



1940-2000

*Working with nature*



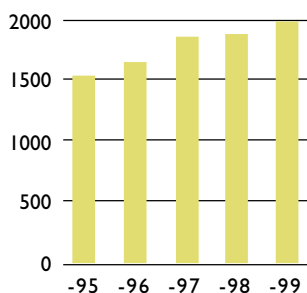
VAPO OY

ANNUAL REPORT 1999

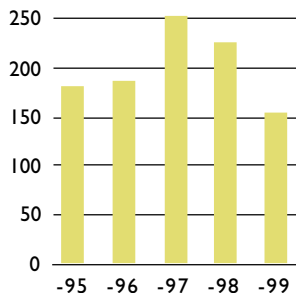
- Vapo Oy Energy
- Vapo Timber Oy
- Kekkilä Oyj
- Vapo Oy Biotech

# VAPO GROUP KEY FIGURES

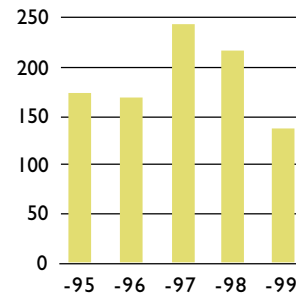
TURNOVER MFIM



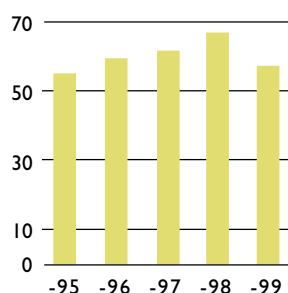
OPERATING PROFIT, MFIM



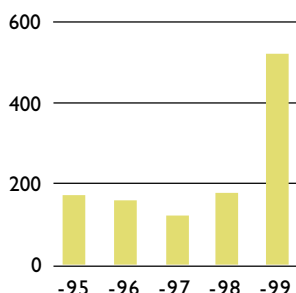
PROFIT BEFORE EXTRAORDINARY ITEMS, MFIM



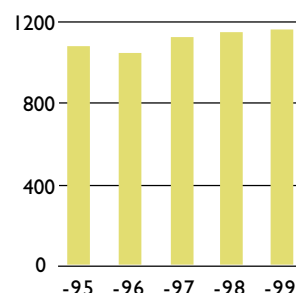
SOLVENCY RATIO, %



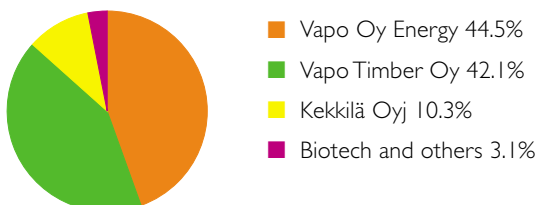
GROSS INVESTMENTS, MFIM



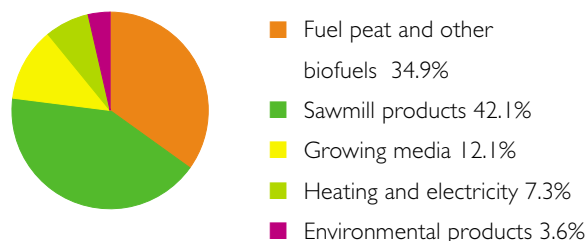
PERSONNEL



Turnover by business activity 1999, %



Turnover by main products 1999, %



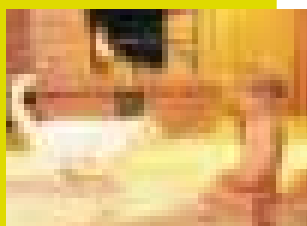
FIM million	1995	1996	1997	1998	1999
Turnover	1 535	1 645	1 861	1 879	1 981
Growth %	2.5	7.2	13.1	0.9	5.4
Operating profit	182	186	253	226	154
% of turnover	11.8	11.3	13.6	12.0	7.8
Net financial items	-9	-18	-9	-6	-16
Profit before extraordinary items	173	168	245	219	138
% of turnover	11.3	10.2	13.2	11.7	7.0
Taxes	59	48	76	62	43
Profit for financial period	106	119	168	159	90
Dividends distributed	36	36	57	75	57
Balance sheet total	2 090	2 107	2 239	2 215	2 591
Interest-bearing liabilities	510	487	387	299	654
Return on capital invested (ROI)%	13.2	11.9	15.6	13.7	8.4
Return on equity (ROE)%	10.5	10.4	13.4	11.4	6.6
Current ratio	2.19	2.02	2.37	2.73	2.3
Solvency ratio %	55.3	59.6	62.1	67.3	57.7
Gross investments	171	161	120	180	523
% of turnover	11.1	9.8	6.5	9.5	26.4
Average personnel	1 083	1 046	1 119	1 150	1 162
Per-share data					
Number of shares	30 000	30 000	30 000	30 000	30 000
Earnings / share, FIM	4 304.95	4 020.09	5 612.87	5 290.21	2 989.32
Shareholders' equity / share, FIM	36 233.36	38 814.46	43 199.14	46 586.35	47 063.66
Dividend / share	1 200.00	1 200.00	1 900.00	2 500.00	1 900.00
Dividend as % of earnings	27.9	29.9	33.9	47.3	63.6

Figures adjusted to eliminate internal transactions.

## VAPO GROUP

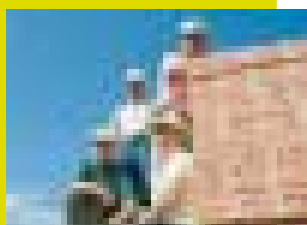
### VAPO OY ENERGY

Vapo Energy is Finland's biggest supplier of indigenous biofuels. In addition to fuel peat and wood fuels, Vapo produces heating and electricity, and generates wind power. Vapo Energy is also an important supplier of peat for environmental purposes. Vapo Oy is also the biggest producer of fuel peat in Sweden, where its wholly-owned sub-group Råsjö Torv AB and subsidiary Vapo Energi AB are both located.



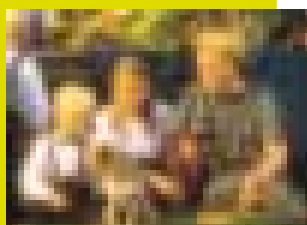
### VAPO TIMBER OY

Vapo Timber is a major sawmill operator in Finland. Its sawmills are located in Hankasalmi, Lieksa, Nurmes, Forssa, Paltamo and Ivalo. Their combined production capacity is 750 000 cubic metres, and 80% of total output is exported.



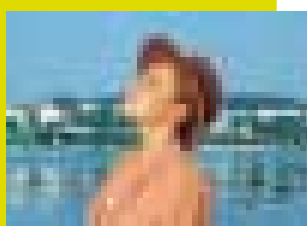
### KEKKILÄ OYJ

Kekkilä Oyj manufactures growing media and fertilizers for the Finnish and export markets. The Kekkilä group includes subsidiaries Hasselfors Garden AB in Sweden, Stenrøgel Mosebrug A/S in Denmark, Langham Oü and Niibi Turvas Oü in Estonia, and VapoGro Ltd in the UK. Kekkilä's shares are quoted on the Helsinki Stock Exchange.



### VAPO OY BIOTECH

Vapo Biotech's business consists of municipal waste handling, sludge treatment, and the marketing of air purification equipment. Biotech is Finland's leading supplier of composting plants. Vapo Biotech also includes Mustankorkea Oy, a joint venture between Vapo Oy and four municipal authorities, which is responsible for waste handling in the Jyväskylä region.



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## VAPO OY TURNS 60

The year 2000 witnesses the 60th anniversary of Vapo Oy's creation. Over the course of six decades the company has developed from a procurer and supplier of firewood into a diversified group with a turnover of FIM 2.3 billion and a personnel numbering over 1 300.

Vapo's activities started on 26.1.1940, when Finland's Council of State decreed that the procurement of firewood and timber for state institutions should be handled centrally by the Timber Office of the Board of Administration of Finnish State Railways, which was simultaneously expanded and placed under the control of the Ministry of National Supply. After many changes the Timber Office became the State Fuel Centre in 1968 and Vapo Oy on 1.1.1984. The abbreviation Vapo was used for the first time in 1945 and made official in 1963.

Initially the task was to procure firewood for state institutions as well as produce kindling and railway sleepers. Activity increased rapidly and procurement operations reached a peak at the end of the 1940s, when Vapo took acceptance of some eight million cubic metres of cordwood annually. At that time almost 30 000 employees, over 12 000 horses, more than 1 000 trucks, 30 tugs and 140 transport and residential barges were employed at Vapo's various sites.

In the 1950s and 1960s the importance of firewood diminished and that of sawmill activity grew. The use of portable circular saws was abandoned and production concentrated at a certain number of sawmilling locations. The reduction in sales of firewood was partly compensated by deliveries of

### 1940

**1940** Vapo established on January 26th

**1942** Vapo starts its own log-floating

**1945** First consignments of fuel peat delivered

**1945** Vapo abbreviation introduced

### 1950

**1954** Sawmilling begins in Mikkeli

**1955** Deliveries of fuel chips started

### 1960

**1962** Hankasalmi sawmill acquired

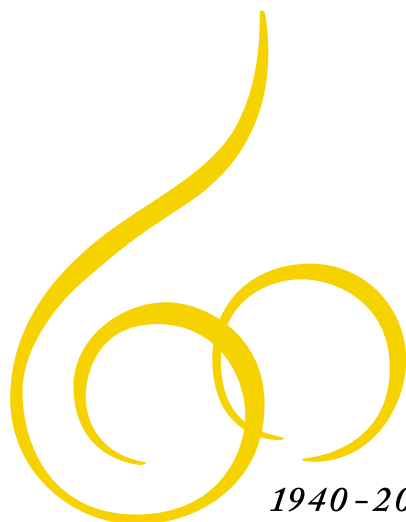
### 1970

**1970** Vapo begins peat production of its own

**1970** Production of horticultural peat begins

**1973** Head office moves from Helsinki to

**1976** Horticultural peat



1940-2000

wood chips. In addition Vapo became responsible for supplying coal, coke and heating oil to state institutions right up until 1984.

In 1970 Vapo started peat production of its own. This was accelerated by the oil crisis and moves to reduce the effects of the same by developing an alternative domestic fuel. In 1971 the Council of State gave Vapo the task of implementing a programme of expansion and development that would create an annual production capacity of 10 million cubic metres by 1980. The figure was subsequently raised to 20 million cubic metres. This target, too, was achieved but the use of peat has only risen in comparatively recent years to an annual level of 20 million cubic metres. In addition to fuel peat Vapo became a producer of horticultural and landscaping peat. In the mid-

1980s Vapo also started to produce heat.

In the 1990s Vapo Oy grew rapidly and developed into the present diversified group. Vapo's heat generation business got properly under way in the early 1990s. Vapo Oy Biotech was established in 1991 to handle the company's growing environmental business. In 1993 all Vapo's sawmills were reorganized to form Vapo Timber Oy, a subsidiary of Vapo Oy. In 1994 Vapo became the principal shareholder in Kekkilä Oy when Vapo's horticultural peat business and Kekkilä Oy were merged. At the end of the decade Vapo's production of heat and electricity increased at a fast pace and the company began production of fuel chips made from logging residue as well as wind power. ▽



1980

1990

2000

1984 Vapo purchases Paltamo sawmill

1993 Vapo purchases Nurmes sawmill

1998 Voimavasu Oy established

2000 Kekkilä Oyj acquires Hasselfors Garden AB.

1984 Vapo becomes Vapo Oy

1994 Merger of Kekkilä's and Vapo's horticultural peat business

2000 Vapo Oy acquires Råsjö Torv AB in Sweden

Jyväskylä Vapo purchases Kevätniemi sawmill 1985

First tunnel composting plant in Kitee 1996

1998 First three wind turbines completed

plants at Aitoneva and Haukineva

Vapo acquires Forssan Saha Oy 1997

1999 Vapo Oy purchases Forssan Energia Oy

Mustankorkea Oy commences operations 1997

1998 Production of fuel chips begins

### 60 YEARS OF WORKING WITH NATURE

Vapo celebrated its 60th Anniversary on 26 January 2000. It was originally established during the Winter War as the State Fuel Centre, which was intended as a temporary organization. Over the years it has grown and developed – thanks to the hard work and dedication of thousands of Vapo employees and contractors – into today's Vapo, a major industrial group operating in the peat and timber sectors. Vapo Oy Energy supplies around 80% of the fuel peat used at power stations and industrial plants in Finland, produces and sells heating and electrical energy from its own power plants, and is developing methods to procure and utilize wood fuels. Vapo Timber Oy is Finland's fourth largest sawmill operator; and Kekkilä Oyj is a significant supplier of growing media and fertilizers both in Finland and abroad. Vapo Oy Biotech has grown into an important supplier of air purification systems and waste processing plants. At the beginning of the current year, Vapo acquired Råsjö Torv AB, Sweden's biggest producer of fuel peat. At the same time Vapo's sub-group Kekkilä Oyj acquired Hasselfors Garden AB, which has a share of around one third of the Swedish horticultural peat markets.

