium nitrate into which powdered limestone is mixed as part of the production 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.

Calcium sulphate pigment

A paper coating pigment. Product name CoCoat.

Can coatings

Can coatings for the beverage and food industry. The coating acts as an insulating layer between the food product and the can or cap.

Carbon sink

A part of the earth that permanently removes carbon dioxide from the atmosphere and binds it in organic compounds.

The most important carbon sinks are the world's oceans and forests.

CEFC

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.

Coagulant

Precipitates impurities in water.

Coil coating

A method of coating metal sheets.

Compound fertilizer

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

Diammonium phosphate (DAP)

A nitrogen and phosphorus fertilizer for crops and horticulture.

Dicalcium phosphate (DCP)

A raw material for animal feed, manufactured from raw phosphate and limestone.

ECF bleaching

Elemental chlorine free pulp bleaching.

ECOX

Product name for sodium percarbonate. Used as detergent bleach.

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 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 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 technology

Equipment used for environmental protection purposes.

Ferix

Product name. Granular ferrisulphate, a water treatment chemical.

Ferrichloride

An iron-based 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.

FinnTi

Product name for titanium dioxide pigment.

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.

GMP

Good Manufacturing Practice.

Greenhouse gases

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

GRI

Global Reporting Initiative.

HAZOP

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

HPV

High Production Volume.

Hydrogen peroxide

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.

Hydrophobation agent

An additive used in paper manufacture to regulate the water absorption of paper.

ICCA

International Council of Chemical Associations.

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.

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 (N)

An element that is essential for the growth of plants.

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 impair air quality.

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.

Organic mineral fertilizer

Composed of both organic substances (e.g. peat) and inorganic salts.

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.

Plastisol

Precoated thin sheet for roofing.

Polyaluminium chloride

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

POP

Persistent Organic Pollutant.

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.

Potassium sulphate

A sulphur and potassium fertilizer used in horticulture, or the raw material for fertilizer.

Process chemicals

Products that are primarily sold to the process industry, such as nitric acid, ammonia and technical urea.

ProGips

Product name. Gypsum raw material used by the construction industry.

Responsible Care (RC)

The chemical industry's voluntary, worldwide environmental and safety programme.

Retention

Binding together fibres and fillers by means of speciality chemicals at the wet end of a paper machine.

Rutile ore

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

Size

Additives used in paper manufacture to improve the strength or to lower the water absorption of paper.

Sodium percarbonate

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

Sodium tripolyphosphate (STPP)

Used in detergents as builder to soften the water. Prevents dirt particles from adhering back to the garment.

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.

Stabilization

Bringing to a permanent state. For example, the chemical composition of a hazardous waste can be changed or the solubility in water of the waste can be lowered by means of various treatment techniques.

TiO₂

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 and numerous auxiliary chemicals.

UV cured product

Lacquer or paint cured by ultra-violet radiation.

Ultrafine TiO₂

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 adhesives.

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 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

1.1.2003

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

Company	Group holding %	Location		Company	Group holding %	Location	
Kemira Oyj		Finland, Helsinki		Kemira Chemicals S.A./N.V.	100	Belgium, Wavre	▲
Chemicals				Kemira Chemicals	100	South Korea, Ulsan	■
Kemira Chemicals Oy	100	Finland, Helsinki	■	Korea Corporation			
Kemira Chemicals Holding Oy	100	Finland, Helsinki	●	Kemira Chemicals Canada Inc.	100	Canada, Maitland	■
Kemira Kemi AB	100	Sweden, Helsingborg	■	Kemira Chemicals U.S. Inc.	100	United States, Philadelphia, PA	▲
Kemira Chimie S.A.	100	France, Lauterbourg	■	Kemira Paper Chemicals Inc.	100	United States, Savannah	▲
Kemira Chemicals AS	100	Norway, Gamle Fredrikstad	■	Kemira Specialty Chemicals Inc.	100	United States, Kennesaw, GA	●
Kemwater Cristal S.A.	95	Rumania, Bucharest	■	Kemira Chemicals, Inc.	100	United States, Kennesaw, GA	■
Alchim S.R.L.	95	Rumania, Tulcea	■	Kemira Paper Chemicals	100	Canada, St. Catharines, Ont.	■
Kemwater Chimbis S.A.	58	Rumania, Bistrita	■	Canada Inc.			
Scandinavian Silver Eel AB	100	Sweden, Helsingborg	■	AS Kemivesi	50	Estonia, Tallinn	■
Aliada Quimica S.A.	100	Spain, Barcelona	●	Kemwater (Thailand) Ltd	49	Thailand, Bangkok	■
Kemira Ibérica S.A.	100	Spain, Barcelona	■	Kemwater Services Oy	51	Finland, Helsinki	⊙
Kemira Ibérica	100	Spain, Barcelona	●	Kemira Chemicals Brasil Ltda	100	Brazil, Telemãco Borba	■
Internacional S.L.				Kemira - Ube Ltd	50	Japan, Tokyo	■
Aliada Quimica de Portugal Lda.	74	Portugal, Estarreja	■	Kemwater (Yixing) Co., Ltd	89	China, Yixing City	■
Kemira Chimica S.p.A.	100	Italy, Ossona	■	Kemira Chemicals (Shanghai) Co. Ltd.	100	China, Shanghai	▲
Kemifloc a.s.	51	Czech Republic, Prerov	■	Kemira Pigments Oy	100	Finland, Pori	■
Kemifloc Slovakia S.r.o.	51	Slovakia, Sol	▲	Kemira Pigments	100	Hungary, Budapest	▲
Kemwater Närke AB	92	Sweden, Kumla	■	Kereskedelmi KFT			
Kemira Miljø A/S	100	Denmark, Esbjerg	■	Kemira Pigments S.A.	100	Belgium, Wavre	▲
Kemipol Sp. z o.o.	51	Poland, Police	■	Kemira Pigments Asia	100	Singapore, Singapore	▲
Kemira Kopparverket KB	100	Sweden, Helsingborg	⊙	Pacific Pte. Ltd.			
Ahlbo Kemi AB	100	Sweden, Helsingborg	●	Kemira Pigments Latin America Comercial Ltda.	100	Chile, Santiago	▲
Kemwater Brasil S.A.	51	Brazil, São Paulo	■				
Kemwater de México, S.A. de C.V.	51	Mexico, Tlaxcala	■	Paints and Coatings			
Kemwater ProChemie s.r.o.	60	Czech Republic, Bakov nad Jizerou	■	Tikkurila Oy	100	Finland, Vantaa	⊙
Kemwater Dipier	51	Turkey, Izmir	■	Tikkurila Paints Oy	100	Finland, Vantaa	■
Environmental Chemicals Inc.				Tikkurila Coatings AB ¹⁾	100	Sweden, Spånga	▲
Alufluor AB	50	Sweden, Helsingborg	■	AS Vivacolor	100	Estonia, Tallinn	■
Kemira Fine Chemicals Oy	100	Finland, Kokkola	■	UAB Vivacolor	100	Lithuania, Vilnius	▲
Kemira Chemicals (UK) Ltd	100	United Kingdom, Harrogate	▲	ZAO Finncolor	100	Russia, St. Petersburg	■
Kemira Chemie GmbH	100	Germany, Alzenau	■	OOO Kraski Tikkurila	100	Russia, Moscow	■
Kemira Paper Chemicals Oy	100	Finland, Helsinki	■	Tikkurila Festék KFT	100	Hungary, Budapest	▲
Kemira Chemie Ges.mBH	100	Austria, Krems	■	Imagica Ltd	100	United Kingdom, Uxbridge	▲
PCS Paper Chemicals Systems Vertriebges.mBH	100	Austria, Krems	▲	SIA Vivacolor	100	Latvia, Riga	■
Kemira-Swiecie Sp. z o.o.	65	Poland, Swiecie	■	Tikkurila Coatings Sp. z o.o ¹⁾	100	Poland, Szczecin	■
ZAO NovoKemira	47	Russia, Novodvisk	■	Imagica S.r.l.	100	Italy, Modena	■
Kemira Cell Sp. z o.o.	55	Poland, Ostroleka	■	Tikkurila Coatings Oy	100	Finland, Vantaa	■
Kemira Kimya Sanayi ve Ticaret A.S.	51	Turkey, Istanbul	■	Tikkurila Coatings B.V.	100	Netherlands, Dordrecht	■
Kemira Chem Holding B.V.	100	Netherlands, Rotterdam	●	Tikkurila Coatings (Ireland) Ltd	100	Ireland, Cork	▲
Kemira Chemicals B.V.	100	Netherlands, Rozenburg	■	Tikkurila Coatings Ltd	100	United Kingdom, Bury	■
Kemira Kemax B.V.	100	Netherlands, Rozenburg	●	AS Tikkurila Coatings	100	Estonia, Tallinn	▲
				Tikkurila Coatings KFT	100	Hungary, Budapest	▲
				ZAO Tikkurila Coatings	100	Russia, St. Petersburg	▲

Group companies

Company	Group holding %	Location		Company	Group holding %	Location	
SIA Tikkurila Coatings	100	Latvia, Riga	▲	Comercial de Fertilizantes	100	Spain, Valencia	▲
Tikkurila Services Oy	100	Finland, Vantaa	⊙	Liquidos S.A.			
Alcro-Beckers AB	100	Sweden, Stockholm	■	Kemira Phosphates Oy	100	Finland, Helsinki	■
Alcro-Beckers Norge A/S	100	Norway, Oslo	▲	Kemira Phosphates (Pty) Limited	74	South Africa, Durban	▲
Alcro-Beckers Poland Sp. z o.o	100	Poland, Warsaw	⊙	KK Animal Nutrition (Pty) Ltd	87	South Africa, Unbogintwini	▲
Alcro-Beckers Danmark A/S	100	Denmark, Copenhagen	▲	Viljavuuspalvelu Oy	80	Finland, Mikkeli	⊙
TBD S.A.	100	Poland, Debica	■	Verdera Oy	80	Finland, Helsinki	■
Nokian Laatuomaalit Oy	100	Finland, Nokia	■	SIA Kemira Agro Latvija	100	Latvia, Riga	▲
Pigrol Farben GmbH	100	Germany, Ansbach	■	ZAO Kemira Agro	100	Russia, Moscow	▲
Holmbergs Färg i Skövde AB	91	Sweden, Skövde	▲	OOO Mineralresurs	100	Russia, Moscow	●
Färghuset i Bollnäs AB	91	Sweden, Bollnäs	▲	Kemira Agro Poland Sp. z o.o.	100	Poland, Gdynia	▲
Tapetlagret Öbergs Färghus i Västerås AB	91	Sweden, Västerås	▲	Kemira Sdn. Bhd.	100	Malaysia, Kuala Lumpur	▲
Gemptus AB	91	Sweden, Västerås	⊙	Kemira Agro Hungary Ltd Co.	100	Hungary, Hódmezővásárhely	▲
Färgmästaren J E Englund AB	91	Sweden, Eskilstuna	▲	Kemira Chemicals Hungaria KFT	100	Hungary, Budapest	▲
Hässleholms Färg & Miljö AB	91	Sweden, Hässleholm	▲	AS Kemira Agro Eesti	100	Estonia, Tallinn	▲
RF Golventreprenader AB	91	Sweden, Västerås	▲	UAB Kemira Agro Vilnius	100	Lithuania, Vilnius	▲
Runes Färger AB	91	Sweden, Västerås	▲	UAB Kemira-Lifosa	51	Lithuania, Kedainiai	■
Färg AB Gamol	91	Sweden, Uddevalla	▲	AB Gustoniu zemes ukio chemija	47	Lithuania, Panevezio raj.	■
Färghuset i Malmö AB	100	Sweden, Malmö	▲	UAB Movere	80	Lithuania, Kedainiai	⊙
Färgservice i Malmö AB	91	Sweden, Malmö	▲	AS Fertimix	100	Estonia, Tallinn	■
Färghuset i Kristinehamn AB	91	Sweden, Kristinehamn	▲	Biolchim S.p.A.	50	Italy, Bologna	■
Billdals Färghus AB	91	Sweden, Göteborg	▲				
Golv & Färghuset	91	Sweden, Göteborg	▲				
Peter Alvefelt AB				Other			
Alcro Parti AB	50	Sweden, Stockholm	▲	Kemira Metalkat Oy	100	Finland, Laukaa	■
				Metpela Oy	100	Finland, Laitila	■
Agro				Convertitori Catalitici	100	Italy, Genova	■
Kemira Agro Oy	100	Finland, Helsinki	■	Europa S.r.l.			
Kemira Agro Holdings Ltd	100	United Kingdom, Ince	●	Kemira Katalysatoren GmbH	100	Germany, Wiesbaden	▲
Kemira Agro U.K. Ltd	100	United Kingdom, Ince	■	Metalkat Romania S.A.	90	Romania, Craiova	▲
Kemira Ltd	100	United Kingdom, Ince	■	Metalkat U.S. Inc	100	United States, South Chicago Heights	●
Kemira Ireland Ltd	100	Ireland, Dublin	▲	Universal Kat, Plc	60	United States, South Chicago Heights	■
Kemira S.A./N.V.	100	Belgium, Wavre	■	Multirange B.V.	100	Netherlands, Rotterdam	⊙
Bataille S.A.	100	Belgium, Basècles	■	Kemira Pigments Holding B.V.	100	Netherlands, Rotterdam	●
Engrais Bataille S.A.	100	France, Fresnes s/ Escaut	■	Kemira Services Holland B.V.	100	Netherlands, Rotterdam	⊙
Kemira Engrais S.A.	100	France, Ribécourt	▲	Kemira International Finance B.V.	100	Netherlands, Rotterdam	⊙
S.G.A. S.A.	100	Belgium, Wavre	▲	Kemira Finance B.V.	100	Netherlands, Rozenburg	⊙
Kemira Agro Holding B.V.	100	Netherlands, Rotterdam	●	Kemira Engineering Oy ²⁾	100	Finland, Helsinki	⊙
Kemira Agro Rozenburg B.V.	100	Netherlands, Rotterdam	■	Kemira Trading Oy	100	Finland, Helsinki	▲
Kemira Agro Pernis B.V.	100	Netherlands, Rotterdam	■	Spruce Vakuutus Oy	100	Finland, Helsinki	⊙
Kemira Danmark Holding A/S	100	Denmark, Fredericia	●				
Kemira Danmark A/S	100	Denmark, Fredericia	■				
Kemira B.V.	100	Netherlands, Rotterdam	●				
Kencica Speciaal meststoffen B.V.	100	Netherlands, Maastricht	▲				
Kemira Deutschland GmbH	100	Germany, Hannover	▲				
Kemira Specialty Crop Care B.V.	100	Netherlands, Rozenburg	▲				

¹⁾ Owned in equal shares by Tikkurila Coatings Oy and Tikkurila Paints Oy.

²⁾ Owned in equal shares by Kemira Chemicals Oy, Kemira Pigments Oy and Kemira Agro Oy.

Companies not operative in 2002 are excluded.



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Board of Directors' review	2
Shares and shareholders	8
Key figures	11
Consolidated financial statements	14
Company profile and summary of significant accounting policies	19
Notes to the consolidated financial statements	21
Kemira Oyj financial statements and notes	40
Proposal for the distribution of profits	45
Auditors' report	46
Statement of the Supervisory Board	46
Quarterly income statement	47

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

Board of Directors' review

Despite the slowdown in growth in 2002, the Kemira Group's pulp and paper as well as water treatment chemicals and paints businesses succeeded in improving their earnings from operations. In the Pulp & Paper Chemicals unit this was thanks to the acquisition which was made at the beginning of February of last year. The effect of the recession showed up particularly in Industrial Chemicals' sales of titanium dioxide pigments and in the low yield on pension fund investments, which raised pension expenses.

The spin-off of Agro did not go through. Development of its operations is being continued as an independent unit that is part of the Kemira Group. Agro made sizeable non-cash write-downs on assets.

Consolidated net sales increased by 6 per cent on the previous year and were EUR 2,612 million (2,454 million). Operating income was EUR 45 million (144), representing 2% of net sales (6%). Shares in the earnings of associated companies amounted to a total credit to income of EUR 5.5 million. The Group posted an operating loss in October-December of EUR 60 million (operating income of 17 million). The last quarter was burdened by Agro's exceptional non-cash write-downs totalling 78 million. Full-year operating income includes a total of EUR 11 million of other non-recurring business reorganization expenses that are discussed below.

In addition, the operating result was burdened by a further increase in the contributions to the Group's Finnish pension funds as a consequence of weak investment yields in a depressed market. In the last quarter the market revived somewhat, which meant that the situation improved compared with what was forecast in the third-quarter interim report. Contributions over the full year amounted to EUR 43 million, an increase of about EUR 6.5 million on the figure a year earlier.

Income before taxes and minority interests declined to EUR 16 million from EUR 113 million a year ago. Net of the non-recurring expenses for Agro, the figure was EUR 94 million. Income after taxes was EUR 8.2 million (70 million). Earnings per share were

EUR 0.07 (0.58) and stripping out the write-down they were EUR 0.61. About 82% of the Group's net sales came from outside Finland.

The return on equity was 1% (6%). The cash flow return on capital invested was 15% (7%).

Cash flow after capital expenditures and income from the disposal of assets was EUR 67 million (146 million negative). Per-share cash flow from operations was EUR 2.45 (1.03). Equity per share was EUR 8.94 (9.35) and gearing was 72% (61%).

Although net income for the past financial year was weak, mainly as a consequence of non-recurring charges, the Group's cash flow was very strong, and the Board of Directors believes that the business areas will be on an upward trend in the years ahead. Accordingly, the Board of Directors is proposing that the dividend to be paid for 2002 be EUR 0.30 per share (0.30), or a total dividend payout of EUR 35.5 million.

Development of the business areas

In accordance with its strategy that was confirmed in February 2002, Kemira is stepping up its growth in the company's core business areas. Within pulp and paper chemicals as well as water treatment chemicals, the company is seeking to be one of the world's top three companies. This will be accomplished mainly through M&A arrangements. The objective for the paint business is to grow into one of the leading European companies, with a focus on the Baltic Rim operating environment. The industrial chemicals business will be developed by drawing on its present – largely organic – growth potential.

