



## Annual Report 1999



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## Key figures

	1999	1998
Net sales, EUR million	8,232	8,494
Operating profit, EUR million	721	595
Profit before extraordinary items, EUR million	510	377
Investments, EUR million	1,059	1,702
Interest-bearing net debt, EUR million	3,818	3,898
Earnings per share, EUR	0.41	0.27
Shareholders' equity per share, EUR	6.00	5.06
Return on capital employed, %	8.6	7.8
Return on shareholders' equity, %	7.7	5.7
Gearing, %	79	93
Equity-to-assets ratio, %	40	38
Average number of employees	17,461	19,003

## Shareholder information

### Annual general meeting

The annual general meeting of Fortum Corporation will be held on Monday, 17 April 2000, at 2.00 pm, at Fortum's head office at Keilaniemi, Espoo.

Registrations for the AGM are requested by 4.00 pm, on 14 April 2000. Registration can be done by telephone on +358 10 45 29440, by fax on +358 9 606 5572, or by mail to Fortum Corporation, Marjatta Rantiala. POB 1, FIN-00048 FORTUM. Written registrations must arrive before the end of the registration period. Any powers of attorney must be delivered in connection with the registration.

### Payment of dividends

The Board of Directors will propose to the AGM that a dividend of EUR 0.18 per share be paid for the 1999 financial period. The record date for dividend payment is 20 April, and the suggested dividend payment date is 2 May 2000.

### Interim Reports

Interim Report 1 January – 31 March 2000 will be published on 5 May 2000

Interim Report 1 January – 30 June 2000 will be published on 8 August 2000

Interim Report 1 January – 30 September 2000 will be published on 3 November 2000

The Annual Report and the Interim Reports are available in Finnish, Swedish and English and can also be read on Fortum's Internet home page at [www.fortum.fi](http://www.fortum.fi) in Finnish, and at [www.fortum.com](http://www.fortum.com) in English.

Information about shares and shareholders is given on pages 73-75.

### Contact information

Financial information can be obtained from: Fortum Corporation, Corporate Communications/Heidi Jokinen, POB 1, FIN-00048 FORTUM, tel. +358 10 45 24861, fax +358 10 45 24798, e-mail [heidi.jokinen@fortum.com](mailto:heidi.jokinen@fortum.com).

The investor relations contact is Raija Norppa-Rahkola, Corporate Vice President, Investor Relations, tel. +358 10 45 24135, fax +358 10 45 24088, e-mail [raija.norppa-rahkola@fortum.com](mailto:raija.norppa-rahkola@fortum.com).

## Year 1999

- Our results improved significantly on the previous year.
- We completed our structural reorganisation in accordance with our strategy which focuses on energy. We sold operations and significant shareholdings outside our core energy business, and carried out the reorganisation of Gasum Oy's ownership, as required by the EU.
- The price of crude oil, which was, on average, about a third higher than in 1998, contributed to improved results for the Group. The market price of electricity was low in the Nordic countries.
- A major proportion of the investments made during the year was in acquisitions by Power and Heat's business. The development of the Åsgard oil and gas field in Norway proceeded as planned; oil production began in May 1999, and gas production is planned to begin at the end of 2000.
- We continued our work to drive down costs and to improve the efficiency of our operations. A new organisation and corporate governance model came into operation at the beginning of 2000, and the staffs of the parent company and the divisions, and shared services, were combined.
- During the year, Fortum Corporation's shares reached a high of EUR 5.80, and a low of EUR 4.24. A total of 112 million shares was traded.

### 1 January 1999

*Operations began under the new divisional structure.*

### 19 May 1999

*Oil production began in the Åsgard field.*

### 20 May 1999

*The sale of Gasum Oy's shares was agreed. The contract was finalised on 31 May 1999.*

### 9 July 1999

*The sale of Enermet's business operations was agreed. The contract was finalised on 27 August 1999.*

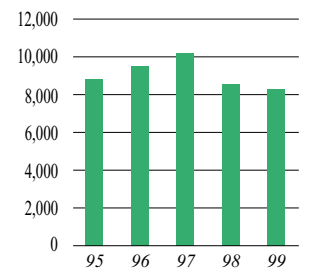
### 9 September 1999

*The acquisition of Elektrizitätswerk Wesertal GmbH was agreed. The contract was finalised on 13 January 2000.*

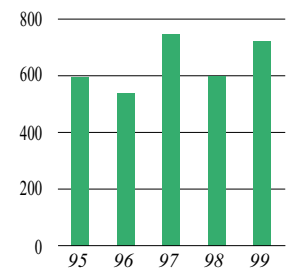
### 8 October 1999

*The sale of Neste Chemicals' business operations was agreed. The contract was finalised on 30 November 1999.*

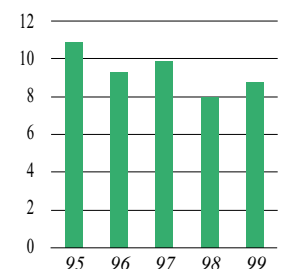
Net sales  
EUR million



Operating profit  
EUR million



Return on capital  
employed  
%



# Fortum in brief

Fortum is one of the Nordic countries' leading energy companies: it has wide-ranging experience in deregulated energy markets. Our business covers the entire energy chain, from production to refining, distribution and marketing, and from energy-related engineering to operation and maintenance.

We are the market leader in the production and marketing of high-quality and pro-environmental petroleum products in the Baltic Rim. In electricity distribution and sales, and in power and heat generation, we

*Fortum is one of the largest energy companies in the Nordic countries by number of customers and aims to be at the forefront of the development and introduction of new service concepts.*

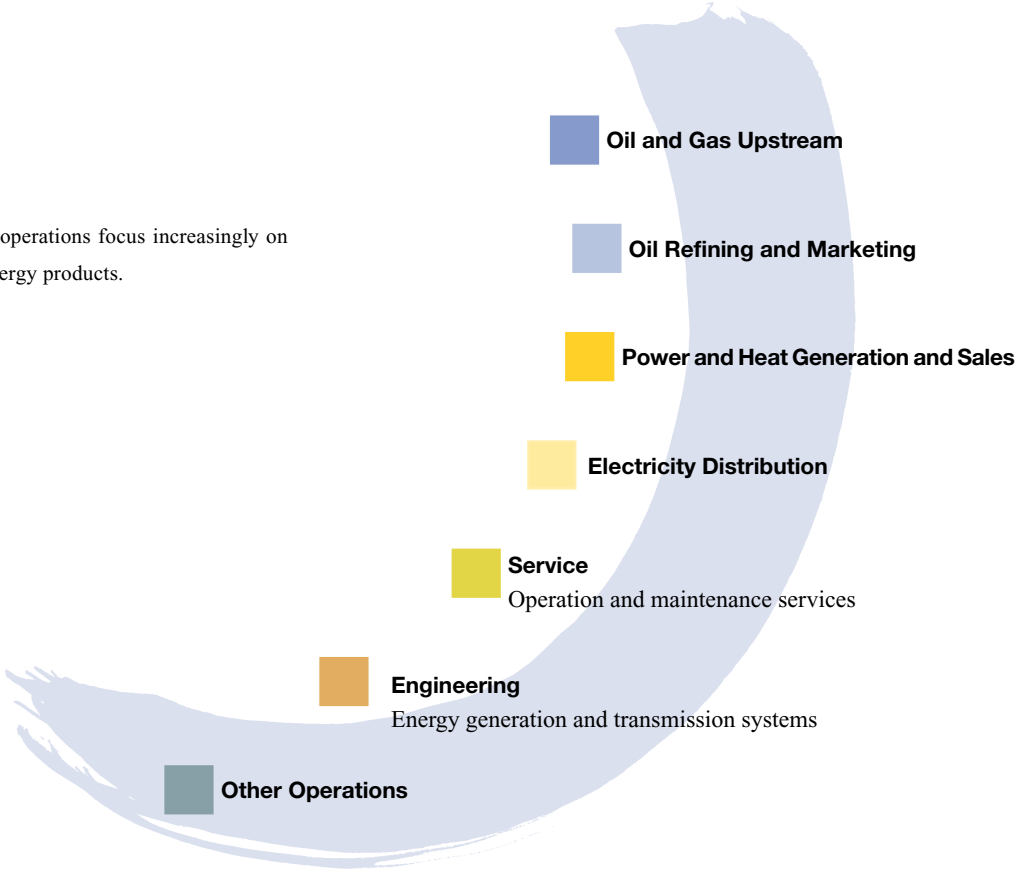
are one of the two largest companies in the Nordic market. In addition to our home market, the Nordic countries, we operate in Germany, elsewhere in Europe, and in selected markets worldwide. Overall, we are present in more than 30 countries.

Our customers include international oil, power, electricity, and distribution and grid companies; industry; municipalities; and private consumers.

In 1999, our net sales totalled EUR 8,232 million. The average number of employees was 17,461.

Fortum Corporation's shares are quoted on the Helsinki Exchanges.

▶  
Fortum's business operations focus increasingly on the end users of energy products.



## Chairman's review



*Matti Vuoria*

The establishment of Fortum was based on certain assumptions about changes in the energy markets, on new business opportunities and increased competition, and these assumptions have proved to be correct. There were rapid changes in the European markets during the year: electricity markets in Germany are being irrevocably opened for competition, and deregulation is progressing in various parts of Europe at a faster pace than was generally expected. Poland, Estonia, Latvia and Lithuania are involved in applying for EU's membership, which will require a speedy adaptation to the EU regulations. We have to continue focusing our business operations and to make also difficult choices to be able to maintain our position in the vanguard of this process of change. We expect to increase our business in the Nordic countries and elsewhere in northern Europe in the near future even more effectively than before.

The letter of intent signed with Stora Enso strengthened our position as a power generator in Sweden to a significant extent. We intend to finalise this transaction during the next few months. We also proceeded in Germany by acquiring customers and also electricity distribution and generation capacity in the country.

In the review period, we completed the divestments and restructuring we published at the time of our listing and prepared our new business structure. These operations were carried out as planned and to schedule.

We improved and simplified our business structure to unify the group structurally under one management. The model we chose made it possible, to a considerable extent, to decentralise business responsibilities. The functioning of this model will soon be tested in the challenging market circumstances. Our new corporate governance model requires the Group to have a clear strategy and objectives, for these to be effectively communicated and, in addition, for all employees to be committed to the strategy and objectives.

Our success will not be determined by the stock market rating of the energy industry against other industries at each point in time; Fortum's success in the competition within the energy industry will be decisive. To be successful, we have to accept and take advantage of continuous and rapid changes. Even our predecessors built their success through determined work in difficult circumstances.

It is our major challenge to further increase the confidence of our new and existing customers and partners. In this work, we need the support of all our interest groups. This is how we will be able to maintain and increase our shareholders' interest in Fortum as an investment.

We were able to improve our results in 1999 through the hard work and commitment of all the people working in Fortum. The ongoing year 2000 will be at least as challenging. On behalf of the Board of Directors, I would like to extend my gratitude to our management and employees for the year's good results and wish you strength and determination as we face new challenges and changes.

*March 2000*

A handwritten signature in black ink, appearing to read 'Matti Vuoria', written over a light-colored background.

*Matti Vuoria*  
*Chairman of the Board*

## President and CEO's review

Since Fortum now has a new President and CEO after the end of the review period, I do not intend to make an extensive report on 1999. In many areas, we have proceeded in the desired direction. The development of our business portfolio proceeded to plan, and the Group's economic results improved significantly over those of the previous year. In particular, our performance benefited from the increased price of crude oil and considerable gains on the sales of fixed assets, which also strengthened our financial position.

We can be satisfied with the direction in which we are moving, even though our achievements do not yet match our long-term objectives. To achieve these, we need to continue focusing our strategy based on our competitive advantages and to develop our management and operations further. To keep our core businesses competitive, it is of the utmost importance that we improve the cost-effectiveness of our operations. Our recent acquisitions, versatile production plants and experienced employees create excellent opportunities for such aspirations. As a result of increasing environmental awareness and stricter standards, we will emphasise technology as a competitive advantage. In this respect, there is no doubt that we have a distinct advantage over our competitors.

At the beginning of 2000, Fortum was reorganised: our business operations were divided into four sectors, and these sectors into performance units. We have also introduced segments for financial reporting purposes. This annual report complies with the new structure. The purpose is to give a clear picture of our operations and to make it easier for the capital markets to compare our performance with that of other players.

Strong competitiveness, high productivity and profitability are objectives, which are in the interest of the company, its employees and shareholders. I believe that our strategy and present position will provide us with a solid basis for Fortum's development, and I am confident that all Fortum employees are committed to these objectives.



*Eero Aittola*

*March 2000*

A handwritten signature in black ink, which appears to read 'Eero Aittola'. The signature is fluid and cursive, with a large initial 'E'.

*Eero Aittola  
President and CEO*

# Fortum in the energy markets

Our operating environment is characterised by deregulated markets, structural change in the energy industry, internationalisation, and an increased emphasis on environmental issues. The energy markets in the Nordic countries are among the most deregulated in the world.

Typical trends in today's international oil markets include alliances of large players, the entry of a new type of players into the market, overcapacity in the oil refining market, and increased demand for cleaner fuels. Gas markets are characterised by partial deregulation, but also by increased demand, and the convergence of gas and power generation.

Fortum has stakes in oil and gas fields in Norway and Oman. Our own oil production accounts for about 15% of the total crude oil supplies for our refineries.

We are the market leader in the production of high-quality and pro-environmental petroleum products in the Baltic Rim; the location of our refineries on the Finnish coast gives us a strategic advantage. We are also the market leader in the bulk, direct and retail sales of petroleum products in

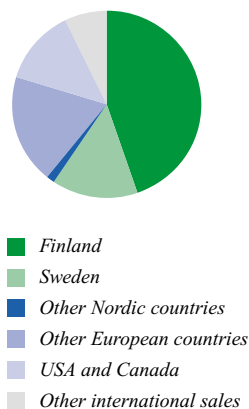
*Fortum is experienced in the liberalised Nordic energy markets, international business, and pro-environmental operations.*

Finland, and have an important share of the market in the other Baltic Rim countries. We export petroleum products beyond the region, participate in the development of gas pipelines in the Baltic Rim, and have stakes in natural gas companies in Finland, Sweden, Estonia, Latvia, and the UK.

In the Nordic countries, and elsewhere in Europe, the role of electricity exchanges is becoming more important, while the players in the markets are increasing in size and decreasing in number. The competition in these markets is about new products and services. Since deregulation, the price of electricity has fallen and there is now overcapacity in generation, both in the Nordic countries and in central Europe. As a result, the oldest and least competitive power plants are being decommissioned and only few new ones are being built.

We are amongst the two largest companies in the Nordic market in electricity sales and generation volume, and in number of customers. Fortum is a significant distributor of electricity in Finland and Sweden. In heat generation, we are the leading company in the Nordic countries, in volume of energy sold and in number of customers. Our strengths include our expertise of the entire energy chain, structurally comprehensive power generation, combined heat and power generation (CHP), and extensive experience of co-operating with industry and municipalities on energy issues. We own half of the Swedish company Birka Energi AB, which is one of the largest energy companies in Sweden in respect of its number of customers and its generation capacity. In addition to being well established in the Nordic countries, we have strengthened our position in the UK and Germany: we acquired, for instance, the German regional electricity company Elektrizitätswerk Wesertal GmbH.

Net sales by geographical area in 1999



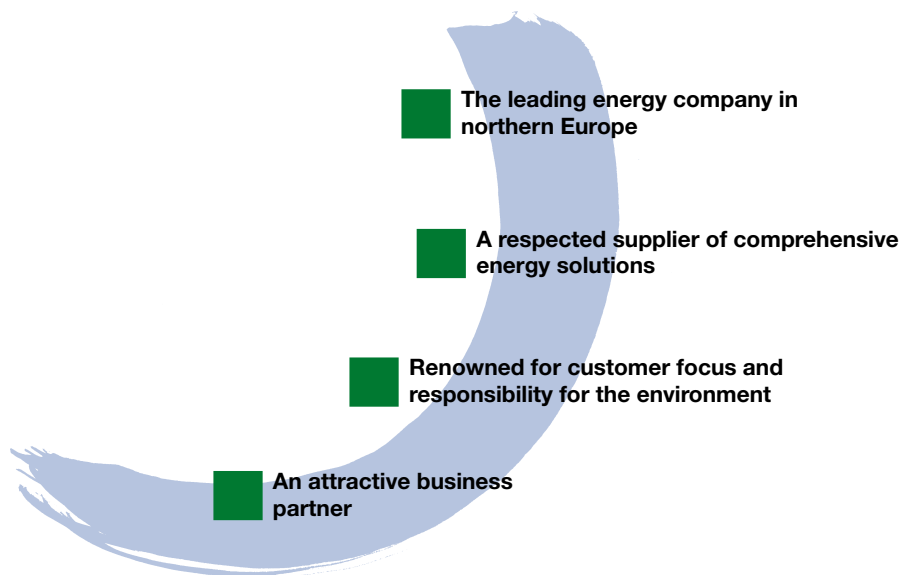


Fortum's home market is comprised of the Nordic countries. Germany and other countries around the Baltic Sea also constitute an important business area for us.





# Fortum's vision



## Business development

We continue to focus our operations on the energy sector, particularly on those areas in which we are most competitive and which offer the best opportunities for creating value. This means that we will develop our business operations, in particular in northern Europe.

Our geographical focus of investments geared to support growth will be on the Nordic countries. In Germany and the rest of the Baltic Rim, we aim to capitalise on growth opportunities. Our investments will be targeted towards electricity distribution and generation and, in oil refining, on environmentally-benign motor fuels and speciality products.

We aim to create a flexible structure, which is in harmony with market conditions. This is why our objective is to merge the power and electricity distribution business of Länsivoima Oyj with that of Fortum.

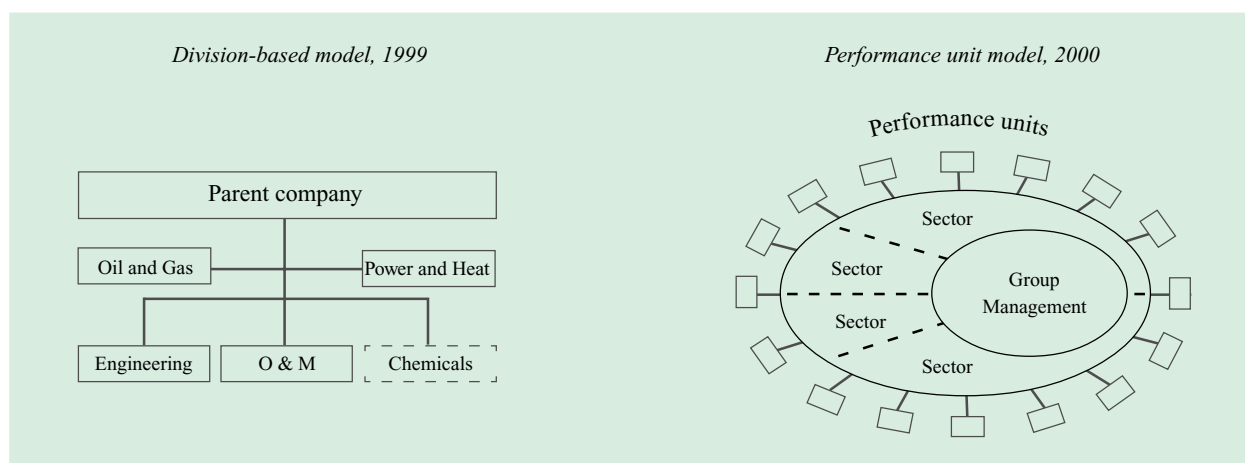
Following changes in the market, we are focusing our business on energy end-users. At Fortum Energy House, we are continuing the development of customer service concepts and related IT applications.

In addition to the strategic development of our principal businesses, our engineering operations will be focused to meet the needs of the Oil and Gas, and Power and Heat sectors. As to our other engineering operations, we will make decisions about the operating options during the current year.

In oil and gas exploration and production (E&P), we will shift our focus to gas. Because of the market convergence of the power generation and gas businesses, we will develop operations in tandem with those of the gas business.

## Corporate governance model

The new organisation and corporate governance model, which came into effect at the beginning of 2000, is leaner and more efficient and will provide opportunities to increase operational efficiencies further. In place of the division-based organisation, we have adopted a performance unit model, which comprises Group Management and 31 performance units.





# Fortum's operations in brief

*Oil and Gas Upstream comprises oil and gas exploration and production, and the natural gas business.*



*Oil Refining and Marketing is responsible for oil refining, marketing and sales of petroleum products, international trading and logistics, and LPGas business.*



*Power and Heat Generation and Sales provides small and large customers with customised energy solutions.*



*Our local subsidiaries and associated companies distribute electricity to small customers in their distribution networks in the Nordic countries, Germany and Estonia.*



*Fortum Service's operation and maintenance services cover everything from a single operation to an entire power plant or factory.*



*Fortum Engineering specialises in design and deliveries of energy generation and transmission systems for energy companies, oil refining and chemical industries, railways and teleoperators.*



*Other Operations comprise Corporate Staff operations, shared services and real estate and other holdings.*



*A common way of working is one of our central development areas relating to human resources.*



*Our environmental expertise gives us a competitive advantage. We provide our customers with first-class, environmentally compatible, and safe products and services.*



# Oil and Gas Upstream



*Oil and Gas Upstream encompasses oil and gas exploration and production, and our natural gas business. The geographical areas for our oil exploration and production activities are Norway, the Middle East, and Russia. We are also involved in gas pipeline projects in the Baltic Rim and have interests in gas companies in Finland, Sweden, Estonia, Latvia, and the UK.*

## **Market review**

### *Crude oil*

Crude oil prices almost tripled during 1999. At the beginning of the year, the light Brent blend hovered around USD 10 a barrel, but in the wake of production cuts agreed by the Opec, prices began to rebound in March.

By the end of the year, assurances by Opec about maintaining the production cuts intact, the suspension of exports from Iraq, and diminishing stocks, had pushed Brent blend to its highest level, almost USD 27 a barrel, since the Gulf War. During 1999 overall, Brent traded around an average of USD 18 a barrel, compared with an average of USD 13.3 a year earlier, which was the lowest in 22 years.

**Oil and Gas Upstream**

**Natural Gas**

### Natural Gas

In 1999, natural gas sales in Finland totalled 39 terawatt hours (3.9 billion cubic metres), up 0.2% on 1998.

### Reserves and production

We have interests in three producing oil and gas fields on the Norwegian continental shelf: the Brage, Heidrun, and Åsgard fields. We also have stakes in several oil-producing deposits, dominated by the Safah field, in the Suneinah concession in Oman. Nearly all the oil and gas we produce is sold in international markets.

Our involvement in exploration and production projects is as a joint venture partner rather than as a field operator. We principally focus on projects, which have proven oil or gas discoveries, or on fields that involve a low exploration risk. During 1999, our commercial oil and gas reserves increased by nearly 2%, to total 270 million oil-equivalent barrels (approximately 36 million tonnes) at the year end. This represents an annual reserve replacement ratio of 140%. Of total reserves, oil and gas condensates accounted for 151 million oil-equivalent barrels (56%) and natural gas for 16.5 billion cubic metres (44%). Approximately 60% of these reserves, principally oil, were in production.

The year-end value of our oil and gas reserves was EUR 1.2 billion, equivalent to the cumulative discounted future cash flow from our commercial reserves during their remaining years of production, assuming a constant crude oil price of USD 18 a barrel.

In 1999, we produced an average of 32,700 oil-equivalent barrels of oil and gas

a day, or approximately 1.65 million tonnes a year. Of this, around 4% was accounted for by natural gas, of which 38,000 tonnes were obtained from the Heidrun field and converted into methanol. Total production remained close to the previous year's level. In 2000, daily production is expected to increase by approximately 25% and rise to more than 40,000 oil-equivalent barrels. We envisage that our production will peak in 2002, reaching close to 60,000 oil-equivalent barrels a day. This corresponds to an annual production of approximately 3 million tonnes. The portion of natural gas of total production will increase significantly in the next few years.

### Projects by region

#### Norway

In 1999, our share of production (12.3%) from the Brage field totalled 8,500 oil-equivalent barrels a day (0.4 million tonnes a year). Production at Brage is expected to continue, although in declining quantities, until 2011. The recovered associated gas from the Brage field is transported via a separate pipeline to onshore facilities. In May 1999, a new exploration licence for a prospective area encompassing the possible extension of the Brage field was granted by the Norwegian Ministry of Oil to the field's production group. The field operator is Norsk Hydro.

In 1999, our share of production (5.0%) from the Heidrun field amounted to 11,600 oil-equivalent barrels a day (0.6 million tonnes a year). This level of production is expected to continue for the next three to four years, after which it will

gradually decline until 2020. The recovered associated gas from Heidrun is transported by a separate pipeline to onshore facilities for conversion into methanol. We have long-term sales contracts for methanol from Heidrun. To begin the production of Heidrun's gas reserves, a gas pipeline will be built to connect the Heidrun field to the Åsgard field. Heidrun's field operator is Statoil.

Our share of production (7.0%) from the Åsgard field, where production began in May, was 4,700 oil-equivalent barrels a day (0.2 million tonnes a year). Gas production, which is estimated to account for one half of the field's total output, is planned to begin at the end of 2000. Our share of the combined annual crude oil and gas output from Åsgard is estimated to reach an annual average of 30,000 oil-equivalent barrels a day (1.5 million tonnes) by 2002. Gas production is scheduled to continue to grow until 2008 and to remain at that level until 2016. In contrast, oil production will begin its gradual decline after 2002, but oil and gas production from the field is estimated to continue at least until 2024. Åsgard's field operator is Statoil.

The wet gas from the Åsgard field is transported by pipeline to the Kårstø gas treatment plant, on the Norwegian coast, for the recovery of condensate and natural gas liquids. From here dry natural gas is led to the North Sea gas grid.

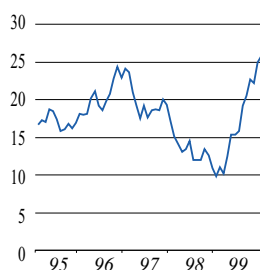
We have long-term sales agreements for the gas produced at Åsgard. At the end of 1999, our total investment in the field had reached EUR 500 million. We are planning to invest around a further EUR 50 million over the next few years.

## Oil and Gas Upstream

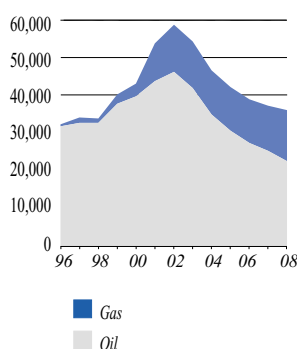
	1999	1998
Net sales, EUR million	230	146
Operating profit, EUR million	82	9
Identifiable assets, EUR million	1,154	850
Investments, EUR million	199	230
Average number of employees	233	231

## Oil and Gas Upstream

Brent spot price  
USD/bbl



Production forecast vintages  
boe/day



### Oman

We have a 35% interest in the Suneinah concession, which encompasses several oil fields in Oman. In 1999, our share of net production in Suneinah averaged 7,900 oil-equivalent barrels a day (0.4 million tonnes a year). As a result of continuing commercial discoveries in the area, production has doubled since we acquired our interest in 1991. The field operator in Suneinah is Occidental.

### Russia

Our goal in the next few years is to acquire stakes in oil and gas fields in the Timan Pechora region. Our long-term goal is to take part in the exploitation of the massive natural gas reserves of the Barents Sea.

We aim to continue negotiations with the Russian oil company Lukoil on developing the Yuzhno-Shapkinskoye onshore field, the proven reserves of which are 164 million oil-equivalent barrels. In June, together with the Spanish-Argentinian company, Repsol, and Bitech Petroleum of Canada, which is producing oil in the Timan Pechora region, we formed a holding company to survey the development prospects of the oil, condensate and gas fields of the region. Each partner owns one third of the holding company.

Together with OAO Gazprom of Russia, Norsk Hydro of Norway, Conoco of USA, and TotalFina of France, we are also continuing economic feasibility studies on the Shtokmanovskoye gas field.

### Other regions

A year ago, we signed an agreement on selling an oil and gas discovery we had made in Algeria in 1988, as well as our exploration rights over the discovery, to Lasmo (former Monument E & P). The deal had been subject to approval by the Algerian government, which was obtained in December.

### Natural Gas

At the beginning of the year, the core component of our natural gas business was our 75% holding in Gasum Oy. In May 1999, as required by the European Union, we sold 50% of our Gasum holding, as a result of which we now have a 25% interest in the company.

North Transgas Oy, which we own together with Gazprom, completed a comprehensive pre-feasibility study on routing alternatives for a planned natural gas pipeline from Russia, via Finland, to western Europe. According to the study, the three routing alternatives examined can be built without any major environmental impact, they are all economically competitive, and there are no legislative barriers to their construction.

Next, at what is known as the negotiation stage, we will explore the need of potential partners, establish the legal structure for the project, and look at financing arrangements and other issues that need to be finalised before any decisions can be taken.

In 1999, we increased our holding in AS Eesti Gaas of Estonia from 11% to 17% and acquired a 2% interest in AS Latvijas Gaze of Latvia. We had previously acquired a 10% holding in Vattenfall Naturgas AB of Sweden.

At the end of the year, in cooperation with Birka Energi AB, we set up Svensk Naturgas AB, in Sweden, to scrutinise the natural gas market and supply opportunities in central Sweden. We have an 80% interest in the company, Birka Energi AB has 20%.

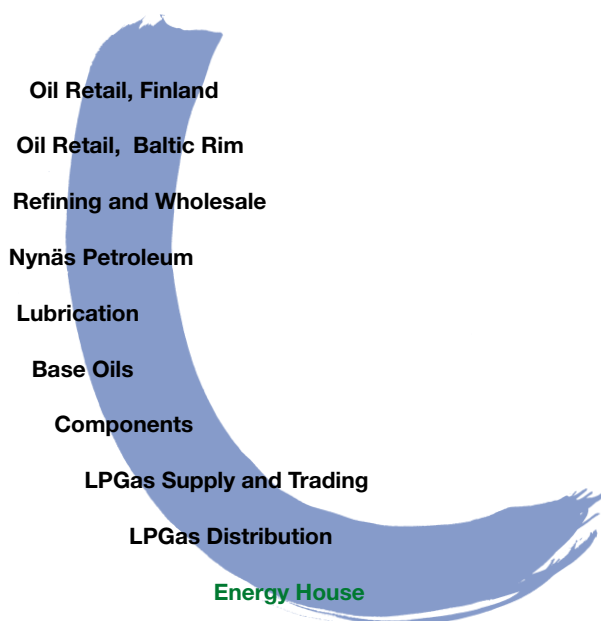
In January 2000, we increased our 20% holding in the Gas Light & Coke Company Limited, of the UK, which we acquired in 1998, to 80%. The company buys and delivers natural gas to more than 3,000 industrial and commercial customers.