Since the 1980s annual surveys have studied Finnish public opinion on the utilization of different fuels. Last year 76% of participants were in favour of increasing the use of peat or maintaining it at its existing level. Since the beginning of 1997 fuel peat utilization has decreased, however; as a result of the implementation of energy taxation policy decisions and the deregulation of the electricity market, and preliminary estimates indicate that fuel peat usage in 1999 was down by more than 18% from the 1996 level. Energy policy measures will no doubt once again be brought into line with public opinion, so that fuel peat usage returns to its former level and increases. This would also make it possible to increase utilization of wood as a fuel in existing power plants.

The potential for expanding the ownership basis of state-owned companies in Finland is currently the subject of public debate. In its capacity as Vapo's owner, the Finnish State is represented by the Minister of Trade and Industry, Erkki Tuomioja. He recently stated that in Vapo's case a change in the ownership basis is not under consideration; that energy is a nationally significant industry and it is important to



**Voimavasu Oy, which was jointly established by Vapo Oy, Sucros Oy and ABB Service Oy, began construction of a 33 MW power plant in Salo in 1999. The plant's 85 tonne combustion chamber was installed in December.**

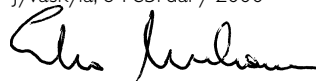
maintain a sufficient degree of Finnish control; and that in practice state ownership is the only sure way of keeping ownership in Finnish hands. He said that in his view peat will remain an important form of energy in Finland, regardless of the way its contribution to the carbon balance and greenhouse effect is evaluated, as peat is important in Finland from the viewpoints of regional and employment policy and of maintaining a sufficient level of indigenous fuel usage.

The targets that had been set for 1999 were not reached in the Vapo Group. The profitability of the energy business activities decreased as a result of the increased proportion of wood fuel and growth in electricity imports. Vapo Timber Oy's profitability declined in line with that of the Finnish sawn goods industry as a whole, as the prices received for sawn goods were not sufficient to cover increased raw timber costs. The outlook for sawmills in the current year is better, but a satisfactory level of profitability will only be achieved if there is a significant reduction in raw timber prices.

Vapo Oy Biotech has achieved a solid market position as a supplier of biofiltration-based air purification and other systems for environmental protection and, in particular, composting plants. Its order book is growing as a result of legislation imposing new waste processing obligations on municipal authorities. The Kekkilä group exceeded its targets due to systematic efforts to expand markets and boost operational efficiency.

Once again I would like to thank our customers and other partners for the encouragement and support they have given the Vapo Group. I would also like to thank our employees and contractors for their efforts during the year. The contributions made by these interest groups guarantee that Vapo will continue to develop in the years to come. ▼

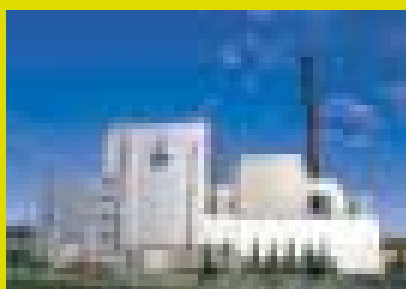
Jyväskylä, 8 February 2000

  
Esko Muhonen



- Vapo supplied 17.2 TWh of biofuels.
- Deliveries of wood-based fuels increased significantly.
- Three wind turbines were completed, bringing the total to six.
- Heat and power production increased substantially.
- Vapo Oy acquired Råsjö Torv AB of Sweden.

Vapo Oy acquired  
Forssan Energia Oy in June



## USE OF FUEL PEAT DECREASES

In 1999, Vapo Oy Energy's heating business expanded and deliveries of wood fuels increased, although deliveries of energy peat declined. The Division employed an average of 430 persons. In addition, production of peat and forest chips provided work for around 3 000 outside contractors and their employees.

The use of fuel peat in Finland declined in 1999, as in the two preceding years. Cheap imported electricity, increased nuclear power production and the low coal price reduced demand for electricity produced in condensing power plants from fuel peat. The exceptionally warm autumn also reduced the heating fuel requirement.

Deliveries of fuel peat by Vapo Oy Energy declined by 9.7% compared to 1998. On the other hand, deliveries of wood fuels increased by around 50%. In total Vapo Oy Energy supplied 17.2 terawatt hours of biofuels, peat and wood (18.5 TWh 1998), 7% less than the previous year. Vapo Oy Energy supplied a total of 1.45 million cubic metres of environmental peat (1.25 in 1998), an increase over the previous year of 16%.

The revision of energy taxation implemented in 1997 has not increased the use of domestic fuels in the way hoped for. In practice taxation has led to domestic fuels competing against

each other and peat being replaced with wood.

With the decline in deliveries of fuel peat, Vapo is having to tailor its production to suit demand. Job transfers, layoffs and retraining, both for Vapo's own employees and peat contractors, started in 1999 and will continue in 2000.

In terms of peat production, the summer of 1999 was reasonable. Vapo Oy Energy produced a total of 22.4 million cubic metres of peat (4.3). Milled fuel peat accounted for 19.3 (3.5), sod peat 1.5 (0.5) and environmental peat 1.5 (0.2) million cubic metres. Back-up stocks were at a good level after the summer:

Peat production went well in Southern and Central Finland, where the production targets were exceeded. In parts of South Savo, in Kainuu, in the northern parts of Oulu province and in Lapland the weather conditions were poor and the targets were not met.

In the beginning of 2000, Vapo Oy acquired Råsjö Torv AB, Sweden's largest





**Vapo's environmental peats increased their market share.  
Deliveries grew to 1.45 million cubic metres in 1999.**

supplier of peat. Råsjö's Hasselfors Garden unit was taken over by Kekkilä Oyj, with the remainder of the group becoming a subsidiary of Vapo Oy. Following the deal Vapo controls around 50 per cent of Sweden's deliveries of peat. In addition to Råsjö, Vapo has another Swedish subsidiary, Vapo Energi AB, which operates in northern Sweden.

Vapo Oy Energy's heat and power production went as planned and increased substantially. The largest single project was the acquisition of Forssan Energia Oy. In November three new wind turbines were taken into use at Vapon Tuulivoima Oy's Kuivaniemi wind park, bringing the total to six.

The doubling in wood fuel deliveries was overshadowed by the low price of wood fuel, which means that production of forest chips is viable only in the immediate vicinity of a power or heating plant.

In 1999 Vapo Oy Energy initiated a process review designed to improve customer service, revise operating

methods and work flows and to increase efficiency. The review resulted in a decrease in customer territories, redeployment of personnel and resources being directed at wood procurement and heat and power production. The process review will continue into 2000.

Deliveries of fuel peat are set to decline in 2000. New users of domestic biofuels will come on stream in the coming years if industry and municipalities implement their planned power plants. ▼



DIVISIONAL DIRECTOR SEPPO SANKIAHO

# Vapo Oy Energy

## COMMERCIAL PRODUCTION OF TERMINAL CHIPS STARTS



Consumption of wood fuels in Finland increased in 1999, and there is scope for consumption to

increase further. This, however, will require increased production of forest chips.

Vapo Oy Energy's solution to forest chip production is Vapo Terminal Chips, which are produced from logging residues, and commercial production of which began during the year under review. At the end of the year, 20 specially designed "HavuHukka" trailers for forest residues and around 10 chippers and crushers were in service. A nationwide network including 200 production terminals for forest chips was also in place.

As well as building up logistics, the quality of Terminal Chips was improved,

the aim being to produce chips with a maximum moisture content of 45% and an energy content above 2.8 MWh per tonne.

Awareness of Vapo Terminal Chips was raised by organizing "Space for the Forest" work demonstrations throughout Finland, with a total of 2500 forest owners coming to see logging residues being gathered.

Production and utilization of wood fuels by the Vapo Group in 1999 totalled 1.7 TWh (1.1 TWh 1998). Vapo Oy Energy produced 0.38 TWh of forest chips in 1999 (0.2 TWh 1998). At year-end Vapo's wood fuels were in use in over 70 locations.

Wood pellets took Vapo into a new area. Test production started in the autumn at the old peat briquette plant



in Ilomantsi. The aim is to export half the production, with the other half being utilized in Finland.

Co-operation with Räsjö Torv AB opens new possibilities. Vapo's new subsidiary produces peat and wood fuel in Sweden. ▼

**JAAKKO SILPOLA, PROJECT MANAGER**

## VOLUME OF HEAT BUSINESS MULTIPLIES



The restructuring in heat and electricity production continued.

New operators have entered the sector and many municipalities have withdrawn from or are in the process of withdrawing from heat and electricity production. At the same time industry has outsourced its energy production.

Vapo Oy Energy has concentrated on decentralized, small-scale energy production, utilizing local fuels, peat, wood and wind power. Vapo's strength is its expertise in biofuels and the related technology and its solid financial footing, enabling the necessary investments in

equipment. This strategy produced results in 1999, with the heat production of Vapo Oy Energy rising from 0.2 TWh the previous year to 0.7 TWh. Electricity production in 1999 was over 0.1 TWh.

The largest project was the acquisition of Forssan Energia Oy in June. The company's power plant, which utilizes wood, peat and refuse-derived fuels, makes a natural fit with Vapo's heat and electricity production. Forssa is also in a central location in south-west Finland for Vapo's wood fuel supplies and energy production.

Voimavasu Oy, an energy producer jointly owned by Vapo Oy, Sucros Oy and ABB Service Oy, commenced operations at the beginning of the year. The company produces energy for the

sugar refineries in Salo, Säkylä and Porkkala. In the spring, Voimavasu began construction of a power plant in Salo which will utilize peat, wood and refuse-derived fuels. The plant will be completed in autumn 2000.

Vapo Oy Energy concluded heat production contracts with Konnunsuo central prison, Kalso-Teollisuus Oy, which is part of the Schauman Wood Group, and Veljekset Keskinen Oy. At the end of 1999 Vapo was responsible for the operation of 19 heat and power plants either fully or with associate companies. Six of these were wind turbine plants.

In Tikkakoski, Vapo Oy Energy continued testing of its CMR heating plant. It was also decided to construct a 0.5 MW CMR boiler at Vapo's Alavus heating plant.

The outlook for 2000 is promising: the outsourcing of heat and power production is set to continue in municipalities and industry. Also, economy, ecology, locality and employability are reasons for increasing the utilization of domestic biofuels. ▼

**MARKKU MIETTINEN, DIRECTOR**



**In 1999, testing of the CMR heating plant, which utilizes sawdust as its fuel, progressed to the point where the Tikkakoski plant is ready for commercial service.**



**Vapon Tuulivoima Oy has six 750-kilowatt wind turbines at the Kuivaniemi wind park. A seventh turbine belongs to Kuiva-Turve Oy, which owns a 10 per cent stake in Vapon Tuulivoima Oy.**

### **WIND POWER FOR VAPO'S OWN USE AND DEDICATED CUSTOMERS**



**W**ind power is still a relatively new and evolving form of energy in Finland. The market continues to be limited and consumers are not yet basing their electricity purchases on environmental considerations.

Like peat and wood, wind power is a domestic and local form of energy, and thus makes a natural fit with Vapo's operations. During 1999 three new wind turbines were completed at Vapo's Kuivaniemi wind park, and agreement was reached with Santasalo Gears Oy, one of the world's leading producers of gears for wind turbines, which will use Vapo's new wind turbines to develop "intelligent" gears.

At the end of 1999 Vapon Tuulivoima Oy had six 750-kilowatt wind turbines, representing 10% of Finland's wind turbine capacity. Vapo Oy uses half of its annual production of around nine million kilowatt hours at its peat production sites, heating plants and premises throughout Finland. Part of the production is sold to Kuopion Energia and Kymppivoima Oy, who have their own dedicated turbines at the Kuivaniemi wind park. ▼

**MAUNO OKSANEN,  
MANAGING DIRECTOR  
VAPON TUULIVOIMA OY**

### **RÅSJÖ TORV AB IS THE MARKET LEADER IN SWEDEN**



**R**åsjö Torv AB is the largest supplier of energy peat in Sweden, and also produces and supplies wood fuels. The combined turnover of the Råsjö and Mebio groups in 1999 was SEK 333 million, and the operating profit SEK 28 million. The personnel total was 150.

In 1999 Råsjö Torv AB and its subsidiaries supplied a total of 1.8 million cubic meters of fuel peat. The companies' operating area extends to Umeå-Östersund in the north and Ljungby in the south. The group's market share in this area is 60-65%.

The prospects for 2000 are good.

The group has a loyal customer base and the availability of peat is guaranteed by long-term contracts. The subsidiary Mellansvenska Biobränsle AB was acquired at the beginning of 2000, and integrating its operations into the parent company will be an important project.

Råsjö Torv responded positively to its new role as an affiliate in the Vapo Group, which is expected to benefit both sides. Possibilities for co-operation exist in developing the production of both peat and wood fuels. ▼

**BERNT HEDLUND  
MANAGING DIRECTOR  
RÅSJÖ TORV AB**

### **VAPO INCREASES ITS MARKET SHARE IN ENVIRONMENTAL PEAT**



**T**he strong demand for environmental peat that began in 1998 continued into the spring of 1999. Competition intensified from the summer, with competitors reducing their prices in an attempt to regain market shares lost in the poor production summer of 1998.