The options for decoupling the entire Kemira Agro business from the Group have been explored in depth. A number of different alternatives have been considered, ranging from a divestment of the Agro business to spinning it off together with an industrial partner or alone. In the present market situation, when Agro's business cycle is judged to be at its weakest in 2003, the spin-off could not be accomplished in a manner that would increase shareholder value. Because at

the same time there can be seen in Agro's market certain positive factors which, if they materialize, will lead to an upswing, the Board of Directors has decided to halt the active measures aimed at decoupling Agro from the Kemira Group. The focus of operations will move to developing Agro's competitiveness further as an independent unit, whilst strengthening its own identity.

Chemicals

In the fourth quarter Kemira Chemicals had net sales of EUR 274 million (221 million). Full-year net sales totalled EUR 1,058 million, up 17 per cent on the previous year. All the strategic business units continued to grow, led by acquisition-boosted Pulp & Paper Chemicals, but with Kemwater also performing strongly. Fourth-quarter operating income was EUR 26 million (24 million). Full-year operating income was EUR 75 million (91 million), representing 7% of net sales. The above-mentioned pension fund contributions were EUR 6.5 million greater than a year ago. Earnings were furthermore burdened by the shutdowns required for the extension works at the formic acid plant in Oulu and the titanium dioxide plant in Pori as well as by the strikes in the first part of the year and a lower titanium dioxide price than a year ago.

Pulp & Paper Chemicals. Sales by the Pulp & Paper Chemicals unit, which has been designated one of the Group's strategic growth areas, increased by 41%.

Speciality chemicals for the paper industry have enjoyed the strongest growth following Kemira's acquisition in February of Vinings Chemicals Inc. of the USA. The deal put Kemira on the world map as a major supplier of pulp and paper chemicals. By way of the transaction, Kemira has grown from being a strong European supplier of speciality chemicals serving the forest industry into one of the biggest players in this sector worldwide. The purchase price was USD 138 million. On the other hand, the production volumes of the pulp and paper industry have remained at a low level and this has had an effect on the consumption of chemicals.

The profitability of bleaching chemicals fell short of targets, mainly owing to the low price level. Despite the business cycle, the Speciality Chemicals unit has moved ahead according to plan. Sales and earnings generated by sulphur chemicals have decreased in line with the forecast market situation.

The Pulp & Paper Chemicals unit's operating income came in above previous year's level.

Kemira invested EUR 5 million expanding in the Siilinjärvi pigment plant, and the new production line for calcium sulphate pigment will lift the plant's total capacity to 100,000 tonnes. The line will start up at the end of 2003. The manufacturing technology for the calcium sulphate pigment is Kemira-developed and the product is unique by world standards. Due to the greater demand for improved sheet quality, mineral pigments are playing an ever bigger role in the paper coating process and as a filler material. A new speciality chemicals production unit went into operation in Brazil.

Over the next few years Kemira's objective is to grow into one of the world's leading suppliers of pulp and paper chemicals.

Kemwater. The Kemwater unit, which produces water treatment chemicals, reported a rise of 7% in net sales. Operating income was at nearly the previous year's level. Kemwater is pursuing further growth and will strengthen its market position, primarily in its present markets. This trend was most pronounced in central and southern Europe, where water treatment capacity is increasing.

Kemira's Swedish subsidiary Kemira Kemi AB and Anox AB have decided to found a joint venture named Akvab to develop and market combined chemical/biological solutions for water treatment. Kemira has a 60% stake in Akvab and Anox owns 40%.

At the beginning of 2002 an agreement was signed with the Russian company Pigment Corporation whereby Kemira will acquire its water treatment chemicals business. The acquisition is estimated to close fairly soon. Second-stage plans call for building a new water treatment chemicals

production line in St Petersburg. The total cost of the deal and the capital expenditure will be about EUR 10 million. Water treatment in St Petersburg is a major development step for Kemira, and the agreement will strengthen Kemira's position as Europe's largest supplier of coagulants.

The **Industrial Chemicals** business unit reported an increase of 1% in its net sales compared with the previous year. The operating result was markedly lower owing to the low price level of titanium dioxide pigment.

Kemira Pigments' sales volumes were 3% higher than in the previous year, but prices were on average 10% lower than a year ago. The titanium dioxide pigment market bottomed out in the summer and product prices headed upward. At the end of the year, prices were at the same level as at the end of 2001. An extensive shutdown was carried out at the Pori plant in August-September in connection with the final phase of an investment to expand capacity. Additional capacity was completed towards the end of the year and it will make possible additional sales of about EUR 20 million. The unit's profitability also suffered from production difficulties and the strikes in the first part of the year.

The calcium chloride business has been stable and capacity utilization rates high. From time to time there has been a shortage of products and the price level was slightly higher than it was the year before.

Within the formic acid business the capacity utilization rates at the plants have likewise been high and there has been a shortage of formic acid and its derivatives on the market. The price level was slightly better than a year ago. A new formic acid production line was completed, several months ahead of schedule, in Oulu at the end of the year. The total costs of the project came to EUR 17 million. The plant's capacity rose from 60,000 tonnes to 80,000 tonnes a year. The increase raised Kemira comfortably to the position of the world's second largest producer of formic acid.

Last year saw the completion of an expansion to the plant that manufactures sodium percarbonate, which is

used as a raw material in detergents. The expanded facility has been in full use, sales volumes have risen and the unit's profitability has improved compared with the previous year.

In February 2003 a fire occurred at the titanium dioxide plant in Pori. It did not cause personal injury but did damage the plant's roof structures. Following a brief shutdown, 2/3 of the plant's production went back into operation, and deliveries of goods to customers continued without disturbances. The insurance policies cover the greater part of the property damage and the financial losses caused by the interruption of production.

Kemira Fine Chemicals' sales grew markedly on last year and profitability improved.

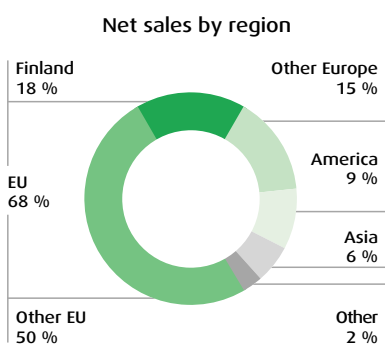
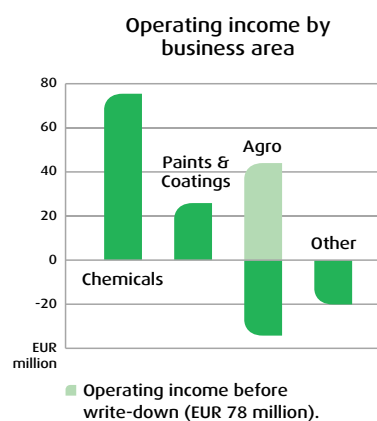
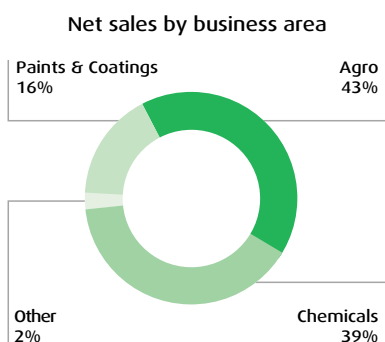
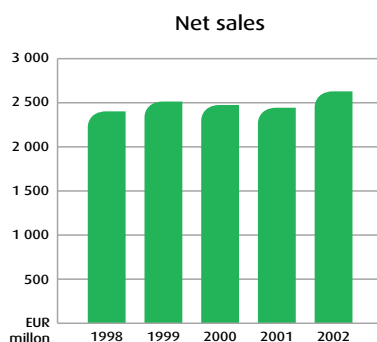
Paints and Coatings

The paint business continued its stable development also in the latter part of the year. Due to the seasonal nature of the business, this is the slowest time of the year. In the fourth quarter Paints and Coatings had net sales of EUR 85 million (83 million). Full-year net sales were EUR 450 million (445 million). Paints and Coatings reported a fourth-quarter operating loss of EUR 9.7 million (operating loss of 9.1 million) and full-year operating income of EUR 25 million (17 million), or 6% of net sales (4%). The savings generated by combining the operations of Tikkurila and Alcro-Beckers, which was acquired at the beginning of 2001, began to show up in earnings. Efficiency-boosting measures resulted in a non-recurring cost of about EUR 7 million during the financial year. The item mainly burdened the fourth-quarter result.

Net sales reported by the decorative paints arm, Tikkurila Deco, were up 3%. Strong growth has continued in the Baltic countries and in Russia. Operating income was burdened by non-recurring expenses connected with winding up the Benetton business, changes made in the Alcro-Beckers distribution chain in Sweden and the disposal of a plant unit that was closed in Finland.

The industrial coatings manufacturer Tikkurila Coatings reported a 3% drop in net sales because investments

Board of Directors' review



by industry and agriculture have remained at a low level owing to the poor economic outlook. Sales growth in the markets of eastern Europe did not suffice to offset the fall in Great Britain and the Netherlands. The decision to close the plant in the Netherlands and the one-off expenses of the reorganization of operations in Great Britain cut into operating income, but on the other hand the changes will bring results.

Towards the end of October Kemira acquired Akzo Nobel Coatings' general industrial liquid coatings business in the Nordic countries. The business had sales of EUR 17 million in 2001. The deal will strengthen significantly the position of Kemira's industrial coatings business in the Nordic countries and the Baltic area.

Agro

Agro, which produces fertilizers, animal feeds and process chemicals, had net sales of EUR 294 million in the last quarter (312 million) and EUR 1,165 million over the full year (1,158 million). Following the record low sales volumes caused by the exceptional weather conditions in the previous year, fertilizer sales volumes grew by 9 per cent last year. Sales volumes in the fourth quarter were up 7 per cent on the same quarter of 2001. Towards the end of the year, fertilizer stocks fell back to the usual level.

Agro reported an operating loss of EUR 34.4 million (operating income of 49 million). In the fourth quarter Agro made an operating loss of EUR 74.2 million (operating income of 9 million). The figure includes EUR 78 million of non-recurring write-downs on the impaired assets of subsidiaries and associated companies. These items do not have an effect on the Group's cash flow. In addition, EUR 4.3 million of one-off expenses due to other structural arrangements was booked (1.8 million). Agro's operating income was at the same level as in 2001.

Demand in the European fertilizer market has not recovered as forecast following the exceptional weather conditions of 2001.

The specialty fertilizer unit reported

a marked increase in net sales compared with last year. The volume of NPK fertilizer sales rose by 10%. The unit reported especially strong growth in deliveries to the Baltic countries and eastern central Europe as well as to markets outside Europe. Prices of fertilizers were about 5% lower than in the previous year. The fall in prices was offset in part by the low price of ammonia, which is used as a raw material, as well as by a decrease in fixed costs thanks to efficiency-boosting projects. Operating income was better than a year earlier.

A capital expenditure in Uusi-kaupunki aiming at raising the level of automation was seen to completion during the year. In Spain, Kemira Agro acquired the entire shares outstanding in the sales company Coferlisa SA, whose principal product is speciality fertilizers. The company was previously a joint venture with a local partner.

Net sales of the unit which manufactures nitrogen fertilizers fell 13% below the previous year's figure, even though the volumes of fertilizer delivered rose by 8%. The price level weakened markedly and at the beginning of the autumn season was on average 10% below the previous year's price, though the price level of nitrogen fertilizers began to firm up again towards the end of the year. Operating income was clearly weaker than last year.

The year saw the completion of the transfer to Tertre, Belgium, of the nitric acid plant that was closed in the Netherlands towards the end of 2000. The transfer investment helped to improve the efficiency of nitric acid production. Agro sold part of the equipment and warehouse facilities of the fertilizer plant in the Netherlands that was closed towards the end of 2000. Negotiations on the sale of the remaining parts are continuing.

The feed phosphate business has developed favourably both in terms of net sales and profitability. The unit's operating income improved. The animal feed business is being strengthened by building a 40,000 tonne feed acid plant in Helsingborg, Sweden. The plant started up in the second half of the year. The product is believed to

have good growth possibilities, especially owing to the widening scope of restrictions on the use of antibiotics in animal feeds. A plant that will manufacture potassium nitrate and feed phosphates which is presently under construction in Jordan on a joint venture basis will go into operation in the first part of 2003.

In mid-October, Kemira Agro acquired Kynoch Feeds of South Africa. The company delivers high-quality feed phosphates and other products for animal nutrition. Kynoch Feeds has net sales of 45 million dollars and it employs 233 people. Thanks to the acquisition and the new plant in Jordan, Agro's position will be bolstered significantly, particularly in the Middle East and Asia, where the markets are growing.

A new company, Verdera Oy, was established to handle the biological pesticides business. With a staff of 17 employees at present, Verdera develops, manufactures and markets biological pesticides. After the company was founded, a 20 per cent stake in it was sold to a fund run by BioFund Management Oy. A search is under way for new business partners to strengthen Verdera's operations. Verdera has net sales of EUR 1.7 million and it is the largest company in its field in the Nordic countries. Kemira Agro raised its holding in Farmit Web-site Oy, which produces an electronic service channel for farmers, to 50%.

The shares in Mykora Oy, Agro's subsidiary which grows and markets champignons, were sold to a domestic entrepreneur who will carry on the business. Mykora had net sales last year of about EUR 7 million and employed 60 people. Operations of the loss-making liquid fertilizer plant in Rozenburg, the Netherlands, were wound up.

Process chemicals continued to have good sales and profitability.

Other units

Kemira Metalkat, which manufactures catalytic converters, reported a decrease in net sales of 13%, to EUR 34 million. The company posted an operating loss of EUR 2.4 million.

A year ago it made an operating loss of EUR 2.7 million.

Capital expenditures

The Group's capital expenditures, including acquisitions, totalled EUR 243 million (298 million), or 9% of net sales. Depreciation on fixed assets amounted to EUR 176 million. Disposals of fixed assets and subsidiaries yielded EUR 21 million (27 million). The Group's investments in environmental protection came to about EUR 12 million (14 million).

The Group spent about EUR 46 million on research and development, or about 2% of net sales. The figure does not include capital expenditures.

Environmental protection and management of risks

Environmental protection is an essential part of the Group's operations. The company publishes an Environmental Report annually.

The Group continually pays close attention to ensuring that its operations are safe and that its plants run without disturbances. Functions and operations are evaluated by both internal and external experts. During the year the 13 largest production sites were evaluated in this connection.

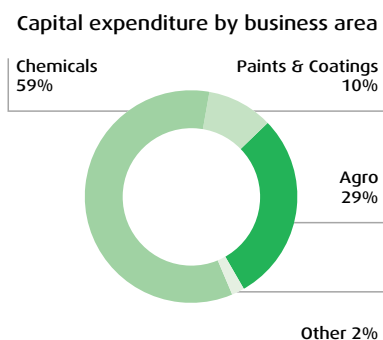
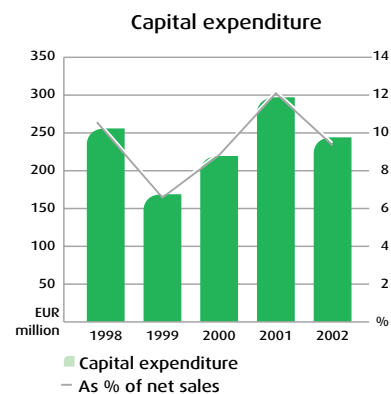
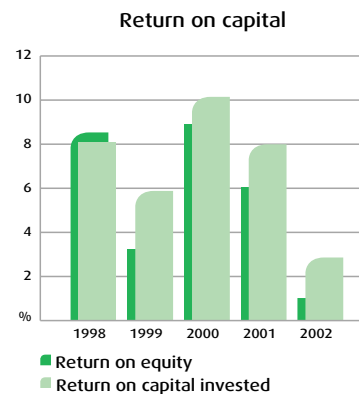
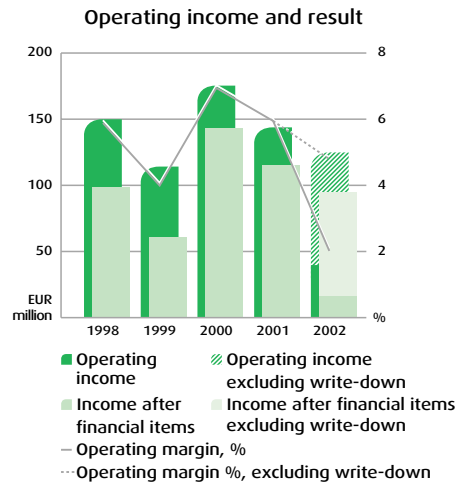
Financing

The Group's financial position remained stable. Interest-bearing net debt at the end of 2002 stood at EUR 768 million (686 million). The growth was attributable primarily to the acquisition of Vinings Chemicals Inc.

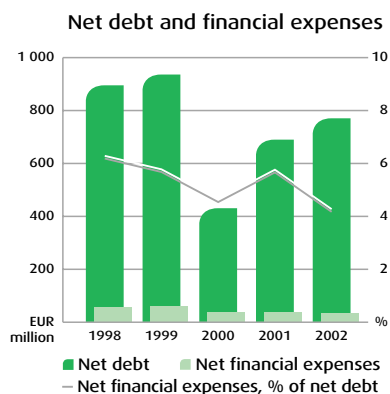
During the year one new long-term loan of EUR 75 million was taken out, and the amount of short-term loans decreased by EUR 39 million.

Cash flow before financing was EUR 67 million (-146). The Group's equity ratio was 43% at the close of the year (46%). The gearing ratio (net debt as a ratio of shareholders' equity) was 72%. At the end of the year liquid funds amounted to EUR 81 million and unused agreed credit facilities totalled about EUR 292 million.

Net financial expenses were EUR 29.5 million (EUR 31 million). Foreign exchange differences resulted in



Board of Directors' review



a net gain of EUR 10 million. The proportion which fixed-interest loans represented within the total amount of the Group's interest-bearing loans was about 37% at the end of the year. Pension loans are considered to be floating rate loans. Owing to the exceptionally low level of interest rates, the change in the market value of interest rate hedging instruments was EUR 9 million negative.

Parent company's financial performance

The parent company's net sales come only from the sale of energy in Finland, both within and outside the Group. The parent company had net sales of EUR 23 million (21 million). The parent company reported an operating loss of EUR 36.3 million (a loss of 14.8 million). The loss was exceptionally large because it includes an EUR 22 million loss booked within the Group as a consequence of the ownership arrangements connected with the decoupling of Agro. The parent company bears the costs of Group management and administration as well as part of the expenses of the research centre in Espoo.