### Field stakes and commercial reserves as of 31 December 1999

Field	%	Fortum's share milj. boe
<b>Norway</b>		<b>240</b>
• Brage*	12.3	14
• Heidrun	5.0	67
• Åsgard	7.0	159
<b>Oman</b>		<b>30</b>
• Safah	35.0	21
• Others	35.0	9
<b>Total</b>		<b>270</b>

\* Includes the Sognefjord deposit, of which Fortum's share is 13.2%.

# Oil Refining and Marketing



*Oil Refining and Marketing is responsible for oil refining, petroleum product marketing and sales, international trading, logistics, and the liquefied petroleum gas (LPG) business. At our two refineries at Porvoo and Naantali Finland, we manufacture a wide range of environmentally-preferred products. Our customers range from Finnish and international oil companies to other large-scale businesses, agricultural customers, and retail consumers.*

*We operate more than 1,000 Neste service stations, unmanned A<sup>24</sup> gasoline and diesel fuel outlets, and other retail outlets in Finland. Elsewhere in the Baltic Rim region, we have more than 100 manned and unmanned fuel outlets.*

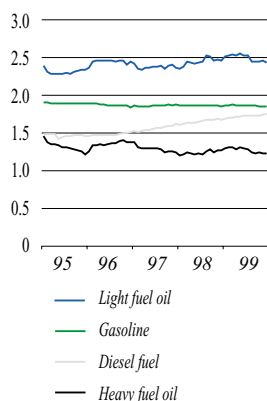
## Market review

Higher crude oil prices, accompanied by slower rises in product prices, combined with large stocks, kept international refining margins exceptionally tight. It was not until the end of the year that the margins returned to a more normal level, partly as a result of a sharp rise in the prices of aviation and diesel fuel, triggered by new quality specifications. Despite this improvement, the annual average in north-west Europe remained at USD 0.8 a barrel.

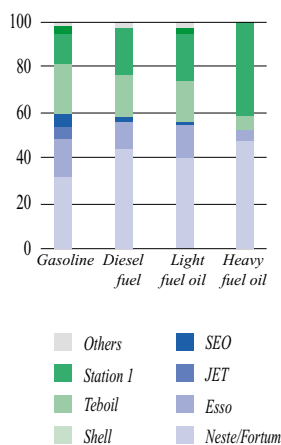


## Oil Refining and Marketing

Consumption of petroleum products in Finland  
mill. tonnes



Oil companies' market shares in Finland in 1999  
%



Our refining margin during the review period was better than the international reference margin. The location, complexity and high conversion rate of our refineries, coupled with the fact that we have our own harbours, storage facilities and a flexible feedstock blending system, enable both our refineries to improve margins by using different feedstocks and components.

The European Union is tightening the environmental criteria on gasoline and diesel fuel in 2000 and in 2005. The criteria that came into force at the beginning of 2000 stipulate that gasoline sulphur content must not exceed 150 mg/kg and that gasoline benzene content must not exceed 1%.

In recent years in Finland, petroleum product sales have been fairly stable. In 1999, total sales were 9.2 million tonnes (9.1 million tonnes in 1998). Gasoline sales fell 0.4% from the previous year. Diesel fuel consumption was up nearly 4%, driven by an increase in overall economic activity. In contrast, consumption of light fuel oil declined by 1%, and of heavy fuel by nearly 3%, as a result of warmer weather than in the previous year and the rising price of crude oil.

Following a long-lasting war over the price of gasoline, Finland's gasoline retail market normalised.

In 1999, the LPG market was volatile, making it difficult to forecast price fluctuations. Traditionally, increased demand in winter pushes prices up, while weaker demand in summer brings them down. At the beginning of 1999, poor demand resulted in a slump in prices, but increases in the price of crude oil in the summer also pushed LPG prices up.

### Wholesale and speciality product sales

In Finland, we have an approximately 75% share of the wholesale market for refined petroleum products. In 1999, wholesale deliveries totalled approximately 7.9 mil-

lion tonnes (8.3 million tonnes).

Our petroleum product exports amounted to 4.8 million tonnes, up 8% on 1998. Gasoline accounted for more than half of our refineries' total exports.

Exports of gasoline increased by 14%, of low-sulphur diesel fuel by a third, and of aviation fuel and other kerosene grades by 80%. In contrast, exports of standard-grade diesel fuel fell by 50%.

Sales of petroleum products to Sweden totalled 2.0 million tonnes. Partly as a result of the new quality criteria for European gasoline and diesel fuels, which will come into effect in 2000, total sales to north-west Europe increased to 1.2 million tonnes. With a favourable market situation, we doubled our gasoline sales to the United States, whereas sales to the Baltic countries decreased by more than a third. Trade with Russia practically ceased principally as a result of the low price of local products.

In road and industrial bitumen, we are the market leader in Finland. We sold 292,000 tonnes in 1999, almost the same as in 1998.

We have adjusted the volume of trading to focus our trading activity on oil supply operations and exports beyond Europe.

### Retail and direct sales

In 1999, combined retail and direct sales in Finland amounted to approximately 3.8 million tonnes (3.5 million tonnes) of refined petroleum products. Gasoline's market share was down 0.1 percentage points to 32.3%, diesel fuel was up 0.7 percentage points to 44.4%, light fuel oil stayed the same as in 1998, at 40.4%, and heavy fuel oil increased by 0.3 percentage points to 47.1%.

At the end of 1999, as a result of a gasoline test commissioned by VTT (the Technical Research Centre of Finland), our share of Finland's retail gasoline sales increased considerably. The results of the survey, which were published in the October issue of *Tekniikan Maailma*, a Fin-

ish automotive magazine, showed, once again, that our Futura gasoline is still the cleanest in the market.

In the Finnish diesel fuel and fuel oil market, competition became more intense, but Neste Marketing maintained its market position.

In the Baltic countries and Poland, sales volumes developed as planned whereas, in Russia, the economic situation resulted in the consumption of our products decreasing considerably.

At the end of 1999, our retail network in Finland comprised 1,019 service stations, unmanned A<sup>24</sup> stations and diesel fuel outlets, and other sales points (1,043 retail locations).

Expansion of our unmanned Neste station network was continued in the Baltic countries and Poland. At the end of 1999, we had a total of 40 unmanned A<sup>24</sup> stations in these countries. In St Petersburg, we opened three large service stations with Quick Shop convenience stores. At the end of the year, the number of our service stations and unmanned outlets in the Baltic Rim, excluding Finland, totalled 112.

### Liquefied petroleum gas

We procure LPG from the world market at competitive terms for use as feedstock at our refineries, and take part in international LPG trading in London.

We have a venture with Petrochina (former China Oil and Gas) for the construction of an LPG import terminal and a rock-cavern storage facility in north China. At the end of 1999, the joint venture, Qingdao Dragongas Company, and the Qingdao port authorities signed a con-

tract on providing harbour operations for the LPG terminal. We have a 50% interest in the venture. The construction work, which will take approximately two years, is due to begin at the beginning of 2000.

The key liquefied petroleum gas markets are currently Finland and Sweden. In Finland, bulk LPG deliveries to industrial customers increased by 4.3%, and we maintained our position as market leader. In Sweden, uncertainties over energy taxation affected the market. Our sales volumes stayed at the 1998 level, but our position in the Swedish market is still strong.

In Poland, we signed our first bulk LPG delivery contracts. In Estonia, we acquired a 65% share of AS Reola Gaas at the end of the year. The company accounts for approximately 50% of the liquefied petroleum gas market in Estonia.

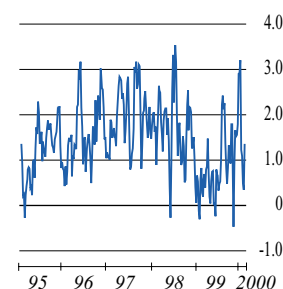
### Refining

We concentrate on manufacturing environmentally-preferred products and taking advantage of the location of our refineries in our home market, the Baltic Rim. Since the mid-1990s, we have been producing gasoline and diesel fuels that are in line with the 2000 directive.

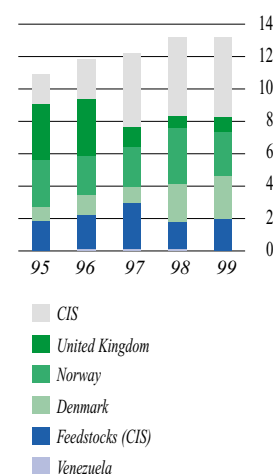
Our CityDiesel already meets the EU quality criteria, which will come into effect in 2005. In addition, we are already able to reduce the sulphur content of our gasoline so that it will comply with the criteria for 2005. The decisions taken by the EU support our long-term investment programme, which has been in place for a number of years.

We also manufacture and supply bitumen, solvents, and speciality fuels. Our

Refining margin in Rotterdam  
Brent complex, USD/bbl  
weekly average



Crude oil and feedstock  
imports to refineries  
mill. tonnes



## Oil Refining and Marketing

	1999	1998
Net sales, EUR million	5,200	4,886
Operating profit, EUR million	182	108
Identifiable assets, EUR million	1,681	1,620
Investments, EUR million	140	111
Average number of employees	4,311	4,381



## Oil Refining and Marketing

solvents are sulphur-free and do not contain benzene, some are even free of aromatics. Speciality fuels include small-engine gasoline, racing gasoline, and completely sulphur-free light fuel oil.

In 1999, our Porvoo and Naantali refineries operated as normal. There were no turn-around shutdowns, and planned production quantities were reached. Our refineries performed reliably, and the annual utilisation of conversion capacity was good. Investment, the majority of which was at the Porvoo refinery, was lower than in the previous year.

In 1999, our refineries used 11.1 million tonnes of crude oil and 2.0 million tonnes of other feedstock (11.3 and 1.9 million tonnes). We sourced 6.2 million tonnes of our crude oil from the North Sea, while 4.9 million tonnes was obtained from Russia. Of other feedstock, 0.9 million tonnes was delivered from Russia by rail, 0.9 million tonnes was shipped from other countries, and 0.2 million tonnes was delivered from the ethene plant.

The Porvoo refinery achieved a total feed of 10.5 million tonnes (10.8 million tonnes). In March, a new monthly record in distillation, 1,079 tonnes an hour, as well as a record annual utilisation of conversion capacity during the prevailing operational structure of the refinery, 95%, was reached. During the summer and early autumn, conversion capacity declined as a result of an investment project that was carried out during the operation of the refinery. The investment, which amounted to approximately EUR 57 million, was made to double the production of City-Diesel and to make basic improvements at the power plant.

The Naantali refinery achieved a total feed of 2.6 million tonnes (2.8 million tonnes). In 1999, preparations were made for the planned turn-around shutdown in 2000, the total cost of which, including maintenance and investment work, is estimated at EUR 23 million. The Naantali

refinery encountered quality problems in the production of light fuel oil. They were solved, however, and the defective product that was delivered to customers was replaced with one of standard quality.

### Components and lubricants

We produce sophisticated motor fuel components, which are used in our reformulated gasolines as well as being sold to other oil companies. The gasoline components MTBE (methyl tertiary butyl ether) and TAME (tertiary amyl methyl ether) are oxygenates that improve gasoline combustion and reduce harmful emissions. They are manufactured at our Porvoo refinery. In addition, we manufacture MTBE in Portugal and at large joint-venture plants in Canada and Saudi Arabia. In 1999, we sold approximately 890,000 tonnes of MTBE globally, with the main markets being the United States and western Europe. In the United States, an expert panel appointed by the Environmental Protection Authority has recommended that the use of MTBE be reduced. Consequently, the state of California has decided to cease its use by the end of 2002. These decisions are principally based on the fact that leaking gasoline storage tanks create uncontained spills that may result in ground-water contamination. We have therefore begun preparations to convert our 50%-owned MTBE facility at Edmonton, Canada, to produce alternative gasoline components.

We also develop and market synthetic industrial and automotive lubricants, which reduce the environmental impact. Demand for these lubricants continues to increase as the use of traditional mineral oils decreases, both in Finland and the world market. We produce polyalphaolefin (PAO) base oil, which is the most important component of synthetic lubricants, and have a market share of approximately 30% in Europe.

We also manufacture another base oil, VHVI (Very High Viscosity Index), at our Porvoo refinery, for use in the

blending of our own lubricants. It is marketed as a raw material for modern lubricants, which are in increasing demand in international markets.

We own 50% of Nynäs Petroleum, a Swedish company, which specialises in the manufacture of bitumen and naphthenic base and process oils.

### Research and development

We develop motor fuels and motor oils with increasingly lower environmental impact.

We use our patented NEXTAME technology at the Porvoo refinery to produce TAME low-emission etherified gasoline component, and have licensed the NEXTAME and NEXETHERS processes to other international oil companies. Our proprietary NEXOCTANE dimerisation technology, which produces a high-octane gasoline component, and the high-conversion NexCC cracking technology are now commercially viable. We plan to commercialise our new technologies world-wide.

We also develop and produce environmentally-preferred VHVI and PAO base oils.

### Logistics

Logistics provides inland and maritime transportation as well as terminal and harbour services. We specialise in shipping crude oil and petroleum products in the Baltic Sea, North Sea and Arctic waters.

At the end of the year, our fleet included 25 tankers, consisting of seven crude carriers, nine petroleum product carriers, eight chemical carriers, and one gas carrier. Our fleet also includes three barges and four tugs. Ten of the vessels are wholly- and two partly-owned by us, and 13 are chartered from other parties under long- or short-term contracts. The total carrying capacity of the fleet is approximately 1.0 million dwt.

We achieve maximum optimisation of our fleet by operating in international freight markets. In 1999, the quantity of

products shipped by our tankers increased to 35.5 million tonnes, approximately half of which was accounted for by transport services provided to outside parties. We have delivered all petroleum products required by Greenland for more than 23 years.

We continued to restructure our fleet by acquiring new vessels for our own use, by selling part of our current fleet, and by rearranging the ownership of our carriers. This has two objectives: to release capital and to replace ageing vessels with newer ones. In October, we received Astoria petroleum product tanker, which was time-chartered under a long-term contract from a Swedish shipping company. In addition, we sold four of our tankers, Tervi, Palva, Tiira and Melkki, and chartered them back under a bareboat chartering contract. The total sale price was EUR 41 million, of which EUR 27 million was booked in capital gains.

During the year, we took the decision to order two tugs from a Spanish shipbuilding company, and signed a preliminary agreement on the construction of two ice-strengthened crude carriers with a carrying capacity of 105,000 dwt. After the construction is completed, the carriers will be chartered back to our shipping unit under bareboat contracts. In the future, we will continue to restructure our fleet of product carriers, principally through chartering arrangements.

We operate 13 oil terminals in Finland and the Baltic Rim. We currently have our own storage facilities in five locations in

Finland, while we cooperate with other oil companies for terminal services in other areas of the country. We own and operate terminals at Tallinn, Riga and St Petersburg. Operations at St Petersburg began in September 1999.

For inland transportation, we use 190 Neste-brand tanker trucks owned by private hauliers.

During the review period, an international consortium which was formed to promote the construction of a crude oil

## Fortum Energy House Ltd

Fortum Energy House Ltd provides services that cover the direct sales of petroleum products and the sales and marketing of electricity to our small and large-scale customers in Finland. Fortum Energy House has more than 500,000 customers. It aims at developing especially e-commerce and increasing the number of customers while, at the same time, expanding its operations to the other Nordic countries. Fortum Energy House began operating at the beginning of 2000.

On 1 January 2000, the electricity sales business of Tuusulanjärvi Energy Ltd was incorporated into the company. It is aimed that Länsivoima's electricity sales business will also be merged into Fortum Energy House.

pipeline, the Baltic Oil Pipeline System (BOPS), from north-west Russia to the Porvoo refinery, finished its feasibility study. The results showed that BOPS is a competitive alternative for the export of Russian crude oil. The consortium decided, however, not to construct the pipeline for the time being. Nevertheless, we are still interested in the construction and continue our discussions with the Russian company Transneft.

### Breakdown of refinery output

<i>1,000 tonnes</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>
Liquefied petroleum gases	350	410	346	380	248
Motor fuel	4,124	4,209	3,707	4,059	4,268
Diesel fuel and light fuel oil	4,639	4,568	4,315	5,125	5,033
Heavy fuel oil and bitumen	1,116	1,445	1,394	1,579	1,544
Other products	844	1,185	1,075	1,390	1,290
<b>Total output</b>	<b>11,073</b>	<b>11,817</b>	<b>10,837</b>	<b>12,533</b>	<b>12,383</b>

# Power and Heat

## Generation and Sales



*Power and Heat Generation and Sales offers customised energy solutions. We provide our customers – households, small and medium-sized companies, energy companies and industry – with electricity, district heat and process steam, and also trade electricity in electricity exchanges. In the Nordic countries, we have a total electricity generation capacity of 8,300 MW and heat generation capacity of 5,700 MW. Our power plants generated a total of 36.9 TWh of electricity and 15.1 TWh of heat.*

### **Electricity market**

The market price of electricity was low throughout the year. At the end of August and beginning of September, the spot price increased, following the low rainfall in the latter part of the summer and the prolonged refuelling outages of the Swedish nuclear power plants. On the other hand, mild and rainy weather in October and November resulted in lower prices than in the previous year. The system price of electricity markets in the Nordic countries was an average of EUR 13.5 per MWh, against EUR 13.8 per MWh a year earlier.

**Power Portfolio Management and Trading**

**Generation**

**Birka Energi**

**Heat**

**P&H, UK and Rol**

**P&H, Continental Europe**

**P&H, Emerging Market**

**Technology**

**Energy House**

In the Nordic countries, a total of 375 TWh of electricity was used in 1999, unchanged from the previous year. Use of electricity increased in Finland by about 1.6%, but decreased in Sweden by 0.3%. The total volume of electricity used in Finland was 77.9 TWh, almost 55% of which was in industry.

The electricity markets in Finland, Sweden and Norway are among the most deregulated in the world. In these countries, customer groups are all free to choose their own suppliers. Norway is the only country where holdings in energy generation companies have been limited. In Denmark, the electricity market will gradually be deregulated by 2003.

In the Nordic market, electricity is sold through bilateral contracts and electricity exchanges, and agreement periods vary from a few months to a few years. A total of 75 TWh of electricity, 34% up on the previous year, was sold through the Nordic electricity exchange Nord Pool Elspot. Financial contracts are used to hedge electricity portfolios for up to three years, and the volume of financial products on the electricity exchange was about 216 TWh. In addition, corresponding trade on the OTC market is maintained by brokers.

The volume of electricity acquired through Nord Pool was about 13% of Finland's total consumption, and about 20% in the Nordic countries. In July, Nord Pool's operations were extended to Denmark, where stock exchange trading in electricity is possible in western Denmark.

The Nordic electricity companies sold about 220 TWh of electricity to its 13 mil-

lion small company and retail customers. There are more than 500 electricity companies in the Nordic countries, the 15 largest of which control one third of the market.

In Finland, the small customer market was characterised by fierce competition over customers, lower prices, company reorganisations, impressive campaigns of the new players, and the introduction of new products and services. It is estimated that so far about 60,000 small consumers of electricity, about 2–3% of all small customers, have changed their supplier.

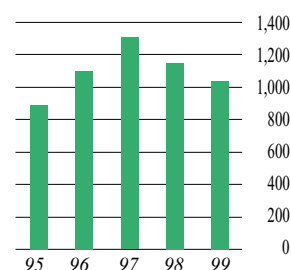
As margins on electricity sales have decreased, the sellers of electricity have tried to adjust to the situation by increasing sales, and by seeking various types of alliances. The Ministry of Trade and Industry is reviewing the separation of electricity sales and distribution to separate companies in Finland.

In industry, the trend is to divest all power plant capacity and electricity generation other than those directly related to the production process.

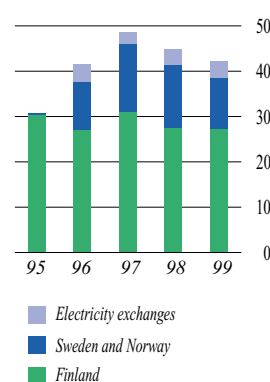
In 1996, the European Union approved the single market directive, which will gradually result in deregulated and competitive electricity markets in Europe. Under this directive member countries had to deregulate at least a quarter of their electricity markets by February 1999.

In Germany, the electricity markets were deregulated rapidly. However, as there is no uniform regulation, it was difficult to agree on the terms for electricity transmission of third parties with the network companies and, as far as the distri-

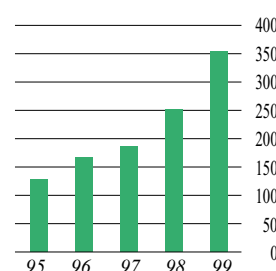
Net sales of electricity  
EUR million



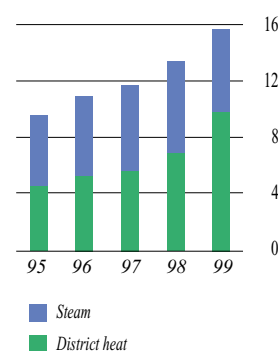
Electricity sales  
TWh



Net sales of heat  
EUR million



District heat and steam sales  
TWh

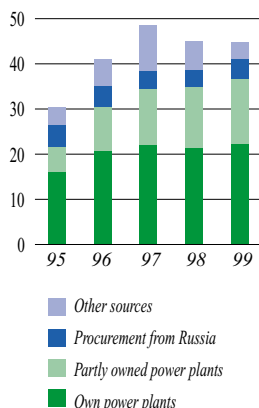


## Power and Heat Generation and Sales

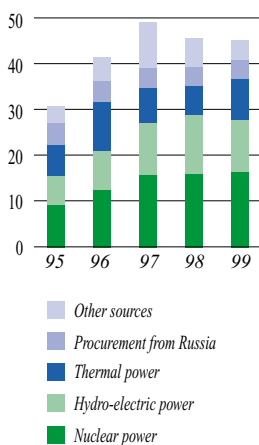
	1999	1998
Net sales, EUR million	1,443	1,456
Operating profit, EUR million	245	241
Identifiable assets, EUR million	4,822	4,523
Investments, EUR million	445	1,138
Average number of employees	2,087	2,531

## Power and Heat Generation and Sales

Electricity procurement  
by source  
TWh



Electricity procurement  
by energy type  
TWh



bution networks and cross-border lines are concerned, in many cases it was impossible. Competition resulted in a fall of up to 60% in the price of electricity generators and large consumers, and the average price for all consumers decreased more than 10%. There was increased activity in the restructuring of ownership in energy companies and, towards the end of the year, the four largest energy companies in Germany each announced their merger plans: VEBA with VIAG, and RWE with VEW.

### Heat market

The prices of district heat and process steam vary in different localities, depending on the operating conditions. In 1999, the average price of district heat increased by 1% on the previous year in Finland.

The Nordic producers sell the annual amount of about 100 TWh of district heat to 4 million domestic customers and small companies.

The total consumption of district heat in Finland was 26.2 TWh, almost 5% less than in 1998. The lower consumption was a result of the warmer than average weather. Half of the buildings in Finland are connected to district heat, and in cities, the proportion of district heat is as high as 90%.

In Finland, outsourcing of industrial heat generation continued, attracting new players and resulting in sharper competition. In Sweden, outsourcing of industrial heat generation is only in its early stages.

### Electricity sales

In the Nordic countries, our electricity sales totalled 41.6 TWh, of which 29.6 TWh was in Finland and 12.0 TWh in Sweden, including Fortum's 50% share of Birka Energi's electricity sales. In Finland, the volume of the Group's electricity sales increased by 0.5 TWh, or 2%, while in Sweden it decreased by 3.2 TWh, or 21%. The main reason for the decrease in Sweden was that, at the time Birka was established,

Gullspång Kraft was a larger supplier of electricity than Stockholm Energi and, again, Stockholm Energi was a larger supplier of heat than Gullspång. This makes it difficult to compare the figures, as the 1999 figures include 50% of Birka. The average price of our electricity decreased by 11% on the previous year. 57% of the electricity was sold to large customers (58%), 29% to small customers (30%), and 14% (12%) to the electricity exchange or temporary sales. The sector has an 11% (12%) share of the Nordic market. At the end of the year, our subsidiaries and Birka Energi served around 773,000 electricity customers, including half of Birka Energi's customers.

Outside the Nordic countries, we sold a total of 2.2 TWh of electricity (0.2 TWh).

We serve households, and small and large companies. According to the type of customer, these services include electricity supplies and various other services and products, including Norppa electricity, which is produced by bioenergy and old hydropower, wind electricity, domestic appliance services, firewood, environmental specifications, expert, measurement, reporting, portfolio management services, and extranet services for large customers.

In the present market situation, we sign an increasing number of financial contracts with large customers to hedge electricity portfolios, instead of conventional electricity contracts. These contracts are usually signed for shorter periods than before, for the summer and winter season, for instance. Longer-term financial contracts to hedge electricity portfolios have also been signed.

In March, the name of IVO Partners marketing chain was changed to Fortum Energy Partners chain. Our household and company services are all marketed through the Fortum Energy Partners chain, which comprises 12 electricity companies, which have a total of more than 400,000 customers.

In December, together with Oulun Seudun Sähkö, we established a common electricity sales company, 34% of which is owned by Fortum.

The report prepared by the investigators of the Ministry of Trade and Industry on the effect of long-term bulk electricity contracts on the competitive situation of retail sales was published in February. The investigators recommended that a retail seller buying bulk electricity should have the right to reduce its advance order by a maximum of 25% for the rest of the contract period. In the previous autumn, Fortum had decreased the subscribed demand of these contracts by 20%.

The response of the Finnish Competition Authority to the Finnish Electricity Association's request, made in 1998, for an investigation concerning Fortum's suspected misuse of a dominant market position in the bulk electricity market was published at the end of April. The Finnish Competition Authority found that Fortum's action cannot be considered misuse of a dominant market position.

Kymppivoima took Fortum to arbitration in an attempt to modify the long-term contracts. Following negotiations, the parties reached agreement, and the financial consequences of the compromise corresponded to the earlier recommendations given by the Ministry of Trade and Industry.

In Germany, we provided 16 distribution companies with a total of 0.2 TWh of electricity acquired from the continental European market. These distribution companies have 134,000 end customers.

In Estonia, we supplied a total of 0.2 TWh of electricity to 16,000 customers of Fortum Läänemaa AS.

In December, we established a subsidiary, Fortum Energi A/S to market our electricity products and related services in Denmark.

After the review period, in January

2000, we acquired the entire share capital of the German company Elektrizitätswerk Wesertal GmbH.

### **Power generation**

At the end of the year, we had a total of 8,500 MW of power generation capacity in our wholly- or partly-owned power plants, about 8,300 MW of which is in the Nordic countries, including half of Birka Energi's capacity. In the past year, these plants generated 36.9 TWh of electricity for Fortum in the Nordic countries – about 10% of all the electricity used in these countries. Hydro and nuclear power, coal, natural gas, peat, biofuels, wind power and oil are used to generate energy.

In Finland, hardly any new electricity generation capacity was built. Our subsidiary Tunturituuli Oy completed the 1.8 MW extension of the Olostunturi wind park.

In August, we submitted the environmental impact assessment report on the proposed Loviisa nuclear power plant project to the Ministry of Trade and Industry. Teollisuuden Voima Oy, in which we have a 26.6% holding, will be responsible for the future development of this, the fifth, nuclear power plant to be built in Finland. Loviisa and Olkiluoto continue to be the alternative locations.

Outside the Nordic countries, at the end of the year, we had electricity generation holdings in Estonia, the UK, Hungary and Thailand, and holdings in electricity companies in Germany, Estonia and Russia.

In Edenderry, Ireland, we made an investment in a 118 MW peat-fired electricity generation plant, which will be completed at the end of 2000. In Grangemouth, Scotland, we are building, together with Mitsubishi Corporation, a natural gas-fired CHP plant, which will generate 130 MW of electricity and 250 MW of steam. After the completion of this plant in 2000, the joint venture will begin to sell steam and electricity to BP Amoco's industrial plants.

## Power and Heat Generation and Sales

Fortum owns 75% of the joint venture.

In Burghausen, Germany, we invested in a natural gas-fired CHP plant, which will generate 120 MW of electricity and 300 MW of heat. In Thailand, we began to build a natural gas-fired Laem Chabang CHP plant to generate 100 MW of electricity and 33 MW of heat.

Fortum and the Estonian-based Eesti Ühispank purchased the entire share capital of AS Viru Energia with the result that Fortum now owns 70% of the company, which has a natural gas-fired power plant in Kohtla-Järve. The capacity of this plant is 8 MW of electricity and 236 MW of heat, which is sold to local industries.

Fortum's Hungarian associated company, Budapesti Erőmű Rt., signed the financing contracts for the building of the Újpest natural gas-fired power plant in Budapest to generate 110 MW of electricity and 115 MW of heat. The building of the plant was begun in August.

Our own power plants operated according to plan, with very few exceptions.

We agreed with the Russian export company Technopromexport on new and more flexible terms and conditions for electricity imports in 2000. We signed a long-term supply contract with the Russian company Lenenergo, under which Russia provides Fortum with 0.3 TWh of electricity, generated by hydropower, each year for ten years.

After the review period in January 2000, we signed a letter of intent with Stora Enso Oyj, under which we will acquire Stora Enso's power assets outside mills, excluding those Pohjolan Voima Oy's shares which are owned by Stora Enso. The letter of intent covers a total of 1,511 MW of electricity generation capacity in Sweden and Finland, regional electricity distribution in central Sweden, and electricity sales contracts in Sweden. Stora

Enso's electricity generation capacity related to this transaction comprises 1,096 MW of hydro power, 159 MW of which is in Finland and 937 MW in Sweden. The nuclear power capacity totals 301 MW in Sweden; the rest of the electricity generation capacity totals 114 MW. The approval by the competition authorities is one condition for the completion of this transaction. The value of the contract, excluding debts, is about EUR 1.85 billion.