Vapo Oy Energy was able to further increase its market share by offering its customers secure supplies and products of consistent quality. Awareness of environmental peats was raised by an advertising campaign accompanying the launch of Vapo's Environmental Peat brand. A total of 1.45 million cubic

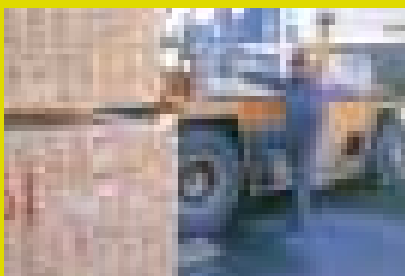
metres (1998: 1.25) of environmental peat was supplied.

Agriculture represents the most important user segment for environmental peat, with the increased importance of environmental considerations creating a market for the product. The structural changes in agriculture do not necessarily signal a downturn in demand, since as the number of holdings decreases individual units will grow in size and livestock numbers will remain constant. Further growth possibilities outside agriculture exist in slurry treatment, for example. ▼

**EERO KATAINEN, PRODUCT MANAGER**

- Profitability in the sawmill industry showed a decline.
- The price of whitewood sawn goods almost matched that of redwood towards year's end.
- Vapo Timber's sawmills produced and delivered a record amount.
- A new, modern sawing line was started up at Nurmes sawmill in August.
- Kevätniemi was the first sawmill in Finland to obtain a TTT certificate for occupational health and safety.

Sawn goods leaving Nurmes sawmill.



## RECORD DELIVERIES OF SAWN GOODS FROM VAPO TIMBER

In 1999 the Vapo Timber group recorded a turnover of FIM 843 million and an operating profit of FIM 36.9 million. Turnover remained at last year's level and operating profit fell by FIM 15.5 million. The Vapo Timber group employed an average of 430 people.

The Finnish sawmill industry experienced a decline in profitability in 1999. In Europe consumption ran at a high level throughout the year and sales to areas outside Europe showed an increase. The abundant supply of sawn goods and the rise in costs made it difficult, however, to produce good results.

The prices obtained for redwood remained even throughout 1999 and the hoped-for boost to the low price level did not materialize. In contrast the prices of whitewood started to rise during the second half of the year. Sufficient quantities of raw material were available at all times in 1999, but in Finland the price of whitewood logs in particular experienced a constant increase.

The use of the Euro as an invoicing currency has grown faster than expected, with a consequential fall in exchange rate risks and speculation. Strengthening of the Swedish currency contributed to shifting from the Swedish Crown to the Euro.

In 1999 Vapo Timber Oy's sawmills delivered 690 000 cubic metres of sawn goods and further processed products. The overall amount was an all-time record.

Exports of sawn goods came to

502 000 cubic metres, which was on a par with 1998. The average price obtained for exports also matched the 1998 level. 80% of the total value of deliveries was exported. Exports increased in particular to the UK, Spain, certain Arab countries and Japan. In Finland deliveries increased in terms of volume.

The Vapo Timber group's six sawmills produced 690 000 cubic metres, which also constituted a new record. Of the sawmills Hankasalmi managed to set a production record.

The technical development of Vapo Timber's sawmills proceeded according to long-term plan, with investments of FIM 50.5 million. The biggest single item was the renewal of the sawing line at Nurmes. In addition further drying capacity was built at Hankasalmi, while at Forssa the log sorting unit and processing line for value-added products were renewed.

In cooperation with the Toivakka-based company Anaika Timber Oy Vapo Timber established a joint enterprise named Anaika Components Ltd Oy, which will manufacture construction components chiefly for export to the German and Japanese markets. The



**From the control room operators Jarkko Korkalainen and Eero Häkkinen monitor the progress of logs on the new sawing line at Nurmes.**

company's production plant will be built in the vicinity of Kevätniemi sawmill and production is scheduled to begin in June 2000. Vapo Timber owns a 40% stake in Anaika Components.

The biggest investment projects for the year 2000 are renewal of the processing unit at Hankasalmi sawmill, construction of additional drying capacity at Nurmes sawmill and a series of improvements at Kevätniemi sawmill.

Construction of operating systems at Vapo Timber's sawmills continued in 1999. Kevätniemi sawmill was the first in Finland to be granted a TTT certificate for occupational health and safety according to BS 8800 standard. In combination with existing quality and environmental certificates the sawmill's operating system is extremely comprehensive. At Nurmes an ISO 14001 environmental system conforming to was completed and certified. The quality section of the operating system for Nurmes sawmill as well as a quality and environmental system for Forssa are currently under construction.

In 1999 there was progress in the forest certification issue which will involve the whole of the Finnish forest industry.

At the end of the year seven regions of Finland had signed up to the Finnish Forest Certification System (FFCS) and it is expected that the whole of the country will be covered by the national forest certificate in the course of 2000.

In the spring of 2000 Finland's application for approval of the national certification system will be dealt with as part of the Pan-European Forest Certification System (PEFC). This would give users of FFCS-certified raw material the right to use the PEFC stamp on their products as an aid to marketing.

It is forecast that in 2000 the consumption of sawn goods will continue at a high level in all our principal market areas. A slight increase in the prices obtained for sawn goods is also expected, with a consequent improvement in Vapo Timber's profitability to the level achieved in 1998. Markets may be adversely affected to some extent by winter storm damage in Central Europe, especially in France. Where quality sawn goods are concerned, however, the negative effects are likely to be minor.



**MANAGING DIRECTOR JUHA TUOMINEN**

- Sales growth in all Kekkilä's business areas and subsidiaries.
- Continued efforts to build the Kekkilä brand.
- Kekkilä expanded to Estonia and Sweden.
- Quality and environmental system completed.
- Kekkilä's web site launched in the spring.

**Kekkilä celebrated its 75th anniversary by arranging a grass statue competition in conjunction with Viherympäristöliitto ry, an environmental association. Landscape architect Sarianne Silberberg won the competition with her entry entitled 'Nunnuka'.**



## A YEAR OF GROWTH

In 1999 the Kekkilä group achieved a turnover of FIM 204 million and an operating profit of FIM 20 million. Turnover increased on the previous year by FIM 39 million and operating profit by FIM 9 million. Profitability showed improvement and both the solvency ratio and liquidity remained good. During the year under review the group employed an average of 151 persons.

During the spring of 1999 the gardening branch in Europe continued to suffer from the shortage of peat brought about by the record wet summer of 1998. Kekkilä's success was assisted by the fact that thanks to its own stockpiles and those of the parent company Vapo Oy it was able to guarantee deliveries to its partners and boost exports.

Kekkilä's exports from Finland rose 47%. Growth was the target in products and areas where Kekkilä was able to maintain its position: there was no attempt to achieve short-term gains. Exports to Spain, Italy, Denmark and the United Kingdom in particular moved ahead.

In the domestic professional growers market sales grew and exceeded the figure budgeted. Demand was boosted by a sunny year and especially by an increase in the production of winter cucumber. The changeover was made to a single Kekkilä brand for products in this sector, as was carried out previously for hobby gardening products.

In the hobby gardening market Kekkilä Oyj's sales growth was boosted

by two new products: one a potting soil optimized for growing summer flowers and the other, made from heat-treated non-water absorbent peat, intended for protecting plants against frost.

Deliveries of landscaping materials in the greater Helsinki area were up and Kekkilä's market share also grew. Demand was boosted by the construction boom in the capital region, the face-lift given to Helsinki's parks in honour of Finland's presidency of the European Union and landscaping and gardening work conducted in the Tuusula housing exhibition area.

In the United Kingdom the sales of Kekkilä's subsidiary Vapo Gro Ltd showed a 55% increase. Vapo Gro benefited from an exceptional competitive situation, since its competitors were handicapped by the poor quality of their raw material. The sales and market share of Kekkilä's Danish subsidiary Stenrøgel Mosebrug A/S showed an increase even though towards year's end demand was adversely affected by storm damage to greenhouses.



**The rapid growth in Kekkilä Oyj's exports presents a challenge for production, logistics and export personnel alike. Export personnel from Kekkilä and its subsidiaries are pictured here at the Eurajoki plant. From left to right: Hugh A. Fell, Timo Nieminen, Pauliina Karvala, Maarit Heino, Simon Ovenden, Ari Huunonen and Peter Söderback.**

The Estonian company Langham Oü and Niibi Túrvas Oü owned by it passed from the parent company Vapo Oy to Kekkilä Oyj in November. When Vapo Oy acquired Råsjö Torv AB of Sweden at the beginning of 2000, Kekkilä bought Hasselfors Garden AB, previously a part of the same concern. In Sweden Hasselfors Garden has concentrated in particular on the hobby gardening market, in which it has a market share of roughly 30%.

Kekkilä made other investments totalling FIM 2.8 million in value during the year under review. Of these the most important were replacement of the packing machine at the Eurajoki peat plant, construction of indoor storage facilities for flower potting soil in Parkano, a new IT system for the landscaping materials sector and an increase in the capacity of the mixing line in the United Kingdom.

During 1999 a quality and environmental system was constructed to cover Kekkilä's domestic operations. The introduction of the system as well as associated training will take place in the course of 2000. Kekkilä's new subsidiary Hasselfors

Garden has its own certificated quality system.

Kekkilä Oyj's business has been denominated in Euros since the beginning of 1999. The group decided to go over to the Euro immediately it became the official currency of economic and monetary union. The changeover to the Euro has proceeded smoothly.

During the year under review Kekkilä established its own web site. The Finnish-language version has been up and running at the address [www.kekkila.fi](http://www.kekkila.fi) since the spring and the English-language version was added in autumn 1999.

It is forecast that in 2000 the growth in the hobby gardening market will continue in Finland and Sweden. In the professional growers market price competition in Europe will tighten further with a consequent fall in relative profitability. Thanks to the company acquisitions made in Sweden and Estonia during 1999 we believe that results for 2000 will exceed those of the previous year.

**MANAGING DIRECTOR MATTI HILLI**



- Composting plants were completed in Rovaniemi and Mikkeli.
- Finland's largest composting plant will be built in Joutseno.
- Vapo Oy Biotech took an active part in the development of refuse-derived fuels.
- Vapo Oy Biotech supplied six biofilters.
- The operations of Mustankorkea Oy were concentrated at its waste processing centre.

**Mustankorkea Oy offered above-average services to its clients at prices below the national average.**



## VOLUME OF ORDERS STRENGTHENS

Vapo Oy Biotech's 1999 turnover, including internal deliveries, was FIM 38.6 million (1998: FIM 45.9 million). The volume of orders at year-end was good at over FIM 70 million. The average number of personnel was 28, of whom 10 were employed by Mustankorkea Oy.

In the sectors in which Vapo Oy Biotech operates, 1999 was a year of wait-and-see. Decisions on organic waste handling were postponed pending evaluation of experiences of existing composting plants. The market picked up towards the year-end, and several projects were in hand at the turn of the year.

There was a similar wait-and-see situation with fuel derived from dry waste. The main reason was the EU directive on the incineration of waste, where a final decision has not yet been reached. Because of this power plants have not been certain of what obligations will be placed on users of refuse-derived fuels and have not made decisions in this area.

The position of Vapo Oy Biotech as market leader in Finland in composting plants was strengthened. During 1999 tunnel composting plants were completed in Rovaniemi and Mikkeli and at the end of the year agreement was reached on construction of plants in Joutseno and Himanka. Further decisions on composting plants will be made in the coming

years since from the beginning of 2005 it will no longer be permitted to dispose of organic waste in landfill sites.

Marketing of tunnel composting plants continued in Sweden, where mixed waste is generally incinerated and separate collection of biowaste is only just beginning. However, several projects were pending in 1999, and it is anticipated that tenders will be issued for some of these during 2000. Co-operation with Råsjö Torv AB, which has joined the Vapo Group, opens new possibilities in Sweden.

During 1999 Vapo Oy Biotech invested resources in the development and use of refuse-derived fuels and took an active part in related research projects. The outlook for the market is promising as a decision on the directive on the incineration of waste is expected in the autumn. The challenge is to find a suitable method for converting dry waste into a fuel that can be used by power plants.

During the year under review, Vapo Oy Biotech supplied six biofilters, as in





**By the end of 1999 Vapo Oy Biotech had supplied nine tunnel composting plants, and orders had been placed for two plants.**

the previous year, and at the end of the year orders had been placed for three biofilters. In total, over 40 biofilters have been supplied.

As in previous years, a sludge treatment service was provided using two spin-dewatering units built on articulated trailers.

In December Vapo purchased the 50% share in the joint venture Vapo Wastech Ltd Oy owned by nv VAM of the Netherlands, and now owns the entire equity of the company. Following the acquisition, operations are now concentrated under the Vapo Oy Biotech name. The reason for the sale was the merger of VAM with Edon Group. The merged group, renamed Essent, decided to concentrate on operations in Belgium, the Netherlands and Germany and to shed its participations elsewhere.

The turnover of Mustankorkea Oy, a waste handling company in the Jyväskylä region, was FIM 18.9 million (FIM 15.7 million), an increase of 20% over the previous year. The

company's operations were concentrated at the Mustankorkea waste processing centre, where the level of service was improved further. The receipt of waste from the Mörkökorpi and Palokka landfill sites was discontinued during the year, and closure of these sites was begun.