The parent company's net financial income amounted to EUR 127 million (11.6 million). The figure includes large items within the Group: a dividend of EUR 172 million paid by Tikkurila Oy and EUR 56 million of losses on the write-down of internal loans. Income before taxes and appropriations was EUR 185 million (109 million). Capital expenditures amounted to EUR 17 million, including increases in the equity of subsidiaries.

Personnel

The Group employed an average of 10,377 people, or 170 more than in the previous year. Of the total personnel, an average of 5,696 people were employed by Group companies outside Finland.

The parent company had an average payroll of 257 employees, 22 more than a year ago.

In order to achieve Kemira's strategic objectives, a project aiming at de-

veloping the organization was launched. The project will seek to improve operational efficiency and develop the organization in line with the requirements for promoting the growth and transformation of the Group's business operations.

The cornerstones of the organizational remake are the formation of a new and smaller Corporate Centre and the establishment of a joint administrative services centre. The Corporate Centre will concentrate on active strategic management. Establishment of Kemira Service will improve the efficiency and quality of administrative and support functions as well as yield Group-wide advantages of scale.

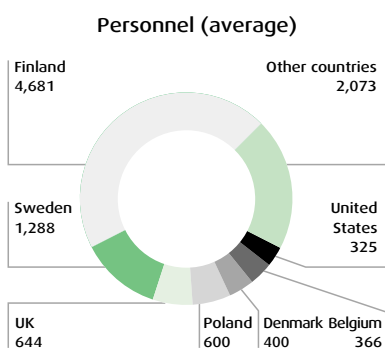
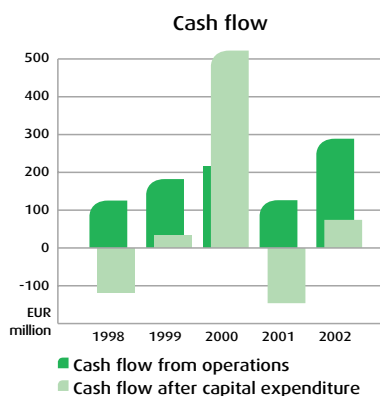
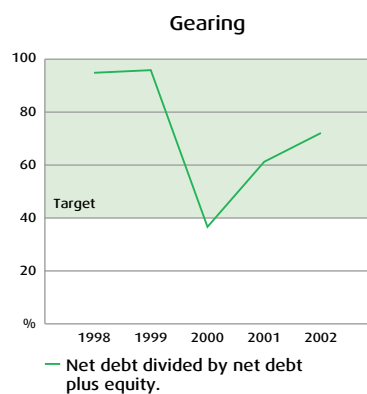
A large part of the Group's personnel are covered by various bonus systems that vary from country to country. In addition, the Group has a share option system for top management.

The Annual General Meeting resolved to amend the Articles of Association such that the general meeting of shareholders elects the company's Board of Directors and its chairman and that the Board of Directors elects the company's president and his deputy. During the year under review the following persons served on the Board of Directors of Kemira Oyj: Sten-Olof Hansén (Chairman), Niilo Pellonmaa (Vice Chairman), Ritva Hainari, Eija Malmivirta, Anssi Soila and Tauno Pihlava, the last-mentioned up to 3 April 2002, when the Annual General Meeting elected Matti Packalén to replace him. The other members were re-elected for the term of office beginning from the Annual General Meeting and extending up until the next Annual General Meeting. None of the members of the Board of Directors is an employee of the Group.

Ownership

The Finnish Government's holding in Kemira was 56.2% at 31 December 2002. Foreign institutional investors owned 4.6% of the shares and Finnish institutions and mutual funds 29.1%. Private investors' holdings amounted to 6.7% of the shares outstanding.

The Annual General Meeting resolved to authorize the Board of Directors to purchase the company's



own shares on the market such that the company can have in its possession treasury shares up to a maximum of 5% of the company's entire shares outstanding, or 6,118,000 shares. Shares can nevertheless be bought back up to a maximum amount of 1,928,000 shares because the company has in its possession 4,190,000 shares that were previously bought back. The Annual General Meeting furthermore authorized the Board of Directors to transfer on treasury shares following this purchase as well as to sell them via Helsinki Exchanges. They can also be used as part of the bonuses which are to be paid to the Group's personnel funds and as employee bonuses (in the event that a decision is taken to introduce them) or else as consideration in acquisitions. The authorization relates to a maximum of 6,118,000 of the own shares bought back for the Company. The authorization is in force for one year from the resolution of the Annual General Meeting and so far it has not been exercised.

Changes in the Group structure

A number of companies or participations were established, acquired or divested during the year. The major changes have been discussed in the surveys of the business areas.

Outlook for 2003

Pulp & Paper Chemicals. The unit's market outlook will be affected by the continuing weak demand within the pulp and paper industry, which is a con-

sequence of the general business cycle, especially in the USA. The recession is forecast to continue. The acquisition of Vinings of the USA has strengthened Kemira's position in the global pulp and paper chemistry market significantly: the company's geographical presence has been reinforced and it also offers an expanded palette of products and services. Operating income is expected to improve.

Kemwater. The water treatment chemicals business too is expected to show favourable development, and this is likewise a sector in which Kemira is prepared to grow by way of acquisitions. Operating income is expected to remain at a good level.

Industrial Chemicals. The unit has good prospects for the year. New capacity for different products has been completed, thereby paving the way for growth in sales volumes and earnings. The price level of a number of products has developed positively and the market situation is good. Measured by net sales, titanium dioxide pigments are the unit's largest product by far, and an improvement in their price level will show up in the unit's operating profit, which is expected to rise.

Paints and Coatings. Demand for paints appears moderately good and the general slowdown in the economy is not anticipated to have a significant impact on it. The strong growth in demand for paints is anticipated to continue, especially in Russia and the Baltic countries. The synergy benefits arising from combining the paint

businesses of Tikkurila and Sweden's Alcro-Beckers will improve the result of the paint business right during this year. This, coupled with ever-growing demand in the nearby markets, is the basis for the expectations in the paint industry of an improvement in operating income.

Agro. Over the longer term it is believed that the structural transformation in the European fertilizer industry will continue because certain producers have already ended up in financial difficulties. The world's grain stocks are at an exceptionally low level. This has already raised grain prices and as a rule it has previously also showed up as a rise in the prices of fertilizers. The near-term outlook remains shrouded in uncertainty as a consequence of the higher price of energy and transports. Prices during the fertilizer season have so far been lower than they were last year and at the same time the price of the main raw material, natural gas, has risen. Agro's full-year operating income is expected to be somewhat less than last year.

Kemira Group. Although there appears to be no let-up in the difficulties facing the world economy this year, Kemira Group is estimated to report better operating income than it did in 2002. A number of expansion investments became operational towards the end of last year, and the business cycle for titanium dioxide pigment is improving.

The trend in share prices will affect the Group's pension costs because the investment portfolios of Finnish pension funds include about EUR 100 million of listed shares. Financial expenses are forecast to be close to last year's level.

In 2003 the Group structure will be altered such that instead of the Kemira Chemicals business area, the business units will report separately. This means that the reporting units henceforth will be Pulp & Paper Chemicals, Water Treatment Chemicals, Industrial Chemicals, Paints and Coatings and the GrowHow unit, which is Agro's new name.

EARNINGS AND PERSONNEL BY BUSINESS AREA IN 2002	Net sales	Operating income	Personnel average
EUR million			
Chemicals	1,058	75	4,254
Paints and Coatings	450	25	2,505
Agro	1,165	-34	3,041
Other	36	-20	577
Intra-Group sales	-97	-	-
Group total	2,612	46	10,377

All forecasts and estimates mentioned in this report are based on the current judgement of the economic environment and the actual results may be significantly different.

Shares and shareholders

Shares and voting rights

Kemira Oyj has 122,360,000 shares outstanding. Each share carries one vote at general meetings of the shareholders. According to the Articles of Association, the company's share capital can be in the range of from EUR 217 to 850 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 EUR 217 million. Kemira Oyj shares are registered within the book-entry system.

Dividend policy

Kemira aims to distribute a dividend which is 30 - 50% of its operational net income. The company's Board of Directors will propose to the Annual General Meeting that a dividend of EUR 0.30 per share, or EUR 35.5 million, be paid for the 2002 financial year. This corresponds to a dividend payout of 41% of the net income excluding non-recurring items and a dividend payout of 429% of net income. Taking into account the Finnish

tax base, this amounts to a taxable dividend of EUR 0.42. The record date for the dividend payout will be 11 April 2003, and the dividend will be paid on 23 April 2003.

Increase in share capital

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

Purchase of own shares

The Annual General Meeting held on 3 April 2001 resolved to authorize the company's Board of Directors to purchase a maximum of 6,118,000 of the Company's own shares on the market (share buyback). The authorization was valid for one year from the date of the Annual General Meeting. By the date of the 2002 Annual General Meeting, 4,190,000 shares had been bought back on the basis of the authorization. The Annual General Meeting resolved on 3 April 2002 to continue the share buyback authorization up to the above-mentioned 6,118,000 shares.

In addition, the 2002 Annual General Meeting resolved to continue the authorization to transfer the shares bought back and to extend it such that the shares can be sold through Helsinki Exchanges. After the 2002 Annual General Meeting the company has not purchased or sold its own shares.

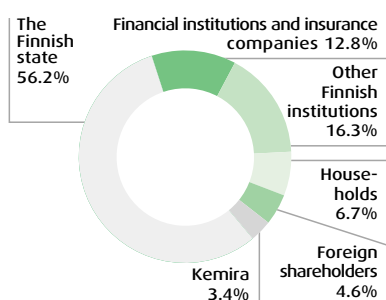
Insider rules

The insider regulations issued by Helsinki Exchanges on 28 October 1999 are observed within the Kemira Group.

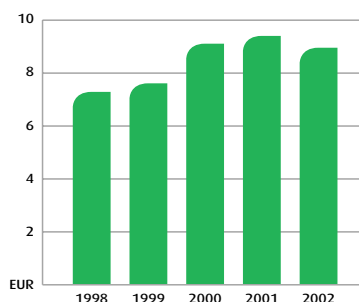
Listing and share trading

Kemira Oyj's shares have been listed on Helsinki Exchanges 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 legislation are allowed to buy and sell the shares. Kemira's shares can also be traded in the United States in the form of ADS shares. One ADS share corresponds to two Kemira shares.

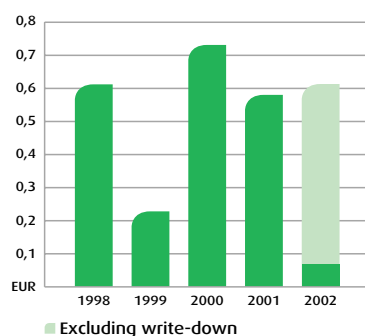
Distribution of shareholders 31.12.2002



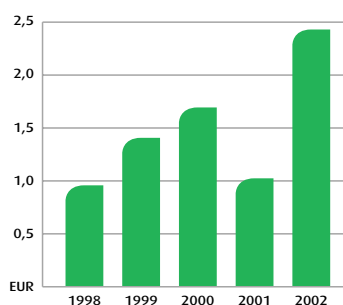
Shareholders' equity/share



Earnings/share



Cash flow/share



Price and trading volume

The price of Kemira's share on Helsinki Exchanges weakened by 1.2% on Helsinki Exchanges during 2002, whereas the HEX index fell by 34.4%. The highest price of the share was EUR 8.50 and the lowest price was EUR 5.75. The price of the share at the end of the year was EUR 6.59. The taxation value of the share for the 2002 Finnish tax declarations is EUR 4.58. Turnover of the share on Helsinki Exchanges totalled 24,605,629 shares, and in euro terms the turnover was EUR 178 million. The market capitalization at the end of 2002 was EUR 779 million.

Management bond issue with warrants, stock options and share ownership

The Annual General Meeting of Kemira Oyj held on 3 April 2001 passed a resolution on a new share option programme. Members of management who are employed by Kemira Oyj or its subsidiaries will be entitled to

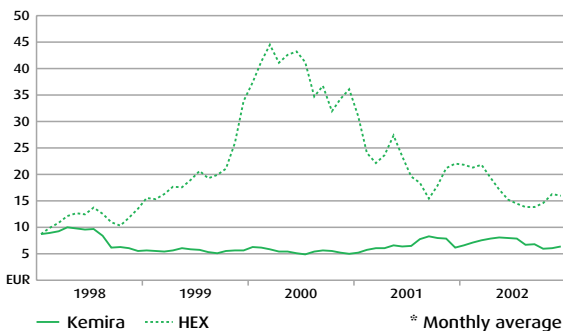
receive share options conferring the right to subscribe for a maximum of 2,850,000 Kemira Oyj shares from 2 May 2004 to 31 May 2007. It is a condition for commencement of the subscription period that Kemira Oyj's consolidated earnings per share after financial items and before taxes and extraordinary items for the financial years 2001–2003 are at least equal to the Kemira Group's earnings per share after financial items and before taxes and extraordinary items for the financial years 1998–2000 plus five (5) per cent, i.e. EUR 2.48, and that Kemira Oyj's share price trend has outperformed a comparison index in the manner described in the terms and conditions of the share options. The said consolidated earnings per share after financial items and before taxes and extraordinary items for the financial year 2001–2002 were 1.73 euros.

The subscription price is the average price of the Kemira Oyj share weighted for trading volume in 2003 and lowered by double the percentage

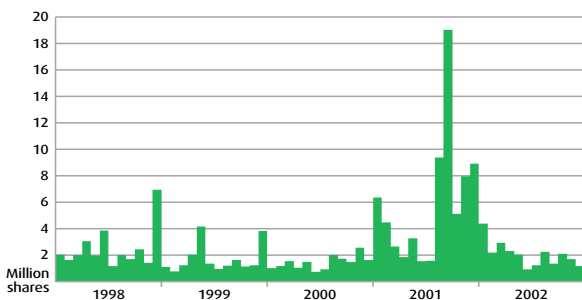
by which the index of the share price trend of Kemira Oyj's share exceeds the above-mentioned comparison index, and lowered furthermore by the amount of dividends distributed after 31 December 2003. The subscription price will nevertheless be a minimum of the trading-weighted average price of Kemira Oyj's share in January 2001, less the amount of dividends to be paid out after 31 January 2001. As a consequence of exercise of the stock options, the number of the Company's shares can increase by a maximum of 2,850,000 shares and the share capital by the accounting countervalue of an equal number of shares. About 80 people are entitled to receive share options.

The members of the Board of Directors and the Supervisory Board as well as the CEO and the CEO's Deputy owned 44,380 Kemira Oyj shares at the end of the year. This represents 0.04% of the company's shares and voting rights. At the end of the year Kemira Oyj's CEO and the CEO's Deputy held 270,000 share options connected with the 2001 bond loan with warrants.

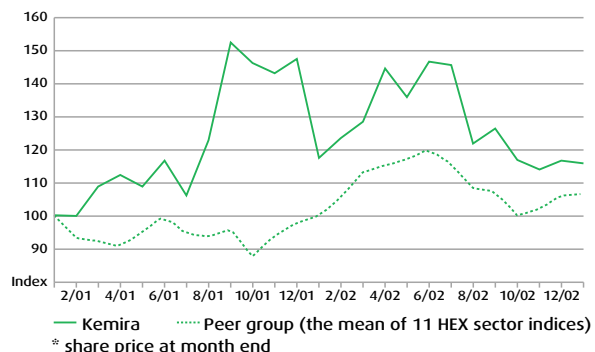
Share price 1998 – 2002*



Share turnover on Helsinki Exchanges 1998 – 2002



Share price development against peer group*



Shares and shareholders

Distribution of ownership 31.12.2002

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1 - 50	1,091	8.51	41,043	0.03
51 - 100	1,109	8.65	89,905	0.07
101 - 500	5,769	44.98	1,578,790	1.29
501 - 1,000	2,593	20.21	2,015,604	1.65
1,001 - 5,000	1,877	14.63	3,674,057	3.00
5,001 - 10,000	156	1.22	1,147,814	0.94
10,001 - 50,000	144	1.12	3,198,793	2.62
50,001 - 100,000	31	0.24	2,463,368	2.01
100,001 - 500,000	40	0.31	9,178,835	7.50
500,001 - 1,000,000	9	0.07	6,111,560	5.00
Over 1,000,000	8	0.06	87,970,342	71.89
Total	12,827	100.00	117,470,111	
Nominee-registered shares			4,889,889	4.00
Grand total			122,360,000	100.00

20 largest shareholders 31.12.2002

Shareholder	Number of shares 1000 pcs	% of shares and votes
1. Finnish State	68,754	56.19
2. Varma-Sampo Mutual Pension Insurance Company	4,458	3.64
3. Sampo Life Insurance Company Limited	3,219	2.63
4. Ilmarinen Mutual Pension Insurance Company	2,328	1.90
5. Kaleva Mutual Insurance Company	2,104	1.72
6. IF Non-Life Insurance Company Limited	1,738	1.42
7. Suomi Mutual Life Assurance Company	1,180	0.97
8. Pohjola Non-Life Insurance Company Ltd	950	0.78
9. Tapiola Mutual Pension Insurance Company	893	0.73
10. The State Pension Fund	750	0.61
11. Tapiola General Mutual Insurance Company	620	0.51
12. The Central Church Fund	603	0.49
13. The LEL Employment Pension Fund	603	0.49
14. Conventum Finland Value Investment Fund	600	0.49
15. Pension Foundation Neliapila s.r.	577	0.47
16. Nordea Life Assurance Finland Ltd	515	0.42
17. Local Government Pensions Institution	500	0.41
18. The Union of the Evangelical Lutheran parishes of Turku and Kaarina	406	0.33
19. OP-Delta Investment Fund	400	0.33
20. Tapiola Mutual Life Assurance Company	397	0.33
Kemira Oyj	4,190	3.42
Nominee-registered shares	4,890	4.00
Others, total	21,685	17.72
Grand total	122,360	100.00

Definitions of key ratios

PER-SHARE DATA

Earnings per share (EPS)

Income before extraordinary items
+/- minority interest – taxes
Adjusted average number of shares

Earnings per share before one-time impairment

Net income + one-time impairment
– tax effect of one-time impairment
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

Cash flow from operations
Adjusted average number of shares

Dividend per share

Dividends paid
Number of shares at end of year

Dividend payout ratio

Dividend per share x 100
Earnings per share

Dividend yield

Dividend per share x 100
Share price at end of year

Equity per share

Equity at end of year
Number of shares at end of year

Share price, year average

Shares traded (EUR)
Shares traded (volume)

Share price, end of year

Weighted average share price of the last trading day

Price per earnings per share (P/E)