### Heat sales

In 1999, we sold 5.8 TWh of process steam to industry, and 9.9 TWh of district heat to district heating networks in the Nordic countries. The total number of heat customers is about 900 in Finland, and about 4,500 in Sweden.

In Finland, the volume of heat sales remained at the 1998 level, 11.9 TWh. In Sweden, our heat sales increased from 1.5 TWh to 3.8 TWh. This growth resulted from Birka Energi's heat sales, of which Fortum's 50% share was significantly more than Gullspång Kraft's and Birka Energi's sales a year ago.

In Finland, we sell service concepts, municipal and industrial heat to municipalities, cities and major industries. We have separate heat services for population centres and small and medium-sized companies.

### Heat generation

In the Nordic countries, at the end of the year we had 5,700 MW of heat generation capacity, including half of Birka Energi's capacity, in wholly- or partly-owned power and heating plants. A total of 15.1 TWh of heat was generated in these power and heating plants, 14% more than in the previous year. The growth resulted from Birka Energi's heat generation, the volume of which was greater than our

share of Gullspång Kraft's and Birka Energi's heat generation in the previous year. Outside the Nordic countries, we had heat generation capacity in Estonia, Hungary and Thailand.

In October, we acquired the district heat business and network of the town of Eura. Most of the district heat is generated at our Kauttua power plant. In Sweden, we acquired Nynäshamn Energi Värme AB.

### Research and development

During the year, Power and Heat Generation and Sales invested EUR 25 million in research and development.

We developed several additional services, which complement the energy products and which can be implemented by the latest information and telecommunications technologies. We continued systematically to develop methods and operations in order to improve the productivity and value of power plants.

The development, sales and marketing of Fortum's solar electricity was combined at the beginning of 2000. The name of the company, wholly owned by Fortum, is NAPS Systems Oy, formerly Advanced Energy Systems. The marketing, sales and project management of wind power plants, which was earlier part of this unit, was reorganised to Fortum Engineering at the beginning of 2000.



## Birka Energi Group

Birka Energi AB sells electricity, heat and district cooling and owns and operates power plants, and electricity, district heat, and district cooling networks in greater Stockholm and central Sweden. Fortum and the City of Stockholm each own 50% of Birka Energi.

Birka Energi is one of the largest companies in Sweden in respect of its number of customers, about 842,000 for electricity and 9,000 for heat, and in respect of its generation capacity, 4,500 MW of electricity and 4,700 MW of heat. Birka Energi

is also one of the largest heat companies in Europe.

In January, Birka Energi acquired the Swedish company Lidingö Energi AB. In April, it increased its ownership in Ockelbo Energi AB to 87%, and by the end of the year, in the Swedish company Ekerö Energi AB to 79%. In July, Birka Energi acquired 65% of the shares of Baerum Fjernvarme AS, the local district heat generation and distribution company, from the Norwegian municipality of Baerum.

## Birka Energi Group's key figures: \*

<i>EUR million</i>	<i>1999</i>
<b>Net sales</b>	<b>1,454</b>
<b>Operating profit</b>	<b>294</b>
<b>Identifiable assets</b>	<b>7,481</b>
<b>Investments</b>	<b>375</b>
<b>Average number of employees</b>	<b>3,365</b>

\* Fortum Group's Power and Heat Generation and Sales, Electricity Distribution, Service, and Engineering include 50% of Birka Energi.

## Elektrizitätswerk Wesertal Group

In January 2000, after the year end, we acquired, for EUR 390 million, the entire share capital of the German company Elektrizitätswerk Wesertal GmbH. Energy company Wesertal offers electricity, heat and gas to its customers. The company has 180,000 direct electricity and gas customers and, in addition, its customer companies have a total of 230,00 customers. The main business, the sales and transmission of electricity, accounted for 81% of net sales in 1999, while gas sales accounted

for 10%. The remaining 9% of net sales came from a refuse incineration business and public transport services.

Wesertal, established in 1912, operates in central Germany. It was the second-largest energy company owned by municipalities in Germany. Its head office is in Hameln, Lower Saxony.

Through its shares in power plants, Wesertal has access to about 550 MW of electricity generation capacity. The company owns 1/6 of the Grohnde 1,360 MW PWR nuclear power plant and 1/3 of the Weser 960 MW gas and coal-fired plant.

## Elektrizitätswerk Wesertal Group's key figures: \*

<i>EUR million</i>	<i>1999</i>
<b>Net sales</b>	<b>247</b>
<b>Operating profit</b>	<b>17</b>
<b>Identifiable assets</b>	<b>225</b>
<b>Investments</b>	<b>21</b>
<b>Number of employees at the end of the year</b>	<b>830</b>

\* These figures have not been consolidated with those of the Fortum Group since Wesertal was not our subsidiary in 1999.

**Power generation capacity in the Nordic countries as of 31 December 1999**

	Capacity MW <sup>1)</sup>		Capacity MW <sup>1)</sup>
<b>Finland</b>	<b>6,030</b>	<b>Sweden <sup>4)</sup></b>	<b>2,273</b>
<b>OWN POWER PLANTS</b>	<b>4,452</b>	<b>OWN POWER PLANTS</b>	<b>1,425</b>
Hydro-electric power	771	Hydro-electric power	1,058
Nuclear power	976	Combined heat and power generation <sup>2)</sup>	213
Combined heat and power generation <sup>2)</sup>	1,029	Coal	62
Coal	431	Peat	7
Natural gas	268	Other	144
Peat	178	Conventional condensing power	77
Others	152	Other	77
Conventional condensing power <sup>2)</sup>	1,663	<b>SHARES IN PARTLY OWNED</b>	
Coal	1,509	<b>POWER PLANTS</b>	<b>848</b>
Peat	154	Hydro-electric power	96
Wind power	3	Nuclear power <sup>5)</sup>	645
Other	10	Combined heat and power generation <sup>2)</sup>	64
<b>SHARES IN PARTLY OWNED</b>		Coal	64
<b>POWER PLANTS</b>	<b>1,578</b>	Conventional condensing power <sup>2)</sup>	37
Hydro-electric power	575	Others	37
Nuclear power <sup>3)</sup>	486	Other	6
Combined heat and power generation and conventional condensing power <sup>2)</sup>	410		
Natural gas	355		
Peat	55		
Other	107		

In the Nordic countries, Fortum's electricity generation capacity totalled 8,303 MW.

**Heat generation capacity in the Nordic countries as of 31 December 1999**

	District heat MW <sup>1)</sup>	Process steam MW <sup>1)</sup>
<b>Finland</b>	<b>2,099</b>	<b>1,288</b>
<b>OWN POWER AND HEATING PLANTS</b>	<b>2,099</b>	<b>1,288</b>
Combined heat and power generation <sup>2)</sup>	1,288	729
Coal	365	185
Natural gas	242	-
Peat	287	166
Others	394	378
Other	811	559
<b>Sweden <sup>4)</sup></b>	<b>2,350</b>	-
<b>OWN POWER AND HEATING PLANTS</b>	<b>2,223</b>	-
Combined heat and power generation <sup>2)</sup>	133	-
Coal	115	-
Peat	18	-
Other	2,090	-
<b>SHARES IN PARTLY OWNED POWER PLANTS</b>	<b>127</b>	-

In the Nordic countries, Fortum's heat generation capacity totalled 5,735 MW.

**Power and heat generation capacity outside the Nordic countries as of 31 December 1999**

	Power MW <sup>6)</sup>	District heat MW <sup>6)</sup>	Process steam MW <sup>6)</sup>
<b>Power and heating plants</b>	<b>5,382/827</b>	<b>1,573/697</b>	<b>1,221/413</b>
United Kingdom	1,500/524	-/-	-/-
Hungary	262/116	1,572/696	530/235
Russia	3,242/162	-/-	-/-
Thailand	370/19	-/-	455/13
Estonia	8/6	1/1	236/165
<b>Projects under construction</b>	<b>758/285</b>	<b>115/51</b>	<b>450/198</b>
United Kingdom	130/98	-/-	250/188
Ireland	118/118	-/-	-/-
Thailand	400/20	-/-	200/10
Hungary	110/49	115/51	-/-
<b>Projects being planned</b>	<b>220/220</b>	<b>-/-</b>	<b>333/333</b>
Germany	120/120	-/-	300/300
Thailand	100/100	-/-	33/33

<sup>1)</sup> The capacity controlled by Fortum

<sup>2)</sup> The capacity has been classified according to the main fuel used in generation.

<sup>3)</sup> Fortum's holding in Teollisuuden Voima Oy entitles it to a 26.6% share of the capacity of the Olkiluoto nuclear power plant.

<sup>4)</sup> Includes 50% of Birka Energi's capacity

<sup>5)</sup> Includes Fortum's holding in Mellansvensk Kraftgrupp (MKG), which owns part of the Forsmark nuclear power plant, and in OKG, which owns the Oskarshamn nuclear power plant.

<sup>6)</sup> The total capacity of power and heating plants/according to Fortum's share of the capacity.

# Electricity Distribution



*Our local subsidiaries and associated companies distribute electricity to 900,000 small customers in their distribution networks in Sweden, Finland, Germany and Estonia.*

**Distribution**

**Länsivoima Distribution**

## Electricity Distribution

Our local subsidiaries distribute electricity for small customers in their distribution networks in northern Europe. In Finland most of our regional and distribution networks are owned by the Länsivoima Group, Koillis-Pohjan Sähkö Oy and Tuulusanjärvi Energy Ltd; in Estonia by Fortum Läänemaa AS and Viimsi Elekter AS; and in Germany by Elektrizitätswerk Wesertal GmbH. In Sweden, distribution networks are owned by the Birka Energi Group, half of which is owned by Fortum.

Our subsidiaries distributed 4.0 TWh of electricity (3.5 TWh) to Finnish customers in their distribution networks. In Sweden, the corresponding distribution volume amounted to 8.6 TWh (6.9 TWh), half of Birka Energi's distribution network transmission, and in Estonia it was 0.1 TWh. Net sales of electricity distribution totalled EUR 129 million in Finland, EUR 216 million in Sweden, and EUR 2 million in Estonia.

## Electricity Distribution

At the turn of the year, our subsidiaries and Birka Energi (50% of the customers) together had more than 743,000 electricity distribution customers, more than 278,000 of which were in Finland, almost 444,000 in Sweden, and 21,000 in Estonia. After the review period in January 2000, Wesertal's 163,000 electricity distribution customers joined our clientele in Germany.

Electricity distribution is controlled by the Electricity Market Authority in Finland, and Energimyndigheten in Sweden. The largest permitted market share for one player in Finland is 25% of all electric energy distributed at the voltage of 0.4 kV. In 1999, our market share of Finland's electricity distribution was about 15%, including our subsidiaries.

In February, the Electricity Market Authority gave a decision on distribution prices of electricity concerning Megavoima Oy, Länsivoima Oyj's subsidiary. The Authority confirmed that the pricing of Megavoima Oy's network services had exceeded the return on capital employed considered to be reasonable by a total of less than one million euros in 1996 and 1997. The Electricity Market Authority obliged Megavoima to change its electricity distribution pricing. Megavoima filed an appeal to the Supreme Administrative Court. The Electricity Market Authority began to review the alternative ways of measuring differ-

ences in efficiency of distribution companies in the analysis of fair proceeds.

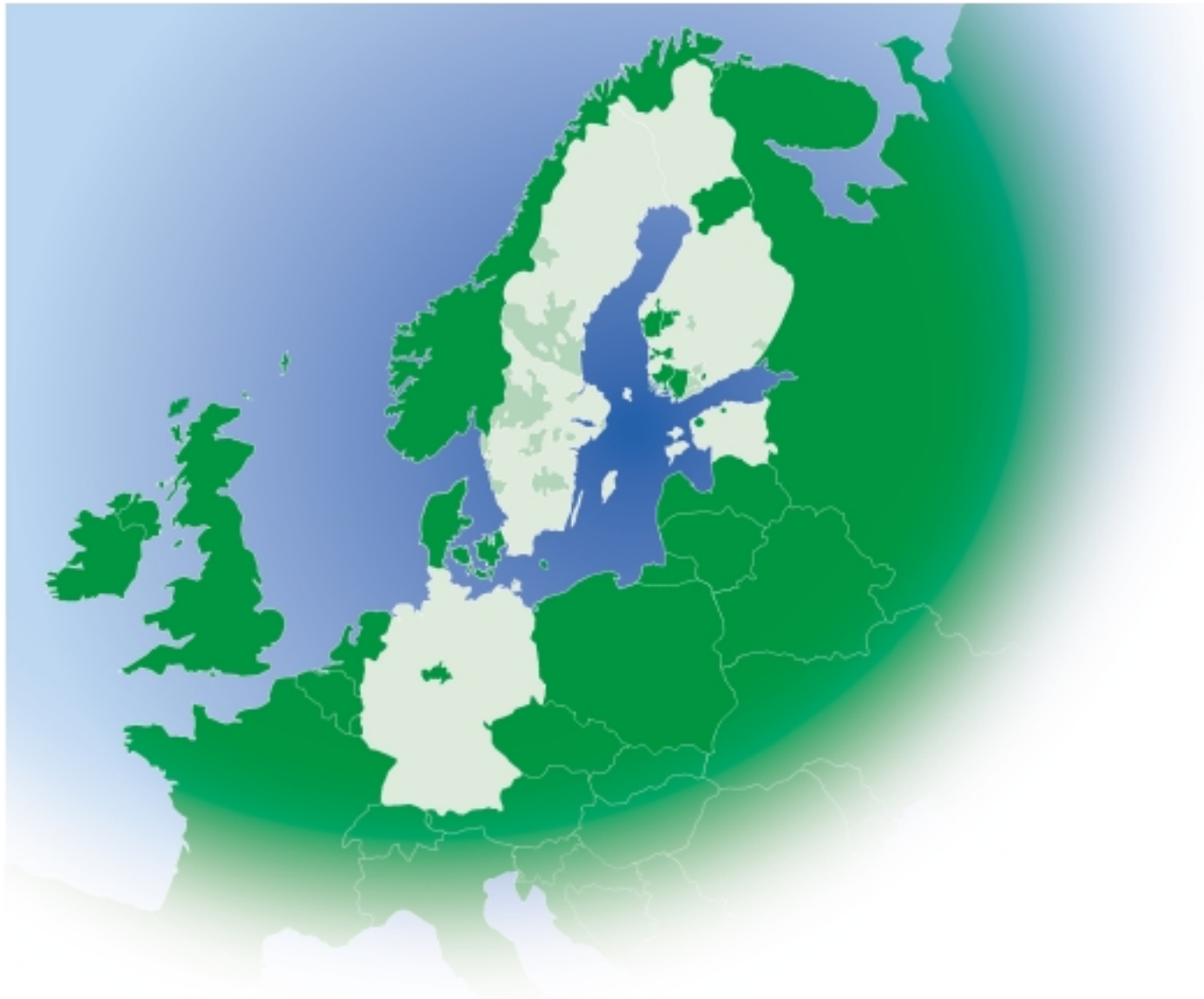
As a result of complaints, the County Administrative Court of Uusimaa decided in May to quash the decision of the Municipal Executive Board of Tuusula, made in March 1998, to sell Fortum 35% of its holding in Tuusulanjärvi Energy Ltd. In September, the Municipal Council of Tuusula approved the share acquisition. Today, we own 100% of Tuusulanjärvi Energy.

As a result of share acquisitions in January, our holding in Koillis-Pohjan Sähkö increased to 98.6%. In February, Länsivoima acquired almost 27.6% of Espoon Sähkö Oyj's share capital. In August, we acquired additional 10% of Länsivoima Oyj's share capital, which meant that the redemption limit of two thirds was exceeded. After the redemption offer, our holding in Länsivoima increased to 78.1%. In December, we acquired 72.3% of the Estonian company Viimsi Elekter AS.

After the review period in January 2000, we signed a letter of intent with Stora Enso Oyj concerning the acquisition of Stora Enso's power assets. This transaction also involves distribution and regional network operations in central Sweden. These distribution and regional networks are an integral part of Birka Energi's corresponding networks.

### Electricity Distribution

	1999	1998
Net sales, EUR million	347	340
Operating profit, EUR million	122	123
Identifiable assets, EUR million	1,419	1,023
Investments, EUR million	226	147
Average number of employees	697	669



#### Fortum's holdings in network companies as of 31 December 1999

<i>Company</i>	<i> Holding, %</i>	<i> Country</i>	<i>Company</i>	<i> Holding, %</i>	<i> Country</i>
<b><u>Distribution companies:</u></b>					
Koillis-Pohjan Sähkö Oy	98.6	Finland	Birka Energi Group's network operations	50.0	Sweden
Länsivoima Oyj	78.1	Finland	Karlskoga Energi & Miljö AB	49.0	Sweden
Tuusulanjärvi Energy Ltd	100.0	Finland	Fortum Läänemaa AS	95.1	Estonia
Espoon Sähkö Oyj	21.6	Finland	Viimsi Elekter AS	72.3	Estonia
Keuruun Sähkö Oy	35.1	Finland	AS Viru Energia	70.0	Estonia
Uudenmaan Sähköverkko Oy	50.0	Finland	<b><u>Grid companies:</u></b>		
Imatran Seudun Sähkö Oy	14.6	Finland	Fingrid Oyj	25.1	Finland

Elektrizitätswerk Wesertal GmbH in Germany is also marked on the map. The company was incorporated into Fortum in January 2000.

# Service



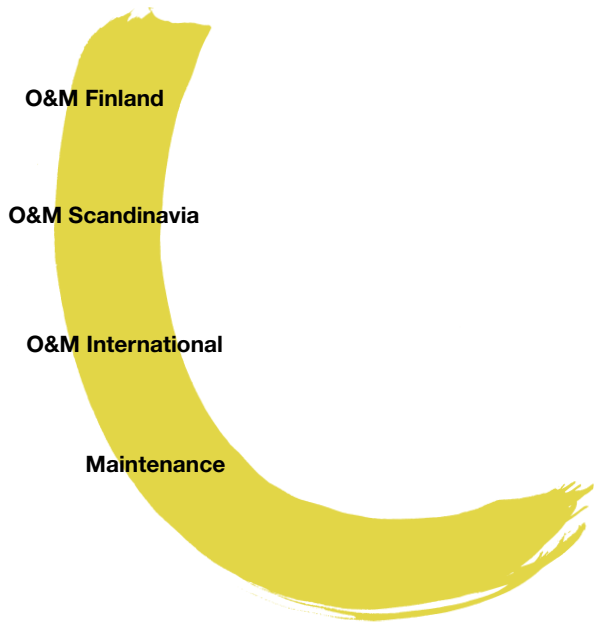
*Fortum Service offers turnkey operation and maintenance services for power plant owners, and maintenance services for the process industry. Maintenance services cover everything from a single operation to an entire plant. Our specialist expertise also covers the maintenance of gas and steam turbines, boilers, automation, process equipment and transformer plants, and lubrication services.*

## **Operation and Maintenance (O&M)**

Our customers include power plant and substation owners and operators, and industry. We have operations in Finland, Sweden, UK, Ireland, Germany, Hungary, Malaysia, Thailand, and China. We are responsible for the operation of more than 11,000 MW of power generating capacity and 6,400 MW of heat production capacity.

In Finland, the Service contracts cover 56 power and heating plants throughout the country, and maintenance contracts for more than 80 industrial projects.

Power plants operated as planned and continued to have excellent availability. Their generation volumes were implemented to plan. As a result of



the poor situation in the electricity market, production at Finland's condensing power plants decreased considerably in the first part of the year.

In Sweden, operation and maintenance are carried out by Birka Service AB. The company operates and maintains Birka Energi's power plants, electricity distribution and district heating networks, and also offers operating and maintenance services to other industrial customers. Birka Service's contracts cover more than 200 power and heating plants, representing a total of 3,475 MW of power generating capacity and 3,400 MW of heat production capacity in Sweden.

Outside the Nordic countries, we offer operation and maintenance services for power plants in the UK, Ireland, continental Europe and South East Asia. At the end of the year, the total power generating capacity of these contracted plants was about 4,200 MW.

At the end of a contract period, we sold the operation and maintenance (O&M) contract for the Peterborough power plant to our customer in the UK, and the operations are being continued under a support contract.

We signed a contract with Budapesti Erömü Rt., the energy company of Budapest, on support services for the operation and maintenance of the Újpest power plant in Hungary.

Towards the end of the year, we signed an operation and maintenance contract with the gas-fired combined-cycle power plant to be built in Laem Chabang, Thailand.

## Maintenance

The maintenance market showed a positive trend. Bofors AB and Fortum Service Oy agreed to establish a common maintenance company, Fortum Service Industripartner AB, in Sweden. The new company, which offers technical services for the companies located in the Karlskoga industrial park and the environment, began operations at the beginning of 2000.

The power plant outages carried out in the summer were all implemented to plan. Industrial maintenance signed contracts with the service and maintenance operations of CAE Screenplates Oy and on the transfer of the maintenance business of Lindström Oy's Hämeenlinna service centre to Fortum Service.

We also carried out significant turbine modernisations and maintenance in Finland, Sweden, UK and Germany. Endoscope inspections were made at various plants in Finland, at the Brigg power plant in the UK, and at the Teluk Gong plants in Malaysia. Fingrid Verkko Oy and Fortum Service Oy signed a maintenance contract for six substation groups for which Fingrid is responsible. Oy VR-Track Ltd ordered predictive inspections and services for switching equipment and transformers, and basic maintenance for the feeding and switching stations for which it is responsible.

We carried out a great deal of service, installation and maintenance assignments at substations and transformers, and agreed with Svenska Kraftnät AB on the extension contract for the Alvesta and

Hemsjö 400 kV substations and on a turnkey contract for the modernisation of the high-voltage system at the Hällsjö 220 kV substation. Birka Service also signed several maintenance contracts in Sweden.

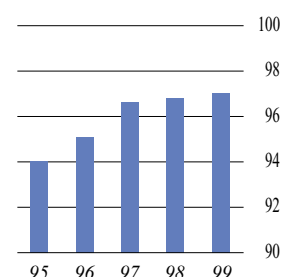
The power plants in the UK were, for the second time, awarded the respected ROSPA (Royal Society for Prevention of Accidents) prizes for excellent industrial safety.

## Product development

Optimisation methods were developed to support the operation and maintenance of power and industrial plants, in order to improve their productivity. In co-operation with our customers in the forestry industry, we developed a new condition management concept for electric machines. New operating models and supporting applications of the information technology were introduced in order to develop and take advantage of our organisation's expertise.

We initiated new co-operation projects with significant Finnish and international technology suppliers, and continued active product development work with EPRI, a research institute of the energy sector in the USA.

*Operation-time energy availability of power plants*  
The five-year sliding average each year, %



## Service

	1999	1998
Net sales, EUR million	290	250
Operating profit, EUR million	12	8
Identifiable assets, EUR million	42	20
Investments, EUR million	9	6
Average number of employees	3,387	3,191



# Engineering



*Engineering specialises in turnkey contracts for energy generation and transmission systems, plant deliveries for oil refining and chemical industries, railway electrification, and the supply of communications applications to the energy industry. The power transmission business also supplies construction and maintenance services. Our principal customers are in the energy, oil and chemical, railway and telecommunications industries. The Engineering sector has customers in more than 50 countries.*

## **Market review**

The international markets of the power industry are showing a positive trend. Industry consolidation has changed the competitive situation, and has had a beneficial effect on the industry. The Nordic market has been relatively quiet, and no major increase in activity is expected. The sales of small biofuel plants are expected to increase. The demand for power plant modernisations will continue in the east of Central Europe, while the sales of new power plants are growing, particularly in Poland. In our target countries for power plant engineering, Poland, the Czech Republic, Hungary and Romania, we do not expect the markets to change. The German and UK markets are growing. In Asia, the effects of the economic recession are beginning to alleviate,

**Power Plant Engineering**

**Oil, Gas and Chemicals Engineering**

**Transmission Engineering**

and in China and Thailand, the demand for power plant engineering is recovering.

In the Nordic countries, while the power transmission markets continue to be low, several railways were electrified. The building of mobile telephone networks continues to increase.

Engineering's markets relating to the oil, gas and chemicals sectors were unchanged, and Borealis Polymers Oy's development and investment projects provided the most work for the oil, gas and chemicals engineering. We expect the EU's motor fuel specifications for 2005, which are to be confirmed in 2000, to result in increased demand for the NExTAME etherification technology.

### Power Plants

Power Plant Engineering comprises thermal power plants, environment and refurbishment, automation, hydro power consulting and nuclear power. Our business grew strongly, as it had in the previous year. The most significant projects included the Újpest CHP plant in Hungary, Wacker-Chemie's CHP plant in Germany and the CHP power plant in Thailand. New refurbishment projects, financed by the World Bank and the European Bank for Reconstruction and Development, were obtained in Romania and Poland. In Ireland, we continued the work on the Edenderry, and in the UK on the Grange-mouth power plant projects, and in Poland work on the Tychy CHP projects and the Kozienice desulphurisation plant continued. In the Czech Republic, we handed over the Olomouc power plant and in China the Nanjing desulphurisation plants.

We carried out nuclear power consulting in Russia, China and Hungary; and

hydro power consulting in the Baltic countries. Refurbishment projects were carried out in Finland and Sweden. The refurbishment of the Narva power plant in Estonia was our most significant automation project.

### Transmission

Work for 400 kV power line and substation projects were started in Sweden and Finland. The number of the maintenance and refurbishment projects of electric power and telecommunications networks increased in Finland and in the nearby markets. We won an internationally important competitive bid for the electrification of the northern rail lines in Finland.

The rapid expansion of the mobile telephone networks strengthened our position as a supplier of antenna masts and base stations for international equipment manufacturers. We maintained our strong market position in the building and maintenance of power lines in Sweden and Norway, despite the low level of investment.

A communications and operational control project was begun for Indian Power Grid Ltd and we had other power transmission projects in Ghana and Nepal. Consulting projects were carried out in Uganda and India.

About 82% of this sector's net sales come from outside the Fortum Group.

### Oil, Gas and Chemicals Engineering

Neste Engineering, which is responsible for oil, gas and chemicals engineering, had an excellent year with a strong order book throughout the period.

The share of orders received from Fortum was about 70%. About half of this performance unit's net sales, including the

turnkey deliveries, came from outside the Fortum Group.

Among Fortum's own projects, the completion of the St Petersburg and Riga oil terminals, the CityDiesel and power plant refurbishment projects at the Porvoo refinery, and the initiation of the automation modernisation project for the production lines at the Porvoo refinery were the most significant.

Our other projects within the Group included the conversion of the Naantali refinery's cooling water system. Oil and Gas Engineering also participated in Fortum's development projects relating to oil and gas processes. In 1999, the most important plant projects outside the Group comprised the polypropylene plant which Borealis is building in Austria, the building of a TAME unit for Saras S.p.A.'s refinery in Sardinia, and the extension of Gasum Oy's natural gas pipelines in Finland.

In addition, this performance unit began to market technology licences. During the year, we commercialised the NExOCTANE technology developed by Fortum. This technology is mainly targeted at the US market to replace part of MTBE production. This business also signed a licensing and cooperation agreement with Borealis on the application and development of automation technology.

### Research and development

Engineering invested a total of EUR 8 million in research and development.

Research into biofuels continued. In the development of our own boiler technology, we made the first reference deals. The CHP development programme was completed.

Transmission Engineering focused on road lighting and related information systems, and on the development of covered conductor lines. The telecommunications business made investments in the commercialisation of operational control systems.

## Engineering

	1999	1998
Net sales, EUR million	479	411
Operating profit, EUR million	12	16
Identifiable assets, EUR million	43	68
Investments, EUR million	12	11
Average number of employees	3,254	3,138

# Other Operations



## **Other Operations**

Other operations include our corporate staff functions outside the business operations, shared services, real estate holdings, and other assets. The largest shared services are Fortum Support Oy, Fortum Data and the Financial Shared Service Center (FACE). Fortum Support provides services geared to advance our business operations, human resources and office services, as well as real estate services. Fortum Data develops and maintains the Group's information technology infrastructure, operative applications and systems. At the end of the year, together these functions employed a staff of 1,000 people.

## Discontinued Operations

### **GASUM**

Until the beginning of June 1999, we had a 75% holding in the natural gas company Gasum Oy. When Fortum was established in spring 1998, the European Commission required us to divest our majority interest in Gasum by 3 June 1999. Consequently, in May 1999, we sold 50% of our 75% holding as follows: 24% to the Finnish State, 20% to Ruhrgas Energie Beteiligungs-AG of Germany, and 2% each to forestry companies Metsä-Serla, Stora Enso, and UPM-Kymmene. The Russian natural gas company OAO Gazprom owns 25% of Gasum's share capital.

The transaction price of EUR 290 million, negotiated during the spring, resulted in capital gains of EUR 324 million.

Gasum, which incorporates the local distribution companies HelsinkiKaasu Oy and Kotkan Kaasuenergia Oy, imports natural gas from Russia to Finland, takes care of the construction, maintenance, and operation of the natural gas pipeline network, and markets natural gas to business customers. In 1999, Finland's high-pressure natural gas pipeline network was 919 kilometres long.

At 39 TWh (3.9 billion m<sup>3</sup>), Gasum's 1999 natural gas sales were at the same level as in the previous year.

### **NESTE CHEMICALS**

Fortum divested the business of Neste Chemicals to the private equity fund Industri Kapital 1997 on 30 November 1999. The transaction price was EUR 505 million including debts, and we recorded EUR 99 million in capital gains.

Neste Chemicals Group manufactures, and sells worldwide, adhesive resins, unsaturated polyester resins, gelcoats, oxo intermediates, and paper chemicals. It has 40 production plants in 17 countries in Europe, North America, and Asia.

### **ENERMET**

Enermet was sold to Industri Kapital 1994 private equity fund on 27 August 1999 at a transaction price of EUR 98 million. As part of the ownership rearrangements, Industri Kapital set up a holding company, Enermet Group Oy, which became owner of the new Enermet Oy. We invested EUR 13 million in Enermet Group Oy, which accounts for 30% of the holding company's shareholders' equity.