Mustankorkea Oy has been able to offer above-average services to its clients at prices below the national average. ▼



HEAD OF UNIT KARI MUTKA

## Environmental Review

- We continued to build our quality and environmental systems.
- Vapo Oy's forests were granted Finnish FFCS certification.
- New information was gained on the return of birds, insects and butterflies to areas released from peat production.
- A new study was started into the environmental impacts of peat transport.
- Personnel were trained to recognize environmental impacts and to prevent harmful effects.

**Hannu Akkila sorting waste at the trimming plant at Nurmes sawmill. The sawmill's environmental system was certified in June 1999.**



## APPROACH TO ENVIRONMENTAL ISSUES DETERMINED BY ENVIRONMENTAL POLICY

Of the environmental issues relevant to Vapo, the position of peatlands and peat in Finland's carbon dioxide balance, the application of the international climate convention and the conservation of peatlands, forests and species were the important topics of 1999. Vapo Oy invested FIM 37 million in environmental protection.

In its environmental policy, Vapo Oy is committed to responsibility and a recognition of its own impacts over the entire life cycle. Our objective is to continually improve the management of environmental matters and to promote the principles of sustainable development in our own field. In order to implement these principles, environmental programmes and principles have been drawn up for the Divisions. Our operations and strategies also take into account our customers' environmental values.

Internal appraisals of operating systems help us to uphold the obligations incumbent on our operations and guide and assure the work we do. Development of the systems continued in 1999, when the environmental system of Vapo Timber Oy's Nurmes sawmill was completed and certified. A quality and environmental system was developed for the sawmill, processing unit and timber procurement of Forssan Saha Oy.

A quality and environmental system developed for the domestic operations

of Kekkilä Oyj was completed at the end of 1999. Introduction of the system and training will be implemented in 2000. Development of the environmental systems of the Eastern and Northern Finland Units of Vapo Oy Energy continued.

The climate impacts of peatlands and the renewability of peat were important subjects of debate on the environment for Vapo. To aid the climate debate, Vapo produced a report for its interest groups detailing the usage of peatlands and the proportion of drained peatlands in Vapo's peat production area.

In a number of neighbourhoods, the exploitation of new peatlands for peat production provoked a debate in 1999. Vapo participated in this debate and in each case attempted to find a solution acceptable to the various parties.

Active research and development work on environmental matters continued in co-operation with various research institutes and universities. A biodiversity study funded by the



**Vapo's bird sanctuary at Hirvineva, Liminka is under constant observation.**

Academy of Finland and Vapo Oy investigated the return of birds, insects and butterflies to areas released from peat production. The study was conducted by the Department of Biological and Environmental Science of the University of Jyväskylä. Other ongoing projects included monitoring of the Hirvineva bird sanctuary in Liminka, dust and noise studies and a survey of the effects on the soil characteristics of peatlands that are taken out of production. A new research project was a study of the environmental effects of transport.

Vapo analysed natural values when acquiring new peatlands and timber. This is demonstrated by the fact that Vapo Oy's own forests have been granted Finnish FFCS certification. The certification extends to Vapo Timber Oy and Forssan Saha Oy as purchasers of timber and as harvesters and transportation operators. In assessing the environmental impacts, we pay particular attention to the environmental expertise of consulting subcontractors.

Vapo Oy trained its own staff and contractors to recognize environmental impacts and to prevent harmful effects. In line with our environmental policy, staff and contractors were also involved in communication activities. It was important that staff and contractors should communicate responsibly with their own interest groups on the environmental impacts of our operations and products. Communications with schools and students were also made more effective. ▼



**ENVIRONMENTAL MANAGER  
PIRKKO SELIN**

# Environmental Review

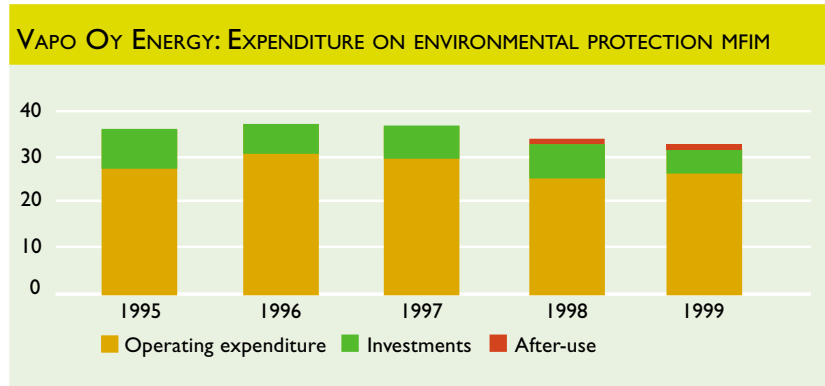
## ENVIRONMENTAL PROTECTION EXPENDITURE EXCEEDS FIM 37 MILLION

The environmental protection expenditure of the Vapo Group in Finland in 1999 totalled FIM 37.2 million (1998: FIM 42.1 million).

Vapo Oy Energy spent FIM 32.8 million on environmental protection (FIM 34 million). Of this total, environmental investments accounted for FIM 4.6 million (FIM 6.8 million).

The investments centred on increasing the efficiency of watercourse protection in peat production and on reducing problems of dust. Environmental protection work has increasingly become the responsibility of the contractor. Expenditure on the after-use of sites released from peat production amounted to FIM 0.5 million. Vapo Oy Energy's environmental protection expenditure amounted to 3.6% of turnover (4%).

Vapo Timber Oy spent FIM 0.7 million on environmental protection (FIM 2.9 million), representing 0.1%



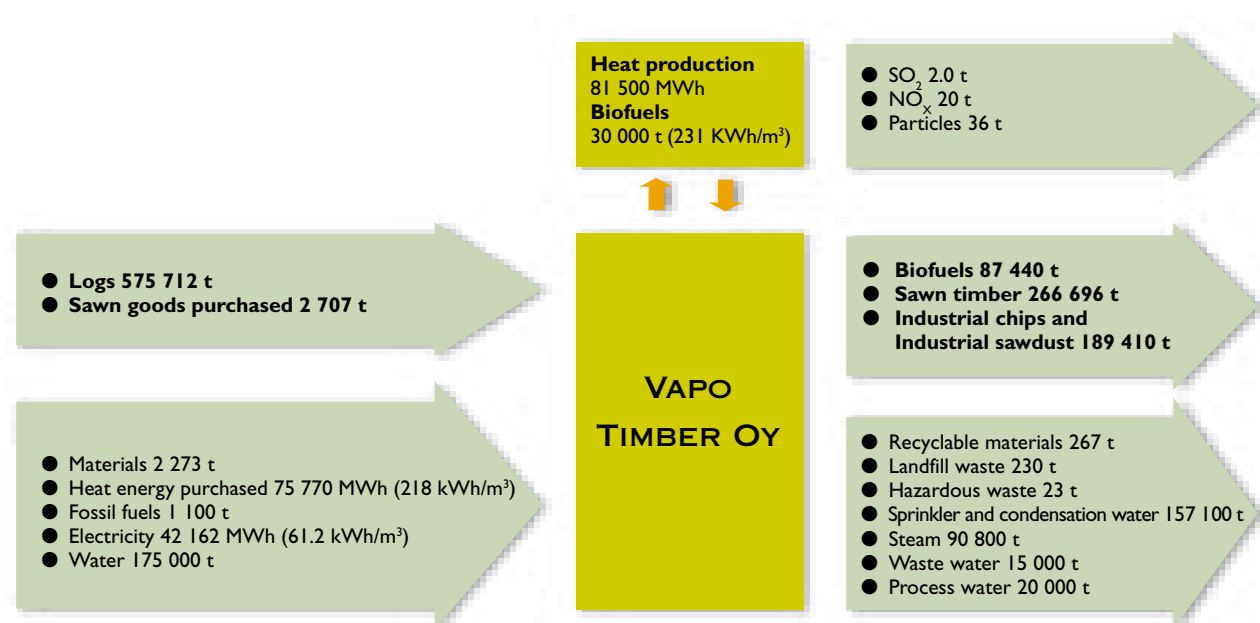
of turnover. This total does not include the costs of fire protection. Most of the costs accrued from the development of environmental systems, improvement of waste management and monitoring-related work.

Kekkilä's environmental protection expenditure amounted to FIM 0.3 million (FIM 1.17 million), representing 0.13% of turnover (1.4%). The bulk of the costs resulted from the

preparation of environmental systems and the improvement of waste management.

The environmental protection expenditure of Vapo Oy Biotech, VAM Vapo Wastech Ltd and Mustankorkea Oy totalled FIM 1.5 million (FIM 3.2 million). Most of the costs related to investments in the after-use of landfill sites and the treatment of seepage water. ▼

## ENVIRONMENTAL IMPACTS OF VAPO TIMBER'S PRODUCTION



In 1999 Vapo Timber undertook a survey of the main environmental impacts of its activities for the third time. The results are summarized in the above diagram, with the main material flows shown as tonnes of dry matter.

The results will be utilized in work to identify the environmental

impacts of the company's sawn goods production and in the planning of new environmental objectives. The data will also be used in environmental studies and life cycle analyses of Finnish sawn goods being undertaken on a nationwide basis.

## EXPLOITATION OF PEAT RESOURCES AT A SUSTAINABLE LEVEL

The sustainable limit of the exploitation of energy peat in Finland is 37 terawatt hours (TWh). From the point of view of the regeneration and adequacy of peat resources the current utilization of peat is on a healthy footing: more peat is being formed than is being used. In 1996–1999 the energy utilization of peat in Finland has been 21–23 TWh.

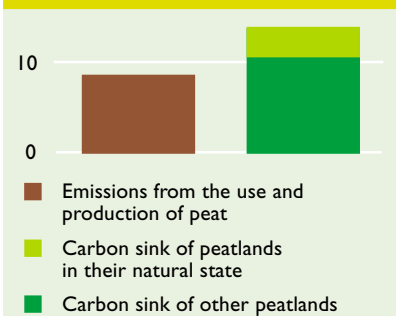
In practice the sustainable energy utilization of peat is below 37 TWh per annum because some of the peat resources suitable for industrial production are in conservation areas and are thus inaccessible to industrial use. Moreover, the conservation of species and biotopes and other environmental demands constrain the utilization of peatlands.

When peat production has ceased, the beds of the peatlands become yet more efficient carbon sinks when they are afforested, paludified or used for special cultivation purposes. Cut-away areas where vegetation has been re-established sequester around eight times as much carbon dioxide from the atmosphere as old bogs with thick layers of peat.

Cut-away areas also count as carbon sinks under the Kyoto Protocol and can thus help Finland to reduce its carbon dioxide emissions to the agreed 1990 level by 2010. By then the carbon sequestration of cut-away areas is estimated to be 0.2 million tonnes of carbon dioxide.

Over the years the importance of cut-away areas as carbon sinks will grow as more are released from peat production. By 2050 the carbon sequestration of cut-away areas is forecast to be 0.8–1.0 million tonnes and by 2090 1.4–1.8 million tonnes of carbon dioxide per year.

### CARBON DIOXIDE BINDING BY PEATLANDS (CO<sub>2</sub> M TONNES/YEAR)



## SOIL DECONTAMINATION AT PUROLA COMPLETED

The clean-up operation at the Purola timber impregnation area was completed in 1999. In total around 5000 cubic metres of contaminated soil were taken to Haapajärvi municipal landfill site for environmentally secure storage. Soil analyses were also conducted at other disused premises. ▼

## ENVIRONMENTAL AWARD FOR JUHANI LAPPALAINEN

Vapo's Board of Directors presented the 1999 Environmental Award to Juhani Lappalainen, who is a peat production contractor in Vapo Oy Energy's Eastern Finland Business Unit at Kaikonsuo, Kiuruvesi. Lappalainen has been involved in development work on peat production machinery for several years, test-driving and checking equipment under development in conjunction with his production work. He made a significant contribution to the development of a low-dust pneumatic harvester; for instance. ▼



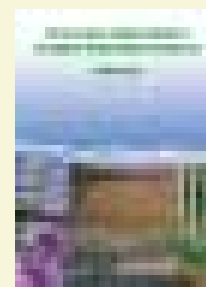
Juhani Lappalainen

## KEKKILÄ OYJ ASSESSES THE STATE OF ITS PEATLANDS

In autumn 1999 Kekkilä Oyj commissioned a survey of the state of its seven peat sites to assess their water and environmental conservation level. The data of the study, performed by Vapo Oy Energy, will be used to improve environmental protection. ▼

## NEW DATA ON PEAT PRODUCTION

In November 1999 new data was acquired on the industrial exploitation of peat, the after-use of cut-away areas released from peat production and the significance of the utilization of peat resources from the point of view of the greenhouse effect. This can be found in a doctoral thesis entitled "Industrial use of peatlands and the re-use of cut-away areas in Finland" by Vapo Oy's Environmental Manager, Pirkko Selin. The interview section of the thesis also examines the views of peatland owners, water authorities, nature conservationists and peat production supervisors on peat production and the after-use of cut-away areas. ▼



## ENVIRONMENTAL PANEL FOR VAPO OY ENERGY

In the autumn of 1999 Vapo Oy Energy's environmental panel was established to consider environmental issues related to peat energy. The panel will discuss research needs in the environmental sphere and also direct research. The environmental panel is made up of representatives of fuel peat users, public authorities and other interest groups. ▼

## ENVIRONMENTAL INFORMATION FOR CONTRACTORS

In 1999 contractors responsible for the production of Vapo's Terminal Chips were trained to take the diversity of the forest environment into account in line with the environmental guidelines for timber procurement and to pay attention to waste management. In order to avoid oil spills all mechanical units working in wood fuel production are equipped with absorbent peat. During the year the noise impacts of chipping were also investigated and a study was launched into the dust effects during handling and storage of wood fuel. VTT Energy and the Universities of Jyväskylä and Kuopio are co-operating in the project. ▼

# Environmental Review

## NUMBER OF ON-GOING ENVIRONMENTAL IMPACT ASSESSMENTS GROWS

In 1999 Vapo submitted 12 new water drainage permits for peat production sites. The company also applied for a revision of the conditions of two existing permits and an extension of two temporary permits and applied for one environmental permit. The Water Rights Courts issued decisions on 19 new permits or the revision of the conditions of existing permits. By the end of 1999 Vapo had been granted a total of 86 water permits and 33 permit applications were pending in the Water Rights Courts.