Share price at end of year
Earnings per share

Price per equity per share

Share price at end of year
Equity per share

Price per cash flow per share

Share price at end of year
Cash flow from operations per share

Share turnover

Number of shares traded as a % of weighted average number of shares

FINANCIAL RATIOS

Net liabilities

Interest-bearing liabilities – cash and bank
– securities

Equity ratio, %

Shareholders' equity + minority interests x 100
Total assets – advance payments received

Gearing, %

Net liabilities x 100
Shareholders' equity + minority interests

Interest cover

Operating income + depreciation
Net financial expenses

Return on capital invested, % (ROI)

Income before extraordinary items + interest expenses
+ other financial expenses x 100
Total assets – interest-free liabilities
(average)

Return on equity, % (ROE)

Income before extraordinary items – taxes
+/- tax effect of extraordinary items x 100
Shareholders' equity + minority interests
(average)

Cash flow return on capital invested (CFROI), %

Cash flow from operations x 100
Total assets – interest-free liabilities
(average)

Key figures

PER-SHARE DATA

Per-share data	2002	2001	2000	1999	1998
Earnings per share, EUR ^{1) 4) 5) 6)}	0.07	0.58	0.73	0.23	0.61
Earnings per share before one-time impairment, EUR	0.61	0.58	0.73	0.23	0.61
Cash flow from operations per share, EUR	2.45	1.03	1.69	1.41	0.96
Dividend per share, EUR ²⁾	0.30	0.30	0.30	0.23	0.29
Dividend payout ratio, % ²⁾	428.6	51.7	18.2	100.0	47.2
Dividend yield ²⁾	4.6	4.5	5.6	3.8	4.6
Equity per share, EUR ¹⁾	8.94	9.35	9.08	7.57	7.27
Price per earnings per share (P/E) ratio ¹⁾	94.14	11.50	7.34	26.57	10.30
Price per equity per share ¹⁾	0.74	0.71	0.59	0.81	0.90
Price per cash flow per share	2.69	6.48	3.17	4.33	6.50
Dividend paid, EUR million ²⁾	35.5	35.8	37.1	29.6	36.8

Share price and turnover

Share price, year high, EUR	8.50	8.75	6.80	6.90	10.60
Share price, year low, EUR	5.75	5.30	4.92	5.20	5.21
Share price, year average, EUR	7.22	7.36	5.67	5.85	8.06
Share price, end of year, EUR	6.59	6.67	5.36	6.11	6.24
Number of shares traded (1000), Helsinki	24,606	72,176	17,366	20,703	30,277
% of number of shares	21	59	13	16	24
Market capitalization, end of year, EUR million	779.0	795.1	663.0	780.9	803.6

Increase in share capital

Average number of shares (1000) ³⁾	118,171	121,075	126,623	128,318	128,800
Number of shares at end of year (1000) ³⁾	118,171	119,208	123,645	127,800	128,800
Increases in number of shares (1000)	-	-	-	-	-
Share capital, EUR million	217.0	217.0	217.0	217.0	216.6
Increases in share capital, EUR million	-	-	-	-	-

1) The change in accounting practice (IAS 12) reduced 1998 taxes by EUR 14.0 million.

2) The 2002 dividend is the Board of Directors' proposal to the Annual General Meeting.

3) Weighted average number of shares outstanding, adjusted by the number of shares bought back.

4) Net income before gain/loss on discontinued operations in 2000.

5) Diluted earnings per share are the same.

6) Earnings / share after gains and losses on discontinued operations was EUR 1.64 million in year 2000.

FINANCIAL RATIOS

Income statement	2002	2001	2000	1999	1998
Net sales, EUR million	2,612	2,454	2,486	2,526	2,413
Foreign operations, EUR million	2,155	1,967	2,024	2,073	1,916
Sales in Finland, %	18	20	19	18	21
Exports from Finland, %	23	23	24	20	19
Sales generated outside Finland, %	59	57	57	62	61
Operating income, EUR million	45	144	175	111	148
% of net sales	2	6	7	4	6
Net financial income and expenses, EUR million	30	31	31	52	51
% of net sales	1	1	1	2	2
Interest cover	8	10	11	6	6
Income before extraordinary items, EUR million	16	113	144	59	97
% of net sales	1	5	6	2	4
Impairment loss, EUR million	78	-	-	-	-
Gains and losses on discontinuing operations	-	-	162	-	-
Income before taxes and minority interests, EUR million	16	113	307	59	97
% of net sales	1	5	12	2	4
Net income, EUR million	8	70	208	30	79
Return on capital invested, %	3	8	10	6	8
Return on equity, %	1	6	9	3	8
Research and development expenses	46	39	48	48	49
% of net sales	2	2	2	2	2

Cash flow

Cash flow from operations, EUR million	290	125	214	181	123
Sales of subsidiaries and fixed assets, EUR million	21	27	527	18	14
Capital expenditure, EUR million	243	298	218	168	255
% of net sales	9	12	9	7	11
Cash flow after capital expenditure, EUR million	67	-146	523	31	-119
Cash flow return on capital invested %	15	7	11	9	7

Balance sheet

Non-current assets, EUR million	1,474	1,415	1,285	1,486	1,444
Shareholders' equity, EUR million	1,056	1,115	1,122	968	936
Liabilities, EUR million	1,418	1,318	1,268	1,620	1,504
Total assets, EUR million	2,491	2,450	2,408	2,603	2,453
Net liabilities, EUR million	768	686	425	934	892
Equity ratio, %	43	46	48	38	39
Gearing, %	72	61	37	95	94

Personnel

Personnel (average)	10,377	10,207	9,644	10,743	10,785
of whom in Finland	4,681	4,871	4,908	5,090	5,155

Exchange rates

Key exchange rates (31 December)					
USD	1.04870	0.88130	0.93050	1.00460	1.16674
GBP	0.65050	0.60850	0.62410	0.62170	0.70547
SEK	9.15280	9.30120	8.83130	8.56250	9.48736
DKK	7.42880	7.43650	7.46310	7.43300	7.44892

Consolidated income statement

	Note	1.1. – 31.12.	
		2002 EUR million	2001 EUR million
Net sales	1, 27	2,612.3	2,454.4
Share of associates' net income	2, 27	5.5	0.4
Other income from operations	3	13.2	30.7
Cost of sales	4, 5	-2,331.2	-2,180.9
Depreciation	6, 27	-176.1	-160.5
One-time impairment	7	-78.2	-
Operating income	27	45.5	144.1
Financial income and expenses	8	-29.5	-31.3
Income before taxes and minority interests		16.0	112.8
Income taxes	9	-5.3	-40.2
Minority interest		-2.5	-2.2
Net income		8.2	70.4
Earnings per share, EUR	10	0.07	0.58
Earnings per share before one-time impairment, EUR	10	0.61	0.58

Consolidated balance sheet

	Note	31.12.	
		2002 EUR million	2001 EUR million
ASSETS			
Non-current assets			
Intangible assets	11	221.2	158.7
Tangible assets	12	1,072.0	1,078.6
Investments	13		
Holdings in associates		58.2	74.4
Other shares and holdings		20.9	19.2
Deferred tax assets	18	10.6	11.5
Other investments		90.8	72.9
Total investments		180.5	178.0
Total non-current assets		1,473.7	1,415.3
Current assets			
Inventories	14	358.4	397.8
Receivables	15		
Interest-bearing receivables		7.8	15.1
Other interest-free receivables		570.5	551.9
Total receivables		578.3	567.0
Securities	21, 25	40.1	21.1
Cash and bank	21, 25	40.7	48.7
Total current assets		1,017.5	1,034.6
Total assets		2,491.2	2,449.9
LIABILITIES AND SHAREHOLDERS' EQUITY			
Shareholders' equity			
Share capital		217.0	217.0
Share premium account		252.5	252.5
Own shares		-28.2	-21.2
Valuation reserve		0.6	-
Other reserves		3.2	2.8
Retained earnings		603.0	593.6
Net profit for the financial year		8.2	70.4
Total shareholders' equity		1,056.3	1,115.1
Minority interests		16.4	16.6
Long-term liabilities			
Interest-bearing long-term liabilities	17, 21	636.9	631.4
Deferred tax liabilities	16, 18	41.8	54.1
Provision for liabilities and charges	19	74.9	89.6
Total long-term liabilities		753.6	775.1
Current liabilities			
Interest-bearing short-term liabilities	20	211.8	124.6
Interest-free short-term liabilities		453.1	418.5
Total current liabilities		664.9	543.1
Total liabilities		1,418.5	1,318.2
Total liabilities and shareholders' equity		2,491.2	2,449.9

Consolidated cash flow statement

	2002 EUR million	2001 EUR million
Funds from operations		
Operating income	45.5	144.1
Adjustments to operating income ¹⁾	81.0	-14.7
Depreciation	176.1	160.5
Interest income	8.9	11.8
Interest expense	-48.2	-41.1
Dividend received	3.2	1.7
Other financial items	-1.2	2.9
Taxes	-34.3	-40.5
Total funds from operations	231.0	224.7
Change in net working capital		
Inventories	60.3	-23.4
Short-term receivables	31.7	-1.4
Interest-free short-term liabilities	-33.2	-74.8
Change in net working capital, total	58.8	-99.6
Cash flow from operations	289.8	125.1
Capital expenditure		
Acquisitions of Group companies	-57.4	-106.5
Acquisitions of associated companies	-1.6	-13.0
Purchase of other shares	-0.8	-0.2
Purchase of other fixed assets	-183.6	-178.4
Disposal of Group companies	1.8	12.1
Disposal of associated companies	0.1	1.5
Sales of other shares	0.4	0.1
Sales of other fixed assets	18.5	12.9
Total capital expenditure	-222.6	-271.5
Cash flow before financing	67.2	-146.4
Financing		
Change in long-term loans (increase +, decrease -)	158.5	-20.3
Change in long-term loan receivables (increase -, decrease +)	-22.6	25.5
Short-term financing, net (increase +, decrease -)	-133.5	32.6
Dividend paid	-35.5	-36.7
Own shares	-7.0	-28.8
Other	-16.1	-2.7
Financing, total	-56.2	-30.4
Increase / decrease in liquid funds	11.0	-176.8
Liquid funds at end of year	80.9	69.9
Liquid funds at beginning of year	69.9	246.7
Increase / decrease in liquid funds	11.0	-176.8
¹⁾ Non-cash flow items included in operating income (e.g. profits from associated companies) and gains / losses on the sale of net working capital.		
Liquid funds according to exchange rates 31.12.2002		
Liquid funds at end of year	80.9	68.1
Liquid funds at beginning of year	68.1	244.3
Increase / decrease in liquid funds	12.8	-176.2
Translation difference of liquid funds	-1.8	-0.6
Increase / decrease in liquid funds	11.0	-176.8

The above figures cannot be directly delivered from the balance sheets. The cash flows of the business areas are shown with the segment data.

Supplemental cash flow information

	2002 EUR million	2001 EUR million
Acquisition of Group companies		
Purchase consideration on acquisitions	60.2	108.9
Cash and cash equivalents in acquired companies	-2.8	-2.4
Total cash flow on acquisitions	57.4	106.5
Acquired net assets		
Net working capital	21.5	28.0
Fixed assets	102.5	71.2
Interest-bearing receivables less cash and cash equivalents	4.1	42.4
Interest-bearing liabilities	-114.0	-108.5
Minority interests	0.0	-1.2
Goodwill on acquisition	43.3	74.6
Total acquired net assets	57.4	106.5
Disposals of subsidiary shares		
Cash flow on disposal	1.4	12.1
Cash and cash equivalent in disposed companies	0.4	0.0
Total cash flow on disposals	1.8	12.1
Net assets sold		
Net working capital	0.4	0.6
Fixed assets	3.7	2.5
Interest-bearing receivables less cash and cash equivalents	0.6	6.5
Interest-bearing liabilities	-	-6.7
Gain/loss on sale	-2.9	9.2
Total net assets sold	1.8	12.1

Statement of changes in equity

	Share capital	Share premium account	Revaluation and other funds	Exchange differences	Valuation reserve	Own shares	Retained earnings	Total
Shareholders' equity at 1 January 2001	217.0	252.5	10.6	-11.7	-	-28.8	682.7	1,122.3
Net profit for the financial year	-	-	-	-	-	-	70.4	70.4
Dividends paid	-	-	-	-	-	-	-36.7	-36.7
Exchange differences	-	-	-	2.1	-	-	-	2.1
Equity hedging	-	-	-	1.9	-	-	-	1.9
Own shares repurchased	-	-	-	-	-	-28.8	-	-28.8
Own shares cancelled	-	-	-	-	-	36.4	-36.4	-
Revaluations as a charge in equity	-	-	-5.9	-	-	-	-25.2	-31.1
Reversal of deferred taxes on revaluation	-	-	-	-	-	-	9.0	9.0
Release of previous deferred tax (IAS 37)	-	-	-	-	-	-	5.9	5.9
Other changes	-	-	-1.9	-	-	-	2.0	0.1
Shareholders' equity at 31 Dec. 2001	217.0	252.5	2.8	-7.7	-	-21.2	671.7	1,115.1
Shareholders' equity at 1 January 2002	217.0	252.5	2.8	-7.7	-	-21.2	671.7	1,115.1
Net profit for the financial year	-	-	-	-	-	-	8.2	8.2
Dividends paid	-	-	-	-	-	-	-35.5	-35.5
Exchange differences	-	-	-	-34.7	-	-	-	-34.7
Equity hedging	-	-	-	9.4	-	-	-	9.4
Cash flow hedging: amount entered in shareholders' equity	-	-	-	-	0.6	-	-	0.6
Repurchase of own shares	-	-	-	-	-	-7.0	-	-7.0
Other changes	-	-	0.4	-	-	-	-0.2	0.2
Shareholders' equity at 31 Dec. 2002	217.0	252.5	3.2	-33.0	0.6	-28.2	644.2	1,056.3

The Group's non-restricted shareholders' equity, which limits the parent company's dividend payout, was EUR 442.7 million in 2002 and EUR 511.7 million in 2001. This figure is obtained by subtracting from non-restricted equity the proportion of untaxed reserves which has been transferred to shareholders' equity. Research, establishment and development expenses that have a limiting effect on the distribution of profits have not been capitalized in the balance sheet.

From 1 January to 31 December 2002 the Group bought back 1,037,000 shares, representing 0.8% of the share capital and the aggregate number of votes conferred by all the shares. The average price of the shares was EUR 6.74. Kemira had in its possession 4,190,000 of its own shares at 31 December 2002. Their average share price was EUR 6.73 and they represented 3.4% of the share capital and the aggregate number of votes conferred by all the shares.

Company profile and summary of significant accounting policies

COMPANY PROFILE

Kemira is a chemicals group whose operations comprise the pulp and paper chemicals, water treatment chemicals and industrial chemicals manufactured by Kemira Chemicals, the products manufactured by Paints and Coatings and the Agro business. Of these segments, pulp and paper chemicals, water treatment chemicals and paints are growth area businesses, and industrial chemicals and Agro's operations are other priority areas. Production activities also include catalytic converters.

The parent company of the Group is Kemira Oyj. The parent company is domiciled in Helsinki and its registered address is Porkkalankatu 3, 00180 Helsinki.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

The Kemira Group's financial statements have been prepared in compliance with the relevant acts and regulations in force in Finland. The Group's accounting principles are based on International Accounting Standards (IAS) to the extent that observance of them has been possible within the framework of Finnish financial statement practice. Divergences have arisen in respect of pension costs and the valuations of certain financial instruments.

Principles of consolidation

The consolidated financial statements include the parent company and its subsidiaries. In these companies the parent company has, on the basis of its holding, more than half of the voting rights directly or via its subsidiaries or it otherwise has control. Divested companies are included in the income statement up to the time of sale, and companies acquired during the year are included from the time of acquisition.

All intra-Group transactions have been eliminated. Acquisitions of companies are accounted for under the purchase method of accounting. The excess of the acquisition cost over fair value of the net assets acquired is partly allocated to the identifiable assets and liabilities. Any excess is recorded as goodwill. Goodwill is amortized over its useful life, which has been a maximum of 20 years. To the extent that negative goodwill relates to expectations of future losses and expenses, it has been recognized as income in the income statement when the future losses and expenses are booked. Otherwise the negative goodwill has been recognised as income over the remaining average useful life of the acquired identifiable assets. The minority interest 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 participating interests in which the Group has a considerable interest (20–50%). Holdings in associated companies are presented in the consolidated financial statements using the equity method of accounting. The Group's proportionate share of the associated companies' net income for the financial year is stated as a separate item in the consolidated income statement. Joint ventures in which the Group exercises control together with other parties are included in the consolidated financial statements according to the Group's proportionate holding on a line by line basis. Other companies (voting rights owned less than 20 per cent) have been stated at the lower of cost or fair value in the balance sheet and dividends received from them have been included in the income statement.

Overseas subsidiaries

In the consolidated financial statements, the income statements of foreign subsidiaries have been translated into euros using the average exchange rates and the balance sheets have been translated using the year-end exchange rates. The translation difference arising in translating the income statement and balance sheet using the different exchange rates is entered in non-restricted equity. Goodwill has been translated into euros at the foreign exchange rate prevailing on the acquisition date.

Net investments in foreign entities have been hedged against exchange rate changes at the Group level by taking out long-term loans in foreign currency as well as by entering into forward exchange rate agreements and currency swaps. In the consolidated financial statements, the exchange rate gains and losses of such loans and forward and currency swap contracts are credited or charged, in accordance with the requirements of the hedging calculation, 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.

Items denominated in foreign currency, and foreign currency and interest rate derivatives

In their own day-to-day accounting the Group companies translate transactions in foreign currencies into their own accounting currency 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 financial income and expenses.

Group Treasury hedges the Group's total foreign exchange and interest rate exposures. The effects on income of hedging transactions are reflected in the Group's financial items. Subsidiaries mainly hedge sales and purchases in foreign currency, in which the hedging instruments used are forward contracts made with Group Treasury. The effects of subsidiaries' hedging transactions appear as adjustments to the net sales and purchases of the business areas. At the Group level, the hedging entries of the subsidiaries are eliminated.

All derivatives that are open at the balance sheet date are valued at their market value. As a rule, the valuation results of open derivative contracts are booked to financial items in the consolidated financial statements. The hedge accounting defined in IAS 39 is applied only in exceptional cases to selected hedging items, such as for net investment in a foreign entity, whereby the valuation results of open derivative contracts are entered in shareholders' equity.