Enermet Group specialises in energy measurement and load control. The company develops, manufactures, and markets electric energy and district heat meters, as well as energy measurement and control systems. Enermet Group's competitiveness is based on the exploitation of data transmission channels in the collection and handling of energy measurement data. The Group's products and services are sold in 30 countries round the world.

# Human Resources



## Number of employees by country as of 31 December 1999\*

Finland	9,556
Sweden	1,809
Hungary	450
Estonia	449
Russia	378
Norway	323
Poland	280
USA	283
UK	235
Other European countries	258
Other countries outside Europe	104
<b>Total</b>	<b>14,125</b>

\* Not comparable to the 1998 country division due to divestment.

## Common way of working

The principal areas of human resources development, as set out in the human resources strategy prepared in 1998, were: to create a common way of working, to develop employees' expertise, to integrate human resources' issues as part of the management system, to further job rotation, and to improve employee satisfaction by taking care of their physical and mental needs. We worked on bringing together overlapping procedures of the two former companies and on enhancing our new corporate governance model.

During the beginning of the year, we reconciled our key procedures and policies. The human resources policy was prepared in cooperation with employee representatives.

Our human resources policies are: a target-orientated and participative management; a reward-based and active remuneration system; systematic human resources development; open internal communication; health and safety; and equality.

**Structural changes**

During 1999, we employed an average of 17,461 people. At the end of the year, the number of full-time employees was 14,125 and of part-time employees 923. Our workers' average age was 42.2 years. The fall in the total number of employees was principally a result of the divestments of Gasum, Enermet and Neste Chemicals, when approximately 3,500 people transferred to new owners. As a result of acquisitions, approximately 400 new employees transferred to Fortum.

Our internal services were grouped into Fortum Support Oy, which was established at the beginning of May. We subsequently began developing the unit into an effective organisation, which supports our business.

At the end of the summer, we began the process of combining our businesses and transforming our organisational structure, which came into effect on 1 January 2000. As part of this, the staff and administrative functions of Fortum Oil and Gas Oy, and of Fortum Power and Heat Oy were discontinued and combined with the Fortum corporate staff. At the same time, the number of jobs in these units was reduced by approximately a quarter.

**Competent employees**

The development and training of our employees is principally carried out by the performance units themselves to meet their own needs. Overall in 1999, investment in employee development amounted to EUR 12.5 million (excluding salaries paid during course days). The average annual number of training days per person was three.

We arranged vocational training to 300 people in the Operation and Maintenance Sector as part of a diploma course, which was the first of its kind in Finland and was developed together with the National Board of Education.

Job rotation and secondments abroad play an important role in employee development. In 1999, we set up a specific function to promote Group-wide internal job rotation, and during the year, 80 people transferred to new jobs within the Group. Job rotation was popular, since overlapping functions were combined during the year and people were transferred to new positions.

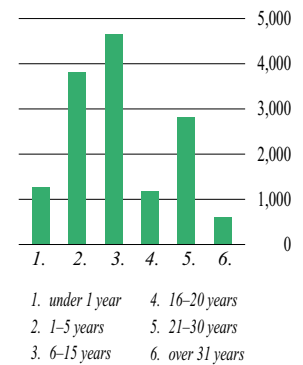
**Employee fitness for work**

Maintenance and promotion of employee health and fitness for work are one of the focal areas of human resources development within Fortum. During the year, we continued with our specifically tailored programmes in this area, which included such activities as health examinations, health consulting services, working community inspections, sports events, courses, and fairs and exhibitions devoted to health and wellbeing. During 1999, nearly 7,000 people participated in these activities.

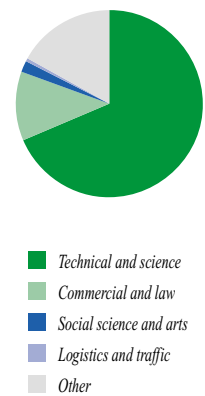
**New cooperation councils**

During the year, we set up Fortum European Council, a forum for management-employee cooperation for our European operations, and a corresponding council for our operations in Finland. The councils discuss Fortum's topical issues and human resource questions. The council met five times in 1999.

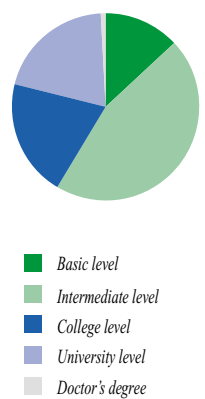
*Years in service in the Fortum Group  
number of people per years in service*



*Fields of education*



*Levels of education*





# Environment, Health and Safety (EHS)



## **The scope of environmental, health, and safety issues:**

This section presents essential information on the environmental impact and safety of Fortum's activities. The data covers our production, logistics, engineering, and maintenance operations. More detailed information can be found in the report Fortum and society, and on our website. This section does not deal with the EHS data of associated companies or businesses which were acquired or sold in 1999. Our principal associated company, Birka Energi, publishes its own environmental report.

*Today, climate change caused by the use of fossil fuels is the biggest environmental challenge facing the energy sector. Our strategy in the reduction of carbon dioxide emissions and in the responsible use of natural resources is based on the increased use of renewable and low-carbon natural resources and raw materials as well as on a more efficient use of energy.*

*In addition, we have paid special attention to occupational safety and the process safety of our production facilities. This is reflected in a decrease in lost workday injuries and deviations from safety standards. However, additional measures are needed to reach the safety level of leading peer companies.*

*At the beginning of 2000, the management of Fortum approved an environment, health and safety programme in which concrete development targets for the next few years and strategic guidelines for the next decade were defined. The programme focuses on the issues of climate and safety and the development of environmental competitiveness.*



## Carbon dioxide emissions

We aim at a climate-benign growth, so that, when we expand our business, we always study any project's impact on our carbon dioxide emissions and the possibilities of reducing them.

During 1999, we studied the possibilities of reducing carbon dioxide emissions at our production facilities and of finding cost-efficient reduction projects. At the end of the year, we decided to convert the boilers at our Joensuu power plant, as a result of which the use of biofuels can be considerably increased. In the next few years, we will make other investments to increase the use of biofuels.

In 1999, carbon dioxide emissions at our production facilities amounted to 10 million tonnes, 14% more than in 1998. The increase is principally due to an increase in energy generation, and a decrease in hydro power generation.

Climate-benign energy sources – hydro and nuclear power, natural gas, biofuels, and wind power – accounted for 80% of total power generation, approximately the same as in 1998. The use of biofuels in power and heat generation increased by a total of 7% from the previous year and the use of natural gas by 51%. The increase in the use of natural gas was principally attributed to our acquisition of

a majority shareholding in the Brigg power plant. Combined heat and power (CHP) generation accounted for 18% of power generation. Tunturituli Oy generated 5.4 TWh of wind power. Our aim is to increase the share of pro-climate energy sources in energy generation.

In 1999, we took the decision to establish a carbon dioxide fund to promote cost-efficient joint implementation projects, which aim at reducing emissions. We studied possible projects in Russia, Estonia, and some other countries.

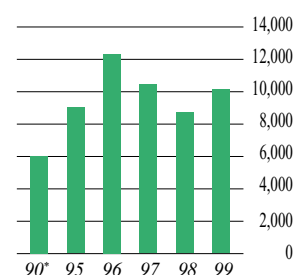
## Acidifying emissions

For a period of more than ten years, acidifying emissions have been systematically reduced at our production facilities. As a result, both absolute emissions and specific emissions per production have decreased substantially. Since we have reduced sulphur and nitrogen emissions by employing the best available technology, no major investment is foreseen in the next few years.

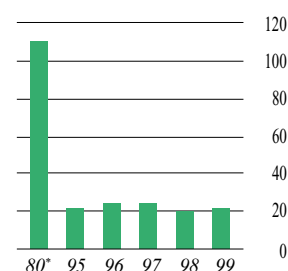
During the year, our sulphur dioxide emissions amounted to 21,000 tonnes and nitrogen oxide emissions to 27,000 tonnes, which resulted in an increase of 6–10% from 1998.

In energy generation, specific sulphur dioxide and nitrogen oxide emissions per

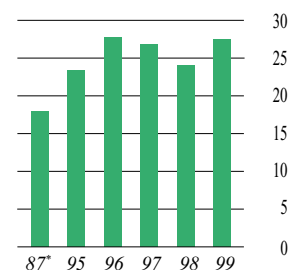
Emissions into the air, CO<sub>2</sub>  
Kilotonnes/year



Emissions into the air, SO<sub>2</sub>  
Kilotonnes/year



Emissions into the air, NO<sub>x</sub>  
Kilotonnes/year



\* The reference year applicable to Finland as per international agreements.

## Fortum's material balance 1999<sup>1)</sup>

### Raw materials and fuels

Natural gas, mill. m <sup>3</sup>	1,300
Crude oil, mill. t	11
Other feedstocks, mill. t	2.2
Peat, mill. t	1.5
Coal, mill. t	0.9
Biofuels, mill. t	1.1
Fuel oil, mill. t	0.15
Other fuels, mill. t	0.033
Uranium, mill. t	0.000027

### Emissions into the air

CO <sub>2</sub> , t	10,000,000
SO <sub>2</sub> , t	22,000
NO <sub>x</sub> , t	27,000
VOC, t	5,400
Particles, t	1,300

### Products

Petroleum products, t	12,000,000
Other products, t	440,000
Electricity, TWh	31
Heat, TWh	11

### By-products

Ash, t	240,000
Gypsum, t	31,000
Sulphur, t	41,000

### Energy

Purchased steam, TWh	3
Electricity, TWh	12

### Emissions into water

Heat emissions, TWh	20
Waste water, m <sup>3</sup>	22,000,000

### Waste

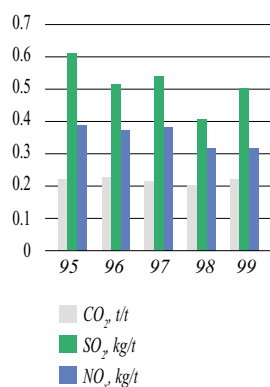
Conventional waste, t	20,000
Recyclable waste, t	36,000
Hazardous waste, t	3,500
Low- and medium-level waste, m <sup>3</sup>	156
Spent radioactive fuel, t	26

Fortum's material balance gives a rough illustration of our key raw material and energy flows and emissions. Internal electricity and fuel items have been eliminated.

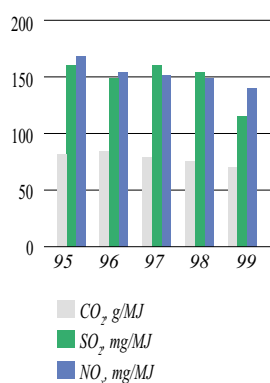
<sup>1)</sup> Does not include the share of Birka Energi AB.

## Environment

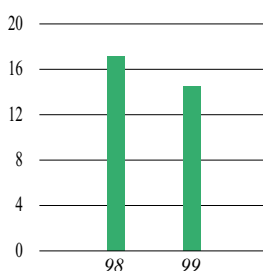
*Specific emissions, oil refining*  
Emissions/production



*Specific emissions, power and heat generation*  
Emissions/use of fuels



*Lost workday injuries in 1998 and 1999*  
Injuries/million hours worked



consumption of fuels decreased from 1998. This was attributed, among other factors, to the increased use of natural gas. In oil refining, specific emissions per production were at the previous years' level. Our aim in the next few years is to maintain the low level of sulphur and nitrogen specific emissions which we have achieved.

### Eco-efficiency

Eco-efficiency is measured by the use of renewable natural resources, the energy efficiency of production, and by the effective use of waste and by-products.

We use renewable energy sources in both power and heat generation: hydro power, biofuels and wind power in power generation, and biofuels in heat generation. In power generation, a decrease from the previous year in the share of renewable energy sources was attributed to the decrease in hydro power generation. In heat generation, the share of biofuels increased by approximately 7 %.

Our refineries and power plants are among the most energy efficient in Europe. Energy efficiency will be improved as part of an energy conservation contract between the Confederation of Finnish Industry and Employers, and the Ministry of Trade and Industry.

We made effective use of by-products in heat and power generation: 71% of ash and 100% of gypsum were reused, as was 100% of sulphur, a by-product of oil refining.

### Safety

We provide safe working conditions for our employees and minimise environmental risks.

During the year, the number of lost workday injuries per million working hours was 14 units, down 18% from 1998, the year Fortum was formed. The otherwise positive situation was overshadowed

by four fatal injuries, one to one of our employees and three to contractors working on our sites.

The number of fires where the assistance of the fire brigade was required decreased from 13 to 10.

The number of uncontained spills increased from 17 to 23, but none of the incidents had any major environmental impact.

Last year, one incident at the lowest level in INES (International Nuclear Events Scale) occurred at the Loviisa nuclear power plant. The incident did not have any environmental impact.

Our aim is to cut the number of lost workday injuries, fires and spills by 50% by 2003.

### Environmental and safety systems

To maintain the level of environmental and safety management and to continuously improve it, our units have developed and certified ISO 14001-compliant environmental systems and BS 8800-compliant safety systems. Based on the work done in 1999, an environmental certificate was awarded to the Tidelands Oil Production Company in the USA, Innogas Oy in Finland, and our Heat and Power Generation units. A BS 8800-compliant safety certificate was awarded to the Oil Refining and Wholesale unit's inland logistic operations.

Our aim is to implement and certify environmental systems by 2003 in all our units that are responsible for operative activities relating to production, transportation and distribution.

### Regulatory compliance

During the year, the operations of our performance units, with the exception of a few minor infringements, complied with valid permits and environmental regulations. No verified impact on the environment or human health ensued and no fines or other penalties were levied.

Environmental legislation continues to develop in our area of operation. Our new permits and the forthcoming new environmental regulations do not have any material impact on the operation of our plants, nor does regulatory compliance have any material impact on our costs.

Since no decisions have yet been taken on the regulatory framework concerning the implementation of the Kyoto Protocol on Climate Change, its economic impact at corporate level cannot be evaluated. We are taking an active part in the climate process to ensure our operational preparedness in changing situations.

### Liabilities and provisions

We operate in business areas that involve a risk of increased environmental costs and liabilities. We have evaluated the environmental liabilities related to our past actions and made the necessary provisions, in line with our accounting principles, for any future remedial cost relating to environmental damage. The management is not aware of any cases that would have a material impact on our financial position.

In accordance with nuclear energy law, we make provisions for future costs which will arise from nuclear waste management. By the end of 1999, the cost of handling and disposing of accumulated nuclear waste and the decommissioning of the Loviisa power plant was estimated at EUR 471 million. Of this, we have contributed EUR 385 million to the Nuclear Waste Disposal Fund in line with the fund's payment programme. The remainder has been entered as debt in the balance sheet. The liability will probably be fully covered during the next 1–2 years. Determined by law, our liability in the event of a nuclear accident amounts to some EUR 290 million, which is covered by statutory insurance. In addition, we have made an EUR 9 million reserve in respect of the potential abandonment of our oil and gas fields.

### EHS investment and operating costs

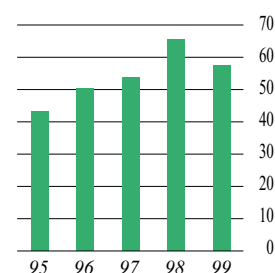
In 1999, our EHS investment amounted to EUR 28 million, and our EHS operating costs to approximately EUR 57 million. Operating costs include costs related to air pollution control, soil protection, effluent treatment, waste management, fire abatement, occupational safety activities, and occupational health care. Costs arising from R&D in these areas are also included.

### Environmentally-preferred products and services

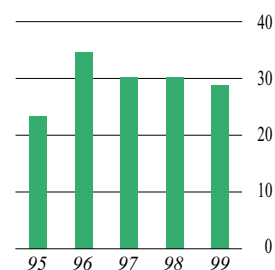
Environmentally-preferred products and services are an important part of our EHS programme. In oil refining, we focus on reformulated motor fuels. At our Porvoo refinery, an EUR 57 million investment project to double the production of City-Diesel was carried out. In the next few years, our aim is to develop biocomponents, and to introduce them into our motor and heating fuels.

In power and heat generation, we focus on increasing combined heat and power generation as well as the use of biofuels. We have been granted the Norppa label by the Finnish Association for Nature Conservation for our biofuels-based heat generation. We launched our environmentally-preferred energy products, wind energy and environmentally-labelled Norppa Electricity, produced by bioenergy and old hydropower, into the market. In the next few years, we plan to increase our production capacity of wind power.

*EHS operating costs  
EUR million/year*



*EHS investment  
EUR million/year*



# Board of Directors' report

Fortum focuses on energy. In 1999, we divested a significant number of operations and assets which were not energy related and the reorganisation of the ownership of Gasum Oy, as required by the European Commission, was completed. As a result of the divestments, Fortum realised EUR 1.1 billion in cash, and recorded EUR 646 million in capital gains.

Our organisational efficiency was improved from 1 January 2000 when the former division-based structure was replaced with a flatter, and more decentralised, corporate governance model. As part of this restructure, the former corporate staffs and divisional staffs were combined, as a result of which jobs in these units reduced by approximately a quarter. In December, we relocated our head office to Keilaniemi, Espoo.

## Market review of principal activities

### Oil and Gas Upstream

The price of crude oil almost tripled during 1999. At the beginning of the year, the light Brent Blend hovered around USD 10 a barrel but, from March, it began to rise, and went as high as USD 27 a barrel before the end of the year. During the year overall, Brent traded at approximately USD 18 a barrel compared with approximately USD 13 a barrel in 1998.

In 1999, we produced an average of 32,700 oil-equivalent barrels of oil and gas a day, or 1.65 million tonnes a year. Our share of production from the Åsgard field, which came on stream in May, is 7%. Gas production at Åsgard is scheduled to begin at the end of 2000.

### Oil Refining and Marketing

The international refining margin was extremely slim at the beginning of the year, but returned to a more normal level towards the year end. The annual average was about a half of the 1998 figure, which

was less than USD 1 a barrel. The refining margin of our own refineries was, however, better than the international reference margin.

In 1999, bulk sales of our petroleum products in Finland were approximately 7.9 million tonnes (1998: 8.3 million tonnes). Sales of our petroleum products to other countries rose by 8% to 4.8 million tonnes.

Crude oil trading operations were adjusted to meet the needs of oil supply and exports. The net sales of the trading function amounted to approximately EUR 790 million, down 27% on 1998.

Our retail and direct sales of petroleum products in Finland rose to 3.8 million tonnes (1998: 3.5 million tonnes). While sales also developed favourably in the Baltic countries and Poland, there was a noticeable fall in Russia.

### Power and Heat Generation and Sales

The system price of electricity markets in the Nordic countries was low, at an average of EUR 13.5 (EUR 13.8) per megawatt-hour. The Nordic countries used a total of 375 terawatt-hours of electricity in 1999, unchanged from the previous year.

Our electricity sales in the Nordic countries were 41.6 terawatt-hours (44.3 TWh), of which 29.6 TWh (29.1 TWh) was sales in Finland. In Sweden, electricity sales fell to 12.0 TWh (15.2 TWh), including 50% of Birka Energi AB's sales. Outside the Nordic countries, sales rose to 2.2 TWh (0.2 TWh). The average price of our electricity decreased by 11% from the previous year.

Heat sales rose to 15.7 TWh (13.4 TWh).

### Electricity Distribution

Distribution prices of electricity were stable. Our subsidiaries and associated companies distributed 4.0 TWh of electricity (3.5 TWh) to Finnish customers and 8.6 TWh (6.9 TWh) to Swedish customers, including 50% of Birka Energi AB's elec-

tricity distribution. In Estonia, we distributed 0.1 TWh of electricity.

### Net sales

At EUR 8,232 million, the Group's net sales for 1999 fell by 3% from the previous year (EUR 8,494 million). The decline was mainly attributable to the divestments of non-core assets, the change of Gasum from a subsidiary to an associated company, cuts in the volume of oil trading, and a decrease in the price of electricity. The most significant units sold were Neste Chemicals and Enermet. In contrast, net sales were boosted by the increase in the price of crude oil and the appreciation of the US dollar.

Breakdown of net sales by market area showed no material change. Finland and the rest of the Nordic countries constitute our most important market area: together they accounted for 61% of our 1999 net sales.

### Result

There was a significant increase in net profit for the period. In particular, our performance benefited from the price of crude oil, which increased during the review period, the appreciation of the US dollar, increased gains on the sales of fixed assets, the formation of Birka Energi, and the savings made from improving the efficiency of our operations. The results were, however, decreased by the low market price of electricity and the reduced volume of sales.

Operating profit for 1999 increased by 21% to EUR 721 million. It was boosted by inventory gains, which was a result of higher oil prices and principally affected statutory crude oil stockpiling, and the appreciation of the coal stock, which was a result of higher coal prices. These totalled EUR 81 million (in 1998, inventory losses and write-down on coal stock amounted to EUR 46 million).

Operating profit includes gains on the sale of fixed assets and shareholdings, at EUR 155 million (EUR 81 million). The most significant of these were the divest-

### Net sales

EUR million	1999	1998	Change-%
<i>Oil and Gas Upstream</i>	230	146	58
<i>Oil Refining and Marketing <sup>1)</sup></i>	5,200	4,886	6
<i>Power and Heat Generation and Sales</i>	1,443	1,456	-1
<i>Electricity Distribution</i>	347	340	2
<i>Service</i>	290	250	16
<i>Engineering</i>	479	411	17
<i>Other operations</i>	137	115	19
<i>Internal invoicing</i>	-717	-451	59
<i>Total</i>	7,409	7,153	4
<i>Discontinued operations</i>	823	1,341	-39
<i>Group</i>	8,232	8,494	-3
<sup>1)</sup> Including oil trading	786	1,078	-27

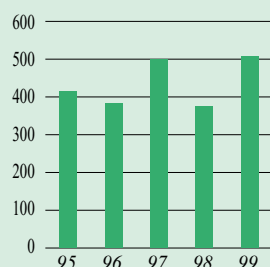
### Net sales by market area

	1999		1998	
	EUR million	%	EUR million	%
<i>Finland</i>	3,691	45	3,895	46
<i>Sweden</i>	1,206	15	1,140	13
<i>Other Nordic countries</i>	121	1	127	2
<i>Other European countries</i>	1,544	19	1,625	19
<i>USA and Canada</i>	1,068	13	873	10
<i>Other international sales</i>	602	7	834	10
<i>Group</i>	8,232	100	8,494	100

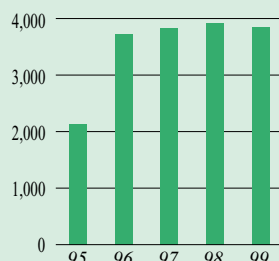
### Operating profit

EUR million	1999	1998	Change-%
<i>Oil and Gas Upstream</i>	82	9	811
<i>Oil Refining and Marketing</i>	182	108	69
<i>Power and Heat Generation and Sales</i>	245	241	2
<i>Electricity Distribution</i>	122	123	-1
<i>Service</i>	12	8	50
<i>Engineering</i>	12	16	-25
<i>Other operations</i>	-24	10	-340
<i>Eliminations</i>	-17	-12	42
<i>Total</i>	614	503	22
<i>Discontinued operations</i>	107	92	16
<i>Group</i>	721	595	21

*Profit before extraordinary items*  
EUR million



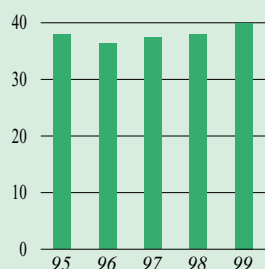
*Interest-bearing net debt*  
EUR million



*Gearing*  
%



*Equity-to-assets ratio*  
%



ments of Asko shares, tankers, and gas turbines. It also includes a loss on derivatives made by Birka Energi, of which our share was EUR 18 million. The operating profit for the reference year 1998 included EUR 34 million for liability for nuclear waste disposal.

Excluding Birka Energi, our associate companies have been consolidated by the equity method. Our share of the results of these companies totalled EUR 36 million (EUR 42 million). Birka Energi has been consolidated by using the proportionate method on the basis of 50% ownership.

Our net financing expenses were EUR 211 million (EUR 218 million). Profit before extraordinary items was EUR 510 million (EUR 377 million).

Profit before taxes was EUR 970 million (EUR 372 million). Extraordinary items principally comprised divestments carried out as part of the restructuring of the Group. The sale of Gasum shares and the business operations of Neste Chemicals and Enermet contributed a total of EUR 491 million. In connection with the ruling on MTBE by the authorities of California, we made an additional depreciation of EUR 26 million on our Edmonton, Canada, MTBE facility; this depreciation concerned environmental issues.

Taxes for the financial year totalled EUR 245 million (EUR 132 million).

Net profit for the period was EUR 703 million (EUR 213 million) and earnings per share EUR 0.41 (EUR 0.27). Return on capital employed was 8.6% (7.8%) and return on shareholders' equity 7.7% (5.7%).

#### **Financing and financial position**

The Group's financial position improved during the year. At the year end, gearing was 79% (93%).

Interest-bearing net debt was EUR 3,818 million (EUR 3,898 million) at the

end of the year. Share acquisitions carried out during the review period, on the one hand, and cash proceeds resulting from the divestment of major assets, on the other, had a significant influence on interest-bearing net debt. Our Finnish commercial paper programmes were combined into a single EUR 500 million programme, when the ECP programme dominated in US dollars was discontinued.

The Group's net financing expenses were at the previous year's level. Net financing expenses accounted for 2.6% (2.6%) of net sales.

The Group's liquidity continued to be good. At the end of the year, cash and marketable securities totalled EUR 775 million (EUR 564 million). The increase was mainly a result of the divestment of Neste Chemicals, completed in November. In addition, we had a total of about EUR 630 million of undrawn syndicated loans.

Our most important loan currencies, including financial lease arrangements, were the Swedish krona (approximately 63% of all loans), euro (approximately 18%), and the US dollar (approximately 17%). Of the share of the Swedish krona, about a half came from Birka Energi. At the end of the year, the average interest rate of the loans, after hedging arrangements, was 5.5%.

#### **Investments**

During 1999 we invested EUR 1,059 million (EUR 1,702 million), a major portion of which was accounted for by acquisitions by the Power and Heat sector. The total includes EUR 8 million (EUR 785 million) of interest-bearing net debt of the acquired subsidiaries at the time of acquisition.

The share acquisitions of the year totalled EUR 328 million (EUR 1,064 million), and the most significant share acquisitions were:

Espoon Sähkö Oyj	EUR 87 million
Länsivoima Oyj	EUR 39 million
Koillis-Pohjan Sähkö Oy	EUR 21 million
Lahden Lämpövoima Oy	EUR 91 million
Lidingö Energi AB, Sweden	EUR 34 million

Our most important investments were in the Åsgard oil and gas field in Norway and the Grangemouth power plant in the UK. By the end of 1999, we had invested EUR 500 million in Åsgard and are anticipating investing a further EUR 50 million to begin gas production at the end of 2000, as planned.

By the end of 1999, we had invested EUR 107 million in the construction of the Grangemouth combined heat and power (CHP) plant. Grangemouth is scheduled for completion in 2000. It will have electricity generation capacity of 130 MW and steam generation capacity of 250 MW.

#### Divestments

In May, we sold our 50% holding in Gasum Oy as required by the European Commission. The shares were acquired by the Finnish State, Ruhrgas Energie Beteiligungs-AG, and a Finnish industrial consortium. As a result of the transaction, our shareholding in Gasum reduced to 25%. The sales price of EUR 290 million result-

ed in a capital gain of EUR 324 million.

In August, we sold the business operations of Enermet Oy to the private equity fund Industri Kapital. The sales price of EUR 98 million resulted in a capital gain of EUR 68 million. As part of the transaction, we acquired a 30% holding in the newly-established Enermet Group Oy. In October, we sold four of our tankers and agreed to charter the vessels back to our shipping unit. For the total sales price of EUR 43 million, we booked a capital gain of EUR 27 million.

In February, the Chemicals business was incorporated in Neste Chemicals Oy. In November, we divested Neste Chemicals to Industri Kapital. The transaction price of EUR 505 million resulted in a capital gain of EUR 99 million.

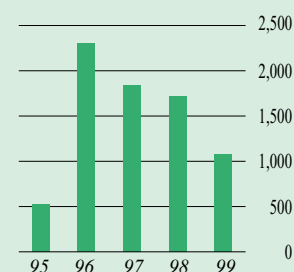
In addition to the above mentioned divestments, we sold stocks and shares and, for example, peak load gas turbines.

#### Changes in Group structure

At the beginning of 1999, Neste Oyj's name was changed to be Fortum Oil and Gas Oy, Imatran Voima Oy's name to Fortum Power and Heat Oy, IVO Generation Services Ltd to Fortum Service Oy, and IVO Power Engineering Ltd to Fortum Engineering Ltd.

Following the share acquisitions in Jan-

Investments  
EUR million



#### Investments

EUR million	1999	1998
Oil and Gas Upstream	199	230
Oil Refining and Marketing	140	111
Power and Heat Generation and Sales	445	1,138
Electricity Distribution	226	147
Service	9	6
Engineering	12	11
Other operations	18	15
Eliminations	-13	-16
Total	1,036	1,642
Discontinued operations	23	60
Group	1,059	1,702



uary 1999, our holding in Koillis-Pohjan Sähkö Oy increased to 99%, and in February, Länsivoima Oyj, our subsidiary, acquired 28% of Espoon Sähkö Oyj's shares.

In August 1999, we bought somewhat more than 10% of Länsivoima's shares from Kemijoki Oy. Following the completion of a redemption offer at the end of the year, our share of Länsivoima rose to 78%.

During the year, Birka Energi acquired the shares of Lidingö Energi AB.

Towards the end of the year, Fortum and Birka Energi established a new company, Svensk Naturgas AB, to investigate the natural gas markets in the Stockholm area.

#### **Research and development**

Investment in research and development, at EUR 72 million, represented 0.9% of net sales.

In Oil Refining and Marketing, we continued the development of motor fuels and motor oils with increasingly low environmental impact. In Power and Heat Generation and Sales, we focused on customer-orientated additional services that employ the latest information and telecommunications technologies.

#### **Environment**

Our production facilities continued to develop ISO 14001-compliant environmental systems and BS 8800-compliant safety systems. Process safety at our production facilities developed well, and the number of injuries and deviations in safety decreased from 1998.