During 1999 Vapo Oy Energy was involved in four new environmental impact assessments (EIA): the Peuralamminneva site in Kyyjärvi, the Rahkaneva site in Vimpeli, the Nanhiansuo and Vittasuo sites in Huittinen and the Järvelsuo site in Kärkölä. The environmental impact assessments started in 1998 for the Jauhoneva and Julkuneva sites in Veteli were completed.

In addition Vapo Oy undertook 33 voluntary environmental surveys focusing in particular on the vegetation and bird life at new production sites. The surveys are designed to form the basis of planning work.

From the beginning of April 1999

the legislation relating to the processing of EIAs changed such that the EIA procedure applies to all peat areas over 150 hectares. A legislative amendment concerning environmental permits was also pending, and the progress of this amendment was monitored. ▼

### VAPO OY'S WATER PERMIT APPLICATIONS AND EIAs

Year	1994	1995	1996	1997	1998	1999
Submitted to Water Rights Court	10	15	13	6	11	17
Resolved by Water Rights Court	14	16	12	17	13	19
Resolved by Water Rights Appeal Court	12	10	13	5	7	9
Resolved by Supreme Administrative Court	1	1	1	1	5	-
EIA procedures initiated	-	-	-	2	2	4
EIA procedures concluded	-	-	-	1	3	2

## AINO TURPEINEN, DIRECTOR OF THE NORTHERN FINLAND WATER RIGHTS COURT

### “WATER PERMIT APPLICATIONS FOR PEAT PRODUCTION OF A HIGH STANDARD”



**Judge Aino Turpeinen.**

Processing water permits for peat production is one of the jobs of Finland's three Water Rights Courts. The Director of the Northern Finland Water Rights Court, Judge Aino Turpeinen, says that in recent decades peat production-related matters have become an

important part of the work of the Northern Finland Water Rights Court.

“The number of peat production matters in hand naturally varies each year, as does the amount of work required by an individual permit application. Peat production matters are particularly arduous and time-consuming when compensation claims for so-called old damages are involved. In some cases the processing time is affected by an evaluation of whether an environmental impact assessment (EIA) is needed.”

Water permits allow the drainage water from the site to be piped into a watercourse and also specify the water treatment method. The permit also specifies the peat producer's maintenance and monitoring obligations and any obligations to implement specific measures or provide compensation. The time required for processing permit applications at the Oulu Water Rights Court is several months or more.

“Apart from inspections, our average processing time has been six to seven months for some time now. The processing times for inspections have

been considerably longer than that. Inspections are required for large projects or project clusters. It is studying the complications of a project and assessing the detriments that take time. Inspections are the responsibility of the Environmental Centres and the Water Rights Courts can exert very little influence on their progress,” Turpeinen says.

Turpeinen is appreciative of water permit applications for peat production. “Nowadays they are of a high standard. Nonetheless more attention could be paid to ensure that the real estate ownership details are up to date.”

1999 was the last full year of operation of the Water Rights Courts. A new environmental conservation law comes into force in the beginning of March 2000, and the Water Rights Courts will become Environmental Permit Offices. Turpeinen says that this will affect the content of permit applications.

“The definitive effects will only become evident over time. However, as far as peat production is concerned, dust, noise and waste issues are bound to figure.” ▼

## WATERCOURSE LOAD FROM PEAT PRODUCTION RETURNS TO NORMAL LEVEL

In 1999 the watercourse load caused by Vapo Oy Energy's peat production returned to normal after the exceptional year in 1998. The persistent heavy rain in that year increased the load from fields and the ground even though the additional load from production was minor and the watercourse protection structures functioned normally.

The rainfall in 1999, at 584 millimetres, was at the long-term average level, indeed the annual precipitation was 135 mm less than in 1998. This is equivalent to almost three months' rainfall.

As in previous years, the watercourse load from peat production was measured by means of obligatory monitoring at a total of 86 points. Of these monitoring points, 15 are in use all year round. Flow measurements were largely made with

automatic and continuous instruments.

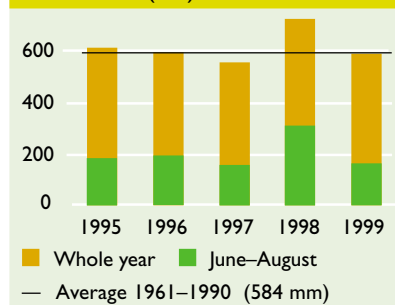
The load monitoring data were used to calculate the suspended solid, nitrogen and phosphorous load on watercourses from all of Vapo Oy's peat production areas. During the year 1,400 load monitoring samples were taken, and 9 500 analyses were performed on them. In addition studies were conducted on the watercourse load in the after-use phase and at mass transfer sites.

At the end of September Vapo Oy Energy concluded Finland's largest single peat production monitoring contract with Pohjanmaan Tutkimuspalvelu Oy. The contract covers monitoring of loads and watercourses at the approximately 31 000 hectares of peat production areas in the province of Western Finland.

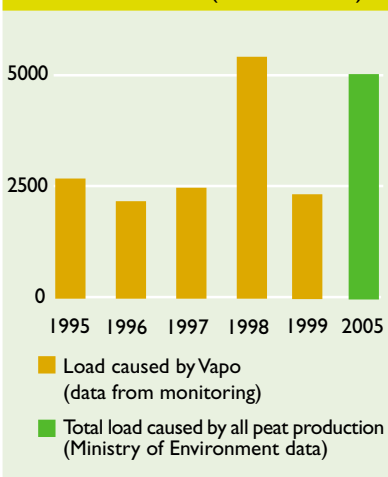
When analysing data on water-

course loading caused by peat production it should be borne in mind that the use of peat as agricultural bedding or litter and composting material has a favourable impact on overall emissions of phosphorous and nitrogen. In 1999 Vapo Oy sold some 600 000 cubic metres of absorbent and agricultural peat. In fact this quantity of peat binds more diffuse loads of phosphorous and nitrogen than the load caused by Vapo Oy's peat production. ▼

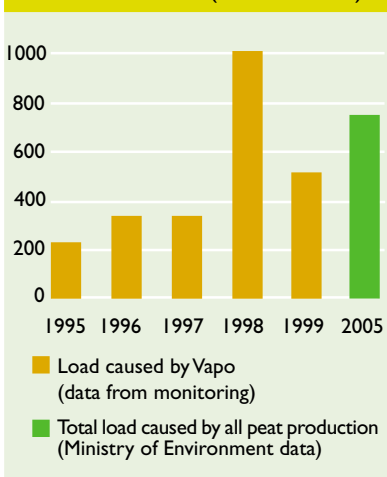
### AVERAGE ANNUAL RAINFALL IN FINLAND (MM)



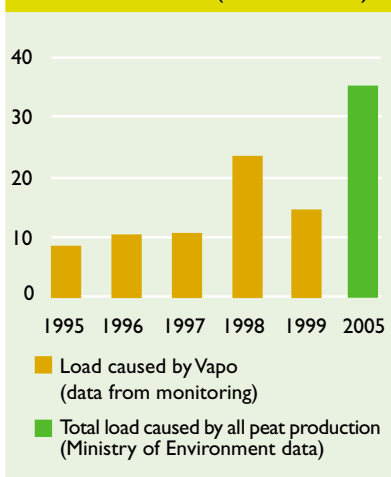
### SUSPENDED SOLIDS LOAD FROM PEAT PRODUCTION (TONNES/YEAR)



### NITROGEN LOAD FROM PEAT PRODUCTION (TONNES/YEAR)



### PHOSPHOROUS LOAD FROM PEAT PRODUCTION (TONNES/YEAR)



## ALL CUT-AWAY AREAS CAN BE UTILIZED

Industrial peat production lasts 15–20 years at the same bog. Thereafter a clean cut-away area remains which can be used for many purposes and is free from pollutants or fertilizer residues.

All cut-away areas released from peat production can be utilized in an environmentally sound way. Depending on the area, cut-away peatlands can be afforested, turned into fields, returned to

the wetland state, used for cultivating special plants or turned into bird sanctuaries. The subsoil and the water economy below the peat layer are decisive in determining the use to which the area is put. Thus far the most common form of after-use has been afforestation.

In 1999, 559 hectares of cut-away areas were released from peat production. By 2010, 40 000–45 000

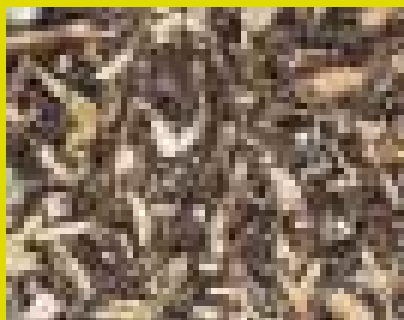
hectares of cut-away fields will be released for other uses.

Most of Vapo's peat production is on rented land. In these cases it is the land-owners who decide the type of after-use, possibly using Vapo's knowledge on the various possibilities to support their decision. Vapo is responsible for managing the after-use of its own areas and for handing over rented areas after production has ceased in a tidy state and in accordance with the terms of the rental agreement. ▼

## Research and Development

- Research into refuse-derived fuels was stepped up.
- The Peat 2000 programme and a study into the life cycle of wood fuels were started.
- The forest chip sub-soil drainage programme and research into the effect of wood fuels on the carbon dioxide emissions of power plants were completed.
- A life cycle analysis is being carried out into wood fuels.
- The work of the laboratory was facilitated with the acquisition of specialized equipment and upgraded premises.

Research and analyses of wood fuels represented a growing part of the work of the Research Department.



## RESEARCH CENTRES ON WOOD-BASED AND REFUSE-DERIVED FUELS

In 1999 Vapo invested considerable resources in developing wood-based and refuse-derived fuels. This was reflected in increased research into these areas in Vapo's Research Department. International operations were dominated by efforts to obtain classification for peat as a biofuel, in which the Research Department was actively involved. The Department employed an average of 21 persons.

As yet refuse-derived fuels are not used on a large scale in Finland, but there is active research into the area. In 1999 Vapo's Research Department was involved in several research projects in the field.

The ability to produce refuse-derived fuels that are consistent in quality and acceptable to power plants has emerged as a key issue. Problems are caused by chlorine and some metals, especially aluminium and alkalis. Gasification has proved to be a promising solution. Gasification is used to produce gas from refuse as a fuel for power plants.

Peat 2000, a multiannual project related to peat production, started in autumn 1999 in collaboration with VTT Energy. The aim of the programme is to improve the competitiveness of peat and to introduce more natural methods of peat production.

An analysis of the life cycle of wood fuels was begun with VTT Chemical Technology. The methods are the same as in the life cycle analysis of peat

completed in 1997, so the results will be mutually comparable.

The forest chip sub-soil drainage programme was completed. The programme sought to find methods to improve the logistics of peat production areas by developing sub-soil drainage. The findings showed that with the right sub-soil drainage the distances driven by machines can be reduced and shortened. The drying of the peatland is also improved and the run-off water is cleaner. The project was carried out in co-operation with VTT Energy.

A comparison of the effect of the amount of wood fuels on the sulphur dioxide emissions of peat-fired power plants was also completed. The study showed that by combining wood with the fuel sulphur dioxide emissions can be reduced. Thus wood fuels can replace the use of calcium.

A project started in 1995 for producing "bio oil" or pyrolysis oil continued. In 1999 research was carried out into the production of pyrolysis oil





**Virpi Käyhkö and Tero Pussinen of Vapo Oy Energy's Northern Finland unit taking samples at Kuuhkamonneva, Vihanti for analysis in Vapo Oy's laboratory.**

from logging residues.

In tunnel composting the Research Department concentrated particularly on improving the composting of bio-waste. Product development of biofilters continued, for example with research into new filling material for the filters.

The work to obtain classification for peat as a biofuel continued in 1999. Vapo Oy's Research Department participated in this effort, gathering and supplying information on the subject to decision-makers.

Vapo Oy's laboratory, which forms part of the Research Department, produced data and analytical services for all the units in the Vapo Group. In 1999 the significance of compost-related and wood fuel analyses increased. The laboratory's work was substantially facilitated by the procurement of specialized equipment and the construction of premises for analysing compost samples.