The valuation of forward contracts is calculated by valuing the forward contracts against the forward rates on the balance sheet date and comparing them with the countervalues calculated via the forward rates prevailing at the beginning of the contract.

All financial assets and liabilities are booked at acquisition cost or at fair value less write-downs except for derivative instruments, which are valued at their fair value. Changes in value for financial assets and liabilities were booked to financial income and expenses.

The fair value of forex derivatives has been calculated by means of the treasury management system (Twin) that is employed by the Group. The foreign exchange rates, the zero coupon curves and the volatilities used in the valuation are the rates that have been received from Reuters on the last banking day of 2002. The fair value of interest rate derivatives has been calculated by means of the treasury management system except for interest rate options, the value of which is based on the value defined by the counterparties to the agreements.

The management of treasury risks is discussed in greater detail in the notes to the consolidated financial statements. The fair value of derivative contracts that are open on the balance sheet date is set forth in the table of derivative instruments presented on page 35. The foreign exchange rates on the balance sheet date are given on page 13.

Company profile and summary of significant accounting policies

Net sales

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

Revenue recognition

Sales income is booked to the income statement when the major risks and rewards of ownership of the goods have been transferred to the purchaser. There are no long-term projects.

Pension arrangements

The Group has various pension schemes in accordance with the local conditions and practices in the countries in which it operates. The schemes are generally funded through payments to separate pension funds or to insurance companies. Contributions are based on actuarial calculations and are recognized as expense in the income statement as incurred.

The effect of IAS 19 on the Group's net income and retained earnings has been calculated and disclosed in the notes to the consolidated financial statements, in which the pension liabilities of named defined benefit plans have been calculated at the Group level by using the projected unit credit method. If the accumulated actuarial gains and losses are greater than 10% of the present value of the defined benefit obligation or the fair value of the plan assets, the excess has been presented in the notes, divided by the average remaining working lives of the employees. The Finnish compulsory pension arrangement (TEL) has been accounted for as a defined contribution plan. The pension calculations are performed by actuaries.

Financial costs

Financial costs are recognized in the income statement as they accrue.

Income taxes

The consolidated financial statements include income 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 liabilities and assets.

The Group's deferred tax liabilities and assets have been calculated according to IAS 12, which is allowed by Finnish legislation. The deferred tax liability has been calculated for all temporary differences, which have been obtained by comparing the book value of each balance sheet item with the taxation value. Deferred tax assets and tax losses are included in the financial statements only if the company considers that the temporary difference or tax loss will probably

be realized in the near future and that the taxable unit will probably generate a sufficient amount of taxable income in order to be able to make use of the tax claim. In calculating deferred tax liabilities and assets, the tax rate which is in force at the time of preparing the financial statements or which has been enacted by the balance sheet date has been used.

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

Research and development expenditure

Research expenditure is expensed as incurred. Expenditure on development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products and processes, is capitalized if the product or process is technically and commercially feasible and the Group has sufficient resources to complete development and to use or sell the intangible asset. The majority of the Group's development expenditure does not meet the above-mentioned capitalization requirements and is expensed for the year.

Capitalized development costs are included in the item "Other long-term assets" and amortized over their economic life, not exceeding, however, five years.

Fixed assets and depreciation

Non-current (fixed) assets are stated in the balance sheet at cost, less accumulated depreciation, as applicable. The Group does not make revaluations. Depreciation according to plan is calculated on a straight-line basis from the original acquisition cost in accordance with the useful lifetime of the assets. The most usual estimated useful lives are as follows:

Machinery and equipment	3–15 years
Buildings and constructions	25 years
Other capitalized expenses	5–10 years
Goodwill on consolidation	5–20 years

Profit on the sale of non-current assets is included in operating income and losses on the sale of assets are included in operating expenses. Interest expenses are not capitalized as part of the acquisition cost of non-current assets. Large seldom carried out maintenance works are capitalized and depreciated over their useful lives.

Leasing

Lease payments are treated as rental expenses except for finance lease agree-

ments, in which the leased assets are presented as part of the Group's fixed assets and the leasing debt is shown as a long-term liability. In respect of finance lease agreements, the depreciation on the leased property and the interest expense on the debt are shown in the income statement.

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.

Liquid funds

Cash on hand and at banks as well as short-term placements held as financial assets are included in liquid assets.

Impairment of assets

In preparing each year's financial statements, the Group's assets are evaluated to determine whether there are indications that the value of an asset may be impaired. If there are indications of impairment, the assets' recoverable amount is estimated, based on an assets' value in use or net selling price. An impairment loss is recognized whenever the carrying amount of an asset exceeds its recoverable value. The loss is booked to the income statement. If after booking the impairment loss a positive change has occurred in the estimates of the recoverable amount, the impairment loss made in previous years is reversed no more than up to the value which would have been determined for the asset item if an impairment loss had not been booked on it in previous years.

Provisions

A provision is entered in the balance sheet when as a consequence of some previous event there has arisen a legal or constructive obligation and it is probable that this will cause future expenses and the amount of the obligation can be evaluated reliably. A restructuring provision is booked only when a detailed and fully compliant plan has been prepared for it and implementation of the plan has been started or notification of it has been made to those whom the arrangement concerns.

Extraordinary income and expenses

There were no extraordinary items in the Group's income statement. Extraordinary items of the parent company include Group contributions received and paid.

Notes to consolidated financial statements

INCOME STATEMENT (EUR million) 2002 2001

1. NET SALES

Net sales by division

Chemicals	1,058.3	900.8
Paints and Coatings	449.6	445.4
Agro	1,165.2	1,157.8
Other operations	66.8	70.4
Intra-Group invoicing	-127.6	-120.0
Total	2,612.3	2,454.4

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

Finland	18	20
Other European Union countries	50	55
Other European countries	15	14
North and South America	9	4
Asia	6	6
Other countries	2	1
Total	100	100

2. SHARE OF ASSOCIATES' NET INCOME

Share of associates' profits	8.4	5.3
Share of associates' losses	-2.9	-4.9
Total	5.5	0.4

3. OTHER INCOME FROM OPERATIONS

Gains on the sale of fixed assets	4.5	13.9
Sales of scrap and waste	0.2	0.2
Sales of energy and water	0.4	0.5
Insurance compensation	0.2	1.2
Consulting	0.8	1.8
Income from royalties, knowhow and licences	0.2	0.8
Rent income	3.3	4.3
Other income	3.6	8.0
Total	13.2	30.7

Gains on the sale of the fixed assets in 2002 include a capital gain of EUR 2.0 million on the sale of Espoo Research Centre land area and sale of Verdera Oy shares. In 2001 the capital gain, EUR 7.8 million, on the sale of Kemira Pernis B.V. was included.

4. COST OF SALES

Change in inventories of finished goods	14.2	-26.5
Own work capitalized ¹⁾	-9.2	-5.7
Materials and services		
Materials and supplies		
Purchases during the financial year	1,113.5	1,101.6
Change in inventories of materials and supplies	28.9	13.0
External services	51.8	50.5
Total materials and services	1,194.2	1,165.1
Personnel expenses	486.0	448.3
Rents	28.0	24.7
Losses on the sales of fixed assets	1.2	0.8
Other expenses	616.8	574.2
Total	2,331.2	2,180.9

In 2002 costs included a net decrease in long and short-term provisions amounting to EUR 6.3 million, like in 2001.

1) 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 (EUR million)	2002	2001
5. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL		
Emoluments of the Supervisory Board	0.1	0.1
Emoluments of boards of directors and managing directors ¹⁾	5.9	6.7
Other wages and salaries	342.4	310.9
Pension expenses	-	65.4
Pension expense for defined benefit plan	41.7	-
Pension expense for defined contribution plan	35.3	-
Other personnel expenses	60.6	65.2
Total	486.0	448.3

1) Profit sharing bonuses to the management were EUR 0.4 million in 2002 and EUR 0.9 million in 2001.

The members of the Board of Directors are paid a monthly emolument and a meeting fee; other compensation is not paid. The chairman of Kemira Oyj was paid EUR 34,800, the vice chairman EUR 29,080 and each member EUR 23,258. The managing director of Kemira Oyj was paid a salary of EUR 324,472 which did not include profit sharing bonuses.

The chairman of Kemira Oyj's Supervisory Board was paid an emolument of EUR 12,633, the vice chairman EUR 8,025 and each of the members EUR 6,708.

Persons belonging to the Company's management, including parties closely associated with them, are not involved in substantial business relationships with the Company.

Management's pension commitments

The managing director and deputy managing director of Kemira Oyj are entitled to retire at the age of 60. The maximum remuneration is 66% of the pension salary. The possibility is based on the benefits of the supplementary pension foundation that has been closed to new members since 1 January 1991. The supplementary pension foundation's benefits concern all the personnel whose years of service and other conditions concerning the granting of a pension have been fulfilled. Similar arrangements have been made in other Group companies.

Personnel, average

Chemicals	4,254	3,894
Paints and Coatings	2,505	2,652
Agro	3,041	3,079
Other companies	577	582
Total	10,377	10,207
Personnel in Finland, average	4,681	4,871
Personnel outside Finland, average	5,696	5,336
Total	10,377	10,207

The total personnel of joint ventures that have been consolidated according to the proportionate method of accounting was in average 146 (68 in 2001).

Personnel at year end	10,094	9,707
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6. DEPRECIATION

Scheduled depreciation

Intangible assets		
Intangible rights	3.8	3.0
Goodwill	5.3	4.5
Goodwill on consolidation	11.5	7.3
Other long-term expenditures	6.9	7.9
Tangible assets		
Buildings and constructions	22.0	19.5
Machinery and equipment	122.5	113.2
Other tangible assets	4.1	5.1
Total	176.1	160.5

Scheduled depreciation for goodwill on consolidation was EUR 11.5 million (EUR 7.4 million in 2001). Reductions in the consolidated negative goodwill in 2001 were EUR 0.1 million.

Notes to consolidated financial statements

INCOME STATEMENT (EUR million)

2002

2001

7. IMPAIRMENT

The impairment loss of EUR 78.2 million in the income statement is connected primarily with the impairment of the assets and carrying values of Agro's subsidiaries and associated companies. In addition, the item includes an EUR 7 million expense provision for the decoupling of Agro's pension arrangements from the Group's other pension arrangements.

The impairment loss has been calculated by comparing the book value of the asset with the present value of the estimated future cash flows from continuing use of the asset also taking into account the estimated net cash flows to be received for the disposal of the asset at the end of its useful life. The effects of the impairment loss on the Group's non-current assets is presented in notes 11–13 to the consolidated financial statements.

8. FINANCIAL INCOME AND EXPENSES

Financial income

Dividend income	1.4	1.2
Interest income from long-term investments	4.2	4.5
Other interest income	4.7	7.4
Other financial income	0.5	0.9
Exchange gains	10.3	-
Total	21.1	14.0

Financial expenses

Interest expenses	-48.2	-41.0
Other financial expenses	-2.4	-2.2
Exchange losses	-	-2.1
Total	-50.6	-45.3
Total financial income and expenses	-29.5	-31.3

Net financial expenses as a percentage of net sales	1.1	1.3
Net interests as a percentage of net sales	1.5	1.2

Exchange gains and losses

Realized	-0.7	3.0
Unrealized	11.0	-5.1
Total	10.3	-2.1

Interest expenses are not capitalized in the Group.

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 2002 these foreign exchange net gains were EUR 9.4 million in retained earnings (in 2001 net gain EUR 1.9 million).

There were no financial income and expenses from associates.

9. INCOME TAXES

Income taxes, current year	-27.5	-38.9
Income taxes, previous years	-4.2	-1.7
Deferred taxes	29.0	0.4
Other taxes	-2.6	-
Total	-5.3	-40.2

Notes to consolidated financial statements

INCOME STATEMENT (EUR million)

2002

2001

Tax losses

Certain Group subsidiaries have tax losses, totalling EUR 683.4 million (EUR 653.0 million in 2001), which can be applied against future taxable income. All tax losses have not been entered as deferred tax assets, because there is uncertainty regarding the extent to which they can be used. The limited right to make deductions concerns about 3% of the tax losses and the unlimited deduction right about for 97% of the tax losses.

Comparison of taxes calculated according to the current tax rate with taxes according to the income statement

Tax at the current tax rates	5.1	33.9
Tax-free income / non-deductible expenditure	-30.6	-21.2
Write-down on shares	-16.0	-2.3
Unapplied losses during the financial year	41.2	20.5
Amortization of goodwill	3.3	2.3
Withholding taxes from previous financial years	4.1	1.7
Applied tax losses	-1.8	-2.7
Other	-	8.0
Taxes in the income statement	5.3	40.2

10. EARNINGS PER SHARE

Earnings per share

Income before taxes	16.0	112.8
Minority interests	-2.5	-2.2
Income taxes for the financial year	-5.3	-40.2
Net income	8.2	70.4
Weighted average number of shares ¹⁾	118,171,000	121,075,000
Earnings per share, EUR	0.07	0.58

Earnings per share before one-time impairment

Income before one-time impairment and taxes	94.2	112.8
Minority interests	-2.5	-2.2
Income taxes for the financial year	-5.3	-40.2
Tax effect of one-time impairment	-14.5	-
Net income	71.9	70.4
Weighted average number of shares ¹⁾	118,171,000	121,075,000
Earnings / share before one-time impairment, e	0.61	0.58

Diluted earnings per share

Average number of shares ¹⁾	118,171,000	121,075,000
Effect of options outstanding	86,870	109,565
Dilutive number of shares	118,257,870	121,184,565
Diluted earnings per share, EUR	0.07	0.58

1) Weighted average number of shares outstanding, adjusted by the number of shares bought back

Notes to consolidated financial statements

BALANCE SHEET (EUR million)

	Intangible rights	Goodwill	Goodwill on consolidation	Other long-term expenditures	Advances paid	2002 total	2001 total
11. INTANGIBLE ASSETS							
Acquisition cost at beginning of year	33.5	48.9	143.0	76.4	0.9	302.7	186.3
Increases	2.6	9.6	73.4	6.8	-0.5	91.9	96.4
Decreases	-0.5	-	-	-5.2	-	-5.7	-3.8
Exchange differences and other changes	-3.6	-0.8	3.1	-4.7	-	-6.0	23.8
Acquisition cost at end of year	32.0	57.7	219.5	73.3	0.4	382.9	302.7
Accumulated depreciation at beginning of year	-20.9	-10.8	-65.3	-47.0	-	-144.0	-97.6
Accumulated depreciation relating to decreases and transfers	0.1	-	-	1.1	-	1.2	-2.5
Depreciation during the financial year	-3.8	-5.0	-11.2	-3.5	-	-23.5	-22.8
Exchange differences and other changes	2.5	0.5	-1.4	3.0	-	4.6	-21.1
Accumulated depreciation at end of year	-22.1	-15.3	-77.9	-46.4	-	-161.7	-144.0
Net book value at end of year	9.9	42.4	141.6	26.9	0.4	221.2	158.7

There was no goodwill on consolidation related to associated companies in 2002 and 2001.

	Land and water areas	Buildings and constructions	Machinery and equipment	Other tangible assets	Advances paid and fixed assets under construction	2002 total	2001 total
12. TANGIBLE ASSETS							
Acquisition cost at beginning of year	76.9	608.2	2,313.8	82.9	95.8	3,177.6	2,945.0
Increases	0.8	41.8	206.4	3.3	-38.4	213.9	157.6
Decreases	-0.5	-8.9	-30.8	-0.3	-4.0	-44.5	-27.3
Exchange differences and other changes	0.2	-18.2	-78.1	-2.6	-7.5	-106.2	102.3
Impairment in Agro	-3.2	-66.8	-171.0	-	-2.3	-243.3	-
Acquisition cost at end of year	74.2	556.1	2,240.3	83.3	43.6	2,997.5	3,177.6
Accumulated depreciation at beginning of year	-	-338.7	-1,702.1	-58.2	-	-2,099.0	-1,895.5
Accumulated depreciation relating to decreases and transfers	-	5.0	25.1	0.1	-	30.2	16.8
Depreciation during the financial year	-	-21.7	-120.5	-4.0	-	-146.2	-138.1
Impairment in Agro	-	50.7	140.2	-	-	190.9	-
Exchange differences and other changes	-	13.7	79.8	5.1	-	98.6	-82.2
Accumulated depreciation at end of year	-	-291.0	-1,577.5	-57.0	-	-1,925.5	-2,099.0
Net book value at end of year	74.2	265.1	662.8	26.3	43.6	1,072.0	1,078.6

	Holdings in associates	Other shares and holdings	Receivables from associates	Other investments	Deferred tax assets	2002 total	2001 total
13. INVESTMENTS							
Acquisition cost at beginning of year	74.4	19.2	48.3	24.6	11.5	178.0	147.2
Share of net income of associates	0.8	-	-	-	-	0.8	-2.0
Increases	1.6	0.8	7.7	10.2	-	20.3	35.4
Decreases	-0.1	-0.4	-	-	-0.9	-1.4	-3.5
Transfers	-9.2	-	-	-	-	-9.2	-
Exchange differences and other changes	-3.5	1.3	-	-	-	-2.2	0.9
Reduction in value	-5.8	-	-	-	-	-5.8	-
Net book value at end of year	58.2	20.9	56.0	34.8	10.6	180.5	178.0

Shares and holdings are specified in Note 26.

Notes to consolidated financial statements

BALANCE SHEET (EUR million)	2002	2001
14. INVENTORIES		
Materials and supplies	118.8	149.1
Work in process	6.3	6.6
Finished goods	231.0	240.0
Advances paid	2.3	2.1
Total	358.4	397.8
15. RECEIVABLES		
Long-term receivables		
Interest-bearing long-term receivables		
Loan receivables from others	0.1	0.1
Other receivables from others	1.1	-
Total interest-bearing long-term receivables	1.2	0.1
Interest-free long-term receivables		
Prepaid expenses and accrued income from others	0.3	0.2
Accounts receivable from others	6.8	4.2
Other receivables from others	4.5	1.2
Total interest-free long-term receivables	11.6	5.6
Total long-term receivables	12.8	5.7
Current receivables		
Interest-bearing short-term receivables		
Loan receivables from associates	-	3.2
Loan receivables from others	3.1	6.5
Other receivables from others	3.5	5.3
Total interest-bearing short-term receivables	6.6	15.0
Interest-free short-term receivables		
Accounts receivable from associates	8.3	10.7
Accounts receivable from others	427.6	426.6
Advances paid from others	15.2	15.6
Prepaid expenses and accrued income from others	78.0	53.1
Other receivables from associates	1.2	3.1
Other receivables from others	28.6	37.2
Total interest-free short-term receivables	558.9	546.3
Total current receivables	565.5	561.3
Total receivables	578.3	567.0
Loans to the management of the Group companies	0.7	0.1

Transactions between related parties

Parties are considered to belong to each other's related parties if one party is able to exercise control over the other or substantial influence in decision-making concerning its finances and business operations. The Group's related parties include the parent company, subsidiaries, associated companies and joint ventures. Related parties also include the members of the Supervisory Board, Board of Directors and the Group's Management Board, the CEO and his deputy and their near family members. Details of loans granted to management and management's compensation are given in the Notes to the consolidated financial statements, notes 5 and 15.