During the year, operations of our units, with the exception of a few minor infringements, complied with valid permits and environmental regulations. Fortum's management is not aware of any environmental liability-related cases that would have a material impact on its financial position.

#### **Business development**

Fortum continues to consolidate its strategy and geographical focus. We aim to continue to focus our operations on the energy sector, particularly on those areas in which we are most competitive and which offer the best opportunities for creating value. This means that we will develop our business operations in northern Europe.

The geographical focus of investments geared to support growth will be on the Nordic countries and on Germany. In the rest of the Baltic Rim, we aim to capitalise on growth opportunities. Our investments will be targeted towards electricity distribution and generation, and, in oil refining, on environmentally-benign motor fuels and speciality products.

We aim to create a flexible structure, which is in harmony with market conditions. As a part of this structural development, our objective is to combine the power and electricity distribution businesses of Länsivoima Oyj and Fortum.

Following changes in the market, we are focusing our business on energy end-users. At Fortum Energy House, we are continuing the development of customer service concepts and related IT applications.

As part of the strategic development of our principal businesses, our engineering operations will be focused to meet the strategic needs of the Oil and Gas, and Power and Heat sectors. As to our other engineering operations, we will make decisions about the operating options during the coming year.

In oil and gas exploration and production (E&P), we will shift our focus to gas. Because of the market convergence of the power generation and gas businesses, we will develop operations in tandem with those of the gas business.

### Option schemes

At the beginning of the year, two employee incentive schemes were introduced. As part of the management option scheme, 130 people who were nominated by the Board of Directors, subscribed for stock options which entitle them to subscribe for Fortum shares between 1 October 2002 and 1 October 2005. The subscription price is a minimum of EUR 5.61, with the precondition that Fortum's earnings per share and share price performance are at least on a par with, or better than, the average of a peer group made up of European listed companies. As a result of the subscriptions made under this scheme, our share capital may increase by a maximum of FIM 300 million, or 15 million shares.

In April, we issued a bond loan with warrants, to be subscribed for by the employees. The maximum amount of the bond loan was FIM 25 million, but as 1,859 employees subscribed for it, to a value of FIM 41 million, the allocations had to be scaled down. The shares attached to the scheme can be subscribed for from 17 May 2002 to 17 May 2005, at a maximum price of EUR 5.03, and may result in our share capital rising by a maximum of FIM 148 million, or 7.4 million shares.

### Employees

In 1999, Fortum Group employed an average of 17,461 people (19,003 in 1998), and at the end of the year 15,048 people (18,201). The decrease was principally attributed to Gasum, Enermet, and Neste Chemicals, which together resulted in a decrease of about 3,500 people. At the end of 1999, Fortum Corporation, the Group's parent company, employed 37 people. At the beginning of 2000, a total of 348 employees of our subsidiaries became employees of Fortum Corporation.

### Group management

The Supervisory Board has 17 members. The Chairman of the Supervisory Board is Ilkka-Christian Björklund and the Deputy Chairman is Ben Zyskowicz. The meetings of the Supervisory Board are attended by four employee representatives.

The members of Fortum's Board of Directors are Matti Vuoria (Chairman), Kristter Ahlström (Deputy Chairman), Jaakko Ihamuotila, L.J. Jouhki, Heikki Marttinen, Heikki Pentti, and Erkki Virtanen. Gerhard Wendt retired from the Board on reaching the age of 65 in November.

The President and CEO of the company is Heikki Marttinen.

As part of the new corporate governance model, at the beginning of 2000, the Board of Directors appointed heads for the Group's four sectors: Veli-Matti Ropponen, Tapio Kuula, Pekka Päätiläinen, and Anders Palmgren.

### 1999 annual general meeting

The annual general meeting of 1999 was held on 20 April 1999. A dividend of FIM 0.75 per share (about EUR 0.13), a total of FIM 589 million (about EUR 99 million), was decided to be paid.

### Events after the review period

In January 2000, the agreement to acquire the entire share capital of the German utility Elektrizitätswerk Wesertal GmbH for EUR 390 million, which had been signed in September 1999, was finalised. Wesertal sells electricity, heat and gas. Through its shares in power plants, it has access to about 550 MW of electricity generation capacity.

Also in January 2000, we signed a letter of intent with Stora Enso, the forest industry company, through which we will acquire Stora Enso's power assets outside mills, excluding those shares in the Finnish power company Pohjolan Voima Oy that Stora Enso owns. The letter of intent covers a total of 1,511 MW of electricity generation capacity with an annual electricity generation of 6.7 TWh. The transaction also covers regional electricity distribution in Sweden. The debt-free value of the contract is approximately EUR 1.85 billion. The closing of this transaction is subject to approval by e.g. the competition authorities, but the objective is to complete the transaction during spring 2000.

### Prospects for 2000

We expect the market price of crude oil to decrease from its current high level, while we anticipate the market price of electricity to remain at its low level. On this basis, our management estimates that our 2000 profit, before extraordinary items, will be somewhat lower than in 1999.

### Average number of employees

	1999	1998
<i>Oil and Gas Upstream</i>	233	231
<i>Oil Refining and Marketing</i>	4,311	4,381
<i>Power and Heat Generation and Sales</i>	2,087	2,531
<i>Electricity Distribution</i>	697	669
<i>Service</i>	3,387	3,191
<i>Engineering</i>	3,254	3,138
<i>Other operations</i>	1,037	1,103
<i>Total</i>	15,006	15,244
<i>Discontinued operations</i>	2,455	3,759
<i>Group</i>	17,461	19,003

# Consolidated income statement

EUR million	Note	1999	1998
<b>Net sales</b>	2,3,4	8,232	8,494
Share of profits (losses) of associated companies	5	36	42
Other operating income	6	187	102
Depreciation, amortisation and write-downs	2,7	-507	-496
Other operating expenses	8	-7,227	-7,547
<b>Operating profit</b>	2	721	595
Financial income and expenses	10	-211	-218
<b>Profit before extraordinary items</b>		510	377
Extraordinary items	11	460	-5
<b>Profit before taxes</b>		970	372
Income taxes	12,24	-245	-132
Minority interests		-22	-27
<b>Net profit for the period</b>		703	213

# Consolidated balance sheet

EUR million	Note	1999	1998
<b>ASSETS</b>			
<b>Fixed assets and other long-term investments</b>	13,14,15		
Intangible assets		316	307
Tangible assets		7,291	7,005
Other long-term investments		1,654	1,533
		9,261	8,845
<b>Current assets</b>			
Inventories	16	661	576
Long-term receivables	17	27	64
Short-term receivables	18	1,352	1,128
Investments	20	141	233
Cash and cash equivalents		634	331
		2,815	2,332
		12,076	11,177

EUR million	Note	1999	1998
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>	22		
Share capital		2,640	2,640
Additional paid-in capital		3	3
Retained earnings		1,359	1,119
Net profit for the period		703	213
		4,705	3,975
<b>Minority interests</b>		126	210
<b>Provisions for liabilities and charges</b>	23	83	64
<b>Deferred tax liabilities</b>	24	665	679
<b>Liabilities</b>	25,26		
Long-term liabilities			
Interest-bearing		3,241	3,482
Interest-free		403	479
		3,644	3,961
Short-term liabilities			
Interest-bearing		1,352	980
Interest-free		1,501	1,308
		2,853	2,288
		12,076	11,177

# Consolidated cash flow statement

EUR million	1999	1998
<b>Operating activities</b>		
Operating profit	721	595
Depreciation, amortisation and write-downs	507	496
Change in provisions	27	31
Undistributed earnings in associated companies	-17	34
Divesting activities, net	-145	-59
Other items	-3	5
Operating profit before changes in working capital	1,090	1,102
Changes in working capital		
Decrease (+)/increase (-) in trade and other short-term receivables	-218	275
Decrease (+)/increase (-) in inventories	-161	137
Decrease (-)/increase (+) in interest-free liabilities	327	-277
<b>Funds generated from operations</b>	1,038	1,237
Interest paid, net	-212	-250
Realised foreign exchange gains and losses	-63	61
Income taxes paid	-269	-215
<b>Net cash from operating activities</b>	494	833
<b>Investing activities</b>		
Acquisition of shares in subsidiaries net of cash acquired	-151	-117
Investments in shares in participating interests	-158	-70
Investments in other shares	-10	-17
Asset transfer taxes paid	-8	-80
Other capital expenditures	-731	-638
Proceeds from sales of shares in subsidiaries net of cash disposed	555	4
Proceeds from sales of shares in participating interests	163	625
Proceeds from sales of other shares	43	57
Proceeds from sales of other fixed assets	211	83
<b>Cash flow from investing activities</b>	-86	-153
<b>Cash flow before financing activities</b>	408	680
<b>Financing activities</b>		
Capital investment by minority shareholders, increase (+), decrease (-)	-6	-8
Payment of long-term liabilities	-691	-772
Proceeds from long-term liabilities	162	315
Payment of (-)/proceeds from (+) short-term borrowings	375	-273
Proceeds from (+)/payment of (-) interest-bearing receivables	59	49
Dividends paid	-99	-99
Proceeds from issuance of share capital	-	11
Other financing activities	0	-1
<b>Cash flow from financing activities</b>	-200	-778
<b>Net increase (+)/decrease (-) in cash and marketable securities</b>	208	-98
Reconciliation (cash and marketable securities)		
As reported for at the beginning of the period	564	663
Foreign exchange adjustment	3	-1
As reported for at the end of the period	567	662
<b>Net increase (+)/ decrease (-) in cash and marketable securities</b>	208	-98

# Notes to the financial statements

## 1. Accounting policies and principles

The financial statements of Fortum are prepared in accordance with Finnish GAAP.

All of the consolidated financial statements of Fortum Corporation are presented for the reference years 1995-1997 as if Fortum Power and Heat Oy (previously Imatran Voima Oy) and Fortum Oil and Gas Oy (previously Neste Oyj) had been combined into Fortum as of 1 January 1995.

In the consolidated financial statements, Fortum Power and Heat's and Fortum Oil and Gas' accounting principles have been harmonised in all material respects and changes have been accounted for in respect of the years 1995-1997.

### Consolidation

The consolidated financial statements include the parent company Fortum Corporation and all those companies in which Fortum Corporation holds, directly or indirectly, more than 50% of the voting rights except for certain housing companies which are not necessary to be included in order to give a true and fair view of the results and financial position of the Group.

Fortum Corporation's consolidated financial statements have been prepared using the pooling-of-interests method. The acquisition cost of Fortum Power and Heat and Fortum Oil and Gas has been eliminated against the share capital of the companies, and the difference arising from the elimination of mutual shareholdings has been entered as a decrease in the shareholders' equity.

The financial statements of Fortum Power and Heat and Fortum Oil and Gas have been consolidated according to the acquisition-cost method. The difference between the acquisition cost of subsidiaries and shareholders' equity at the time of ac-

quisition, arising from the elimination of mutual shareholdings, has been allocated to fixed assets at the time of acquisition to the extent that their fair value at the time exceeded the book value. Items allocated to the fixed assets are depreciated according to the depreciation plan of the underlying asset. The rest of the difference is entered as goodwill on consolidation, which is amortised over its estimated lifetime to a maximum of 20 years. In calculating goodwill on consolidation, voluntary reserves and accumulated depreciation above the plan, less deferred tax liabilities, have been included in the equity. For Fortum Oil and Gas subsidiaries acquired before the year 1997, the difference between the acquisition cost of subsidiaries and shareholders' equity (excluding the equity share of untaxed reserves) was treated mainly as goodwill on consolidation and amortised accordingly. The effect of the difference between these two accounting practices in calculating goodwill has been immaterial to net profit.

Subsidiaries acquired during the year are consolidated from the date of acquisition. Likewise, the subsidiaries divested during the accounting period are included in the consolidated accounts until the date of divestment.

Intergroup transactions, receivables, liabilities, unrealised profits and internal profit sharing have been eliminated. Minority interests have been reported separately in the income statement and the balance sheet.

Associated companies material to Fortum, in which the Group holds between 20% and 50% of the voting rights, have been consolidated using the equity method. Accordingly, the company's share of the net profit of an associated company and its share of other changes in the equi-

ty, less depreciation on goodwill on consolidation, is entered as income in the income statement and added to the value of the shares in the consolidated balance sheet. The dividends received are deducted from the balance sheet value of the shares. However, the Birka Energi Group, which has a very significant impact on Fortum's financial position, has been consolidated using the proportionate method. With the proportionate consolidation method, a company's figures are consolidated on a line-by-line basis according to the parent's ownership. Financial income and expenses include a share of the results of the associated companies not related to the Group's regular business operations.

### Net sales

Net sales include sales revenues from actual operations and exchange rate differences on trade receivables, less discounts, indirect taxes such as value added tax and excise tax payable by the manufacturer, and statutory stockpiling fees.

Trading sales include the value of wet cargo deliveries and the net result of derivative contracts.

### Other operating income

Other operating income includes gains on the sales of fixed assets, as well as all other operating income not related to the sales of products or services, such as rents.

### Foreign currency items

Receivables and liabilities denominated in foreign currencies have been valued using the exchange rate quoted on the balance sheet date. Exchange rate differences have been entered in the income statement. Conversion differences relating to financing have been entered net under financial income or expenses. In respect of Fortum



Power and Heat, unrealised exchange gains on long-term loans, foreign currency deposits and loans receivables have been included in accruals in the balance sheet until 1998.

Translation differences arising from the shareholders' equity of foreign subsidiaries and associated companies have been netted by hedging results and entered under consolidated shareholders' equity.

The income statements of companies outside Finland have been translated into Finnish markka using an annual average exchange rate based on month-end exchange rates, while the balance sheets have been translated employing the exchange rate quoted on the balance sheet date. The resulting translation differences have been entered under non-restricted equity. The fixed assets of subsidiaries operating in high-inflation countries such as Russia and the Baltic countries are revalued to the exchange rate on the effective date of the acquisition.

### Derivative instruments

Fortum enters into derivative financial instruments such as forward contracts, options, and currency swaps to hedge its exposure to fluctuations in foreign exchange rates. The interest element relating to derivatives is accrued as interest income or expense over the period to maturity. Derivatives used to hedge loans or receivables in the balance sheet and any other derivative contracts included in the net position are valued employing the exchange rate quoted on the balance sheet date, and the foreign exchange gains or losses are recognised in the income statement. Loans and related currency swaps have been netted in the balance sheet. Foreign exchange gains or losses on derivatives that hedge future cash flow are recognised once the underlying income or expense occurs.

Option premiums are treated as advan-

ces paid or received until the options mature or elapse. The difference between the paid or received premium and the closing price of the option on the balance sheet date is entered in the income statement. However, revenue can only be recognised to the extent of expenses having been charged for the underlying transaction.

Interest income or expense for derivatives used to manage exposure to interest rate risk is accrued over the period to maturity and is recognised as adjustment to the interest income or expense of the underlying liability or transaction. Losses for interest rate derivatives used for purposes other than hedging are valued at the interest rate as of the balance sheet date and entered as an expense in the income statement.

Fortum also enters into commodity derivatives as a part of its trading and hedging activities. These instruments are marked-to-market, and any losses arising from such instruments used for purposes other than hedging are expensed. Gains or losses on derivatives used for hedging purposes are recognised as income or expense once the underlying income or expense occurs. In the financial statements, commodity options are treated in the same way as currency options. Until 1997, Fortum Oil and Gas expensed only probable losses expected in the following 12 months.

### Sales and procurement contracts

Probable losses on sales and procurement contracts have been estimated and expensed. Until 1997, Fortum Oil and Gas expensed probable losses expected in the following 12 months.

### Fixed assets and depreciation

The balance sheet value of fixed assets consists of historical costs less depreciation and other deductions, plus any revaluations permitted by local regulations. Some foreign companies have also capitalised

direct acquisition costs and interests relating to the construction period.

Depreciation according to plan is straight-line depreciation based on the probable lifespan of investments. Depreciation on oil and gas reserves and production equipment is calculated using the unit-of-production method. Peat bogs are depreciated according to use. The depreciation periods used for different asset groupings are as follows:

Hydro-electric power plant buildings, structures and machinery	40–50 years
Other power plant buildings, structures and machinery	25 years
Substation buildings, structures and machinery	30–40 years
Transmission lines	15–40 years
Other buildings and structures	20–40 years
Other tangible assets	20–40 years
Other machinery and equipment	5–20 years
Other long-term investments	5–10 years

Acquisition costs are depreciated at the end of their actual lifespan at the latest, irrespective of their planned lifespan. Sales and scrapping losses are recorded either as other operating expenses or extraordinary expenses.

Oil and gas reserves are valued as per each field on the basis of future cash flows in line with the practice of the country concerned. If required, the balance sheet value of capitalised expenditure is reduced by additional depreciation.

### Finance leases

In the consolidated financial statements, properties acquired through finance-lease agreements have been recognised as assets and liabilities in the balance sheet. Depreciation on fixed assets and interest expenses on debt instead of rental expenses have been entered in the income statement.

### Investments

Interest-bearing net debt of acquired companies has been included in investments.

### Inventories

Inventories have been valued on the FIFO principle at the lower of direct acquisition cost or market value, taking into account the impact of possible hedging operations. In the case of some foreign subsidiaries, the acquisition cost also includes indirect expenses in line with the practice of the country concerned. Valuation differences do not have a material impact on the consolidated financial statements.

### Identifiable assets

Identifiable assets include fixed assets and working capital.

### Marketable securities

Marketable securities are accounted for at the lower of acquisition cost or market value.

### Oil exploration expenditures

Oil exploration expenditures are recorded using the successful-efforts method under which projects are capitalised and either depreciated according to the plan or expensed once it has been established that commercially exploitable oil or gas reserves were not discovered.

### Research and development

Research and development expenditures have been recorded as annual expenses with the exception of investments in buildings and equipment.

### Income recognition of long-term projects

Income from long-term projects is recognised according to percentage of completion. A provision has been made for expected losses from long-term projects, as well as for costs arising during the warranty period.

### Pension expenses

Pension expenses have been entered in the results in line with the practice observed in the host countries in which Fortum operates. The compulsory liabilities deficit of the Neste Pension Foundation as well as the liabilities on pensions granted by Fortum itself have been included in pension costs and entered as a provision in the balance sheet.

### Extraordinary items

Profits and losses associated with withdrawing from a business, or significantly reducing Fortum's presence in a business, have been entered as extraordinary income or expenses.

### Deferred tax liabilities

In the consolidated accounts, appropriations have been divided into shareholders' equity and deferred tax liabilities. Since 1 January 1998, deferred tax assets on loss carry forwards and tax impacts on unrealised intergroup profits have been recognised in deferred tax liabilities.

### Provisions

Foreseeable future expenses and losses that no longer accrue corresponding revenues and which Fortum is committed or obliged to settle, and whose monetary value can reasonably be assessed, are entered as expenses in the income statement and included as provisions in the balance sheet. These items include expenses relating to the decommissioning of production platforms, guarantee reserves, expenses relating to the future clean-up of proven environmental damage, and long-term projects.

### Exchange rates 1995–1999

The table below shows the most important exchange rates used in the financial statements during the years 1995 and 1999:

	Exchange rates on the balance sheet date					Average exchange rates during the accounting period				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
FIM	5.9457	5.9457	5.9457	5.9457	5.9457	5.9457	5.9457	5.9457	5.9457	5.9457
USD	1.3641	1.2803	1.0969	1.1667	1.0046	1.3601	1.2970	1.1507	1.1102	1.0653
CAD	1.8604	1.7539	1.5721	1.8061	1.4608	1.8675	1.7702	1.5967	1.6449	1.5857
GBP	0.8820	0.7556	0.6612	0.7055	0.6217	0.8600	0.8275	0.7005	0.6692	0.6589
SEK	9.0830	8.8111	8.6635	9.4874	8.5625	9.6631	8.7015	8.7669	8.8373	8.8281
NOK	8.6182	8.2476	8.0413	8.8716	8.0765	8.6095	8.3590	8.1004	8.3731	8.3344
DKK	7.5626	7.6139	7.4808	7.4489	7.4433	7.6130	7.5082	7.5626	7.4555	7.4368
DEM	1.9536	1.9899	1.9639	1.9558	1.9558	1.9457	1.9481	1.9846	1.9576	1.9558
NLG	2.1871	2.2332	2.2135	2.2037	2.2037	2.1798	2.1831	2.2336	2.2068	2.2037
BEF	40.1196	41.0333	40.5022	40.3374	40.3399	40.0116	40.0926	40.9486	40.3922	40.3399
FRF	6.6761	6.7092	6.5728	6.5597	6.5596	6.7650	6.6189	6.6798	6.5626	6.5596

## Notes to the financial statements

EUR million	1999	1998
<b>2. Information by business operation</b>		
<b>Net sales</b>		
Oil and Gas Upstream	230	146
Oil Refining and Marketing	5,200	4,886
Power and Heat Generation and Sales	1,443	1,456
Electricity Distribution	347	340
Service	290	250
Engineering	479	411
Other operations	137	115
Internal invoicing	-717	-451
Total	7,409	7,153
Discontinued operations *)	823	1,341
Group	8,232	8,494
*) Includes Gasum, Enermet, Infrarötteknik and Neste Chemicals.		
<b>Depreciation, amortisation and write-downs</b>		
Oil and Gas Upstream	77	65
Oil Refining and Marketing	137	149
Power and Heat Generation and Sales	157	139
Electricity Distribution	68	62
Service	7	5
Engineering	8	7
Other operations	14	12
Eliminations	-2	-3
Total	466	436
Discontinued operations *)	41	60
Group	507	496
*) Includes Gasum, Enermet, Infrarötteknik and Neste Chemicals.		
<b>Operating profit</b>		
Oil and Gas Upstream *)	82	9
Oil Refining and Marketing	182	108
Power and Heat Generation and Sales	245	241
Electricity Distribution	122	123
Service	12	8
Engineering	12	16
Other operations	-24	10
Eliminations	-17	-12
Total	614	503
Discontinued operations **)	107	92
Group	721	595
*) Treatment of Gasum has been changed from a subsidiary company to an associated company in all reporting periods.		
**) Includes the impact of change in Gasum holding, Enermet, Infrarötteknik, Neste Chemicals, and Asko.		
<b>Investments</b>		
Oil and Gas Upstream	199	230
Oil Refining and Marketing	140	111
Power and Heat Generation and Sales	445	1,138
Electricity Distribution	226	147
Service	9	6
Engineering	12	11
Other operations	18	15
Eliminations	-13	-16
Total	1,036	1,642
Discontinued operations *)	23	60
Group **)	1,059	1,702
*) Includes Gasum, Enermet, Infrarötteknik and Neste Chemicals.		
**) Including interest-bearing net debt of acquired subsidiaries as of the relevant acquisition date amounting to EUR 8 million in 1999 and EUR 785 million in 1998.		

EUR million	1999	1998
<b>Identifiable assets</b>		
Oil and Gas Upstream	1,154	850
Oil Refining and Marketing	1,681	1,620
Power and Heat Generation and Sales	4,822	4,523
Electricity Distribution	1,419	1,023
Service	42	20
Engineering	43	68
Other operations	277	342
Eliminations	-45	-94
Total	9,393	8,352
Discontinued operations <sup>*)</sup>	-	696
Group	9,393	9,048
<sup>*)</sup> Includes Gasum, Enermet, Infraröteknik, Neste Chemicals and Asko.		
<b>Average number of employees</b>		
Oil and Gas Upstream	233	231
Oil Refining and Marketing	4,311	4,381
Power and Heat Generation and Sales	2,087	2,531
Electricity Distribution	697	669
Service	3,387	3,191
Engineering	3,254	3,138
Other operations	1,037	1,103
Total	15,006	15,244
Discontinued operations <sup>*)</sup>	2,455	3,759
Group	17,461	19,003
<sup>*)</sup> Includes Gasum, Enermet, Infraröteknik and Neste Chemicals.		
Average number of personnel in companies consolidated using the proportionate method, of which included in the Group	3,228 1,614	3,982 1,991
<b>3. Effect on net sales of income recognition from contracts in progress</b>		
The share of net sales entered as income according to the percentage of completion of total net sales	9	99
Net sales from contracts in progress entered as income according to the percentage of completion for the period	114	122
for previous periods	201	187
Total	315	309
<b>4. Net sales by market area</b>		
Finland	3,691	3,895
Sweden	1,206	1,140
Other Nordic countries	121	127
Other European countries	1,544	1,625
USA and Canada	1,068	873
Other international sales	602	834
Net sales	8,232	8,494
<b>5. Share of profits (losses) of associated companies</b>		
Asko Group	12	11
Fingrid Oyj	8	8
Nynäs Petroleum Group	6	9
Gasum Group	5	-
Teollisuuden Voima Oy	0	4
Espoon Sähkö Group	4	-
Other associated companies	1	10
Total	36	42
<b>6. Other operating income</b>		
Rental income	14	12
Gains on the sales of fixed assets	156	80
Other	17	10
Total	187	102

## Notes to the financial statements

EUR million	1999	1998
<b>7. Depreciation, amortisation and write-downs</b>		
Depreciation and amortisation according to the plan	511	490
Write-downs on fixed assets	-4	6
Total	507	496
<b>8. Other operating expenses</b>		
Change in product inventories	-80	15
Own products capitalised in fixed assets	-1	-3
Materials and external services		
Materials and supplies		
Purchases	5,750	5,650
Change in inventories	-89	141
External services	208	230
Personnel expenses		
Wages, salaries, and remunerations	552	578
Other indirect employee costs		
Pension costs	77	70
Other indirect employee costs	102	91
Other operating expenses	708	775
Total	7,227	7,547
<b>Write-offs and losses on sales of fixed assets included in other operating expenses</b>		
Losses on sales of fixed assets	2	9
Write-offs and losses on liquidation	23	11
Total	25	20
<b>Salaries and remunerations</b>		
Presidents and members of the Boards	13	15
Supervisory Boards	0	0
Total	13	15
<b>9. Change in provisions for liabilities and charges</b>		
Provisions for a planned refinery maintenance and upgrade shutdown	13	13
Environmental and other provisions for Neste Chemicals	8	-
Ship purchase provision	3	-
Other	8	14
Total	32	27
<b>10. Financial income and expenses</b>		
<b>Financial income and expenses</b>		
Income from participating interests	0	0
Income from other long-term investments		
Dividend income	2	6
Interest income	19	18
Share of profits (losses) of associated companies	0	0
Other interest and financial income	32	47
Exchange rate differences	-3	9
Write-downs on other long-term investments	2	-7
Interest and other financial expenses	-263	-291
Total	-211	-218
<b>Total interest income and expenses</b>		
Interest income	48	61
Interest expenses	-257	-285
Net interest expenses	-209	-224

EUR million	1999	1998
<b>11. Extraordinary items</b>		
<b>Extraordinary income</b>		
Gains on the sales of fixed assets	491	11
Other	2	0
Total	493	11
<b>Extraordinary expenses</b>		
Write-offs and sales losses	-31	-10
Other	-2	-6
Total	-33	-16
<b>Extraordinary items total</b>	<b>460</b>	<b>-5</b>
<b>12. Income taxes</b>		
Taxes on regular business operations	162	136
Taxes on extraordinary items	83	-4
Total	245	132
Taxes for the period	232	117
Taxes for previous periods	-1	13
Change in deferred tax liabilities	14	2
Total	245	132
<b>13. Fixed assets and other long-term investments</b>		
<b>Intangible assets</b>		
Intangible rights	27	28
Goodwill	41	49
Goodwill on consolidation	125	109
Other long-term expenditure	122	121
Advances paid	1	0
Total	316	307
<b>Tangible assets</b>		
Land and water areas	1,288	1,181
Buildings and structures	1,201	1,366
Machinery and equipment	4,004	3,727
Other tangible assets	265	230
Advances paid and construction in progress	533	501
Total	7,291	7,005
<b>Other long-term investments</b>		
Shares in participating interests	1,159	1,115
Receivables from participating interests	261	198
Other shares and holdings	151	149
Other receivables	83	71
Total	1,654	1,533



## Notes to the financial statements

### 14. Changes in acquisition cost

<b>Intangible assets</b>							
<b>EUR million</b>	<b>Intangible rights</b>	<b>Goodwill</b>	<b>Goodwill on consolidation</b>	<b>Negative goodwill on consolidation</b>	<b>Other long-term investments</b>	<b>Advances paid</b>	<b>Total</b>
Acquisition cost as of 1 January	56	130	188	-6	264	0	632
Exchange rate differences and other adjustments	3	1	2	-	1	-	7
Increases	7	5	93	0	25	1	131
Decreases	10	16	117	0	16	0	159
Transfers between categories	4	8	-10	-	-2	-	0
Acquisition cost as of 31 December	60	128	156	-6	272	1	611
Accumulated depreciation, amortisation and write-downs as of 1 January	28	82	76	-4	143	-	325
Exchange rate differences and other adjustments	3	0	0	-	0	-	3
Accumulated depreciation, amortisation and write-downs of decreases and transfers	3	4	60	-	12	-	79
Depreciation and amortisation for the period	5	9	13	0	19	-	46
Accumulated depreciation, amortisation and write-downs as of 31 December	33	87	29	-4	150	-	295
Balance sheet value as of 31 December	27	41	127	-2	122	1	316
<b>Tangible assets</b>							
<b>EUR million</b>	<b>Land and water areas</b>	<b>Buildings and structures</b>	<b>Machinery and equipment</b>	<b>Other tangible assets</b>	<b>Advances paid and construction in progress</b>	<b>Total</b>	
Acquisition cost as of 1 January	1,205	2,276	6,904	344	501	11,230	
Exchange rate differences and other adjustments	113	95	373	44	57	682	
Increases	26	84	640	36	126	912	
Decreases	17	341	874	14	41	1,287	
Transfers between categories	-11	1	148	0	-110	28	
Acquisition cost as of 31 December	1,316	2,115	7,191	410	533	11,565	
Accumulated depreciation, amortisation and write-downs as of 1 January	39	980	3,180	115	-	4,314	
Exchange rate differences and other adjustments	4	15	136	14	-	169	
Accumulated depreciation, amortisation and write-downs of decreases and transfers	-	117	485	9	-	611	
Depreciation and amortisation for the period	2	80	358	25	-	465	
Write-downs for the period	1	25	-	-	-	26	
Accumulated depreciation, amortisation and write-downs as of 31 December	46	983	3,189	145	-	4,363	
Revaluations	18	69	2	0	-	89	
Balance sheet value as of 31 December	1,288	1,201	4,004	265	533	7,291	
<b>Other long-term investments</b>							
<b>EUR million</b>	<b>Shares in participating interests</b>	<b>Receivables from participating interests</b>	<b>Other shares and holdings</b>	<b>Other receivables</b>	<b>Total</b>		
Acquisition cost as of 1 January	997	198	157	71	1,423		
Exchange rate differences and other adjustments	59	12	2	9	82		
Increases	106	88	17	36	247		
Decreases	91	109	20	33	253		
Transfers between categories	45	72	0	0	117		
Acquisition cost as of 31 December	1,116	261	156	83	1,616		
Accumulated write-downs as of 1 January	4	1	10	0	15		
Exchange rate differences and other adjustments	0	-	0	0	0		
Accumulated write-downs of decreases and transfers	-	1	1	0	2		
Write-downs for the period	-	-	0	0	0		
Reversals of write-downs	-	-	2	-	2		
Accumulated write-downs as of 31 December	4	0	7	0	11		
Revaluations	6	-	2	-	8		
Retained earnings in associated companies	41	-	-	-	41		
Balance sheet value as of 31 December	1,159	261	151	83	1,654		

EUR million	1999	1998
<b>Goodwill on consolidation included in shares in associated companies</b>	135	95
<b>Negative goodwill on consolidation included in shares in associated companies</b>	0	0
<b>Interest expenses capitalised during the period</b>	18	13
<b>Undepreciated capitalised interest expenses</b>		
Buildings and structures	3	2
Machinery and equipment	54	41
Advances paid and construction in progress	18	19
Total	75	62
<b>Market value of listed companies' shares included in other long-term investments</b>		
<b>Associated companies</b>		
Market value	100	141
Book value	87	107
Difference	13	34
<b>Other companies</b>		
Market value	26	56
Book value	15	24
Difference	11	32
<b>15. Revaluations</b>		
<b>Land areas</b>		
Revaluations as of 1 January	15	16
Exchange differences	0	0
Increases in revaluations	3	1
Decreases in revaluations	0	2
Revaluations as of 31 December	18	15
<b>Buildings</b>		
Revaluations as of 1 January	71	70
Exchange differences	0	0
Increases in revaluations	0	1
Decreases in revaluations	2	0
Revaluations as of 31 December	69	71
<b>Machinery and equipment</b>		
Revaluations as of 1 January	2	2
Exchange differences	-	-
Increases in revaluations	-	-
Decreases in revaluations	-	-
Revaluations as of 31 December	2	2
<b>Shares in participating interests</b>		
Revaluations as of 1 January	6	12
Exchange differences	0	-1
Decreases in revaluations	-	5
Revaluations as of 31 December	6	6
<b>Other shares and holdings</b>		
Revaluations as of 1 January	1	7
Increases in revaluations	1	-
Decreases in revaluations	0	6
Revaluations as of 31 December	2	1
<b>Revaluations total</b>		
Revaluations as of 1 January	95	107
Exchange differences	0	-1
Increases in revaluations	4	2
Decreases in revaluations	2	13
Revaluations as of 31 December	97	95

Revaluations are based on current replacement cost and, in respect of listed shares, on market value.