In addition to the analytical services provided to the Group, the laboratory

was involved in joint projects both in Finland and internationally. One international project was to develop CEN standards for growing media, which was almost completed during the year under review. The work in this area was carried out in conjunction with Kekkilä Oyj. Of the domestic projects, SFS standardization of the quality of recovered fuels continued. This project is led by the General Industry Association (YTL). ▼



**R&D DIRECTOR TIMO NYRÖNEN**

## Personnel

- Agreement was reached at Vapo Oy on the principles for maintaining and improving the working capacity of its personnel.
- An average of FIM 3 059 per employee was invested in training.
- Education of trainers continued at Vapo Oy Energy.
- The training programme for supervisors at Kekkilä Oyj was completed.
- Agreement was reached on the Group's common personnel parameters.

**In 1999, an average of five days of training were provided per person.**



## VAPO SETS OUT ITS PRINCIPLES FOR PROMOTING WORKING CAPACITY

In 1999 Vapo invested FIM 3.3 million in personnel training. An average of five training days were provided per worker, which was above the industry average. During the year particular attention was paid to staff working capacity.

In 1999 Vapo Oy reached agreement on principles for maintaining and improving the working capacity of its personnel. These principles, which were formulated with the divisional representatives, include working capacity targets and areas of emphasis.

Vapo's working capacity targets are the promotion of mental and physical well-being, the fostering of a spirit of co-operation and enjoyment in work, the acquisition of new knowledge, the productivity of work and reaching pensionable age in good health.

The areas of emphasis defined for maintaining and developing working capacity are support for the well-being of the working community, support for individual physical and mental wellness, coping with the physical and mental exertion of work and occupational health provision and co-operation.

The principles will be applied in the Divisions and operating locations of the Vapo Group, taking the particular circumstances into account. It is essential

that personnel themselves participate in improving their work and working environment and aim at good working capacity and productivity.

In 1998 Vapo updated its shared values. One way in which progress has been made in putting these values into practice is to discuss them at large staff gatherings. The working capacity principles are also based on Vapo's values.

In 1999 an average of five days of training were provided per person. This is more than the industry average of 4.3 days in 1998, which is the latest available figure. An average of FIM 3 059 per employee was spent on training.

Most training was vocational and systems-related IT training. A large individual training project was Vapo Oy Energy's training programme for all personnel groups, which began in 1997. The programme includes quality management, participatory meeting practice and supervisor and trainer exercises. Improved working capacity

has been part of this training from the very beginning.

The personnel at the Nurmes and Forssa sawmills of Vapo Timber Oy received training in setting up environmental and quality systems. At the Kevätniemi sawmill an occupational health and safety scheme was included as part of the operational system. The scheme was awarded a certificate on 18 January 2000. A training programme for supervisors at Kekkilä Oyj that started the previous year was completed.

In 1999 parameters were agreed upon for personnel throughout the Group. Working motivation, expertise, productivity and occupational health and safety are key issues. In future the parameters will make it possible to monitor these personnel-related success factors and channel development resources to the right sector. ▼

**DIRECTOR OF  
HUMAN RESOURCES DEVELOPMENT  
EERO MÄNTYLÄ**



**EMPLOYEE PARTICIPATION  
(EP) COMMITTEE MEMBERS  
1.7.1997–30.6.1999 and  
1.7.1999–30.6.2001**

**1997–1999                      1999–2001**

**Salaried peat industry personnel**

Ilpo Vuorela                      Hannu Laukkanen  
(Lauri Korkeala)                      (Ilpo Vuorela)

**Peat industry workers**

Teuvo Penttinen                      Teuvo Penttinen  
(Ilpo Viinamäki)                      (Ilpo Viinamäki)  
Riku Hakala                      Riku Hakala  
(Kauko Korhonen)                      (Kauko Korhonen)

**Sawmill workers**

Juhani Nevalainen                      Juhani Nevalainen  
(Juha Palokas)                      (Esko Leinonen)  
Erkki Flink                      Erkki Flink  
(Markku Salonen)                      (Markku Salonen)

**Forestry workers**

Hannu Turpeinen                      Hannu Turpeinen  
(Eetu Karjalainen)                      (Eetu Karjalainen)

**Salaried forestry personnel**

Heikki Miettinen                      Heikki Miettinen  
(Paavo Kivimäki)                      (Paavo Kivimäki)

**Sawmill supervisors**

Juha Castrén                      Jussi Kiljunen  
(Veikko Manninen)                      (Markku Torvinen)

**Salaried office personnel**

Arja Koponen                      Maija Rintala  
(Kirsi Pennanen)                      (Kirsi Pennanen)  
Merja Katajasalo                      Marja Meriläinen  
(Rauni Levola)                      (Ilona Kilpala)

**Senior salaried personnel**

Ilkka Ilmavirta                      Ilkka Ilmavirta  
(Tenho Ruuska)                      (Tenho Ruuska)

**EMPLOYEE REPRESENTATIVES  
ON IN-HOUSE MAGAZINE  
EDITORIAL BOARD  
1.1.1998–31.12.1999**

Pertti Kaksonen,  
senior salaried employees  
Matti Kokkonen, sawmill workers  
Merja Koponen,  
salaried office personnel  
Hannu Laukkanen, supervisors  
Aki Silvennoinen,  
peat industry workers

**EMPLOYEE REPRESENTATIVES IN BUSINESS UNIT  
MANAGEMENT GROUPS 1.1.1998–31.12.1999**

**VAPU OY ENERGY**

**Western Finland**



Tapani Koivistoinen  
(Tapio Kamppi)



Marjo Lähteenmaa  
(Heimo Pihlajamäki)

**Eastern Finland**

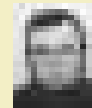


Teuvo Penttinen  
(Aarno Kuivalainen)



Hannu Laukkanen  
(Merja Koponen)

**Northern Finland**



Jouko Niva  
(Eino Ämmänpää)



Jarmo Tirkkonen  
(Ensio Kauppi)

**VAPU TIMBER OY**

**Hankasalmi**



Jari Suuronen



Sauli Viljamaa

**Kevätniemi**



Juha Palokas  
(Armas Ruokolainen)



Markku Pyykkö  
(Heikki Miettinen)

**Nurmes**



Eetu Karjalainen  
(Jarmo Naakka)

**Paltamo**



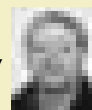
Tuomo Rautiainen

**Peuravuono**



Kalevi Siivikko  
(Mauri Bogdanoff)

**Forssan Saha Oy**



Markku Salonen



Pirjo Jussila

**KEKKILÄ OYJ**



Riku Hakala  
(Timo Haavisto)



Ilkka Väre

## REPORT OF THE BOARD OF DIRECTORS

### Operating environment and business activities

In 1999 overall energy consumption in Finland totalled 364 TWh, an increase of 1% from the previous year. Indigenous energy sources accounted for 29% of the total energy consumed, or 106 TWh.

**The energy markets** continued to go through a period of dramatic changes, characterized by merger and acquisition activity and energy price instability. A combination of factors – an abundant supply of low-priced electricity, cheap coal, exceptionally warm weather during the autumn, and the structural emphasis of the present energy taxation system – caused fuel peat usage to decrease by 12% when compared with the previous year.

Peat represented just over 5% of the total energy consumed and 18% of indigenous energy sources, and it generated 8% of the electricity and 19% of the district heating produced in Finland. Fuel peat deliveries by Vapo Oy Energy decreased by 9.7% from the previous year.

Consumption of wood-based fuels (by-products and chips) in Finland grew by 5.5% in 1999. These fuels represented 18% of energy from indigenous sources, which is the same level as in the previous year. Wood-based fuels accounted for 5.2% of energy from all sources.

Sales of wood-based fuels by the Vapo Group increased by around 50% over the previous year. Production and consumption totalled 1.75 TWh in 1999. This figure includes forest chips, by-products, and wood-based fuel utilized at Vapo's own power plants and used at or sold direct from Vapo Timber Oy's sawmills.

Sales of biofuels (i.e. peat and wood) by Vapo Oy Energy totalled 17.2 TWh. This was a decrease of 7% on the previous year.

Overall the summer of 1999 was reasonably good from the point of view of peat production, but weather

conditions varied between the different areas of the country. A total of 22.4 million cubic metres was produced, and production targets were reached in all areas except Northern Finland.

At the beginning of 2000 Vapo acquired Råsjö Torv AB, a Swedish peat production group. The Råsjö group has a market share of around 40% of fuel peat and around 30% of horticultural peat deliveries in Sweden. Taken together with Vapo Energi AB – a subsidiary of Vapo Oy Energy operating in northern Sweden – Vapo's overall share of fuel peat deliveries in Sweden rose to around 50%. Kekkilä Oyj acquired Hasselfors Garden AB, a company producing growing media which was part of the same group.

The Vapo Group continued its expansion into the field of energy production. Voimavasu Oy – an energy production company jointly owned by Vapo Oy, Sucros Oy and ABB Service Oy – began its operations at the beginning of the year, and at the end of June Vapo acquired Forssan Energia Oy. Vapo's own power plants produced a total of 0.7 TWh of heating and 0.1 TWh of electricity.

Commercial generation of electricity at the Kuivaniemi wind power facility, which is owned by Vapon Tuulivoima Oy, was started at the beginning of 1999 using three 750 kW turbines. In November 1999 three additional new turbines were taken into use.

**In the sawn goods** sector, demand remained high throughout the year in both the export and domestic markets. Demand also grew outside Europe. There was a slight upward trend in prices for sawn goods, but profitability deteriorated due to the high cost of raw timber.

Total Finnish exports of sawn timber amounted to 8.4 million cubic metres, which is an increase of 0.8% from the previous year.

Production and deliveries of sawn timber and value-added products by Vapo Timber Oy's six sawmills set a new record of 690 000 cubic metres. Of this

total, 502 000 cubic metres was exported, which is of the same order as in the previous year.

All of the Group's sawmills received adequate supplies of timber during the year. Profitability was depressed by the high price of saw logs.

**The growing media** sector in Europe continued to suffer from the shortage of horticultural peat caused by the record wet summer of 1998, and this shortage caused prices to rise. By combining its own peat stocks with those of Vapo Oy, its parent company, Kekkilä Oyj was nevertheless able to meet the needs of its regular customers in full and also increase its exports.

Kekkilä Oyj's exports from Finland increased by 47%. All other business areas and subsidiaries also succeeded in increasing sales.

In 1999 Kekkilä Oyj acquired Estonian-based Langham Oü and Niibi Turvas Oü – which were subsidiaries of Vapo Oy and at the beginning of 2000 it acquired Hasselfors Garden AB in Sweden. This made Kekkilä one of Europe's five largest horticultural peat companies. International operations increased to 65% of total turnover.

**In the environmental business** sector the markets started to become more active at the end of the period,

following a couple of quieter years. This was particularly visible in the level of quotations pending and orders received, which together stood at more than FIM 70 million at the end of the year.

Two areas came in for special attention during the year: measures to 'fine tune' the composting process and action to further improve plant availability when composting biowastes. During the year Vapo Oy Biotech completed plants in Rovaniemi and Mikkeli ready to be handed over to the customers. Projects to supply plants for Himanka and Joutseno were on-going at the end of the year.

#### Turnover

The Vapo Group's turnover grew by over 5% from the previous year to FIM 1 981 million (1998: FIM 1 879 million). Turnover was divided between the Group companies as follows: Vapo Oy FIM 817 million (FIM 868 million), Vapo Timber group FIM 843 million (FIM 845 million) and Kekkilä group FIM 204 million (FIM 165 million).

The Group's energy business had a turnover of FIM 881 million (FIM 834 million) and the environmental business FIM 38 million (FIM 25 million), which includes FIM 19 million in respect of the turnover of Mustankorkea Oy.

#### Operating profit

The Vapo Group's operating profit was FIM 154 million, which represents 7.8% of turnover. In the previous year the Group's operating profit was FIM 226 million or 12% of turnover. The Parent Company, Vapo Oy, recorded operating profit of FIM 94 million (FIM 166 million), the Vapo Timber group FIM 37 million (FIM 52 million) and the Kekkilä group FIM 20 million (FIM 11 million). Mustankorkea Oy's operating profit was FIM 3 million.

Planned depreciation for the accounting period amounted to FIM 121 million, or FIM 12 million more than in the previous year.

#### Profitability and financing

The Group's profit after financial items was FIM 138 million (1998: FIM 219 million). Profit is stated after charging non-recurring expenses of FIM 11 million. Net interest expenses for the period totalled 0.5% of turnover or FIM 10 million. The equivalent figures for the previous year were 0.3% and FIM 6 million. The Group's profit before appropriations to reserves and taxes was FIM 138 million (FIM 223 million). Taxes for the period amounted to



**Vapo's Board of Directors: Kari Poikolainen (Secretary), Raimo Rantala, Juha Tuominen, Esko Muhonen (Chairman), Mauri Jaakonaho and Aarno Heinonen.**

# Financial Statements

FIM 43 million. The Group's liquidity position was good throughout the period. The solvency ratio was 57.7% (67.3%).