Kemira's Finnish pension foundations and funds are legal units of their own and they manage part of the pension assets of the Group's personnel in Finland. The assets include Kemira shares representing 0.6% of the company's shares outstanding.

Notes to consolidated financial statements

BALANCE SHEET (EUR million)

2002

2001

16. APPROPRIATIONS

In the consolidated financial statements the appropriations of each individual company have been divided into equity and deferred tax liability. Appropriations in the balance sheets of the Group are accumulated depreciation differences.

Of which equity	140.9	134.4
Of which deferred tax liability	52.0	49.2
Total accumulated depreciation difference	192.9	183.6

17. LONG-TERM INTEREST-BEARING LIABILITIES

Debentures and other bond loans	16.5	61.7
Loans from financial institutions	348.5	290.1
Loans from pension institutions	228.7	233.1
Other long-term liabilities to others	43.2	46.5
Total	636.9	631.4

Long-term interest-bearing liabilities maturing in

2004 (2003)	139.6	155.8
2005 (2004)	93.1	47.9
2006 (2005)	28.7	66.9
2007 (2006)	84.1	29.2
2008 (2007) or later	291.4	331.6
Total	636.9	631.4

Interest-bearing liabilities maturing in 5 years or longer

Loans from financial institutions	104.5	103.9
Loans from pension institutions	185.9	226.7
Other long-term interest-bearing liabilities	1.0	1.0
Total	291.4	331.6

Long-term loans by currency (%)

EUR	48	52
SEK	23	30
USD	22	9
DKK	-	1
GBP	5	7
Other	2	1
Total	100	100

The Group has no convertible bonds.

Debentures and other bond loans

Loan	Loan currency		
FI 0003008581	1998-2003	EUR	45.2
FI 0003008599	1998-2006	EUR	16.5
Total			61.7

Notes to consolidated financial statements

BALANCE SHEET (EUR million)	2002	2001
18. DEFERRED TAX LIABILITIES		
Deferred tax assets and liabilities		
Deferred tax assets at start of period	20.2	25.8
Tax assets for deductible losses	1.5	-1.7
Tax assets for share value write-downs	11.8	-
Tax assets for other deductible temporary differences	4.0	-3.9
Deferred tax assets at end of period	37.5	20.2
Deferred tax liabilities at start of period	62.8	78.4
Tax liabilities for cumulative depreciation differences	2.8	-2.5
Tax liabilities for revaluations	-	-9.0
Tax liabilities for other temporary differences	3.0	-4.1
Deferred tax liabilities at end of period	68.6	62.8
Net deferred tax liabilities	31.1	42.6
Temporary differences	12.8	9.1
Appropriations	52.0	49.2
Consolidation entries	-33.7	-15.7
Total	31.1	42.6

All deferred tax assets and liabilities are presented above. Deferred tax assets were deducted from deferred tax liabilities to the amount of EUR 26.9 million as per 31.12.2002, and to the total of EUR 8.7 million as per 31.12.2001. This shows up as a difference compared to the corresponding figures given in the balance sheet.

The deferred tax liabilities related to untaxed reserves of the Finnish Group companies amounted to EUR 52.0 million in 2002 and EUR 49.2 million in 2001. The deferred tax assets are mainly tax assets from share write-downs, tax losses, finance lease and intra-Group profits.

19. PROVISION FOR LIABILITIES AND CHARGES

	Pension liabilities	Restructuring provisions	Environmental and damage provisions	Deferred income on disposal of Tikkurila CPS	Other provisions	Total
Long-term provisions						
2001						
Balance at beginning of year	15.0	12.4	9.8	32.6	4.6	74.4
Change in provisions	23.9	-6.3	3.0	-1.6	-3.8	15.2
Balance at end of year	38.9	6.1	12.8	31.0	0.8	89.6
2002						
Balance at beginning of year	38.9	6.1	12.8	31.0	0.8	89.6
Change in provisions	-12.8	-0.9	0.1	-2.3	1.2	-14.7
Balance at end of year	26.1	5.2	12.9	28.7	2.0	74.9
Short-term provisions						
2001						
Balance at beginning of year	-	48.0	10.5	-	1.1	59.6
Change in provisions	-	-24.5	2.1	-	0.9	-21.5
Balance at end of year	-	23.5	12.6	-	2.0	38.1
2002						
Balance at beginning of year	-	23.5	12.6	-	2.0	38.1
Change in provisions	7.0	-1.7	-7.7	-	10.8	8.4
Balance at end of year	7.0	21.8	4.9	-	12.8	46.5

Notes to consolidated financial statements

BALANCE SHEET (EUR million)	2002	2001
20. CURRENT LIABILITIES		
Interest-bearing short-term liabilities		
Loans from financial institutions	99.2	13.9
Loans from pension institutions	1.6	1.6
Current portion of other long-term loans to others	61.3	15.7
Bills of exchange from others	1.5	1.0
Other interest-bearing short-term liabilities to associates	-	2.5
Other interest-bearing short-term liabilities to others	48.2	89.9
Total interest-bearing short-term liabilities	211.8	124.6
Interest-free short-term liabilities		
Advances received from others	11.8	13.6
Accounts payable to associates	1.0	2.1
Accounts payable to others	189.6	183.4
Accrued expenses and prepaid income to others	221.6	188.1
Other interest-free short-term liabilities to associates	4.4	-
Other interest-free short-term liabilities to others	24.7	31.3
Total interest-free short-term liabilities	453.1	418.5
Total current liabilities	664.9	543.1
Accrued expenses		
Personnel expenses	51.1	45.3
Items related to net sales and purchases	22.4	15.5
Interest	20.5	14.4
Exchange rate differences	21.2	14.0
Taxes	18.0	2.5
Short-term provisions	46.5	38.1
Other	41.9	58.3
Total	221.6	188.1
21. NET LIABILITIES		
Interest-bearing long-term liabilities	636.9	631.5
Interest-bearing short-term liabilities	211.8	124.6
Securities	-40.1	-21.1
Cash and bank	-40.7	-48.7
Total	767.9	686.3

Notes to consolidated financial statements

OTHER NOTES (EUR million)

22. PENSION LIABILITIES ACCORDING TO IAS 19

Pension arrangements

The Group has several pension arrangements in different countries. In Finland, the Netherlands and Great Britain pension security has been arranged primarily through the Group's own defined benefit plan pension foundations. In addition, in Sweden the Group has pension arrangements going beyond statutory pension security. In other countries the pension arrangements are handled in accordance with the local regulations and practices. The above mentioned pension foundation arrangements and the pension arrangements in Sweden are in line with a defined benefit plan in which the benefits are determined on the basis of retirement age, suffering of an injury, the insured's decease or ending of the employment relationship. Pension benefits are determined primarily on the basis of years in employment and the final salary or wages, in accordance with the local regulations. Finnish compulsory pension arrangement (TEL) has been accounted for as defined contribution plan also for those TEL arrangements that are handled through own pension foundations. The Group pays contributions to the pension foundations in accordance with the local practice of each country or it assumes responsibility for the payment of pension benefits through insurance companies. Shown below is the effect of defined benefit plan insurance arrangements on the Group's net income and balance sheet as calculated according to the IAS 19 standard. The calculation covers the pension arrangements of the Group's pension foundations in the Netherlands and Great Britain, additional pension arrangements in Finland as well as the supplementary pension arrangements borne by companies in Sweden, and it furthermore indicates the differences which application of IAS 19 would have caused in the Group's net income and balance sheet.

At 31 December 2002 the pension funds in Great Britain had a pension liability deficit of EUR 63.3 million, which did not have to be covered immediately in accordance with local accounting regulations. The item has been taken into account in the IAS calculation below.

	2002	2001
Defined benefit plan, employee benefit obligations		
Present value of unfunded obligations	40.3	34.6
Present value of funded obligations	824.1	740.7
Fair value of plan assets	-767.0	-766.5
Fair value of pension obligations	97.4	8.8
Unrecognized actuarial gains and losses (-)	-128.9	-18.0
Net IAS liability / receivable (-)	-31.5	-9.2

In 2002 (2001) the assets for pension arrangements include Kemira Oyj shares at a fair value of EUR 5.0 (5.0) million as well as real-estate properties which are in the Group's own use and have a fair value of EUR 8.2 (5.5) million.

Notes to consolidated financial statements

OTHER NOTES (EUR million)	2002	2001
Movements in net liability		
Net liability at start of year	-9.2	10.4
Exchange differences on foreign plan	1.6	-2.0
Liabilities acquired in business combinations / new companies in IAS accounting	8.3	10.9
Net expense in the income statement	9.5	-1.9
Contributions included in net income	-41.7	-26.6
Net liability / receivable (-)	-31.5	-9.2
Pension liabilities included in balance sheet	4.1	4.4
Impact on balance sheet if IAS 19 had been applied	-35.6	-13.6
The amounts in the income statement		
Current service cost	6.9	5.7
Interest on obligation	44.8	43.0
Expected return on plan assets	-44.7	-48.1
Net actuarial gains / losses of financial year (-)	2.5	-2.5
IAS pension expenses / decrease in expenses (-)	9.5	-1.9
Contributions included in net income	41.7	26.6
Impact on net income if IAS 19 had been applied (credit -)	-32.2	-28.5
Actual return on plan assets		
Actual return on plan assets / expense (-)	-40.1	-67.2
Principal actuarial assumptions		
Discount rate	5.0 – 5.7%	5.5 – 5.8%
Expected return on plan assets	4.6 – 8.0%	5.0 – 7.0%
Future salary increases	2.3 – 4.4%	2.0 – 5.0%
Future pension increases	2.0 – 2.9%	2.0 – 2.8%

The financial impact of IAS 19

If IAS 19 had been applied in the consolidated financial statements the net income for 2002 would have been EUR 32.2 (28.5) million higher and shareholders' equity at 31 December 2002 EUR 35.6 (13.6) million higher related to the above-mentioned arrangements.

Notes to consolidated financial statements

OTHER NOTES (EUR million)	2002	2001
23. COLLATERAL AND CONTINGENT LIABILITIES		
Loans secured by mortgages in the balance sheet and for which mortgages given as collateral		
Loans from financial institutions	6.6	5.5
Mortgages given	6.4	5.3
Loans from pension institutions	73.0	73.9
Mortgages given	91.3	91.2
Other loans	9.4	8.3
Mortgages given	13.4	13.6
Total mortgage loans	89.1	87.6
Total mortgages given	111.1	110.1
Contingent liabilities		
Assets pledged		
On behalf of own commitments	46.3	46.6
On behalf of others	1.0	1.1
Guarantees		
On behalf of associates	63.9	72.7
On behalf of others	1.6	1.6
Operating leasing		
Maturity within one year	3.3	1.0
Maturity after one year	21.0	9.7
Other obligations		
On behalf of associates	-	1.4
On behalf of others	1.0	1.1

In liabilities for 2002 there are EUR 40.2 million of debts related to finance lease. In 2001 the finance lease included in debts amounted to EUR 46.2 million.

There were no collaterals or contingent liabilities related to managing directors, members or deputy members of board of directors and supervisory board during 2002 and 2001.

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.

24. ENVIRONMENTAL RISKS, LIABILITIES AND LEGAL AFFAIRS

Environmental risks. The bulk of Kemira's business belongs to chemical industry, whose products and operations are governed by numerous international agreements and national legislation all over the world. The Group's operations in 2002 were in material compliance with the existing regulations, except for fairly small individual cases, and no operationally significant legislation-related difficulties were encountered. The Group deals with its environmental liabilities and risks in accordance with IAS regulations and it observes established internal principles and procedures.

The White Paper entitled "Strategy for a Future Chemicals Policy", which was published by the European Commission, did not yet lead to legislative proposals in 2002. Depending on the final form and implementation of the regulations, the strategy may increase significantly the testing and risk assessment costs for chemicals that already are on the European market. Kemira has evaluated the possible effects of the proposal on present products and businesses and is participating in voluntary risk assessment programmes. The Board of Directors does not expect significant detrimental effects at the Group level because the costs will be divided among the companies operating in the market and over the long term.

The European Commission's "Proposal for a framework Directive for greenhouse gas emissions trading within the European Community - COM (2001)581" was approved by the Council of Ministers. According to the proposal, all the installations covered by the system will be required to have a greenhouse gas permit. The condition for an installation-specific permit is that the company has in its possession an amount of greenhouse gas allowances corresponding to actual emissions. The Member States, or their relevant authorities, will allocate the allowances on the basis of national plans. Allowances can be traded between companies if they choose to do so, but each year companies must submit for cancellation a number of such allowances corresponding to the actual emissions. A company that does not have a sufficient amount of allowances will incur financial sanctions. The first phase of the system, which precedes the so called commitment period under the Kyoto Protocol, will begin in 2005 and last up to the end of 2007. In the initial phase, allowances will be allocated to the participating installations without payment. Kemira has in the EU area four locations which will probably fall within the scope of the above-mentioned scheme.

Environmental liabilities. Contamination of the soil and ground water caused by past operations has been studied at all the Group's main sites. New site assessments were made in connection with business transactions that have been carried out or are in the planning stage.

An investigation was completed on the effect of the EU landfill directive on the company's operations. In line with the assessment, the necessary changes were made to the Group's environment-based provisions for two locations in Finland (Kokkola and Pori). In addition, at the Vaasa plant a plan has been submitted concerning the limited remediation of the sediment of the nearby lake. The consolidated balance sheet contains a reserve to cover the estimated remediation cost.

The acquisition of Vinings Chemicals Inc in the United States involved an extensive environmental due diligence project. A notification of soil contamination, as required by relevant legislation, was submitted to the authorities in respect of three locations. The necessary, limited remediation measures have been undertaken, and significant additional requirements are not pending. The assessment did not reveal major asbestos-related risks.

In connection with the acquisition of the Alcro-Beckers paint business, soil contamination at two sites, caused by past operations, has been taken into account in the purchase agreement and, additionally, appropriate provision has been made. In consecutive studies carried out at the plant in Poland, such contamination of soil and ground water has been observed that remedial action is needed. The authorities are aware of the situation.

Thorough due diligence was carried out as part of the preparations for decoupling Kemira Agro Oy. Soil contamination calling for remedial measures has been observed at two sites in Belgium.

Environmental legal affairs, cases and claims. In Finland, an appeal concerning the waste management permit for Kemira Phosphates Oy's Siilinjärvi plant is still pending in the Supreme Administrative Court. The appealed permit spells out significant conditions concerning future landscaping measures for the piling areas of by-products and wastes. The outcome of the appeal process cannot be forecast.

In the United States, Kemira Chemicals Inc. may possibly be a defendant, to a minor extent, in a class action concerning an external contaminated property. The case is not expected to have significant financial effects.

25. MANAGEMENT OF FINANCIAL RISKS

The Group is exposed to a number of financial risks. The task of Group Treasury is to attend to the management of finan-

cial risks in accordance with the financial policy that is in effect. The policy of Kemira's Treasury operations is approved by the company's Board of Directors. The policy defines the operational principles of financial management as well as the maximum permissible amounts of financial risks. In addition, the Board of Directors confirms an action plan for treasury operations 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. Derivative instruments are used only for hedging purposes, not for speculative gain.

PRICE RISK

Foreign exchange risk

The international nature of operations exposes the Group to foreign exchange risk due to changes in foreign exchange rates. Currency flow risk arises from the net currency flows denominated in currencies other than the domestic currency both in the eurozone and outside it. Foreign exchange risk also derives from the translation into euros of income statement and balance sheet items from other currencies. At the Group level the largest foreign exchange risks, expressed in millions of euros, are estimated to have the following breakdown in 2003:

Currency (EUR million)	USD	SEK	GBP	PLN	Others
Net flow	142	-17	-15	21	9
Hedging	-79	16	0	1	-3
Exposure after hedging	63	-1	-15	20	6
Hedge ratio	56%	94%	0%	5%	33%

At year end 2002, currency flow from commercial activities for 2003 is estimated to be about EUR 204 million and on average 50% of this was hedged (the degree of hedging in 2001 was 48%). Forwards and currency options are the principal means of hedging foreign exchange risk. The hedge ratio is tracked daily.

The basic guideline for hedging foreign exchange risks is that 50% of the net currency flow that is forecast for the next 12 months is hedged. A minimum of 30% and a maximum of 100% of the forecast flow must always be hedged.

Notes to consolidated financial statements

The Group's largest shareholders' equity items are in the Swedish krona, the British pound and the United States dollar. The Group strives to hedge balance sheet risk by keeping foreign currency-denominated liabilities in balance, currency by currency, with the asset items in the balance sheet.

In hedging the net investment in foreign units, the equity ratio is monitored such that if a change of +/- 5.0% in the foreign exchange rates causes a change of more than 1.5 percentage point in the equity ratio, hedging measures have to be undertaken.

The Group's shareholders' equity amounts in foreign currency are hedged against exchange rate changes by means of long-term loan agreements, forward contracts or currency swaps. At the balance sheet date a Swedish krona-denominated loan of 300 million Swedish kronor is used as a hedge for the shareholders' equity in Sweden and, similarly, a loan raised in United States dollars is hedging the shareholders' equity of a unit in the United States. The shareholders' equity of the company in Japan is hedged with a combination of a currency swap and a forward contract. The Group's shareholders' equity in the Canadian dollar is hedged through a forward contract. The aggregate nominal value of the instruments used to hedge net investments in foreign units was EUR 103 million at the end of 2002. The agreements are treated, in accordance with IAS 39, as the hedging of a net investment in an independent foreign unit. The efficiency of the hedging is monitored in the manner prescribed by the standard.