## Notes to the financial statements

EUR million	1999	1998
<b>16. Inventories</b>		
Raw materials and supplies	318	306
Work in progress	103	60
Products/finished goods	198	162
Other inventories	34	42
Advances paid	8	6
Total	661	576
Difference between replacement value and book value of inventories is immaterial.		
<b>17. Long-term receivables</b>		
<b>Long-term receivables</b>		
Trade receivables	0	0
Receivables from participating interests		
Other receivables	1	1
Accrued income and prepaid expenses	0	1
Total	1	2
Loans receivable	1	0
Other receivables	2	51
Accrued income and prepaid expenses	23	11
Total	27	64
Long-term accrued income and prepaid expenses	23	12
<b>18. Short-term receivables</b>		
<b>Short-term receivables</b>		
Trade receivables	800	848
Receivables from participating interests		
Trade receivables	20	22
Other receivables	4	17
Accrued income and prepaid expenses	4	10
Total	28	49
Loans receivable	6	6
Other receivables	264	66
Accrued income and prepaid expenses	254	159
Total	1,352	1,128
<b>Short-term accrued income and prepaid expense</b>		
Accrued interests	8	15
Accrued taxes	22	27
Other	228	127
Total	258	169
<b>19. Treatment of balance sheet items relating to income from projects in progress</b>		
All contracts in progress are included in the balance sheet on a project basis. The net amount of advance payments made and accrued income relating to contracts as well as advance payments received and accrued expenses relating to contracts is included in the balance sheet either in accrued income or in accrued expenses separately for each project.		
Advance payments for inventories	56	40
Prepayments and accrued income	259	286
Deductions in inventories and financial assets	315	326
Advance payments received	259	286
Accruals	56	40
Deductions in liabilities	315	326
<b>20. Investments</b>		
Market value	142	235
Book value	141	233
Difference	1	2
<b>21. Pension commitments to corporate management</b>		
The executive directors of Fortum Corporation are eligible for retirement at the age of 60. Other Group companies have corresponding arrangements.		

EUR million	1999	1998
<b>22. Changes in shareholders' equity</b>		
Share capital as of 1 January	2,640	2,633
Share issue	-	7
Share capital as of 31 December	2,640	2,640
Additional paid-in capital as of 1 January	3	-
Share premium	-	3
Additional paid-in capital as of 31 December	3	3
Retained earnings as of 1 January	1,332	1,297
Dividends paid	99	99
Transfer to restricted equity	3	8
Other distribution	0	1
Translation differences	129	-90
Other changes	0	20
Net profit for the period	703	213
Retained earnings as of 31 December	2,062	1,332
Distributable funds as of 31 December	2,062	1,332
<b>23. Provisions for liabilities and charges</b>		
Provisions for pensions	14	16
Other provisions		
Provisions for a planned refinery maintenance and upgrade shutdown	26	13
Provisions for Exploration & Production	13	11
Environmental and other provisions for Neste Chemicals	8	-
Ship purchase provision	3	-
Other provisions	19	24
Total	83	64
<b>24. Deferred tax liabilities</b>		
<b>Change in deferred tax liabilities</b>		
Appropriations	15	-6
Consolidation entries	9	6
Separate financial statements of subsidiaries	-10	2
Total	14	2
<b>Deferred tax liabilities</b>		
Appropriations	672	663
Consolidation entries	-32	-4
Separate financial statements of subsidiaries	25	20
Total	665	679
<b>25. Liabilities</b>		
<b>Long-term liabilities</b>		
Bonds	1,033	554
Convertible bonds	8	8
Loans from financial institutions	920	1,656
Pension loans	192	242
Advances received	2	12
Trade payables	0	0
Liabilities to participating interests		
Other long-term liabilities	130	302
Accruals and deferred income	-	6
Total	130	308
Other long-term liabilities	1,267	1,095
Accruals and deferred income	92	86
Total	3,644	3,961
of which interest-bearing	3,241	3,482

## Notes to the financial statements

EUR million	1999	1998
<b>Short-term liabilities</b>		
Bonds	15	327
Loans from financial institutions	718	431
Pension loans	1	10
Advances received	67	58
Trade payables	548	447
Liabilities to participating interests		
Advances received	7	0
Trade payables	27	13
Other short-term liabilities	9	5
Accruals and deferred income	7	8
Total	50	26
Other short-term liabilities	971	602
Accruals and deferred income	483	387
Total	2,853	2,288
of which interest-bearing	1,352	980
<b>Interest-bearing and interest-free liabilities</b>		
Interest-bearing liabilities	4,593	4,462
Interest-free liabilities	1,904	1,787
Total	6,497	6,249
Interest-bearing liabilities		
Loans in Euro currencies	922	1,102
Loans in other currencies	3,671	3,360
Total	4,593	4,462
<b>Maturity of long-term liabilities</b>		
Year		
2000	961	
2001	311	
2002	655	
2003	134	
2004	376	
2005 and later	2,168	
Total	4,605	
<b>Liabilities due after five years</b>		
Bonds	496	223
Loans from financial institutions	180	388
Pension loans	167	267
Other long-term liabilities	1,325	903
Total	2,168	1,781
<b>Long-term accruals and deferred income</b>		
Accrual differences on contracts	89	91
Other long-term accruals and deferred income	3	1
Total	92	92
<b>Short-term accruals and deferred income</b>		
Accrued interests	86	83
Accrued taxes	113	55
Other short-term accruals and deferred income	291	257
Total	490	395

**26. Bonds, debentures and other notes**

Issuing year		Maturity year	1999	1998
Fortum Power and Heat Oy				
		2001	32	31
		2002-2011	65	58
		2011	32	31
		2002	42	38
		2005	40	36
		2007	51	45
Birka Energi AB				
		2002	3	-
		2002	1	-
		2004	3	-
		2004	41	-
		2003	9	-
		2004	5	-
		2004	17	-
		2002	6	-
		2002	3	-
		2002	4	-
		2005	3	-
		2002	6	-
		2002	5	-
		2002	6	-
		2002	6	-
		2004	21	-
		2004	17	-
		2004	6	-
		2004	6	-
		2004	2	-
		2004	6	-
		2006	251	-
Gullspång Kraft AB				
	No. SE 0000209488	2003	17	16
	No. SE 0000310708	1999	-	11
	No. SE 0000325714	2001	12	11
	No. SE 0000337651	1999	-	11
	No. SE 0000384323	2000	12	11
	No. SE 0000386088	1999	-	16
Stockholm Energi AB				
		1995-1999	-	0
		1995-1999	-	0
		2000	3	3
		1995-2000	1	1
		1997-2006	1	1
Neste Finance B.V.				
	1992	1999-2007	296	330
Fortum Oil and Gas Oy				
	No. 4/89/550	1999	-	214
	1992 I	2002	17	17
Total			1,048	881



## Notes to the financial statements

EUR million	1999		1998	
<b>27. Contingent liabilities</b>				
<b>Collaterals and other undertakings on own behalf</b>	<b>Debt</b>	<b>Value of collateral</b>	<b>Debt</b>	<b>Value of collateral</b>
<b>Own debt secured by pledged assets</b>				
Loans from financial institutions	226	175	225	163
Pension loans	56	57	62	68
Other liabilities	359	58	419	106
Accruals and deferred income	-	-	4	4
<b>Total</b>	<b>641</b>	<b>290</b>	<b>710</b>	<b>341</b>
<b>Own debt secured by real estate mortgages</b>				
Loans from financial institutions	113	122	122	129
Pension loans	1	2	2	2
Trade payables	0	8	0	8
Other liabilities	2	2	6	11
Accruals and deferred income	-	-	0	0
<b>Total</b>	<b>116</b>	<b>134</b>	<b>130</b>	<b>150</b>
<b>Own debt secured by company mortgages</b>				
Loans from financial institutions	34	43	44	50
Pension loans	1	1	3	3
<b>Total</b>	<b>35</b>	<b>44</b>	<b>47</b>	<b>53</b>
<b>Own debt secured by other mortgages</b>				
Loans from financial institutions	40	54	52	52
Accruals and deferred income	1	0	-	-
<b>Total</b>	<b>41</b>	<b>54</b>	<b>52</b>	<b>52</b>
<b>Collaterals for other own commitments</b>				
Pledges		86		70
Real estate mortgages		96		138
Company mortgages		6		0
<b>Total</b>		<b>188</b>		<b>208</b>
<b>Collaterals given on behalf of others</b>				
Pledges		4		8
Real estate mortgages		1		0
Other mortgages		0		0
<b>Total</b>		<b>5</b>		<b>8</b>
<b>Collaterals total</b>		<b>715</b>		<b>812</b>
<b>Liability for nuclear waste disposal</b>		471		459
Share of reserves in the Nuclear Waste Disposal Fund		-385		-330
Liabilities in the balance sheet		86 <sup>*)</sup>		129 <sup>*)</sup>
Excess of security given over obligations		1		-
<sup>*)</sup> Mortgaged bearer papers as security				
<b>Other contingent liabilities</b>				
<b>Operating leasing liabilities</b>				
Due within a year		50		41
Due after a year		138		158
<b>Total</b>		<b>188</b>		<b>199</b>
Finance leases are recognised as assets and liabilities in the balance sheet.				
<b>Sale and leaseback</b>		28		11
<b>Other contingent liabilities given on own behalf</b>		748		682
<b>Other undertakings given on behalf of associated companies</b>				
Guarantees		261		249
<b>Other undertakings given on behalf of persons referred to in § 11:7 of the Companies Act</b>				
Guarantees		0		0
<b>Other undertakings given on behalf of others</b>				
Guarantees		91		37
Other contingent liabilities		2		38
<b>Total</b>		<b>93</b>		<b>75</b>
<b>Other contingent liabilities total</b>		<b>1,318</b>		<b>1,216</b>

## Derivatives

Interest and currency derivatives	Contract or notional value	1999		Contract or notional value	1998	
		Fair value	Not re-cognised as an income		Fair value	Not re-cognised as an income
<b>EUR million</b>						
Interest rate swaps	1,975	0	17	1,080	-20	-20
Purchased interest rate options	2	0	0	33	0	0
Written interest rate options	-	-	-	236	-3	-3
Forward foreign exchange contracts <sup>1) 2)</sup>	1,767	-18	-19	1,887	9	-1
Currency swaps	885	1	-27	535	17	-13
Purchased currency options	54	-1	-1	93	-1	-1
Written currency options	54	-1	-1	93	1	1

<sup>1)</sup> Includes also closed forward and future positions.

<sup>2)</sup> Includes contracts used for equity hedging.

Oil futures and forward instruments	Volume 1,000 bbl	Fair value		Volume 1,000 bbl	Fair value	
		Not re-cognised as an income	Not re-cognised as an income		Not re-cognised as an income	Not re-cognised as an income
Sales contracts	22,154	-26	-4	9,585	5	5
Purchase contracts	17,063	7	3	2,586	-2	-2
Options						
Purchased	1,477	0	0	325	0	0
Written	1,546	-1	0	425	0	0

Electricity derivatives	Volume TWh	Fair value		Volume TWh	Fair value	
		Not re-cognised as an income	Not re-cognised as an income		Not re-cognised as an income	Not re-cognised as an income
Sales contracts	21	44	44	19	33	37
Purchase contracts	21	-61	-43	22	-41	-41
Options						
Purchased	0	0	0	0	0	0
Written	2	0	0	1	0	0

In addition to other contingent liabilities, a guarantee has been given on behalf of Gasum Oy, which covers 75% of the natural gas commitments arising from the natural gas supply agreement between Gasum and OOO Gazexport.

The fair values of derivative contracts subject to public trading are based on market prices as of the balance sheet date.

The fair values of other derivatives are based on the present value of cash flows resulting from the contracts, and, in respect of options, on evaluation models.

### 28. Financial risk management

#### Principles of financial risk management

Fortum Group's financial risk management is based on a Board-approved policy, the principal goals of which are the identification and measurement of financial risks and hedging against them. Financial risks are managed centrally at the Group Treasury, which strives to minimise any negative impact of financial market change on the Group's cash flow, results and balance sheet.

#### Market risks

##### *Exchange rate risks*

Fortum is exposed to exchange rate risks in all its principal business areas. The majority of our foreign exchange exposure arises from the fact that the global market price of crude oil and petroleum products is heavily dependent on the US dollar, and that the Nordic electricity market is principally dominated by the Norwegian krona. Other important invoicing and pricing currencies are the Swedish krona, pound sterling, and the Canadian dollar.

The purpose of managing exchange rate risks is to support the Group in achieving its goals. This can be done by, for example, minimising the effect of the volatility of the euro in operations where cash flow is dominated in, or dependent on, foreign currencies. Our risk management policy requires our units to hedge all their material foreign exchange risks. The Group Treasury can adjust the Group's exchange rate position within the limits based on the Value at Risk principles defined in the risk management policy.

The exchange rate position includes balance sheet items and a part of projected cash flow denominated in foreign currencies. The forecast period varies between 6 and 18 months, depending on the business area. The transaction currency position is divided into agreed and forecast items as well as into offers. The exchange rate risk is principally hedged with forward foreign exchange contracts and currency options. The maturities of currency derivatives are generally not longer than 12 months.

In addition to exchange rate risks arising from business operations, the Group is also exposed to balance sheet risks resulting from investments in foreign subsidiaries and associated companies. The balance sheet risk is hedged with currency loans and forward foreign exchange contracts. The most important currencies in respect of the balance sheet risk are the Swedish krona, the US dollar, and pound sterling.

##### *Interest rate risk management*

Fortum's exposure to interest rate risks arises primarily from interest-bearing net debt on the balance sheet. The most sensitive currencies in this sense are the euro, the Swedish krona and the US dollar. Our long-term objective for managing our exposure to interest rate risks is to minimise financing expenses within specified risk limits. The interest rate risk is managed with cash instruments and derivative contracts.

In hedging interest rate exposure, our aim is to maintain the risk as close as possible to the position which is deemed to be neutral. Exposure is therefore minimised because a change in our interest expenses, resulting from movements in the general level of interest rates, can be expected to be eliminated by a simultaneous change in the opposite direction to our business performance. A neutral interest rate risk position is determined by using benchmark interest rates calculated for the currencies we use.

Sensitivity analysis is used in respect of the market risk to measure and analyse exposure to interest rates in order to describe the effect of a change in the interest level on the market value of an interest position. In respect of the financial risk relating to cash flow, the average interest period is used to describe the effect of a change in the interest level on the Group's interest expenses. Interest risk limits have been determined using modified duration. The result of interest rate risk management is based on net interest expenses and changes in the market value of net debt.

#### Credit risk

Credit risk refers to potential financial damage to which the Group may be exposed if a counterparty partly or entirely fails to fulfil their contractual obligations associated with financial transactions. The credit risk, which is managed at the Group Treasury, arises from investments and derivative contracts.

Credit risk management aims to minimise the probability that the credit risk actually materialises, and to mitigate any negative impact on cash flow. In practice, this means that we enter into derivative contracts and invest in assets with only leading financial institutions and brokers, who meet our credit risk criteria.

#### **Liquidity and refinancing risk**

Liquidity risk denotes the fact that the Group's cash assets do not cover business needs, or that raising the required capital results in material extra cost. Liquidity risk management therefore aims to safeguard an appropriate level of liquidity for our businesses and, at the same time, minimise any resulting interest rate and other expenses. The risk is managed with an adequate cash reserve and syndicated loans.

Refinancing risk refers to a risk associated with the availability and cost of financing. The risk may realise if a part of the Group's liabilities falls due and no alternative financing is available or, is available only at a very high cost. Refinancing risk management aims to minimise the risk by controlling the maturities of the liability portfolio. In practice, this can be achieved by setting maximum limits for the annual repayments of long-term interest-bearing liabilities.

#### **29. Legal proceedings**

In February 1999, the Electricity Market Authority took a decision on the pricing of network services by Megavoima Oy, which is part of the Länsivoima Group. In its decision, the Authority stated that the company's pricing had exceeded reasonable profit by FIM 2.8 million in 1996 and by FIM 1.9 million in 1997, and ordered the company to correct its pricing. Megavoima has decided to file an appeal to the Supreme Administrative Court.

In 1998, the Finnish Electricity Association asked the Finnish Competition Authority to investigate the actions of Fortum Power and Heat Oy (formerly IVO) and the conditions it applies in its long-term electricity agreements. In its decision published in April 1999, the Finnish Competition Authority stated that Fortum was not guilty of misuse of a dominant market position, and under its decision confirmed the legality of the contractual usage Fortum complied with. The decision does not lead to further action by Fortum.

In March, Fortum exercised its right in accordance with Articles of Association and redeemed the 40% share of Lahden Lämpövoima Oy that the city of Lahti had sold to Lahti Energia Oy in 1998. Fortum's share in Lahden Lämpövoima Oy increased from 50% to 90%, at a redemption price of FIM 500 million. At the end of June, Fortum brought action at the Lahti District Court demanding that the redemption price of the shares of Lahden Lämpövoima Oy should be made equitable.

Fortum instituted administrative litigation at the Turku Administrative Court demanding that the city of Naantali return harbour dues worth a maximum of FIM 200 million with interest that, according to Fortum Oil and Gas Oy, had been charged without any foundation, because the harbour in question is privately owned by Fortum. There is a difference of opinion between Fortum and the city of Naantali on the legal basis of the charged, and still to be charged, harbour dues. According to Fortum, in order to safeguard the interests of both parties, it is necessary for the basis for the harbour dues to be clarified definitively. At the same time, the company has also filed a material appeal at the Turku Administrative Court on the basis of the Administrative Judicial Procedure Act.

Fortum's subsidiary, Neste Canada Inc., is plaintiff and defendant in a counterclaim on the cleaning costs of the environment of a factory that is part of the chemicals business which had been sold. The other party is Reichhold Ltd. The legal proceedings are at the stage of hearing the parties' evidence. In the company management's opinion, the result of the legal proceedings will not have any material impact on Fortum's operational performance or financial position.

Fortum is both defendant and plaintiff in a number of legal proceedings connected with its extensive international operations. The management believes that the results of these proceedings will not, together or separately, have any materially adverse impact on Fortum's operational performance or financial position.

# Group shares and holdings

	Domicile	No. of shares	Group holding, %	Nominal value FIM/CUR 1,000	Book value 31 Dec. 1999 EUR 1,000
<b>Group shares (book value over EUR 2 million)</b>					
<b>Oil Refining and Marketing</b>					
Eastex Crude Company	USA		70.0	USD	7,680
Fortum Investments Oy	Espoo	10,000	100.0	FIM	100,000
Fortum Oil and Gas AB	Sweden	5,980,530	100.0	SEK	598,053
Fortum Oil N.V.	Belgium	40,262	100.0	BEF	253,150
Neste Chemicals Benelux Holding B.V.	Holland	173,406	100.0	NLG	78,380
Neste Crude Oil Inc.	USA	1,000	100.0	USD	1
Neste Eesti A/S	Estonia	1,738	100.0	EEK	1,738
Neste Finance B.V.	Holland	237,001	100.0	NLG	237,001
Neste Investments	Ireland	30,910,001	100.0	USD	30,910
Neste Lämpö Oy	Espoo	2,000	100.0	FIM	10,000
Neste Markkinointi Oy	Espoo	752,000	100.0	FIM	376,000
Neste MTBE S.A.	Portugal	600,000	100.0	PTE	600,000
Neste Oil Holding (U.S.A.) Inc	USA	1,000	100.0	USD	1
Neste Oil Services Inc.	USA	1,000	100.0	USD	1
Neste Polska sp.z.o.o.	Poland	6,809	100.0	PLZ	1,815
OOO Neste St Petersburg	Russia	10	100.0	RUR	1,012,066
SIA Neste Latvija	Latvia	10	100.0	LVL	629
Tehokaasu Oy	Helsinki	7,200	100.0	FIM	18,000
Tidelands Oil Production Company Partnership	USA		80.0	USD	6,195
UAB Neste Lietuva	Lithuania	230,000	100.0	LTL	23,000
<b>Power and Heat Generation and Sales</b>					
Edenderry Power Limited	Ireland	7,000	100.0	IEP	7,000
Fortum Energie GmbH	Germany	1	100.0	DEM	0
Fortum Holding B.V.	Holland	61,062	100.0	EUR	6,106
Fortum Power and Heat AB	Sweden	8,046,968	100.0	SEK	8,046,968
Fortum Power Holding B.V.	Holland	240	100.0	EUR	24
IVO Energia AS	Estonia	101	100.0	EEK	1,010
IVO Energy Limited	UK	25,382,000	100.0	GBP	25,382
IVO Kraftwerk Lubmin GmbH	Germany	1	100.0	DEM	5,600
Laem Chabang Power Company Limited	Thailand	9,999,994	100.0	THB	100,000
Lahden Lämpövoima Oy	Lahti	1,440	90.0	FIM	14,400
Regional Power Generators Ltd	UK	10,000	100.0	GBP	10
<b>Electricity Distribution</b>					
Koillis-Pohjan Sähkö Oy <sup>1)</sup>	Pudasjärvi	42,976	98.6	FIM	4,298
Fortum Läänemaa AS <sup>1)</sup>	Estonia	837,003	95.1	EEK	83,700
Länsivoima Oyj <sup>1)</sup>	Paimio	5,103,752	78.1	FIM	51,038
Merikarvian Sähkö Oy	Merikarvia	526	78.1	FIM	117
Oy Tersil Ab	Paimio	15,000	78.1	FIM	1,500
Oy Tertrade Ab	Paimio	15,000	78.1	FIM	1,500
Tainionkosken Voima Oy	Helsinki	200	100.0	FIM	200
Tuusulanjärvi Energy Ltd <sup>2)</sup>	Järvenpää	490,000	100.0	FIM	49,000
Vuoksen Voima Oy	Helsinki	200	100.0	FIM	200
<b>Engineering</b>					
ETV Eröterv Rt.	Hungary	54,422	84.2	HUF	544,220
Fortum Engineering Ltd	Helsinki	11,000	100.0	FIM	110,000
IVO Transmission Engineering Ltd	Helsinki	10,000	100.0	FIM	10,000
<b>Service</b>					
Fortum Service Oy	Helsinki	5,000	100.0	FIM	50,000
<b>Other operations</b>					
Fortum Assets Oy	Helsinki	400,000	100.0	FIM	40,000
Fortum Project Finance S.A.	Luxembourg	154,000	100.0	BEF	1,540,000
Kiinteistö Oy IVOn Vanhakaupunki	Helsinki	1,600	100.0	FIM	16,000
Osakeyhtiö Malminkatu 16	Helsinki	1,600	100.0	FIM	160
<b>Group companies consolidated using the pooling-of-interests method</b>					
Fortum Power and Heat Oy	Helsinki	91,197,542	100.0	FIM	911,975
Fortum Oil and Gas Oy	Espoo	98,523,082	100.0	FIM	985,231

<sup>1)</sup> Includes also power generation and/or sales

<sup>2)</sup> Includes also power and heat generation and sales

	Domicile	No. of shares	Group holding, %		Nominal value FIM/CUR 1,000	Book value 31 Dec. 1999 EUR 1,000
<b>Participating interests</b>						
<b>Joint ventures (book value over EUR 2 million)</b>						
<b>Power and Heat Generation and Sales</b>						
AB Avesta Energi	Sweden	25,000	50.0	SEK	2,500	9,488
AB Hudik Kraft	Sweden	6,000	50.0	SEK	6,000	2,626
AB Hälsingekraft	Sweden	74,500	50.0	SEK	74,500	35,474
AB Kallströmmen	Sweden	165,000	50.0	SEK	16,500	2,009
AB Skandinaviska Elverk	Sweden	1,000,000	50.0	SEK	100,000	131,340
Avestaforsen AB	Sweden	328,000	50.0	SEK	32,800	25,855
Baerum Fjernvarme AS	Norway	35,000	32.5	NOK	35,000	6,812
Baerum Fjernvarme Holding AS	Norway	18,687	32.5	NOK	18,687	3,477
Birka Energi AB	Sweden	10,000,000	50.0	SEK	1,000,000	1,343,066
Birka Marknad AB	Sweden	1,000	50.0	SEK	1,000	74,087
Birka Marknad Lidingö AB	Sweden	500	50.0	SEK	50	5,527
Birka Norden AB	Sweden	3,012,162	50.0	SEK	3,012	24,754
Birka Värme AB	Sweden	1,000	50.0	SEK	1,000	38,760
Birka Värme Lidingö AB	Sweden	500	50.0	SEK	50	12,934
Birka Värme Stockholm AB	Sweden	609,999	50.0	SEK	609,999	783,442
Brännälven Kraft AB	Sweden	20,000	3.4	SEK	5,000	14,190
Cajero AB	Sweden	1,000	50.0	SEK	1,000	44,414
Degerforsens Kraft AB	Sweden	10,000	12.5	SEK	1,000	3,509
Frykdalens Kraft AB	Sweden	70,000	12.5	SEK	7,000	12,380
Gullspång Kraft AB	Sweden	44,155,643	50.0	SEK	220,778	659,138
Hudiksvalls Energiverk AB	Sweden	1,000	50.0	SEK	1,000	4,733
Indalskraft AB	Sweden	6,500	50.0	SEK	6,500	186,024
Karäsen Kraft AB	Sweden	408,000	50.0	SEK	40,800	7,824
Krångede AB	Sweden	50	50.0	SEK	50	213,552
Lindsnäs Kraft AB	Sweden	2,151,924	50.0	SEK	215,193	99,096
Ljunga Kraft AB	Sweden	5,088,813	50.0	SEK	142,487	98,871
Parteboda Kraft AB	Sweden	500	5.1	SEK	50	18,689
Stockholm Energi Vattenkraft AB	Sweden	250	50.0	SEK	25	139,256
Sundshagsfors Kraft AB	Sweden	2,850	50.0	SEK	2,850	15,013
Svarthålsforsens Intressenter AB	Sweden	100,050	50.0	SEK	10,005	17,602
Uddeholm Kraft AB	Sweden	2,976,666	50.0	SEK	297,667	57,680
Voxnan Kraft AB	Sweden	500	5.1	SEK	50	75,252
Värmlandskraft - OKG-delägarna AB	Sweden	210	36.5	SEK	210	6,943
Älvkraftintressenter i Värmland AB	Sweden	62,500	12.5	SEK	6,250	37,700
Österede Kraft AB	Sweden	500	50.0	SEK	50	48,211
<b>Electricity Distribution</b>						
Birka Nät AB	Sweden	15	50.0	SEK	150	555,282
Birka Nät Småland AB	Sweden	250,000	50.0	SEK	25,000	46,715
Birka Nät Stockholm AB	Sweden	100,000	50.0	SEK	100,000	289,495
Birka Nät Yngeredsfors AB	Sweden	400,000	50.0	SEK	40,000	70,073
Ekerö Energi AB	Sweden	9,543	39.5	SEK	9,118	13,084
Gullspång Industrinät AB	Sweden	500	50.0	SEK	50	679,896
Lanforsen Kraft AB	Sweden	2,250	50.0	SEK	2,250	48,854
Ockelbo Kraft AB	Sweden	12,950	43.2	SEK	544	2,844
SE Eldistribution AB	Sweden	2,500	50.0	SEK	50	38,688
Täby Energi Nät AB	Sweden	15,751	50.0	SEK	3,938	2,733
Värmlandsenergi AB	Sweden	26,806,635	50.0	SEK	268,067	38,118
Östernärkes Kraft AB	Sweden	7,649	23.5	SEK	765	2,636
<b>Service</b>						
Birka Service AB	Sweden	9,455	54.5	SEK	1,355	6,309
Birka Service Region Öst AB	Sweden	5,000	54.5	SEK	5,000	2,920
Renea Service AB	Sweden	20,000	54.5	SEK	1,000	4,549