## Investments

The Vapo Group's total investments for the period were FIM 523 million. Of this total, Vapo Oy accounted for FIM 277 million, the Vapo Timber group FIM 51 million, Kekkilä group FIM 16 million, Voimavasu Oy FIM 42 million, and the other subsidiaries FIM 1 million. In addition an increase of FIM 136 million in goodwill has been entered in the consolidated accounts.

## Group structure

Active sub-groups (with percentage shareholding) owned by the Parent Company, Vapo Oy, as at 31 December 1999:

- Vapo Timber group (100%), parent company Vapo Timber Oy and wholly-owned subsidiaries Forssan Saha Oy and Vapo Timber Import Oy
- Kekkilä group (60.3%), parent company Kekkilä Oyj and subsidiaries Stenrøgel Mosebrug A/S (100%), VapoGro Ltd (99.5%), and Langham Oü (100%), and the latter's wholly-owned subsidiary Niibi Turvas Oü.

Active subsidiary and associated companies of Vapo Oy:

- Anaika Components Ltd Oy (40%)
- Vapo Energi Ab (100%)
- Forssan Energia Oy (100%)
- Keski-Pohjanmaan Komposti Oy (49.9%)
- Lieksan Lämpö Oy (100%)
- Mustankorkea Oy (55%)
- Mäntän Energia Oy (50%)
- Suo Oy (100%)
- Vapon Tuulivoima Oy (90%)
- Voimavasu Oy (50%)

In December Vapo Oy acquired the 50% holding in joint venture VAM Vapo Wastech Ltd Oy previously owned by Dutch company nv VAM. As a result Vapo Oy now owns the company's entire share capital. At the end of the year the company's business activities were sold to the Parent Company's Biotech unit.

Since the beginning of 2000 Råsjö Torv AB of Sweden has belonged to the Vapo Group, together with its

subsidiaries Svenska Torv AB, Hasselfors Garden AB, and Mellansvenska Biobrånslä AB, with the latter's subsidiaries Sandviken Avesta Torv AB and Mebio Torvprodukter AB. Hasselfors Garden AB was sold to the Kekkilä group.

In 1999 the Råsjö and Mebio groups had combined turnover of SEK 333 million and operating profits of SEK 28 million.

Vapo Timber Oy and Anaika Timber Oy together established Anaika Components Ltd Oy, which manufactures value-added products from sawn timber. The main shareholders are Anaika Timber Oy (55%) and Vapo Timber Oy (40%), and the company is located in Lieksa, in the immediate vicinity of Vapo Timber Oy's Kevätiniemi Sawmill.

## Research and development

Expenditure on research and development in the Vapo Group totalled FIM 26 million in the accounting period (FIM 28 million). An average of 21 people were employed full-time in research and development, and the Group has also purchased research and development work from universities and research institutes. Additionally, Vapo Timber Oy is a shareholder in Finnish Wood Research Ltd and Metsäteho Oy.

The main objectives of the development efforts have been to achieve increased sales and better competitiveness for wood and peat when used as fuels. In addition qualitative and quantitative research has been done on recovered fuels, as well as work to study combustion technology issues related to these fuels.

During the early part of the year the tunnel composting plants developed by Vapo were further upgraded. The air circulation can now be regulated for an even more efficient, faster and more consistent composting process.

## Environmental review

Environmental issues which attracted attention during the year were the position of peatland and peat in Finland's carbon dioxide balance, implementation of the international climate change agreement, as well as the conservation of peatland and forests and the protection of various species.

Environmental effects resulting from Vapo's operations are managed in line with the company's environmental policy. In accordance with the policy, the company undertook work to gather data for an inventory of peatland and forests, evaluate the company's environmental impacts, and analyze the characteristics of land released from production and its potential for re-utilization. Projects to build quality and environmental systems were continued from earlier years.

During the year under review the Vapo Group spent a total of some FIM 37 million on environmental protection, and 25 people were employed full-time in this field.

## The outlook

In 2000 the level of Vapo's biofuel deliveries will be determined by the price and availability of electricity and – with regard to fuel for district heating production – the average temperature over the year. It is expected that there will be no major fluctuations in industrial capacity utilization, and so this will probably not change the demand for fuels. As a result of the reduction in deliveries, Vapo will take action to bring its production into line with demand. These measures will affect both the company's own employees and its peat contractors.

Demand for wood-based fuels will remain solid and Vapo will again significantly increase production and deliveries of these fuels.

Industrial companies and municipal authorities will continue to increase the use of outside suppliers in their heating and electricity production. The rise in the oil price has made biofuels an attractive alternative. It is expected that Vapo's heating and electricity output will increase in 2000.

The markets for sawn goods are expected to develop favourably, with consumption of sawn timber remaining at a high level. It is anticipated that sawn timber prices will rise slightly, which would bring the profitability of the sector up to a satisfactory level. This improvement in profitability is threatened by increasing costs, and in particular by rising prices for raw logs. It is expected

that overall production of sawn timber will remain at its present level.

In the markets for growing media and plant fertilizers, the hobby sector is expected to continue growing in both Finland and Sweden. In the professional grower sector price competition in Europe will become even tougher, and so relative profitability will decline.

Kekkilä Oyj will probably exceed its result for 1999 thanks to its corporate acquisitions in Sweden and Estonia.

In the environmental business sector overall growth will continue and accelerate, because disposal of organic waste at landfill sites will have to be discontinued by the end of 2004. A number of projects to construct

composting plants are pending, and some of these will probably reach the competitive bidding stage during 2000. In Sweden, too, the first projects are in the pipeline. The situation regarding recovered fuel will become clearer if the EU directive on the incineration of waste is approved during the autumn as planned. ▼

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## ADMINISTRATION 31.12.1999

### Supervisory Board

#### Chairman

Markku Koski, Farmer

#### Vice Chairman

Aarne Heikkilä, Executive Director

#### Members

Terttu Kangasharju, R & D Engineer  
Juha Karpio, MP  
Katri Komi, MP  
Reijo Laitinen, MP  
Christel Liljeström, Farmer  
Erkki Pulliainen, MP  
Taisto Turunen, Chief Director  
Jan Vapaavuori, Special Advisor to the  
Minister for Foreign and European Affairs

### Staff representatives on Supervisory Board

(1.7.1998–30.6.2000)

Erkki Flink, sawmill workers  
Jorma Koivistoinen, peat industry workers  
Ilpo Vuorela, salaried office personnel

### Deputy staff representatives on Supervisory Board

(1.7.1998–30.6.2000)

Lauri Korkeala, salaried office personnel  
Markku Salonen, sawmill workers  
Heikki Törmä, peat industry workers

### Board of Directors

Esko Muhonen

Chairman

Managing Director, Vapo Oy

Juha Tuominen

Vice Chairman

Managing Director, Vapo Timber Oy

Aarno Heinonen

VP, Finance and Administration,  
Sanoma-WSOY Oyj

Mauri Jaakonaho

Deputy Managing Director,  
Neles Automation Oy

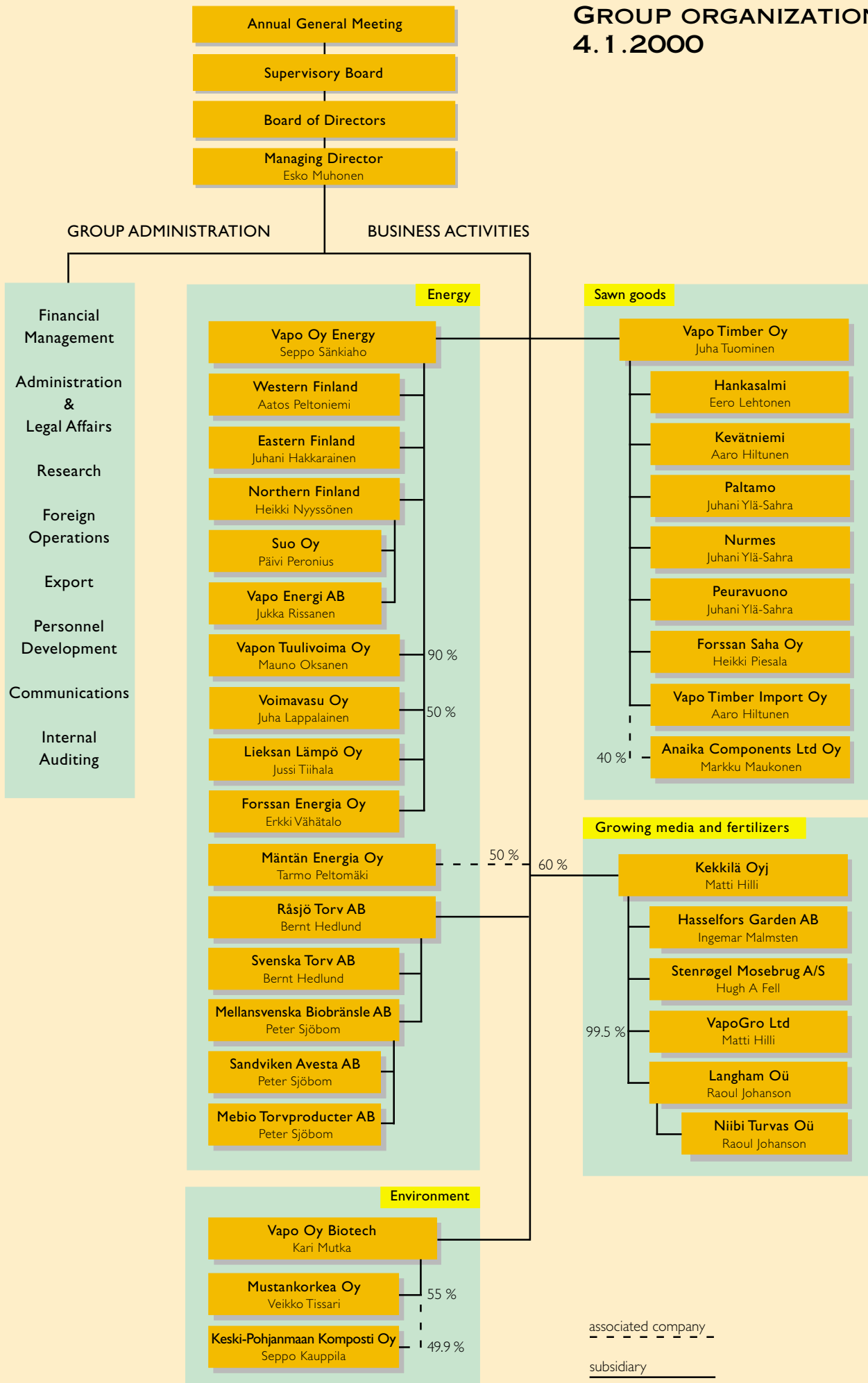
Raimo Rantala

Controller, Vapo Oy

### Auditors

Tuokko Deloitte & Touche Oy,  
Certified Public Accountants, Yrjö Tuokko, CPA

# GROUP ORGANIZATION 4.1.2000





## INCOME STATEMENT

FIM 1000	Group		Parent Company		
	I.I.–31.12.1999	I.I.–31.12.1998	I.I.–31.12.1999	I.I.–31.12.1998	
	Notes				
TURNOVER	1	1 980 539	1 878 794	817 349	867 847
<b>Increase/decrease in inventories of finished goods and work in progress</b>		+42 811	-130 028	+42 298	-124 181
<b>Production for own use</b>		26 150	36 264	20 406	20 502
<b>Share of associated company profit</b>		188	910		
<b>Other operating income</b>		13 434	10 774	9 000	8 521
<b>Materials and services</b>					
Raw materials and consumables:					
Purchases during the period		645 706	533 194	82 879	55 479
Decrease/increase in inventories		+26 327	+12 486	-4 721	-6 266
External charges		587 898	430 317	386 801	236 946
Materials and services, total		1 259 931	975 997	464 959	286 159
<b>Salaries, wages and social expenses</b>	2				
Salaries, wages and remuneration		184 401	173 556	75 370	75 689
Social expenses					
Pension expenses		34 002	30 074	13 807	13 011
Other social expenses		26 099	23 177	9 875	9 763
Salaries, wages and social expenses, total		244 502	226 807	99 052	98 463
<b>Depreciation and write-downs</b>	3				
Planned depreciation		113 137	108 045	74 486	74 049
Amortization of goodwill on consolidation		7 530	1 366		
Depreciation and write-downs, total		120 667	109 411	74 486	74 049
<b>Other operating expenses</b>	5	284 057	258 598	156 734	148 024
Expenses, total		1 909 157	1 570 813	795 231	606 695
OPERATING PROFIT		153 965	225 901	93 822	165 994
<b>Financial income and expenses:</b>	6				
Income from holdings in Group companies				28 502	31 835
Income from holdings in associated companies				347	1 042
Income from other investments held as non-current assets		1 061	541	927	498
Interest and financial income					
From Group companies				3 391	3 321
From other sources		8 440	12 214	7 363	10 771
Exchange rate differences		-6 952	-510	544	-435
Write-downs from investments held as non-current assets			-291		-5 826
Interest and other financial expenses					
Paid to Group companies				-1 215	-1 841
Paid to other parties		-18 479	-18 443	-12 194	-13 560
Financial income and expenses, total		-15 930	-6 489	27 665	25 805
PROFIT BEFORE EXTRAORDINARY ITEMS		138 035	219 412	121 487	191 799
<b>Extraordinary items</b>					
Extraordinary income			3 426		
PROFIT BEFORE APPROPRIATIONS AND TAXES		138 035	222 838	121 487	191 799
<b>Appropriations</b>					
Change in depreciation difference	4			+30 937	+16 601
<b>Income taxes</b>	7	-47 602	-64 650	-43 260	-58 302
<b>Change in deferred tax liability</b>		5 005	2 211		
NET PROFIT BEFORE MINORITY INTEREST		95 438	160 399	109 164	150 098
<b>Minority interest</b>		-5 758	-1 693		
NET PROFIT		89 680	158 706	109 164	150 098