Currency (EUR million)	Exposure after		
	Equity	Hedging	hedging
31.12.2002			
SEK	200	33	167
GPB	100	0	100
USD	52	52	0
CAD	39	14	25
PLN	35	0	35
DKK	34	0	34
Others	58	4	54
Total	518	103	415

Interest rate risk

In order to manage interest rate risks, the Group's borrowing and investments are spread out between fixed and floating interest rate instruments. Other instruments used are interest rate swaps, forward rate agreements and interest rate options. The longest interest rate swaps fall due in 2007. At the end of 2002, 37% of the Group's entire loan portfolio consisted of fixed-interest borrowings including pension loans and derivatives.

Group Treasury measures the interest rate risk by means of the duration of the loan portfolio and sensitivity analysis. The duration of the long-term loan portfolio at the end of 2002 was eleven months including interest rate derivatives and five months without derivatives. One year is used as the duration of pension loans.

An increase of one percentage point in the level of interest rates at the end of 2002 would have lowered the market value of the portfolio of long-term liabilities by EUR 6.7 million including interest rate derivatives and by EUR 2.4 million without derivatives. The proportion of fixed-interest loans in the loan portfolio has been increased by means of interest rate derivatives. As a consequence of this policy, the Group's average interest rate level in general has been higher than the market level of short-term interest rates when low rates prevail and, on the other hand, lower than the market level when high rates prevail.

In 2003 the duration of the loan portfolio can vary in a range of 6–24 months. In 2003 a change of one percentage point in the interest rate curve is allowed to cause a maximum change of EUR 15 million in the market value of the interest rate portfolio.

CREDIT RISK

Financing-related credit risk

Counterparty risk is due to the fact that a contractual party to a financing transaction is not necessarily able to fulfil its obligations under the agreement. Counterparty risks in treasury operations are mainly connected with investing funds and with the counterparty risks of derivative contracts. The Group seeks to minimize its counterparty risk by using as its counterparties only financial institutions that have a good credit rating as well as by spreading out agreements among them.

Counterparty credit rating requirements are defined in the Group's financial policy. A counterparty that has received a credit rating below the A level or an unrated counterparty must have a separate approval. At present there are about 15 approved financial institution counterparties, all of which have a rating of at least A-. In addition, Group Treasury approves the new banking relationships of subsidiaries. Counterparty risk is monitored on a monthly basis by defining from the market values of receivables the maximum risk associated with each counterparty. For each financial institution, there is an approved limit. Credit risks for financing did not result in credit losses during the financial year.

Commercial credit risk

The Group's receivables are spread out over an extensive customer base in different geographical areas and industries. Credit limits have been set for nearly all customers and they are monitored systematically. For part of the customers credit insurance policies are taken out, either on a business unit basis or for the entire customer portfolio. In other market areas document payments are in use, such as letters of credit.

LIQUIDITY RISK

The Group diversifies its liquidity risk by obtaining financing from different sources in different markets. The Group has bank loans, pension loans, insurance company loans, a long-term note/bond programme as well as short-term domestic and foreign commercial paper programmes. 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 average maturity of long-term loans (excluding pension loans) was 3.9 years at the turn of the year and by 2005, 57% of them, or EUR 233 million, will fall due. The Group's solvency and funding arrangements are safeguarded by maintaining good liquidity and by means of revolving credit facilities. Syndicated credits contain a covenant according to which the company represents and warrants that its financial state will remain such that the consolidated shareholders' equity is always at least 25 per cent of consolidated total assets (equity ratio).

The Group has a commercial paper programme providing for the raising of a maximum of EUR 150 million as well as a Euro Commercial Paper (ECP) programme, within which a maximum of USD 200 million can be raised. The ECP programme was used to a very minor extent in 2002. At the end of the year commercial paper programmes amounting to EUR 5 million were in use.

The Group's average liquidity in 2002 was EUR 72 million. At the end of 2002, the Group's liquidity amounted to EUR 81 million as well as an unused revolving credit facility of about EUR 292 million, for a total of EUR 373 million.

DOCUMENTATION RISK

The Group's documentation risk for financing agreements is managed by concentrating the approval of financing agreements within Group Treasury as well as by using standardized agreement models. In loan agreements the company observes the normal terms and conditions of agreement prevailing on the market.

Notes to consolidated financial statements

Derivative instruments (EUR million)	31.12.2002		31.12.2001	
	Nominal value	Fair value	Nominal value	Fair value
Currency instruments				
Forward contracts ^{*)}	278.7	9.5	390.4	0.3
of which for equity hedging	21.1	3.8	42.5	-0.1
Currency options ^{*)}				
Bought	224.9	6.1	152.9	-1.8
Sold	418.6	-0.5	232.5	0.8
Currency swaps	145.1	-14.1	114.0	-1.3
of which for equity hedging	12.5	-1.2	-	-
Interest rate instruments				
Interest rate swaps	145.4	-8.8	182.2	-3.0
Interest rate options	92.8	-1.1	20.0	0.1
Bought	29.6	-0.2	10.0	0.2
Sold	63.2	-0.9	10.0	0.0
Forward rate agreements	448.2	-0.2	1,548.0	-0.1
Of which open	47.7	-0.2	150.0	-0.1
Bond futures	25.0	-0.1	86.0	0.0
Of which open	5.0	-0.1	-	-
Other derivatives				
Oil futures	-	-	0.0	0.0

Nominal values of the financial instruments do not necessarily correspond to 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.

^{*)} Also include closed currency positions. Open positions are shown under Hedging in the foreign exchange risk table.

Fair value of the most important financial instruments which were entered in the balance sheet at their acquisition cost (EUR million)

	Balance sheet value 2002	Fair value 2002
Assets		
Loans to associated companies	41.0	51.7
Short-term deposits with financial institutions	40.1	40.1
Shareholder's equity and liabilities		
Long-term loans from financial institutions	355.1	323.1
of which for equity hedging	85.2	86.1
Pension loans	228.7	232.5
Bonds and notes	61.7	63.4
Leasing liabilities	42.0	42.7

The fair value of contracts has been calculated on the basis of the present value of the cash flows arising from them.

The valuation of financial instruments has been calculated according to the date of the trade, whereas the purchase and sale of financial assets are booked according to the settlement date.

Notes to consolidated financial statements

26. SHARES AND HOLDINGS OF GROUP COMPANIES

Holding %

Associated companies

A/S Ammonia	Fredericia	Denmark	33.3
Alcro-Beckers Barvy Tjeckien	Prague	Czech Republic	25.0
Aluminium Sulphate Co. of Egypt, S.A.E.	Cairo	Egypt	26.1
Biolchim Tunisie	Carthage	Tunisia	25.0
CPS Color Group Oy	Vantaa	Finland	26.4
DA Kemikaalide AS	Tallinn	Estonia	40.0
Farmit Website Oy	Helsinki	Finland	50.0
Färgsam AB	Stockholm	Sweden	20.0
Haapaveden Puhdistamo Oy	Haapavesi	Finland	20.7
Indkoebselskabet for Kali I/S	Fredericia	Denmark	50.0
Kemax B.V.	Rozenburg	The Netherlands	50.0
Kemira Arab Potash Company	Amman	Jordan	49.0
Kemira Compound Fertiliser (Zhanjiang) Co. Ltd.	Zhanjiang	China	49.0
Kemira Emirates Fertilizers Company (Kefco)	Dubai	United Arab Emirates	30.0
Kemira Kuok Fertilizer Sdn. Bhd.	Kuala Lumpur	Malaysia	30.0
Kemira Thai Co. Ltd	Bangkok	Thailand	49.5
Kemwater Phil., Corp.	Manila	Philippines	40.0
Movere Oy	Lahti	Finland	50.0
Pharmatory Oy	Oulu	Finland	24.0
Oy Polargas Ab	Oulu	Finland	30.0
PK Düngerhandelsgesellschaft m.b.H.	Hannover	Germany	50.0
Scanspac & Co KB	Sala	Sweden	50.0
Scanspac AB	Sala	Sweden	50.0
SECO S.A.	Ribécourt	France	49.7
Superstar Fertilizers Co. Ltd	Bangkok	Thailand	40.0
Swede Pavimenta S.a.s di Carazza & Co	Pecetto	Italy	30.0
Swedish Water Corporation AB	Stockholm	Sweden	20.0
Union Kemira Co.	Abu Dhabi	United Arab Emirates	49.0
Varteko Valduse AS	Pärnu	Estonia	44.8

Other shares and holdings

A. Jalander Oy	Finland	16.0
Forcit Oy	Finland	15.4
Kemiron Companies Inc.	United States	15.0
Suomen Rehu Oy	Finland	19.9

Notes to consolidated financial statements

27. SEGMENT DATA

The Group is organized into the following main business areas: Chemicals, Paints and Coatings, and Agro.

Intra-Group transfer prices are based primarily on market prices. In some cases, for example, where marketing companies are involved, cost-based prices are used, thereby including the margin (cost plus method).

The assets and liabilities of businesses comprise assets and liabilities which can be allocated, directly or justifiably, to the businesses in question. The assets of the business segments include tangible and intangible assets, interest in associated companies, inventories and interest-free receivables. Short-term interest-free liabilities are included in the liabilities of the business segments.

2002

EUR million	Chemicals	Paints and Coatings	Agro	Other	Group
Income statement					
External net sales	1,003.2	449.5	1,124.0	35.6	2,612.3
Intra-Group sales	55.1	0.1	41.2	-96.4	-
Net sales, total	1,058.3	449.6	1,165.2	-60.8	2,612.3
Share of the associates' net income	2.9	1.5	-2.6	3.7	5.5
One-time impairment	-	-	-78.2	-	-78.2
Operating income	74.9	25.4	-34.4	-20.4	45.5
Other information					
Assets of businesses	1,089.1	354.4	750.8	85.9	2,280.2
of which holdings in associated companies	21.2	3.3	24.6	9.1	58.2
Unallocated assets					211.0
Consolidated assets, total					2,491.2
Liabilities of businesses	138.4	67.4	173.7	82.9	462.4
Unallocated liabilities					956.1
Consolidated liabilities, total					1,418.5
Capital expenditure	143.7	23.5	71.4	4.9	243.5
Depreciation	92.4	21.3	57.7	4.7	176.1
One-time impairment of fixed assets	-	0.2	52.4	-	52.6
Cash flows					
Operations	148.4	61.2	116.9	-36.7	289.8
Net capital expenditure	-124.1	-20.8	-61.5	-16.2	-222.6
Financing	-17.3	-36.3	-77.5	74.9	-56.2

2001

EUR million	Chemicals	Paints and Coatings	Agro	Other	Group
Income statement					
External net sales	830.1	445.3	1,121.4	57.6	2,454.4
Intra-Group sales	70.7	0.1	36.4	-107.2	-
Net sales, total	900.8	445.4	1,157.8	-49.6	2,454.4
Share of the associates' net income	3.7	1.6	-3.2	-1.7	0.4
Operating income	91.2	16.7	49.4	-13.2	144.1

Notes to consolidated financial statements

2001	Chemicals	Paints and Coatings	Agro	Other	Group
EUR million					
Other information					
Assets of businesses	963.0	375.0	856.9	66.7	2,261.6
of which holdings in associated companies	30.3	3.3	32.8	8.0	74.4
Unallocated assets					188.3
Consolidated assets, total					2,449.9
Liabilities of businesses	183.7	85.7	234.8	2.6	506.8
Unallocated liabilities					811.4
Consolidated liabilities, total					1,318.2
Capital expenditure	109.2	126.3	60.9	1.7	298.1
Depreciation	78.9	23.0	62.3	-3.7	160.5
Cash flows					
Operations	161.6	-19.3	29.2	-46.4	125.1
Net capital expenditure	-105.2	-122.2	-43.4	-0.7	-271.5
Financing	-56.5	143.9	23.3	-141.1	-30.4
Geographical segment					
			2002		2001
Net sales					
Finland			457.8		487.4
Other EU countries			1,311.8		1,350.1
Rest of Europe			380.6		337.7
North and South America			224.4		104.4
Asia			167.2		143.1
Other countries			70.5		31.7
Total			2,612.3		2,454.4
Assets (tangible and intangible fixed assets)					
Finland			530.8		490.8
Other EU countries			508.9		591.8
Rest of Europe			56.2		64.1
North and South America			150.0		52.2
Asia			44.8		38.4
Other countries			2.4		-
Total			1,293.1		1,237.3
Capital expenditure					
Finland			109.1		67.6
Other EU countries			70.3		207.2
Rest of Europe			3.7		14.7
North and South America			52.4		7.9
Asia			1.5		0.7
Other countries			6.5		-
Total			243.5		298.1

28. CHANGES IN GROUP STRUCTURE 2002

Acquisitions of Group companies, and new subsidiaries that have been founded

- Kemira Chemicals Oy founded a new holding company, Kemira Chemicals Holding Oy, in January.
- The deal between Kemira and J.P. Morgan Partners, an equity and venture capital company, concerning the acquisition of Vinings Industries of North America was closed on 31 January 2002. The operating companies are Kemira Specialty Chemicals, Inc., Kemira Chemicals, Inc. and Kemira Paper Chemicals Canada, Inc.
- Kemira's holding in PCS Paper Chemicals Systems Vertriebsges.mbH of Austria increased from 55% to 100% in January.
- Kemira raised its holding in Färghuset i Malmö AB and Golv & Färghuset Peter Alvefelt AB from 91% to 100%.
- The Group's interest in Comercial de Fertilizantes Liquidos S.A. increased from 50% to 100% in September.
- Kemira Metalkat Oy founded a holding company named Metalkat U.S. Inc. This holding company owns 60% of Universal Kat, Plc.
- The Group's holding in Metalkat Romania S.A. increased from 80% to 89.5%.
- Kemira Agro's Animal Nutrition unit acquired the Kynoch Feeds business in South Africa. A new company, Kemira Phosphates (Pty) Ltd, which is 74% owned by Kemira Phosphates Oy, was established.
- Agro's holding in KK Animal Nutrition increased from 50% to 87%.

Divestments of Group companies

- PCS Paper Chemicals Systems Vertriebsges.mbH in Germany was sold in January.
- Alcro-Beckers subsidiary Sundsvalls Färghandel AB was sold in June.
- Kemira Agro's subsidiary Mykora Oy was sold in July.
- Kemira Agro Oy sold 20% of Verdera Oy's shares to BioFund Management Oy in November.
- Kemira Chemicals Canada NRO Inc. was dissolved in December.

Intra-group changes in holdings in Group companies

- Kemira Chemicals Oy sold the entire shares outstanding in Kemira Phosphates Oy to Kemira Agro Oy at the end of July. In consideration, Kemira Chemicals received Agro shares and became an owner of Kemira Agro, with a 15% stake.
- Kemira Oyj sold the entire shares outstanding in Kemira Danmark Holding A/S, together with Kemira Danmark A/S, to Kemira Agro Oy in August.
- Kemira Danmark Holding A/S sold Kemira Miljö A/S to Kemira Kemi AB.
- Kemira Pigments Holding B.V. sold Kemira Agro Rozenburg B.V. and Kemira Agro Pernis B.V. to Kemira Agro Holding B.V.

Name changes

- Within the Paints and Coatings division, A/S Baltic Color (Latvia) was renamed SIA Vivacolor; UAB Baltic Color (Lithuania) was renamed UAB Vivacolor and AS Baltic Color (Estonia) was renamed AS Vivacolor.
- Polifarb Becker Debica SA was renamed TBD S.A. in January.
- Kemira Agro Muurla Oy was renamed Verdera Oy. Kemira Agro Oy's Biocontrol business was transferred to Verdera Oy at the beginning of April.
- Liprokem B.V. was renamed Kemira Specialty Crop Care B.V.
- Tikkurila AB was renamed Tikkurila Coatings AB in June.

Kemira Oyj financial statements

INCOME STATEMENT		1.1. – 31.12.	
EUR million	Note	2002	2001
Net sales	1	22.8	21.0
Other income from operations	2	0.3	0.6
Cost of sales	3, 4	-57.2	-35.1
Depreciation	5	-2.2	-1.3
Operating income		-36.3	-14.8
Financial income and expenses	6	127.2	11.6
Income before extraordinary items, appropriations and taxes		90.9	-3.2
Extraordinary items	7	94.4	112.1
Income before appropriations and taxes		185.3	108.9
Appropriations	5, 8	-2.2	-0.4
Direct taxes	9	-53.3	-31.6
Net income		129.8	76.9

BALANCE SHEET		31.12.	
EUR million	Note	2002	2001
ASSETS			
Non-current assets			
Intangible assets	10	11.8	1.0
Tangible assets	11	25.9	23.5
Investments	12		
Shares in Group companies		402.3	451.2
Holdings in associates		5.0	5.0
Other shares and holdings		3.1	3.4
Own shares		28.2	21.2
Other investments		358.1	466.2
Total investments		796.7	947.0
Total non-current assets		834.4	971.5
Current assets			
Receivables	13		
Interest-bearing receivables		201.4	55.4
Interest-free receivables		152.8	149.7
Total receivables		354.2	205.1
Securities	14	514.6	335.8
Cash and bank		4.1	4.3
Total current assets		872.9	545.2
Total assets		1 707.3	1 516.7

LIABILITIES AND SHAREHOLDERS' EQUITY			
Shareholders' equity			
Share capital	15	217.0	217.0
Share premium account		252.5	252.5
Reserve for own shares		28.2	21.2
Retained earnings		295.1	260.6
Net profit for the financial year		129.8	77.0
Total shareholders' equity		922.6	828.2
Appropriations	16	3.1	0.9

EUR million	Note	2002	2001
Long-term liabilities			
Interest-bearing long-term liabilities	17	379.3	367.7
Total long-term liabilities		379.3	367.7
Current liabilities			
Interest-bearing short-term liabilities	18	334.0	277.0
Interest-free short-term liabilities		68.3	42.8
Total current liabilities		402.3	319.8
Total liabilities		781.6	687.5
Total liabilities and shareholders' equity		1,707.3	1,516.7

CASH FLOW STATEMENT			
EUR million		2002	2001
Funds from operations			
Operating income		-36.3	-14.8
Adjustments to operating income		-0.2	-0.5
Depreciation		2.2	1.3
Interest income		42.6	29.4
Interest expense		-29.6	-16.1
Dividend received		173.1	0.6
Other financing items		-44.2	-11.1
Taxes		-63.3	-32.2
Total funds from operations		44.3	-43.4

Change in net working capital			
Short-term receivables		-12.2	2.1
Non-interest-bearing short-term liabilities		26.8	10.2
Change in net working capital, total		14.6	12.3
Cash flow from operations		58.9	-31.1
Capital expenditure			
Acquisitions of Group companies		-1.2	-12.1
Acquisitions of associated companies		-	-
Purchase of other fixed assets		-15.9	-4.5
Disposal of Group companies		50.2	1.0
Disposal of associated companies		-	-
Sales of other fixed assets		0.9	0.6
Total capital expenditure		34.0	-15.0
Cash flow before financing		92.9	-46.1

Financing			
Change in long-term loans (increase +, decrease -)		97.9	24.1
Change in long-term loan receivables (increase +, decrease -)		108.1	-76.2
Short-term financing, net (increase +, decrease -)		-189.9	-24.1
Group contribution		112.1	109.5
Dividend paid		-35.5	-36.7
Own shares		-7.0	-28.8
Financing, total		85.7	-32.2

Increase / decrease in liquid funds		178.6	-78.3
Liquid funds at end of year		518.7	340.1
Liquid funds at beginning of year		340.1	418.4
Increase / decrease in liquid funds		178.6	-78.3

Notes to Kemira Oyj financial statements

INCOME STATEMENT (EUR million) 2002 2001

1. NET SALES

Net sales 22.8 21.0

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

2. OTHER INCOME FROM OPERATIONS

Gains on the sale of fixed assets 0.3 0.6
Other income 0.0 0.0
Total 0.3 0.6

3. COST OF SALES

Materials and services
Materials and supplies
Purchases during the financial year 14.4 14.6
Total materials and services 14.4 14.6
Personnel expenses 12.5 13.2
Rents 2.4 2.4
Losses on the sales of fixed assets 22.1 1.0
Other expenses 5.8 3.9
Total 57.2 35.1

4. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

Emoluments of the Supervisory Board 0.1 0.1
Emoluments of the Board of Directors and the managing director¹⁾ 0.5 0.4
Other wages and salaries 8.8 7.9
Pension expenses 2.4 4.2
Other personnel expenses 0.7 0.6
Total 12.5 13.2

1) The managing director received a remuneration of EUR 324,472 which did not include profit sharing bonuses.