	Domicile	No. of shares	Group holding, %		Nominal value FIM/CUR 1,000	Book value 31 Dec. 1999 EUR 1,000
<b>Participating interests</b>						
<b>Other associated companies (book value over EUR 2 million)</b>						
<b>Oil and Gas Upstream</b>						
Gasum Oy	Espoo	13,250,000	25.0	FIM	265,000	44,570
Severtex ZAO	Russia	107,500	50.0	USD	200	7,346
<b>Oil Refining and Marketing</b>						
Kuljetusristikko Oy	Helsinki	2,914	34.8	FIM	146	2,403
Nynäs Petroleum AB	Sweden	33,765	50.0	SEK	33,765	46,325
<b>Power and Heat Generation and Sales</b>						
Blåsjöns Kraft AB	Sweden	3,000	25.0	SEK	3,000	8,541
Budapesti Erömü Rt.	Hungary	636,765	44.3	HUF	6,367,650	24,515
Ensec AB	Sweden	7,584	33.1	SEK	7,584	2,090
Etelä-Pohjanmaan Voima Oy	Vaasa	1,319	21.8	FIM	13,190	5,665
Finnglass Oy	Pori	470	37.0	FIM	2,350	2,523
Gulsele AB	Sweden	60,000	25.0	SEK	60,000	2,523
Härjeåns Kraft AB	Sweden	15,779	23.1	SEK	1,578	3,840
Katrineholm Energi AB	Sweden	33,075	24.5	SEK	3,308	9,927
Lappeenranta Lämpövoima Oy	Lappeenranta	1,800	50.0	FIM	18,000	3,027
Mellansvensk Kraftgrupp AB	Sweden	29,849	39.0	SEK	29,849	19,908
OKG AB	Sweden	122,025	16.7	SEK	12,203	4,263
Ryssa Elverk AB	Sweden	109,040	17.3	SEK	5,437	9,631
Stensjöns Kraft AB	Sweden	110,000	25.0	SEK	5,500	25,051
Teollisuuden Voima Oy	Helsinki	189,877,285	26.6	FIM	189,877	124,655
UVCC II Parallel Fund, L.P.	USA		33.3	USD	4,832	2,884
<b>Electricity Distribution</b>						
Espoon Sähkö Oyj <sup>1)</sup>	Espoo	4,348,560	21.6	FIM	8,697	87,205
Fingrid Oyj	Helsinki	834	25.1	FIM	83,400	28,054
Karlskoga Energi & Miljö AB <sup>1)</sup>	Sweden	26,950	49.0	SEK	26,950	40,058
Keuruun Sähkö Oy	Keuruu	1,754	35.1	FIM	18	2,458
Sallilan Sähkölaitos Oy	Alastaro	27,250	35.9	FIM	1,363	8,174
<sup>1)</sup> Includes also power and heat generation and sales						
<b>Other operations</b>						
Enermet Group Oy	Jyväskylä	223,684	26.8	FIM	22,368	3,762
<b>Other participating interests (book value over EUR 2 million)</b>						
<b>Power and Heat Generation and Sales</b>						
Kemijoki Oy	Rovaniemi	412,907	16.9	FIM	41,291	275,589
<b>Other shares and holdings (book value over EUR 2 million)</b>						
<b>Oil and Gas Upstream</b>						
AS Eesti Gaas	Estonia	1,077,629	16.9	EEK	26,153	4,954
AS Latvijas Gaze	Latvia	789,990	2.0	LVL	789,990	2,086
Vattenfall Naturgas AB	Sweden	31,610	10.0	SEK	1,517	8,964
<b>Oil Refining and Marketing</b>						
Saudi European Petrochemical Company						
Ibn Zahr	Saudi Arabia	98,832	10.0	SAR	98,832	14,851
Neptun Maritime Oyj	Helsinki	1,034,950	1.7	FIM	10,350	2,611
Nokian Lämpövoima Oy	Nokia	19,900	19.9	FIM	199	4,373
<b>Power and Heat Generation and Sales</b>						
The Cogeneration Company Limited	Thailand	40,200,000	5.0	THB	402,000	9,834
Lapin Sähkövoima Oy	Tervola	183,534	7.0	FIM	183,534	18,813
Korselbränna AB	Sweden	25,920	8.1	SEK	2,592	16,247
AO Lenenergo	Russia	38,199,760	5.0	RUR	38,200	19,572
Utility Competitive Advantage Fund, L.L.C.	USA		11.1			8,672
<b>Electricity Distribution</b>						
Imatran Seudun Sähkö Oy (16.6% of votes)	Imatra	62,413	14.6	FIM	624	2,222
Vakka-Suomen Voima Oy	Laitila	14,210	13.0	FIM	213	2,324

A complete list of shares and holdings is included in Fortum Corporation's statutory financial statements.



# Key financial indicators 1995-1999

		1995	1996	1997	1998	1999
<b>INCOME STATEMENT</b>						
Net sales	EUR million	8,720	9,430	10,099	8,494	8,232
- change	%	-8.4	8.1	7.1	-15.9	-3.1
Share of profits (losses) of associated companies	EUR million	76	11	75	42	36
Other operating income <sup>1)</sup>	EUR million	112	71	105	102	187
Depreciation, amortisation and write-downs	EUR million	-377	-413	-467	-496	-507
Other operating expenses <sup>1)</sup>	EUR million	-7,939	-8,561	-9,071	-7,547	-7,227
Operating profit <sup>1)</sup>	EUR million	592	538	741	595	721
- of net sales	%	6.8	5.7	7.3	7.0	8.8
Financial income and expenses <sup>1)</sup>	EUR million	-173	-151	-244	-218	-211
Profit before extraordinary items and taxes	EUR million	419	387	497	377	510
- of net sales	%	4.8	4.1	4.9	4.4	6.2
Extraordinary items	EUR million	4	35	326	-5	460
Profit before taxes	EUR million	423	422	823	372	970
- of net sales	%	4.9	4.5	8.2	4.4	11.8
Income taxes	EUR million	-182	-130	-92	-132	-245
Minority interests	EUR million	-10	-28	-52	-27	-22
Net profit for the period	EUR million	231	264	679	213	703
<b>BALANCE SHEET</b>						
Fixed assets and other long-term investments	EUR million	5,746	8,006	8,819	8,845	9,261
Current assets						
Inventories	EUR million	661	707	737	576	661
Receivables	EUR million	1,123	1,353	1,451	1,192	1,379
Cash and marketable securities	EUR million	915	424	663	564	775
Shareholders' equity	EUR million	3,118	3,315	3,930	3,975	4,705
Minority interests	EUR million	75	465	294	210	126
Provisions for liabilities and charges	EUR million	21	14	37	64	83
Deferred tax liabilities	EUR million	691	794	715	679	665
Interest-bearing debt	EUR million	3,021	4,115	4,476	4,462	4,593
Interest-free debt	EUR million	1,519	1,787	2,218	1,787	1,904
Total assets	EUR million	8,445	10,490	11,670	11,177	12,076
<b>PROFITABILITY</b>						
Return on shareholders' equity	%	7.9	7.4	10.2	5.7	7.7
Return on capital employed	%	10.7	9.1	9.7	7.8	8.6
<b>FINANCING AND FINANCIAL POSITION</b>						
Interest-bearing net debt	EUR million	2,107	3,691	3,813	3,898	3,818
- of net sales	%	24.2	39.1	37.8	45.9	46.4
Gearing	%	66	98	90	93	79
Equity-to-assets ratio	%	38	36	37	38	40
Net cash from operating activities	EUR million	607	686	728	833	494
Cash flow before financing activities	EUR million	301	-263	160	680	408
Dividends	EUR million	63	68	99	99	141 <sup>2)</sup>
Net interest expenses	EUR million	176	194	244	224	209
Interest coverage		3.4	2.8	3.0	2.7	3.4
<b>OTHER INDICATORS</b>						
Capital employed	EUR million	6,214	7,895	8,700	8,647	9,425
Investments	EUR million	512	2,268	1,797	1,702	1,059
- of net sales	%	5.9	24.1	17.8	20.0	12.9
Research and development expenditures	EUR million	72	74	87	92	72
- of net sales	%	0.8	0.8	0.9	1.1	0.9
Average number of employees		14,490	16,083	17,772	19,003	17,461

<sup>1)</sup> Write-downs and reversals of those write-downs of shares that are included in other long-term investments, which have previously been entered under other operating expenses and other operating income, have been entered under financial income and expenses according to the new book-keeping act. As a result, the operating profit for 1996 decreased by EUR 11 million, but profit before extraordinary items was the same.

<sup>2)</sup> Board of Directors' proposal.

## Key financial indicators

### SHARE-RELATED DATA

		1995	1996	1997	1998	1999
Earnings per share (EPS)	EUR	0.29	0.29	0.45	0.27	0.41
Cash flow per share	EUR	0.77	0.87	0.93	1.06	0.63
Shareholders' equity per share	EUR	3.97	4.22	5.01	5.06	6.00
Dividend per share	EUR	0.08	0.09	0.13	0.13	0.18 <sup>1)</sup>
Dividend per earnings	%	27.4	29.6	27.7	46.3	43.4 <sup>1)</sup>
Dividend yield	%				2.5	4.0 <sup>1)</sup>
Price/earnings ratio (P/E)					18.5	10.9
Share prices						
Share price at the end of the period	EUR				5.03	4.50
Average share price	EUR				5.66	4.76
Lowest share price	EUR				4.86	4.24
Highest share price	EUR				6.05	5.80
Market capitalisation at the end of the period	EUR million				3,949	3,532
Trading volumes						
Number of shares					17,642,594	112,397,961
In relation to the weighted average number of shares	%				2.2	14.3
Number of shares		784,782,635	784,782,635	784,782,635	784,782,635	784,782,635

<sup>1)</sup> Board of Directors' proposal

Formulae for the key financial indicators are presented on page 70.

**QUARTERLY NET SALES BY BUSINESS OPERATION (SEGMENT)**

EUR million	I/99	II/99	III/99	IV/99	1999
Oil and Gas Upstream	29	35	71	95	230
Oil Refining and Marketing	964	1,170	1,396	1,670	5,200
Power and Heat Generation and Sales	439	294	305	405	1,443
Electricity Distribution	99	77	73	98	347
Service	63	65	68	94	290
Engineering	78	111	105	185	479
Other operations	25	40	34	38	137
Internal invoicing	-123	-155	-184	-255	-717
<b>Total</b>	<b>1,574</b>	<b>1,637</b>	<b>1,868</b>	<b>2,330</b>	<b>7,409</b>
Discontinued operations <sup>1)</sup>	325	275	209	14	823
<b>Group</b>	<b>1,899</b>	<b>1,912</b>	<b>2,077</b>	<b>2,344</b>	<b>8,232</b>

EUR million	I/98	II/98	III/98	IV/98	1998
Oil and Gas Upstream	45	37	38	26	146
Oil Refining and Marketing	1,354	1,226	1,191	1,115	4,886
Power and Heat Generation and Sales	437	322	276	421	1,456
Electricity Distribution	91	83	74	92	340
Service	49	60	60	81	250
Engineering	77	103	91	140	411
Other operations	24	32	26	33	115
Internal invoicing	-112	-111	-103	-125	-451
<b>Total</b>	<b>1,965</b>	<b>1,752</b>	<b>1,653</b>	<b>1,783</b>	<b>7,153</b>
Discontinued operations <sup>1)</sup>	386	340	303	312	1,341
<b>Group</b>	<b>2,351</b>	<b>2,092</b>	<b>1,956</b>	<b>2,095</b>	<b>8,494</b>

<sup>1)</sup> Includes Gasum, Enermet, Infrarödteknik and Neste Chemicals.

**QUARTERLY OPERATING PROFIT BY BUSINESS OPERATION (SEGMENT)**

EUR million	I/99	II/99	III/99	IV/99	1999
Oil and Gas Upstream <sup>2)</sup>	1	9	32	40	82
Oil Refining and Marketing	6	40	87	49	182
Power and Heat Generation and Sales	160	21	1	63	245
Electricity Distribution	44	19	19	40	122
Service	3	0	-1	10	12
Engineering	0	-5	5	12	12
Other operations	6	-10	-5	-15	-24
Eliminations	-10	3	-4	-6	-17
<b>Total</b>	<b>210</b>	<b>77</b>	<b>134</b>	<b>193</b>	<b>614</b>
Discontinued operations <sup>3)</sup>	34	31	47	-5	107
<b>Group</b>	<b>244</b>	<b>108</b>	<b>181</b>	<b>188</b>	<b>721</b>

EUR million	I/98	II/98	III/98	IV/98	1998
Oil and Gas Upstream <sup>2)</sup>	7	2	-1	1	9
Oil Refining and Marketing	5	32	61	10	108
Power and Heat Generation and Sales	121	35	-15	100	241
Electricity Distribution	39	29	25	30	123
Service	4	-2	2	4	8
Engineering	-2	1	4	13	16
Other operations	-3	-6	-7	26	10
Eliminations	-1	-3	-3	-5	-12
<b>Total</b>	<b>170</b>	<b>88</b>	<b>66</b>	<b>179</b>	<b>503</b>
Discontinued operations <sup>3)</sup>	36	27	16	13	92
<b>Group</b>	<b>206</b>	<b>115</b>	<b>82</b>	<b>192</b>	<b>595</b>

<sup>2)</sup> Treatment of Gasum has been changed from a subsidiary company to an associated company in all reporting periods.

<sup>3)</sup> Includes the impact of change in Gasum holding, Enermet, Infrarödteknik, Neste Chemicals and Asko.

# Formulae for the key financial indicators

Cash and marketable securities	=	Cash and cash equivalents + marketable securities	
Return on shareholders' equity (%)	=	$\frac{\text{Profit before extraordinary items - taxes}}{(\text{Shareholders' equity} + \text{minority interests}) \text{ average}}$	x 100
Return on capital employed (%)	=	$\frac{\text{Profit before extraordinary items} + \text{interest and other financial expenses}}{\text{Capital employed average}}$	x 100
Interest-bearing net debt	=	Interest-bearing debt - cash and marketable securities	
Gearing (%)	=	$\frac{\text{Interest-bearing net debt}}{\text{Shareholders' equity} + \text{minority interests}}$	x 100
Equity-to-assets ratio (%)	=	$\frac{\text{Shareholders' equity} + \text{minority interests}}{\text{Total assets} - \text{advances received}}$	x 100
Interest coverage	=	$\frac{\text{Operating profit}}{\text{Net interest expenses}}$	
Capital employed	=	Total assets - interest-free liabilities - deferred tax liabilities - provisions for liabilities and charges	
Earnings per share (EPS)	=	$\frac{\text{Profit before extraordinary items} - \text{taxes on regular business operations} - \text{minority interests}}{\text{Adjusted average number of shares during the period}}$	
Cash flow per share	=	$\frac{\text{Net cash from operating activities}}{\text{Adjusted average number of shares during the period}}$	
Shareholders' equity per share	=	$\frac{\text{Shareholders' equity}}{\text{Adjusted average number of shares at the end of the period}}$	
Dividend per share	=	$\frac{\text{Dividend for the financial period}}{\text{Adjusted average number of shares during the period}}$	
Dividend per earnings (%)	=	$\frac{\text{Dividend per share}}{\text{Earnings per share}}$	x 100
Dividend yield (%)	=	$\frac{\text{Dividend per share}}{\text{Share price at the end of the period}}$	x 100
Price/earnings ratio	=	$\frac{\text{Share price at the end of the period}}{\text{Earnings per share}}$	
Average share price	=	$\frac{\text{Amount traded in euros during the period}}{\text{Adjusted number of shares traded during the period}}$	
Market capitalisation at the end of the period	=	Number of shares at the end of the period x share price at the end of the period	
Trading volumes	=	Number of shares traded during the period, and in relation to the weighted average number of shares during the period	

# Parent company income statement, balance sheet and cash flow statement

## Income statement

EUR million	Note	1999	1998
<b>Net sales</b>	1	10	5
Depreciation, amortisation and write-downs	2	0	0
Other operating expenses	3	-16	-6
<b>Operating loss</b>		-6	-1
Financial income and expenses	4	1	232
<b>Profit before extraordinary items</b>		-5	231
Extraordinary items			
Group contributions		511	-
<b>Profit before extraordinary items and taxes</b>		506	231
Appropriations	5	0	0
Income taxes	6	-141	-65
<b>Net profit for the period</b>		365	166

## Balance sheet

EUR million	Note	1999	1998
<b>ASSETS</b>			
<b>Fixed assets and other long-term investments</b>			
	7,8		
Intangible assets		0	0
Tangible assets		0	0
Other long-term investments		5,539	5,525
		5,539	5,525
<b>Current assets</b>			
Short-term receivables	9	513	159
Cash and cash equivalents		1	0
		514	159
		6,053	5,684
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
	11		
Share capital		2,640	2,640
Additional paid-in capital		2,780	2,780
Retained earnings		67	-
Net profit for the period		365	166
		5,852	5,586
<b>Accumulated appropriations</b>	12	0	0
<b>Long-term investments</b>	13		
Interest-bearing		4	-
<b>Short-term investments</b>	13		
Interest-bearing		88	88
Interest-free		109	10
		197	98
		6,053	5,684

## Cash flow statement

EUR million	1999	1998
<b>Operating activities</b>		
Operating loss	-6	-1
Depreciation, amortisation and write-downs	0	0
Other items	151	17
Operating profit before changes in working capital	145	16
Changes in working capital		
Decrease (+) / increase (-) in trade and other short-term liabilities	6	-6
Decrease (-) / increase (+) in interest-free liabilities	1	2
	7	-4
<b>Funds generated from operations</b>	152	12
Interest paid, net	2	-2
Taxes paid	-37	-
<b>Net cash from operating activities</b>	117	10
<b>Investing activities</b>		
Acquisition of shares in subsidiaries	-1	-28
Investments in shares in participating interests	-4	-
Investments in other shares	-	0
Asset transfer taxes paid	-8	-80
Other capital expenditures	0	-1
<b>Cash flow from investing activities</b>	-13	-109
<b>Cash flow before financing activities</b>	104	-99
<b>Financing activities</b>		
Proceeds from long-term liabilities	4	-
Payment of long-term liabilities	0	-
Payment of (-) / proceeds from (+) short-term borrowings	1	-
Proceeds from (+) / payment of (-) interest-bearing receivables	-9	88
Dividends paid	-99	-
Proceeds from issuance of share capital	-	11
Other financing activities	0	-
<b>Cash flow from financing activities</b>	-103	99
<b>Net increase (+) / decrease (-) in cash and marketable securities</b>	1	0
Reconciliation (cash and marketable securities)		
As reported for at the beginning of the period	0	-
As reported for at the end of the period	1	0
<b>Net increase (+) / decrease (-) in cash and marketable securities</b>	1	0

## Notes to the parent company financial statements

EUR million	1999	1998
<b>1. Net sales by market area</b>		
Finland	10	5
<b>2. Depreciation, amortisation and write-downs</b>		
Depreciation and amortisation according to the plan	0	0
<b>3. Other operating expenses</b>		
Personnel expenses		
Wages and salaries	3	1
Remunerations	0	0
Indirect employee costs	-	0
Pension costs	1	0
Other indirect employee costs	1	0
Other operating expenses	11	5
Total	16	6
<b>Salaries and remunerations</b>		
President and members of the Board	1	1
Supervisory Board	0	0
Total	1	1
<b>Average number of employees</b>	30	10
<b>4. Financial income and expenses</b>		
Income from Group companies	-	234
Income from participating interests	0	-
Other interest income from Group companies	12	0
Other interest and financial income	0	0
Interest and other financial expenses to Group companies	-11	-1
Interest and other financial expenses	0	-1
Total	1	232
<b>Total interest income and expenses</b>		
Interest income	12	0
Interest expenses	-11	-2
Net interest expenses	1	-2
<b>5. Appropriations</b>		
Depreciation above the plan	0	0
<b>6. Income taxes</b>		
Taxes on regular business operations	-1	65
Taxes on extraordinary items	142	-
Total	141	65
<b>7. Fixed assets and other long-term investments</b>		
<b>Intangible assets</b>		
Other long-term expenditure	0	0
<b>Tangible assets</b>		
Machinery and equipment	0	0
<b>Investments</b>		
Shares in Group companies	5,526	5,525
Shares in participating interests	4	-
Receivables from participating interests	9	-
Other shares and holdings	0	0
Total	5,539	5,525
<b>8. Changes in acquisition cost</b>		
<b>Intangible assets</b>		<b>Other long-term investments</b>
Acquisition cost as of 1 January		0
Increases		0
Acquisition cost as of 31 December		0
Accumulated depreciation, amortisation and write-downs as of 1 January		0
Depreciation and amortisation for the period		0
Accumulated depreciation, amortisation and write-downs as of 31 December		0
Balance sheet value as of 31 December		0
<b>Tangible assets</b>		<b>Machinery and equipment</b>
Acquisition cost as of 1 January		0
Increases		0
Acquisition cost as of 31 December		0
Accumulated depreciation, amortisation and write-downs as of 1 January		0
Depreciation and amortisation for the period		0
Accumulated depreciation, amortisation and write-downs as of 31 December		0
Balance sheet value as of 31 December		0

Investments	Shares in Group companies	Shares in participating interests	Receivables from participating interests	Other shares and holdings	Total
Acquisition cost as of 1 January	5,525	-	-	0	5,525
Increases	1	4	9	-	14
Acquisition cost as of 31 December	5,526	4	9	0	5,539
Balance sheet value as of 31 December	5,526	4	9	0	5,539
<b>EUR million</b>			<b>1999</b>	<b>1998</b>	
<b>9. Short-term receivables</b>					
Receivables from Group companies					
Trade receivables			1		6
Other receivables			512		152
Total			513		158
Receivables from participating interests					
Other receivables			0		-
Total			0		-
Other receivables			-		1
Accrued income and prepaid expenses			0		0
Total			513		159
<b>10. Pension commitments to corporate management</b>					
The executive directors of Fortum Corporation are eligible for retirement at the age of 60.					
<b>11. Changes in shareholders' equity</b>					
Share capital as of 1 January			2,640		-
Share issue			-		2,640
Share capital as of 31 December			2,640		2,640
Additional paid-in capital as of 1 January			2,780		-
Share premium			-		2,780
Additional paid-in capital as of 31 December			2,780		2,780
Retained earnings as of 1 January			166		-
Dividends paid			-99		-
Other distribution			0		-
Net profit for the period			365		166
Retained earnings as of 31 December			432		166
Distributable funds as of 31 December			432		166
<b>12. Accumulated appropriations</b>					
<b>Accumulated depreciation above the plan</b>					
Other long-term expenditure			0		0
Machinery and equipment			0		0
Total			0		0
<b>13. Liabilities</b>					
<b>Long-term liabilities</b>					
Convertible bonds			4		-
- of which interest-bearing			4		-
<b>Short-term liabilities</b>					
Trade payables			1		1
Liabilities to Group companies					
Trade payables			0		0
Other short-term liabilities			25		88
Accruals and deferred income			1		0
Total			26		88
Other short-term liabilities			169		1
Accruals and deferred income			1		8
Total			197		98
- of which interest-bearing			88		88
<b>Interest-bearing and interest-free liabilities</b>					
Interest-bearing liabilities			92		88
Interest-free liabilities			109		10
Total			201		98
<b>Short-term accruals and deferred income</b>					
Asset transfer taxes			-		8
Other short-term accruals and deferred income			2		0
Total			2		8

# Shares and shareholders

## Share capital

By the end of 1999, a total of 784,782,635 Fortum Corporation shares were issued. The nominal value of each share is FIM 20, and each carries one vote at the annual general meeting. All shares entitle holders to an equal dividend.

In accordance with the Articles of Association, at the end of 1999, Fortum Corporation's share capital may range between a minimum of FIM 10 billion and a maximum of FIM 40 billion. Within these limits, it can be increased or decreased without changing the Articles of Association. Fortum Corporation's share capital on 31 December 1999, paid in its entirety and entered in the trade register, was FIM 15,695,652,700.

Fortum Corporation's shares are in the Finnish book-entry securities system maintained by the Finnish Central Securities Depository Ltd. Fortum Corporation does not own its own shares.

## Development of share capital 1998 – 1999

	No. of new shares	No. of shares, total	Increase in share capital, FIM	Share capital, FIM
Fortum established on 7 Feb. 1998	500,000	500,000	10,000,000	10,000,000
Rights issue on 3 June 1998	293,104,055	293,604,055	5,862,081,100	5,872,081,100
Rights issue on 29 June 1998	397,906,226	691,510,281	7,958,124,520	13,830,205,620
Rights issue on 17 Dec. 1998	91,272,354	782,782,635	1,825,447,080	15,655,652,700
Employee offering on 18 Dec. 1998	2,000,000	784,782,635	40,000,000	15,695,652,700
Share capital on 31 Dec. 1999		784,782,635		15,695,652,700

## Quotation of shares

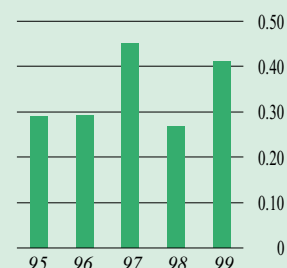
Fortum Corporation's shares are quoted on the Helsinki Exchanges. The first trading date was 18 December 1998. The shares are also traded in London in the SEAQ trading system.

The Helsinki Exchanges changed Fortum Corporation's stock exchange lot from 100 stocks to 1,000 stocks starting on 20 December 1999, and further to 200 stocks starting on 10 February 2000.

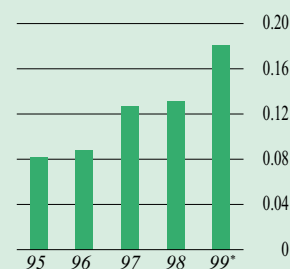
## Fortum's shareholders as of 31 December 1999

Shareholders	No. of shares	Holding, %
Finnish State	591,548,059	75.38
Social Insurance Institution	17,553,696	2.24
Ilmarinen Mutual Pension Insurance Company	11,259,400	1.43
Varma-Sampo Mutual Pension Insurance Company	8,450,000	1.08
Altia Group Ltd	7,206,747	0.92
Pohjola Non-Life Insurance Company Limited	3,900,000	0.50
Neste Pension Foundation	3,757,575	0.48
Finnish Captive & Risk Services Oy Ltd	3,496,637	0.45
Suomi Mutual Life Assurance Company	3,350,000	0.43
Pohjola Mutual Life Assurance Company Ltd.	2,822,600	0.36
Nominee registrations	31,421,474	4.00
Other shareholders in total	100,016,447	12.73
<b>Total</b>	<b>784,782,635</b>	<b>100.00</b>

Earnings per share  
EUR

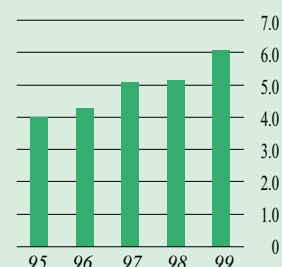


Dividend per share  
EUR



\* Board of Directors' proposal

Shareholders' equity per share  
EUR





## Shares and shareholders

### Distribution of ownership of shares as of 31 December 1999

No. of shares	No. of shareholders	% of shareholders	No. of shares	% of share capital
1 - 100	2,051	3.66	142,770	0.02
101 - 500	22,860	40.75	6,126,292	0.78
501 - 1,000	18,606	33.17	11,411,876	1.45
1,001 - 10,000	12,089	21.55	27,605,580	3.52
10,001 - 100,000	394	0.70	9,855,083	1.25
100,001 - 1,000,000	72	0.13	24,480,413	3.12
1,000,001 - 10,000,000	20	0.03	55,621,876	7.09
over 10,000,000	4	0.01	649,450,549	82.76
	56,096	100.00	784,694,439	99.99
Unregistered/uncleared transactions as of 31 December 1999				88,196 0.01
Total				784,782,635 100.00
of which nominee registrations				31,421,474 4.00

### Distribution of ownership of shares by owner category as of 31 December 1999

Owner category	% of owners	% of share capital
Private non-financial corporations	2.69	0.98
Public non-financial corporations	0.02	0.96
Financial and insurance institutions	0.23	4.74
General government	0.13	82.84
Non-profit organisations	0.40	0.54
Households	95.50	5.87
Outside Finland and nominee registrations	1.03	4.06
Unregistered/uncleared		0.01
Total	100.00	100.00

### Bonus shares and shares subscribed for in the employee offering

The private persons who participated in the share issue in November-December 1998 were given, after uninterrupted ownership of six months and on certain preconditions, one bonus share per 20 shares bought from the Finnish State. The total number of the bonus shares was 680,880. The shares were entered in the book-entry securities account of each shareholder on 17 June 1999.

There was a six months' restriction on the right of disposal attached to the two million shares issued in the employee offering, and trading with these shares was also started on 17 June 1999.

### State ownership

At the beginning of 1999, the Finnish State had 75.46% of the company's shares and voting rights. Following the transfer of the bonus shares, the State ownership decreased to 75.38%.

The Finnish Parliament has authorised the Council of State to reduce the Finnish State's holding in Fortum Corporation to no less than 50.1% of the share capital and voting rights.

### Management holdings and stock options

On 31 December 1999, the members of the Supervisory Board of Fortum Corporation owned a total of 1,942 shares or 0.00% of the shares and voting rights. The members of the Board of Directors, and the President and CEO owned a total of 42,818 shares, which corresponds to 0.01% of the company's shares and voting rights. The members of the Board of Directors owned a total of 950 stock options, which entitle to a subscription of a total of 950,000 Fortum Corporation shares on the conditions given below.

## Bond loan with warrants to employees and management stock option scheme

At the beginning of the year, we launched two employee incentive systems. The Board of Directors made decisions about these systems on 17 February 1999 and on 15 April 1999.

### Management stock option scheme

An extraordinary general meeting of 17 November 1998 authorised the Board of Directors to issue a maximum of 15,000 stock options to a maximum of 150 key members of Fortum Group's employees specified by the Board of Directors. During the subscription period, 1 March – 15 March 1999, a total of 130 persons named by the Board of Directors subscribed for 13,825 stock options, and Fortum Oil and Gas Oy subscribed for the remaining 1,175 stock options. The stock options entitle the holders to subscribe for a maximum of 15 million Fortum Corporation shares in the period from 1 October 2002 to 1 October 2005. These shares correspond to 1.9% of the company's present share capital and voting rights. As a result of the subscriptions made as part of the management stock option scheme, Fortum's share capital may rise, in total, by a maximum of FIM 300 million.

The precondition for the subscription is that the comparison between Fortum's earnings per share in 1998 and the average of the earnings per share in 1999-2001 will show that Fortum's earnings per share performance is equal to or better than in the peer group on average. Another precondition for the subscription of shares in connection with the stock options is that Fortum's trade-volume weighted average share price performance between the periods 1 April 1999 – 31 August 1999 and 1 April 2002 – 31 August 2002 is equal to or better than in the peer group on average.

The subscription price is the trade-volume weighted average quotation of the period 1 January 2002 – 30 June 2002. The subscription price is decreased by twice the percentage by which Fortum's share price performance will exceed the share price performance of the peer group between the periods 1 April 1999 – 31 August 1999 and 1 April 2002 – 31 August 2002. However, the subscription price of the share is minimum the trade-volume weighted average quotation of the period 18 December 1998 – 15 January 1999, i.e. EUR 5.61. The subscribed shares entitle to dividend for the accounting period during which the shares will be subscribed for.

### Bond loan with warrants to employees

In April, we carried out a bond loan arrangement with warrants to employees. An extraordinary general meeting of 8 September 1998 had authorised the Board of Directors to make this arrangement. The maximum amount of this bond loan was FIM 25 million, and a total of 1,859 Fortum employees subscribed for the bond loan. The loan period is three years, and the annual interest of the loan is 4%. The loan including the interest will be repaid in one instalment on 17 May 2002.

A total of 25,000 bond loan stakes of a nominal value of FIM 1,000 per stake were offered, with each stake carrying 300 share warrants. Each warrant may be exercised to subscribe for one Fortum Corporation share. At the end of the year, the bond loan amount totalled FIM 24.8 million, and the decrease resulted from change-over of certain persons who participated in this scheme to outside the Group. As a result of the subscriptions relating to the bond loan with warrants to employees, Fortum's share capital may be increased by at most FIM 148 million or 7.4 million new shares, corresponding to 0.9% of the company's share capital today.

The shares connected with this bond loan are open for subscription during 17 May 2002 – 17 May 2005. The subscription price is the trade-volume weighted average price of Fortum share during 1 March 1999 – 31 March 1999, increased by 10%. Any dividends per share paid as of 1 January 2000 up to the date of subscription for the shares shall be deducted from the subscription price. The subscription price is at the maximum EUR 5.03 per share. The shares subscribed for entitle to distribution of dividend for the accounting period during which the shares will be subscribed for.

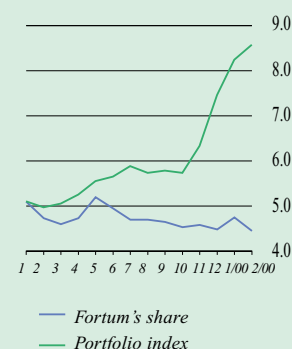
Fortum Corporation has issued no other convertible bonds or bonds with warrants, which would entitle the bearer to subscribe for Fortum shares. The Board of Directors of Fortum Corporation has today no unused authorisations from the general meeting of shareholders to increase the company's share capital or subscribe for the company's own shares.

## Quotation and trading of shares

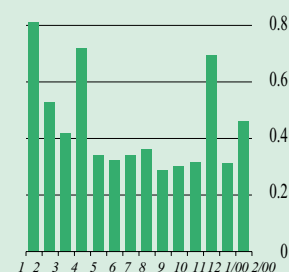
The highest quotation of Fortum Corporation's share on the Helsinki Exchanges in 1999 was EUR 5.80, the lowest EUR 4.24, and the middle-market quotation EUR 4.76. The closing quotation on the last trading day of the year was EUR 4.50.

A total of 112.4 million shares for a total value of EUR 535.5 million was traded during 1999. Fortum's market capitalisation, calculated using the closing quotation on the last trading day of the year, was EUR 3,532 million.

Quotations in 1999  
EUR



Number of shares traded  
million



# Proposal for the distribution of retained earnings

The Group's non-restricted equity and distributable equity as of 31 December 1999 amounted to EUR 2,062 million. The parent company's distributable equity as of 31 December 1999 stood at EUR 431,888,974.21.

The Board of Directors proposes that Fortum Corporation should pay a dividend of EUR 0.18 per share, totalling EUR 141,260,874.30, and should set aside a sum of EUR 300,000 for the purposes of public utility. The rest of the distributable equity will be carried over to retained earnings.

Espoo, February 29, 2000

Matti Vuoria  
Jaakko Ihamuotila  
Heikki Pentti

Heikki Marttinen  
President and CEO

Krister Ahlström  
L.J. Jouhki  
Erkki Virtanen

# Auditors' report

## To the shareholders of Fortum Corporation

We have audited the accounting, the financial statements and the corporate governance of Fortum Corporation for the period ended 31 December 1999. The financial statements, which include the report of the Board of Directors, consolidated and parent company's income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the President and CEO. Based on our audit we express an opinion on these financial statements and on corporate governance.

We have conducted the audit in accordance with Finnish Standards on Auditing. Those standards require that we perform the audit 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 corporate governance is to examine that the members of the Supervisory Board and the Board of Directors and the President and CEO have legally complied with the rules of the Companies' Act.

In our opinion the financial statements have been prepared in accordance with the Accounting Act and other rules and regulations governing the preparation of financial statements. 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 President and CEO of the parent company can be discharged from liability for the period audited by us. The proposal by the Board of Directors regarding the distributable funds is in compliance with the Finnish Companies' Act.

Helsinki, February 29, 2000

SVH PricewaterhouseCoopers Oy  
Authorised Public Accountants

Arthur Andersen Oy  
Authorised Public Accountants

Pekka Kaasalainen  
Authorised Public Accountant

Hannu Vänskä  
Authorised Public Accountant

## Statement by the Supervisory Board

The Supervisory Board has reviewed Fortum Corporation's income statement, balance sheet, notes to the financial statements, consolidated financial statements, report on activities, and the Board of Directors' proposal contained in the latter for the disposal of retained earnings, and the auditors' report provided by the company's auditors. The Supervisory Board has no comments to make on these. The Supervisory Board recommends that the income statement, balance sheet, consolidated financial statements and balance sheet be adopted and concurs with the Board of Directors' proposal for the allocation of profit.

The Supervisory Board is satisfied that its decisions and instructions have been followed and that it has received adequate information from the Board of Directors and the Company's management.

Espoo, March 10, 2000

Ilkka-Christian Björklund

Pirkko Alitalo  
Ulrika Gyllenberg  
Ville Itälä  
Kari Laitinen  
Pekka Tuomisto

Tuija Brax  
Klaus Hellberg  
Timo Järvilahti  
Jouko K. Leskinen  
Taisto Turunen  
Ben Zyskowitz

Kaarina Dromberg  
Tytti Isohookana-Asunmaa  
Timo Laaksonen  
Leena Luhtanen  
Matti Vanhanen

## Regulations to be applied

Fortum Group's administration complies with the Finnish Companies Act and other applicable rules and regulations. In addition, Fortum adheres to the application guideline on the administration of public listed companies, issued by the Central Chamber of Commerce of Finland and the Confederation of Finnish Industry and Employers. We continue to develop our corporate governance in line with the interests of the shareholders and the objectives of the Group.

We also observe an approved in-house directive on inside information, which has been drafted in accordance with the corresponding instructions issued by the Helsinki Exchanges on 28 October 1999.

## Group structure

Fortum's legal Group structure comprises the parent company Fortum Corporation and its wholly-owned subgroups, the parent companies of which are Fortum Power and Heat Oy and Fortum Oil and Gas Oy.

The Group's business is divided into the Power and Heat, Oil and Gas, Engineering, and Service sectors, which are divided further into market-based performance units, whose performance can be clearly measured.

Fortum Group's financial reporting is divided into Oil and Gas Upstream, Oil Refining and Marketing, Power and Heat Generation and Sales, Electricity Distribution, Service, Engineering, discontinued operations, and other operations.

The Group's administration and operations are run by Fortum Corporation's decision-making bodies: the annual general meeting, Supervisory Board, Board of Directors, and the President and Chief Executive Officer. The Group's operational business is steered by the President and CEO and the Corporate Executive Committee. The Engineering and Service sectors are additionally steered by the Board of Directors of the respective subsidiary, which is chaired by Fortum's President and CEO.

The management of the parent company, Fortum Corporation, is responsible for the management of the entire Group. In addition, Fortum Corporation offers various services, which relate to Fortum's business, to the performance units.

## Supervisory Board

### *Composition and appointment of the Supervisory Board*

Fortum Corporation's articles of association specify that the Supervisory Board should comprise a minimum of 10 and a maximum of 20 members, who are selected at the annual general meeting for a term of office of one year. The Supervisory Board currently has 17 members. The Supervisory Board meetings are also attended by four employee representatives, who are not members of the Supervisory Board. As a rule, the Supervisory Board convenes every other month.

### *Main tasks of the Supervisory Board*

The Supervisory Board is responsible for overseeing that the shareholders' interests are safeguarded.

The main tasks of the Supervisory Board are to supervise the administration of the company, as performed by the Board of Directors and the President and CEO; to give its statement on the annual accounts and the report on activities to the annual general meeting; to discuss proposals put forth by the Board of Directors on matters that involve a substantial downsizing or expansion of the business or a material modification to the organisation; to confirm the number of members in the Board of Directors; to select the Chairman, Deputy Chairman and other members of the Board of Directors; to confirm the division of responsibilities between the members of the Board of Directors; and to decide on the remuneration of the members of the Board of Directors.

In addition, the Supervisory Board appoints, on the recommendation of the Board of Directors, the President and CEO of the company and decides on the terms and conditions of his employment.

## Board of Directors

### *The composition and appointment of the Board of Directors*

According to Fortum Corporation's articles of association, the Board of Directors comprises at least five and at most seven members. Currently (29 February 2000) the Board numbers seven. The Supervisory Board selects the Chairman, Deputy Chairman and other members of the Board of Directors and decides on their remuneration.

The members of the Board are appointed for a four-year period so that their term of office finishes at the end of the fourth financial year following their appointment. Under Fortum's articles of association, the members of the Board must resign when they reach the age of 65. As a rule, the Board of Directors convenes once a month.

### *Main tasks of the Board of Directors*

The Board of Directors is responsible for the administration of the Group and for the appropriate arrangement of the business in compliance with the relevant rules and regulations, Fortum's articles of association, and the instructions given by the annual general meeting and the Supervisory Board.

The Board of Directors' principal task is the company's strategic development and the supervision and steering of its business to ensure that it generates added value for its shareholders. The Board of Directors also decides on the Group's key operating principles; confirms the company's annual operating plan, budget, annual financial statements, and interim reports; decides on major investments; confirms the company's ethical values and working method and follows up their implementation; appoints deputies to the President and CEO and the immediate subordinates to the president and CEO and decides on their remuneration; appoints the Corporate Executive Committee, which assists the President and CEO in the management of the Group; confirms the Group's organisational and operating structure at top management level; and defines the company's dividend policy.

The Board of Directors has appointed a remuneration committee, which discusses the Group's and the management's bonus and incentive systems. The committee consists of the non-executive members of the Board of Directors.

### *The tasks of the Chairman of the Board of Directors and the President and CEO, and division of responsibilities within the Board*

In addition to the above, the full-time Chairman of the Board of Directors carries out the tasks, rights and obligations mentioned in the Companies Act.

The Chairman of the Board is responsible for the development of the Group's shareholder value and manages investor

relations and contacts to shareholders. Together the Chairman of the Board and the President and CEO prepare matters relating to the Group's strategy, development of corporate structure, and cooperation projects.

The specific task of Jaakko Ihamuotila, honorary counsel, as a member of the Board is to develop the energy infrastructure within Fortum's business area.

### President and CEO, and Group management

The role of the President and CEO is to manage the Group's business and administration in accordance with the Companies Act and the instructions of the Board of Directors. The President and CEO is assisted by the following decision-making bodies: Corporate Executive Committee (CEC), Group Management Committee (GMC), and the investment committee. The President and CEO chairs the CEC, which is composed of the Chief Financial Officer and the heads of the Group's two main business sectors. The Corporate Executive Vice President, Legal Affairs, acts as secretary of the meetings of the CEC, which are generally held twice a month.

The President and CEO also chairs the GMC, which is composed of the members of the CEC and the Corporate Executive Vice Presidents responsible for strategic planning, communications, human resources, EHS affairs, internal auditing and international business operations, as well as of the heads of the Service and Engineering sectors. The corporate controller acts as secretary of the meetings of the GMC, which are generally held once a month.

The Chief Financial Officer chairs the investment committee, which assesses all major investments and prepares a statement on them to facilitate decision-making by the CEC and the Board of Directors. As a general rule, the investment committee convenes twice a month; additional meetings are held as and when necessary.

### The remuneration and shareholdings of the members of the Supervisory Board and the Board of Directors, and of the president and CEO

The salaries and remunerations paid to the members of the Supervisory Board and the Board of Directors, and to the President

and CEO in respect of 1999 totalled EUR 1 million.

The size of the performance bonus paid to the executive members of the Board and to the President and CEO, in addition to their salary and fringe benefits, is dependent on the Group's financial performance and success in reaching other goals. The bonus may not exceed 30% of the person's annual salary.

For more information on the scope and terms of the management stock option scheme, see page 75.

Fortum has not granted loans to the members of the Board.

### Supervision system

The Board of Directors shall be responsible for the proper supervision of the book-keeping and the control of the financial matters of the company. It shall be the duty of the Managing Director to see to it that the book-keeping of the company complies with the law and that the financial matters are being handled in a reliable manner. The Group management is responsible for ensuring that the Group's daily operations are in compliance with the applicable rules and regulations and with the Board of Directors' decisions. The fact that the Fortum Group is divided into sectors and further into performance units facilitates the implementation of an effective supervision system. We also employ an operational reporting system, which further improves financial supervision within the company. Fortum's reporting documents are all prepared in English.

The internal auditing function, which reports to Group management and the President and CEO, assures that we operate in an effective manner and in compliance with the relevant rules and regulations as well as with the Group's operating principles, and that risk management is arranged in the most effective way.

The accounts of Fortum Group companies are audited by PricewaterhouseCoopers and Arthur Andersen. As a rule, the accounts of the subgroup Fortum Power and Heat Oy are audited by SVH PricewaterhouseCoopers and the accounts of the subgroup Fortum Oil and Gas Oy by Arthur Andersen. Fortum Corporation's accounts are audited by SVH PricewaterhouseCoopers Oy, with Pekka Kaasalainen, authorised public accountant, as the auditor with the main responsibility; and by Arthur Andersen Oy, with Hannu Väns-

### The number of shares held by the members of the Supervisory Board and the Board of Directors, and by the President and CEO on 31 Dec. 1999:

	No. of shares	No. of stock options
<i>Jouko K. Leskinen</i>	1,591	
<i>Matti Vanhanen</i>	351	
<i>Krister Ahlström</i>	600	
<i>Jaakko Ihamuotila</i>	13,926	250
<i>L.J. Jouhki</i>	8,006	
<i>Heikki Marttinen</i>	11,370	350
<i>Heikki Pentti</i>	546	
<i>Matti Vuoria</i>	8,370	350

kä, authorised public accountant, as the auditor with the main responsibility.

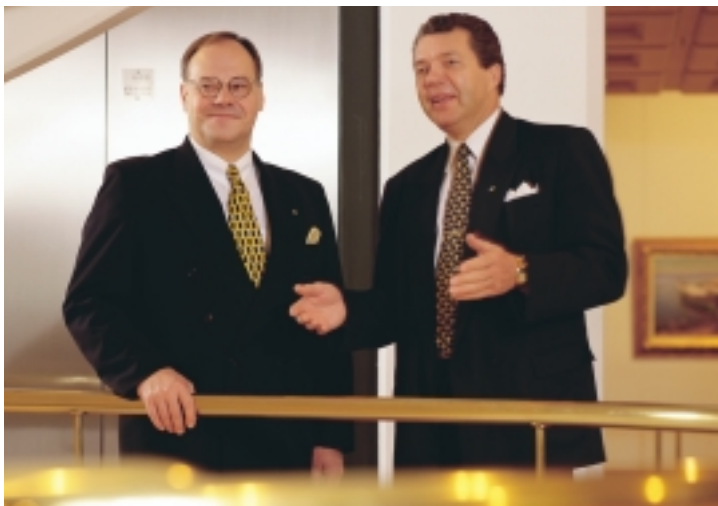
The auditors report their observations to the Board of Directors at least twice a year, and prepare a statutory statement to the shareholders on the annual accounts.

### Bonus and incentive systems

The management stock option scheme and a bond loan with warrants targeted at the personnel support the achievement of our long-term goals. For more details, see page 75.

An annual bonus and incentive system, designed to support the achievement of short-term goals, is employed throughout the Group. The criteria used in determining the size of the annual bonus, which may range between 20% and 30% of an employee's annual salary, is confirmed annually by the Board of Directors on the recommendation of the remuneration committee. The criteria on the basis of which the employees' progress in reaching their personal goals is recognised, are mutually agreed by the employee and his/her superior in an annual performance and appraisal discussion. The criteria are approved by the person to whom the superior reports.

The Fortum Personnel Fund (for Finnish employees only) pays profit-sharing bonuses to fund members with effect from 2000, but not to persons eligible for management stock options. The criteria for the bonuses are determined by the Board of Directors on the basis of the Group's annual results.



*Matti Vuoria and Heikki Marttinen*



*Heikki Pentti and L.J. Jouhki*

### Board of Directors

**Matti Vuoria**, born 1951, Master of Laws, Executive Chairman.

The Chairman, and the President and CEO together outline the Group's strategy and the development of its structure. The Chairman is responsible for building the Group's shareholder value, the company's investor relations, and contacts with the authorities. Mr Vuoria is a director of Danisco A/S, and Chairman of Solidium Oy.

**Krister Ahlström**, born 1940, MSc (Eng), Deputy Chairman.

Mr Ahlström is a director of a number of companies. He is Chairman of MNB Maizels Group and Deputy Chairman of Stora Enso Oyj. He is also Deputy Chairman of the Supervisory Board of Sampo Insurance Company plc, and a member of the Supervisory Board of Merita Bank Plc.

**Jaakko Ihamuotila**, born 1939, MSc (Eng), DTech hc, Executive Director.

Mr Ihamuotila is responsible for Group-level contacts with the European Union, issues which relate to the Northern dimension, and relations with Russia. Formerly Chairman and Chief Executive Officer of Neste, he is a director of a number of companies, including Finnair Oyj and Raisio Group plc. Mr Ihamuotila is also a member of the Supervisory Board of Merita Bank Plc.

**L.J. Jouhki**, born 1944, MSc (Econ), Non-Executive Director.

Mr Jouhki is Chairman of Thominvest Oy and Finnlines Plc and a director of a number of companies, including Oyj Hartwall Abp, Sanoma-WSOY Corporation and UPM-Kymmene Corporation. He is also a member of the Supervisory Board of Merita Bank Plc.





*Jaakko Ihamuotila and Erkki Virtanen*



*Krister Ahlström and Gerhard Wendt*

**Heikki Marttinen**, born 1946, MSc (Econ), President and Chief Executive Officer of Fortum Corporation until 10 March 2000. The President and CEO is responsible for the operational and strategic management of the Group, including the control of its subsidiaries. President and Chief Executive Officer is Chairman of Fortum Oil and Gas Oy, Fortum Power and Heat Oy, Fortum Service Oy and Fortum Engineering Ltd. Mr Marttinen was formerly Chief Executive Officer of Imatran Voima Oy. He is Chairman of the Supervisory Board of Varma-Sampo Mutual Pension Insurance Company, a member of the Supervisory Boards of Kemijoki Oy and Merita Bank Plc, and a director of Huhtamäki Van Leer Oyj and Lindström Oy.

**Heikki Pentti**, born 1946, BSc (Econ), Non-Executive Director.

Mr Pentti is Chairman of Lemminkäinen Oyj, member of the Supervisory Boards of Sampo Insurance Company Plc, Talentum Oyj and Merita Bank Plc, and a director of Myllykoski Corporation.

**Erkki Virtanen**, born 1950, MSc (Social Sciences), Secretary General of the Ministry of Trade and Industry, Non-Executive Director.

Mr Virtanen, formerly Budget Director of the Ministry of Finance, is Chairman of Patria Industries Oyj, and a director of Leonia Ltd and Sitra, Finnish National Fund for Research and Development.

**Gerhard Wendt**, born 1934, PhD, Non-Executive Director.

Mr Wendt is Chairman of Instrumentarium Corporation and Outokumpu Oyj and a director of a number of companies, including Kone Corporation, A. Ahlström Corporation, Assa-Abloy AB and Vaisala Corporation. Gerhard Wendt resigned from Fortum's Board of Directors on 21 November 1999, on the day he was 65.



*Veli-Matti Ropponen*

*Heikki Marttinen*

*Kalervo Nurmimäki*

*Tapio Kuula*

*Eero Aittola*

*Harri Pynnä*

### Corporate Executive Committee 10 March 2000

Corporate Executive Committee (CEC) assists the President and Chief Executive Officer in the execution of the Group's strategic and operative objectives. The Board of Directors appoints the members of the CEC, and in 1999 the CEC comprised:

**Heikki Marttinen**, born 1946, MSc (Econ), President and Chief Executive Officer, Chairman of the Corporate Executive Committee until 10 March 2000

**Eero Aittola**, born 1942, BSc (Econ), Corporate Executive Vice President, Chief Financial Officer, Deputy Chairman of the Corporate Executive Committee, President and Chief Executive Officer of Fortum Corporation from 10 March 2000

**Tapio Kuula**, born 1957, MSc (Eng), MSc (Econ), Sector Head, Power and Heat

**Veli-Matti Ropponen**, born 1949, MSc (Eng), BSc (Econ), Sector Head, Oil and Gas

**Kalervo Nurmimäki**, born 1937, MSc (Eng). Mr Nurmimäki was Corporate Executive Vice President, Power and Heat, until the end of 1999 and will retire on 30 April 2000.

**Harri Pynnä**, born 1956, Master of Laws, Corporate Executive Vice President, Legal Affairs, Secretary to the Corporate Executive Committee

### Group Management Committee (GMC) 10 March 2000

GMC is the co-operative body of Group management. The GMC members are under the direct supervision of the President and Chief Executive Officer.

**Heikki Marttinen**, President and Chief Executive Officer (Chairman) until 10 March 2000

**Eero Aittola**, Corporate Executive Vice President, Chief Financial Officer (Deputy Chairman)

**Kari Huopalahti**, Corporate Executive Vice President, International Business Development

**Pekka Leskelä**, Corporate Executive Vice President, Corporate Planning

**Tapio Kuula**, Sector Head, Power and Heat

**Kalervo Nurmimäki**, Corporate Executive Vice President, Fortum Power and Heat Oy

**Niilo Oksa**, Corporate Executive Vice President, Human Resources

**Anders Palmgren**, Sector Head, Engineering

**Päivi Pesola**, Corporate Executive Vice President, Internal Audit

**Harri Pynnä**, Corporate Executive Vice President, Legal Affairs

**Pekka Päätiläinen**, Sector Head, Service

**Veli-Matti Ropponen**, Sector Head, Oil and Gas

**Antti Ruuskanen**, Corporate Executive Vice President, Communications

**Carola Teir-Lehtinen**, Corporate Executive Vice President, Environment, Health and Safety (EHS)

**Jari Mäntylä**, Corporate Controller, Secretary to the GMC

## Performance Unit Heads

E & P, *Hans Kristian Rod*  
Natural Gas, *Tapio Harra*  
Oil Retail, Finland, *Matti Peitso*  
Oil Retail, Baltic Rim, *Kai Laurén*  
Refining and Wholesale, *Risto Rinne*  
Nynäs Petroleum, *Måns Collin*  
Lubrication, *Veli-Pekka Helander*  
Base Oils, *Ilkka Poranen*  
Components, *Risto Näsi*  
LPGas Supply and Trading, *Per-Erik Wallgren*  
LPGas Distribution, *Ingmar Dahlblom*  
Energy House, *Rauno Kallonen*  
Power Portfolio Management and Trading, *Timo Karttinen*  
Generation, *Jussi Helske*  
Birka Energi, *Tomas Bruce*  
Heat, *Risto Riekkö*  
P&H, UK and RoI, *John Deane*  
P&H, Continental Europe, *Eero Auranne*  
P&H, Emerging Markets, *Matti Kangas*  
Distribution, *Marjaana Monto*  
Länsivoima Distribution, *Tapio Lehtisalo*  
O&M Finland, *Tapio Kelo*  
O&M Scandinavia, *Esa Lecklin*  
Maintenance, *Jouko Latvakangas*  
O&M International, *Erkki Päivärinta*  
Power Plant Engineering, *Jorma Karppinen*  
Transmission Engineering, *Pekka Salo*  
Oil, Gas and Chemicals Engineering, *Kim Kronstedt*  
Fortum Data, *Kari Keskiivari*  
Fortum Support, *Eero Maijala*  
Technology, *Pekka Salminen*

## Supervisory board

*Ilkka-Christian Björklund*, born 1947, Licentiate of Social Sciences, Chairman  
*Ben Zyskowitz*, born 1954, Member of Parliament, Deputy Chairman  
*Pirkko Alitalo*, born 1949, MSc (Econ)  
*Tuija Brax*, born 1965, Member of Parliament  
*Kaarina Dromberg*, born 1942, Member of Parliament  
*Ulrika Gyllenberg*, born 1952, Special Researcher, VTT Technical Research Centre of Finland  
*Klaus Hellberg*, born 1945, Member of Parliament  
*Tytti Isohookana-Asunmaa*, born 1947, Member of Parliament  
*Ville Itälä*, born 1959, Member of Parliament  
*Timo Järvi-lahti*, born 1943, Member of Parliament  
*Timo Laaksonen*, born 1945, Member of Parliament  
*Kari Laitinen*, born 1950, Party Secretary  
*Jouko K. Leskinen*, born 1943, President and Chief Executive Officer, Sampo Group Ltd.  
*Leena Luhtanen*, born 1941, Member of Parliament  
*Pekka Tuomisto*, born 1940, Director General of Social Insurance Institution  
*Taisto Turunen*, born 1945, Director General, Energy Department, Ministry of Trade and Industry  
*Matti Vanhanen*, born 1955, Member of Parliament

In 1999, the following members resigned from the Supervisory Board, following membership in the Finnish Government:

*Satu Hassi*, born 1951, Member of Parliament  
*Kimmo Sasi*, born 1952, Member of Parliament  
*Erkki Tuomioja*, born 1946, Member of Parliament

## Employee representatives

*Tapio Lamminen*, workers  
*Timo Nyman*, managers and professionals  
*Pentti Paajanen*, workers  
*Eero Pollari*, technical professionals

## Banks and investment bankers following Fortum

At least the following banks and investment bankers follow Fortum as an investment:

### **Aktia Securities**

tel. int. +358 10 247 5000  
POB 977  
FIN-00101 Helsinki  
Finland

### **Alfred Berg Finland Oy**

tel. int. +358 9 228 321  
Kluuvikatu 3  
FIN-00100 Helsinki  
Finland

### **Aros Securities Oy**

tel. int. +358 9 173 371  
POB 786  
FIN-00101 Helsinki  
Finland

### **D. Carnegie Ab**

tel. int. +358 9 6187 1200  
Finland Branch  
Eteläesplanadi 12  
FIN-00130 Helsinki  
Finland

### **Conventum Securities Ltd**

tel. int. +358 9 549 9300  
Aleksanterinkatu 44  
FIN-00100 Helsinki  
Finland

### **Credit Suisse First Boston (Europe) Limited**

tel. int. +44 171 888 0864  
One Cabot Square  
London E14 4QJ  
UK

### **Den Danske Bank**

tel. int. +45 3344 0790  
2-12 Holmens Kanal  
DK-1092 Copenhagen K  
Denmark

### **Dresdner Kleinwort Benson**

tel. int. +44 171 623 8000  
POB 560  
London EC3P 3DB  
UK

### **Enskilda Securities AB**

tel. int. +358 9 6162 8900  
POB 599  
FIN-00101 Helsinki  
Finland

### **Evli Securities Plc**

tel. int. +358 9 476 690  
POB 1081  
FIN-00101 Helsinki  
Finland

### **Handelsbanken Markets**

tel. int. +358 10 44 411  
Investment Banking  
POB 315  
FIN-00131 Helsinki  
Finland

### **Leonia Bank plc**

tel. int. +358 204 2511  
Unioninkatu 22  
FIN-00007 Helsinki  
Finland

### **Mandatum Stockbrokers Ltd**

tel. int. +358 9 166 721  
POB 117  
FIN-00121 Helsinki  
Finland

### **Merita Securities Ltd**

Tel. +358 9 12341  
Fabianinkatu 29 B  
FIN-00020 MERITA  
Finland

### **Morgan Stanley Dean Witter & Co**

tel. int. +44 171 425 8000  
25 Cabot Square, Canary Wharf  
London E14 4QA  
UK

### **Opstock Investment Banking**

tel. int. +358 9 40 465  
POB 362  
FIN-00101 Helsinki  
Finland

### **Salomon Smith Barney**

tel. int. +44 171 721 3876  
Victoria Plaza  
111 Buckingham Palace Road  
London SW1W 0SB  
UK

### **Warburg Dillon Read**

tel. int. +44 171 567 8000  
2 Finsbury Avenue  
London EC2M 2PG  
UK





Keilaniemi, Espoo  
POB 1, FIN-00048 FORTUM, Finland  
[www.fortum.com](http://www.fortum.com)

Domicile Helsinki  
Trade Reg. No. 728.243  
VAT No. FI1463611-4