The members of the Board of Directors are paid a monthly emolument and a meeting fee; other compensation is not paid. The chairman of Kemira Oyj received EUR 34,800, the vice chairman EUR 29,080 and each of the members EUR 23,258. The chairman of the Supervisory Board received EUR 12,633 and the vice chairman EUR 8,025 and each of the members EUR 6,708.

Persons belonging to the Company's management, including parties closely associated with them, are not involved in substantial business relationships with the Company.

Management's pension commitments

The managing director and deputy managing director of Kemira Oyj are entitled to retire at the age of 60. The maximum remuneration is 66% of the pension salary. This possibility is based on the benefits of the supplementary pension foundation that has been closed to new members since 1 January 1991. The supplementary pension foundation's benefits concern all the personnel whose years of service and other conditions concerning the granting of a pension have been fulfilled.

Personnel

Personnel, average 257 235
Personnel at year end 335 233

5. DEPRECIATION 2002 2001

Scheduled depreciation

Intangible assets
Intangible rights 0.0 0.0
Other long-term expenditures 0.8 0.1
Tangible assets
Buildings and constructions 0.3 0.3
Machinery and equipment 1.1 0.9
Other tangible assets 0.0 0.0
Total 2.2 1.3

Decrease in difference between scheduled and actual depreciation

Intangible assets 0.0 0.0
Other long-term expenditures -1.7 -0.1
Buildings and constructions -0.2 -0.1
Machinery and equipment -0.3 -0.2
Total -2.2 -0.4

6. FINANCIAL INCOME AND EXPENSES

Financial income

Dividend income
Dividend income from Group companies 172.6 0.2
Dividend income from associates - 0.0
Dividend income from others 0.5 0.4
Total dividend income 173.1 0.6
Interest income
From long-term investments
from Group companies 22.3 21.2
From short-term investments
from Group companies 15.9 14.8
From short-term investments from others 3.3 5.2
Total interest income 41.5 41.2
Other financial income
Other financial income from Group companies 0.2 0.2
Total other financial income 0.2 0.2
Exchange differences
Net exchange differences
from Group companies - -
Net exchange differences from others 50.6 5.1
Total exchange differences 50.6 5.1
Total financial income 265.4 47.1

Financial expenses

Investment depreciation
Depreciation in loan receivables -56.5 -
Total investment depreciation -56.5 -
Interest expenses
Interest expenses to Group companies -6.1 -9.0
Interest expenses to others -30.1 -20.0
Total interest expenses -36.2 -29.0
Other financial expenses -0.7 -0.8
Exchange differences
Net exchange differences from
Group companies -44.8 -5.7
Net exchange differences from others - -
Total exchange differences -44.8 -5.7
Total financial expenses -138.2 -35.5
Total financial income and expenses 127.2 11.6

Exchange gains and losses

Realized -5.0 2.6
Unrealized 10.8 -3.2
Total 5.8 -0.6

Notes to Kemira Oyj financial statements

7. EXTRAORDINARY ITEMS	2002	2001	8. CHANGE IN APPROPRIATIONS	2002	2001
Extraordinary income			Increase in depreciation difference	-2.2	-0.4
Group contributions received	96.6	115.6	Total	-2.2	-0.4
Total	96.6	115.6			
Extraordinary expenses			9. DIRECT TAXES		
Group contribution granted	-2.2	-3.5	Direct taxes on extraordinary items	27.3	32.5
Total	-2.2	-3.5	Direct taxes, current year	23.1	-3.6
			Direct taxes, previous years	2.8	2.6
Total extraordinary income and expenses	94.4	112.1	Other	0.1	0.1
			Total	53.3	31.6

BALANCE SHEET (EUR million)

10. INTANGIBLE ASSETS

	Intangible	Other long-term rights expenditures	2002 total	2001 total
Acquisition cost at beginning of year	0.7	1.1	1.8	1.2
Increases	0.0	11.7	11.7	0.7
Decreases	0.0	-0.1	-0.1	-0.1
Acquisition cost at end of year	0.7	12.7	13.4	1.8
Accumulated depreciation at beginning of year	-0.4	-0.4	-0.8	-0.8
Accumulated depreciation relating to decreases and transfers	-	-	-	0.1
Depreciation during the financial year	0.0	-0.8	-0.8	-0.1
Accumulated depreciation at end of year	-0.4	-1.2	-1.6	-0.8
Net book value at end of year	0.3	11.5	11.8	1.0

11. TANGIBLE ASSETS

	Land and water areas ¹⁾	Buildings and constructions ²⁾	Machinery and equipment	Other tangible assets	Advances paid and fixed assets under construction	2002 total	2001 total
Acquisition cost at beginning of year	2.7	28.4	11.9	0.5	0.3	43.8	40.4
Increases	-	0.0	2.6	-	1.5	4.2	4.6
Decreases	-	-0.1	-0.7	0.0	0.0	-0.8	-1.2
Acquisition cost at end of year	2.7	28.3	13.8	0.5	1.9	47.2	43.8
Accumulated depreciation at beginning of year	-	-12.1	-7.7	-0.4	-	-20.3	-19.4
Accumulated depreciation relating to decreases and transfers	-	0.1	0.3	0.0	-	0.4	0.3
Depreciation during the financial year	-	-0.3	-1.1	0.0	-	-1.4	-1.2
Accumulated depreciation at end of year	0.0	-12.3	-8.5	-0.4	0.0	-21.3	-20.3
Net book value at end of year	2.7	16.0	5.3	0.0	1.9	25.9	23.5

1) The acquisition cost and the book value of land and water areas include revaluations of EUR 0.6 million in 2002 and in 2001.

2) The acquisition cost of buildings and constructions include revaluations of EUR 5.0 million in 2002 and in 2001.

12. INVESTMENTS

	Group company shares	Holdings in associates	Other shares	Investments in Group companies	Own shares	2002 total	2001 total
Acquisition cost at beginning of year	451.3	5.0	3.4	466.1	21.2	947.0	867.4
Increases	1.2	-	0.0	-	7.0	8.2	41.0
Decreases	-50.2	-	-0.3	-	-	-50.5	-37.4
Receivables from Group companies	-	-	-	-108.0	-	-108.0	76.2
Net book value at end of year	402.3	5.0	3.1	358.1	28.2	796.7	947.0

Shares and holdings are specified in Note 20.

Notes to Kemira Oyj financial statements

BALANCE SHEET (EUR million) 2002 2001

13. RECEIVABLES

Current receivables

Interest-bearing short-term receivables		
Loan receivables from Group companies	201.4	55.4
Total interest-bearing short-term receivables	201.4	55.4
Interest-free short-term receivables		
Accounts receivable		
Accounts receivable from Group companies	3.7	2.3
Accounts receivable from others	2.4	0.2
Total accounts receivable	6.1	2.5
Advances paid	3.8	2.9
Prepaid expenses and accrued income		
Prepaid expenses and accrued income from Group companies	105.3	122.6
Prepaid expenses and accrued income from others	37.5	21.5
Total prepaid expenses and accrued income	142.8	144.1
Other interest-free short-term receivables		
Other receivables	0.1	0.2
Total interest-free short-term receivables	0.1	0.2
Total current receivables	152.8	149.7
Total receivables	354.2	205.1

Loans to management

- -

Prepaid expenses and accrued income

Interests	10.8	11.9
Taxes	10.6	0.6
Exchange differences	14.6	15.9
Group contribution	96.5	115.6
Other	10.3	0.1
Total	142.8	144.1

14. SECURITIES

Securities in Group companies	484.4	332.8
Securities in other companies	30.2	3.0
Total	514.6	335.8

15. SHAREHOLDERS' EQUITY 2002 2001

Share capital at 1 Jan. and 31 Dec.	217.0	217.0
Share premium account at 1 Jan. and 31 Dec.	252.5	252.5
Fund for own shares at 1 Jan.	21.2	28.8
Donations	7.0	28.8
Cancellation of own shares	-	-36.4
Fund for own shares at 31 Dec.	28.2	21.2
Retained earnings at 1 Jan.	337.6	326.2
Net profit for the year	129.8	76.9
Dividends paid	-35.5	-36.7
Purchase of own shares	-7.0	-28.8
Donations	0.0	0.0
Retained earnings and net profit for the year at 31 Dec.	424.9	337.6
Total shareholders' equity at 31 Dec.	922.6	828.2

16. APPROPRIATIONS

Appropriations

Cumulative depreciation difference in the balance sheet is as follows:

Buildings and constructions	0.4	0.3
Machinery and equipment	0.8	0.5
Other tangible assets	0.1	0.0
Intangible rights	0.0	0.0
Other long-term expenditures	1.8	0.1
Total	3.1	0.9

Change in appropriations

Appropriations at 1 Jan.	0.9	0.5
Change in untaxed reserves	2.2	0.4
Appropriations at 31 Dec.	3.1	0.9

Deferred tax liabilities on accumulated depreciation differences were EUR 0.9 million at 31 Dec. 2002 and EUR 0.3 million at 31 Dec. 2001.

17. LONG-TERM INTEREST-BEARING LIABILITIES

Debentures and other bond loans	16.5	61.7
Loans from financial institutions	326.3	261.5
Loans from pension institutions	36.5	44.5
Total	379.3	367.7

Kemira Oyj financial statements

Long-term interest-bearing liabilities maturing in	2002	2001
2004 (2003)	129.7	138.2
2005 (2004)	65.6	40.0
2006 (2005)	16.5	58.3
2007 (2006)	75.0	18.0
2008 (2007) or later	92.5	113.2
Total	379.3	367.7

Interest-bearing liabilities maturing in 5 years or longer		
Loans from pension institutions	18.6	44.5
Other long-term interest-bearing liabilities	74.0	68.7
Total	92.6	113.2

Debentures and other bond loans

Loan	Loan currency		
Kemira Oyj 4.4% 24.11.98-03 II JVK	EUR	45.2	45.2
Kemira Oyj 4.8% 24.11.98-06 II JVK	EUR	16.5	16.5
Total		61.7	61.7

The Group has no convertible bonds.

18. CURRENT LIABILITIES

Interest-bearing short-term liabilities

Loans from financial institutions	37.8	41.7
Current portion of other long-term loans to others	149.6	18.1
Other interest-bearing short-term liabilities to Group companies	132.7	165.5
to others	13.9	51.7
Total interest-bearing short-term liabilities	334.0	277.0

Interest-free short-term liabilities

Advances received	6.0	3.0
Accounts payable to Group companies	1.5	0.4
to others	2.1	1.9
Total accounts payable	3.6	2.3
Accrued expenses and prepaid income to Group companies	16.0	5.5
to others	42.4	31.7
Total accrued expenses and prepaid income	58.4	37.2

Pension liabilities

Other interest-free liabilities to others	0.3	0.3
Total interest-free short-term liabilities	68.3	42.8
Total current liabilities	402.3	319.8

Accrued expenses and prepaid income

From salaries	2.4	1.7
From interests and exchange differences	41.1	28.6
From taxes	-	-
From Group contribution	2.2	3.5
Other	12.7	3.4
Total	58.4	37.2

19. COLLATERAL AND CONTINGENT LIABILITIES

Loans secured by mortgages in the balance sheet and for which mortgages given as collateral	2002	2001
Loans from pension institutions	3.4	3.4
Mortgages given	5.9	5.9

Contingent liabilities

Assets pledged		
On behalf of own commitments	0.8	1.5
On behalf of Group companies	9.3	8.6

Guarantees

On behalf of Group companies for loans	59.2	95.2
for leasing obligations	48.5	46.4
for other obligations	1.8	0.7
On behalf of associates	22.4	25.0
On behalf of others	1.4	1.6
Total	133.3	168.9

Letter of Comfort obligations ¹⁾

On behalf of Group companies for credits	-	0.7
for leasing agreements	0.0	0.0
Total	0.0	0.7

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

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

20. SHARES AND HOLDINGS OF KEMIRA OYJ

Shares in subsidiaries	Group holding %	Kemira Oyj holding %
Kemira Agro Oy	100	85
Kemira Chemicals Oy	100	100
Kemira Metalkat Oy	100	100
Kemira Pigments Latin America Comercial Limitada	100	50
Kemira Pigments Oy	100	100
Kemira Pigments S.A	100	50
Multirange B.V.	100	100
Spruce Vakuutus Oy	100	100
Tikkurila Oy	100	100

Other shares and holdings

A. Jalander	16	16
American Tree Co	6.25	6.25
Ekokem Oy Ab	1.42	1.42
Forcit Oy	15.35	15.35
Innopoli Oy	0.72	0.72
Kerilon Inc.	100	100
Liikkeenjohdon koulutuskeskus	2	2
Luoston Huolto Oy	1.33	1.33
Tahkoluodon Polttoöljy Oy	6.75	6.75
Teollisuuden Voima Oy	1.86	1.86
Vuorikemia Pori Oy	100	100

Proposal for the distribution of profits

The net profit of Kemira Oy for the 2002 financial year was EUR 129,797,439 and the distributable equity at 31 December 2002 was EUR 424,906,564. The Group's non-restricted equity was EUR 583,619,000. The parent company's payment of a dividend is limited by the Group's distributable equity, EUR 442,666,000, 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 of EUR 0.30 per share, or EUR 35,451,300, be paid for the financial year. It is proposed that EUR 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, 10 February 2003

Sten-Olof Hansén

Niilo Pellonmaa

Ritva Hainari

Eija Malmivirta

Matti Packalén

Anssi Soila

Tauno Pihlava
CEO

Auditors' report

To the shareholders of Kemira Oyj

We have audited the accounting, the financial statements, and the administration of Kemira Oyj for the year ended 31 December 2002. 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 on administration of the parent company.

We have conducted the audit in accordance with Finnish Standards on auditing. 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 administration is to examine that the members of the Supervisory Board and the Board of Directors and the Managing Director have legally 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's result of operations as well as of the financial position. The financial statements with the consolidated financial statements can be adopted and the members of the Supervisory Board and 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 regarding the distribution of distributable earnings is in compliance with the Finnish Companies Act.

Helsinki, 10 February 2003

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 2002 and studied the Auditors' report at its meeting today.

The Supervisory Board advises the 2003 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 2002. 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 deputy be discharged from liability. The Supervisory Board concurs with the proposal of the Board of Directors for the distribution of profit funds.

Helsinki, 12 February 2003

Timo Kalli

Kari Rajamäki

Hanna Markkula-Kivisilta

Risto Ranki

Mikko Långström

Pekka Kainulainen

Sirpa Hertell

Quarterly income statement

The figures are unaudited

EUR million	1-3	4-6	7-9	10-12	2002 Total	1-3	4-6	7-9	10-12	2001 Total
Net sales										
Chemicals	254.1	280.9	249.4	273.9	1,058.3	225.5	234.7	220.1	220.5	900.8
Paints and Coatings	101.3	134.8	128.7	84.8	449.6	104.3	133.2	124.9	83.0	445.4
Agro	311.5	314.7	245.1	293.9	1,165.2	328.1	288.4	228.9	312.4	1,157.8
Other including eliminations	-10.6	-22.9	-12.1	-15.2	-60.8	-6.5	-20.3	-8.0	-14.8	-49.6
Total	656.3	707.5	611.1	637.4	2,612.3	651.4	636.0	565.9	601.1	2,454.4
Operating income										
Chemicals	24.2	11.6	13.3	25.8	74.9	24.5	25.0	18.2	23.5	91.2
Paints and Coatings	4.6	14.5	16.0	-9.7	25.4	3.5	9.8	12.5	-9.1	16.7
Agro	27.0	11.0	1.8	-74.2	-34.4	30.9	19.5	-9.9	8.9	49.4
Other	-3.2	-10.7	-4.7	-1.8	-20.4	-2.2	0.3	-5.0	-6.3	-13.2
Total	52.6	26.4	26.4	-59.9	45.5	56.7	54.6	15.8	17.0	144.1
Financial expenses	7.5	3.1	13.0	5.9	29.5	8.2	9.8	5.4	7.9	31.3
Income before taxes	45.1	23.3	13.4	-65.8	16.0	48.5	44.8	10.4	9.1	112.8
Net income	31.0	11.9	9.9	-44.6	8.2	34.3	30.0	3.1	3.0	70.4
Earnings per share	0.26	0.10	0.09	-0.38	0.07	0.28	0.24	0.03	0.03	0.58
Earnings per share before one-time impairment	0.26	0.10	0.09	0.16	0.61	0.28	0.24	0.03	0.03	0.58