# Financial Statements

## BALANCE SHEET

FIM 1000				
	Group		Parent Company	
ASSETS	1999	1998	1999	1998
	Notes			
<b>NON-CURRENT ASSETS</b>	<b>8</b>			
<b>Intangible assets</b>				
Intangible rights	12 984	11 051	9 215	8 369
Goodwill			4 170	
Goodwill on consolidation	85 152	13 375		
Other capitalized expenditure	8 542	9 934	3 311	3 753
Advances paid	585		246	
	<u>107 263</u>	<u>34 360</u>	<u>16 942</u>	<u>12 122</u>
<b>Tangible assets</b>				
Land and water areas	134 060	96 585	111 845	78 946
Buildings and structures	195 732	163 587	59 858	59 730
Machinery and equipment	501 495	406 647	238 575	254 714
Preparation of peat reserves and other tangible assets	552 211	462 949	417 809	426 184
Advances paid and construction in progress	68 510	20 018	19 283	13 671
	<u>1 452 008</u>	<u>1 149 786</u>	<u>847 370</u>	<u>833 245</u>
<b>Investments</b>				
Holdings in Group companies			340 368	144 068
Receivables from Group companies				3 364
Shares and holdings in associated companies	8 185	3 328	4 919	1 000
Other shares and holdings	22 257	20 475	17 682	17 535
	<u>30 442</u>	<u>23 803</u>	<u>362 969</u>	<u>165 967</u>
<b>CURRENT ASSETS</b>				
<b>Inventories</b>				
Raw materials and consumables	61 940	84 675	15 594	10 872
Work in progress	523	138	523	62
Finished goods	393 986	351 830	301 456	259 619
Advances paid	10 491	6 975	16	243
	<u>466 940</u>	<u>443 618</u>	<u>317 589</u>	<u>270 796</u>
<b>Receivables</b>	<b>9</b>			
<b>Long-term</b>				
Receivables from Group companies			54 239	51 255
Loans receivable	830	213	830	213
	<u>830</u>	<u>213</u>	<u>55 069</u>	<u>51 468</u>
<b>Current</b>				
<b>Accounts receivable</b>	277 137	262 742	131 871	151 892
Receivables from Group companies		245	27 767	22 165
Receivables from associated companies	4 249	4 734	4 249	4 734
Loans receivable	301	393	250	343
Other receivables	2 795	16 037	48	77
Prepaid expenses and accrued income	63 986	22 466	37 279	10 435
	<u>348 468</u>	<u>306 617</u>	<u>201 464</u>	<u>189 646</u>
<b>Investments</b>				
Other investments	45 958	215 308	45 958	215 309
<b>Cash on hand and bank balances</b>	<u>139 407</u>	<u>41 858</u>	<u>117 545</u>	<u>17 311</u>
<b>TOTAL ASSETS</b>	<u>2 591 316</u>	<u>2 215 563</u>	<u>1 964 906</u>	<u>1 755 864</u>

## BALANCE SHEET

FIM 1000

SHAREHOLDERS' EQUITY AND LIABILITIES	Group		Parent Company	
	1999	1998	1999	1998
SHAREHOLDERS' EQUITY	Notes 10			
<b>Restricted equity</b>				
Share capital	300 000	300 000	300 000	300 000
Ordinary reserve	130	118		
Translation difference	104	31		
	<u>300 234</u>	<u>300 149</u>	<u>300 000</u>	<u>300 000</u>
<b>Non-restricted equity</b>				
Contingency reserve	179 030	179 030	178 945	178 945
Transferred from voluntary reserves and depreciation difference	319 495	325 859		
Retained earnings	523 366	433 646	353 910	278 812
Translation difference	105	200		
Profit for the period	89 680	158 706	109 164	150 098
	<u>1 111 676</u>	<u>1 097 441</u>	<u>642 019</u>	<u>607 855</u>
SHAREHOLDERS' EQUITY, TOTAL	1 411 910	1 397 590	942 019	907 855
MINORITY INTEREST	40 149	35 112		
APPROPRIATIONS				
Depreciation difference			325 366	356 303
PROVISIONS	11			
Other provisions	23 166	22 968	21 438	21 468
LIABILITIES	12			
<b>Long-term</b>				
Debenture loans		21 000		21 000
Loans from financial institutions	434 647	202 546	296 793	152 071
Pension fund loans	79 048	30 056	74 080	24 630
Deferred tax liability	126 222	125 663		
Contract deposits and other liabilities	47 768	11 338	5 989	5 379
	<u>687 685</u>	<u>390 603</u>	<u>376 862</u>	<u>203 080</u>
<b>Current</b>				
Loans from financial institutions	52 280	36 453	32 461	25 224
Pension fund loans	14 028	5 054	13 574	4 570
Advances received	73 455	87 121	72 958	86 442
Accounts payable	119 868	133 558	43 335	40 592
Liabilities to Group companies			15 949	39 917
Liabilities to associated companies	5 687	561	5 687	561
Other current liabilities	90 940	14 346	75 668	5 770
Accrued liabilities	72 148	92 197	39 589	64 082
	<u>428 406</u>	<u>369 290</u>	<u>299 221</u>	<u>267 158</u>
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	<u>2 591 316</u>	<u>2 215 563</u>	<u>1 964 906</u>	<u>1 755 864</u>

# Financial Statements

## CASH FLOW STATEMENT

FIM 1000	Group 1999	Parent Company 1999
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit before extraordinary items	138 035	121 487
Adjustments:		
Planned depreciation	120 667	74 486
Unrealized exchange gains and losses		-904
Other income and expenses not involving cash flow	10	-30
Financial income and expenses	15 929	-26 761
Other adjustments	-2 463	-877
Cash flow before change in working capital	272 178	167 401
Change in working capital:		
Increase (-) in current non-interest bearing receivables	-39 192	-2 577
Increase (-) in inventories	-23 322	-46 793
Decrease (-) in current non-interest bearing liabilities	-46 930	-35 006
Cash flow from operating activities before financial items and taxes	162 734	83 025
Interest and other financial expenses paid	-24 767	-12 593
Interest received	11 141	13 463
Direct taxes paid	-48 979	-46 994
Cash flow from operating activities (A)	100 129	36 901
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>		
Investments in tangible and intangible assets	-510 441	-106 565
Proceeds from disposal of tangible and intangible assets	23 747	15 253
Other investments	-4 967	-203 264
Repayments of loans receivable		3 364
Proceeds from disposal of other investments	686	4 077
Dividends received	1 311	29 776
Cash flow from investing activities (B)	-489 664	-257 359
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>		
Long-term loans issued	-886	-26 475
Repayments of long-term loans receivable	192	19 558
Current loans issued		-2 092
Repayments of current loans receivable	169	
Increases in current loans	70 068	45 254
Increases in long-term loans	388 202	241 606
Repayments of long-term loans	-63 515	-51 510
Dividends paid and other distributions of profit	-76 497	-75 000
Cash flow from financing activities (C)	317 733	151 341
DECREASE IN CASH AND CASH EQUIVALENTS (A+B+C)	-71 802	-69 117
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	257 167	232 620
CASH AND CASH EQUIVALENTS AT END OF PERIOD	185 365	163 503

# ACCOUNTING PRINCIPLES

## Extent of consolidation

The consolidated financial statements include the Parent Company, Vapo Oy, and all active companies in which the Parent Company either owns more than 50% of the voting rights or otherwise exercises control. In the cash flow statement, entries relating to subsidiaries acquired or divested have been shown as net total amounts. Associated companies are those in which the Parent Company owns a 20–50% holding.

## Principles of consolidation

The acquisition method of consolidation has been adopted. Inter-company transactions, receivables and liabilities, internal margins and distribution of profit within the Group have been eliminated. Minority interest has been disclosed separately from the Group's net profit and shareholders' equity in the consolidated accounts. Corporation tax credits received by subsidiary companies have been set off against the tax charge for the period in the consolidated accounts.

The results of associated companies are accounted for in the consolidated financial statements using the equity method.

In the consolidated financial statements the depreciation difference

and voluntary reserves have been separated into shareholders' equity and deferred tax liabilities, and that part of the change in depreciation difference and voluntary reserves which has an effect on income is explained in the notes to the accounts.

## Foreign currency items and hedging arrangements

In translating the accounts of overseas subsidiaries into Finnish Marks, income statements have been translated at the average rate of exchange for the accounting period and balance sheets at the Bank of Finland's average rate of exchange at the balance sheet date. Translation differences arising on the translation of these accounts are shown as restricted and non-restricted shareholders' equity.

Foreign currency denominated receivables and liabilities have been translated to Finnish Marks at the Euro conversion rates announced on December 31, 1998, with a related credit or charge to income for the period. Exchange gains and losses arising on the translation of receivables and liabilities have been entered as exchange rate differences in the income statement.

Forward contracts and options used as hedges against currency risks have been stated at the appropriate rate on

the balance sheet date. The interest component has been apportioned over the term of the contract, and exchange rate differences arising on contracts to hedge liabilities or receivables have been entered as exchange rate differences in the income statement.

## Inventories

Inventories are valued at the lower of direct cost and net realizable value. Inventories include peat reserves that have been processed ready for sale. Unprocessed peat reserves are included in fixed assets and depreciated according to utilization.

## Fixed assets and depreciation

Fixed assets are stated at original cost less depreciation. Planned depreciation is charged on a straight-line basis against the original cost of the asset. In each case the straight-line depreciation rate is based on the useful life of the asset:

- intangible rights 5–10 years
- buildings and structures 20–40 years
- machinery and equipment 3–15 years
- peat reserves – according to utilization
- other tangible assets 10–40 years
- other capitalized expenditure 4–10 years
- goodwill on consolidation 5–12 years

# Financial Statements

## NOTES TO THE ACCOUNTS

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998

### 1 TURNOVER BY BUSINESS ACTIVITY

- energy	881 485	833 946	784 986	840 744
- growing media and fertilizers	203 431	164 195		
- sawmills	834 803	839 130		
- environmental business activities	38 239	24 753	7 550	8 943
- other activities	22 581	16 770	24 813	18 160
	<u>1 980 539</u>	<u>1 878 794</u>	<u>817 349</u>	<u>867 847</u>

### TURNOVER BY MARKET AREA

- Finland	1 327 265	1 251 147	806 335	853 044
- Other Scandinavian countries	82 085	84 945	9 693	11 490
- Other European countries	465 410	431 667	958	2 067
- Other markets	105 779	111 035	363	1 246
	<u>1 980 539</u>	<u>1 878 794</u>	<u>817 349</u>	<u>867 847</u>

### 2 SALARIES, WAGES AND SOCIAL EXPENSES

Salaries and wages	184 401	173 556	75 370	75 689
Pension expenses	34 002	30 074	13 807	13 011
Other statutory social expenses	21 509	19 783	7 440	8 161
Voluntary social expenses	4 590	3 394	2 435	1 602
	<u>244 502</u>	<u>226 807</u>	<u>99 052</u>	<u>98 463</u>

#### Salaries and remuneration paid to senior management

Managing Directors	4 034	3 834		
Supervisory Board	372	238	372	238
Board of Directors	232	205	126	90

#### Number of employees

Wage-earning employees, average	675	675	200	219
Salaried employees, average	487	477	298	314
Employees, average	<u>1 162</u>	<u>1 152</u>	<u>498</u>	<u>533</u>

### 3 PLANNED DEPRECIATION

Intangible rights	2 101	2 564	1 156	1 930
Goodwill			1 042	
Goodwill on consolidation	7 530	1 366		
Other capitalized expenditure	5 114	2 068	749	820
Land and water areas	1 817		1 817	
Buildings and structures	12 685	10 977	4 596	4 490
Machinery and equipment	64 112	63 132	41 787	40 933
Other tangible assets	27 308	29 304	23 339	25 876
Total	<u>120 667</u>	<u>109 411</u>	<u>74 486</u>	<u>74 049</u>

### 4 CHANGE IN DEPRECIATION DIFFERENCE

Buildings and structures	-2 434	-722	-1 670	-1 385
Machinery and equipment	883	470	-14 137	-8 777
Other tangible assets	-15 175	-6 550	-15 130	-6 439
Total	<u>-16 726</u>	<u>-6 802</u>	<u>-30 937</u>	<u>-16 601</u>

### 5 CHANGE IN PROVISIONS

Provisions 31 Dec	23 166	22 968	21 438	21 468
Provisions 1 Jan	-22 968	-22 000	-21 468	-22 000
Change in provisions	<u>198</u>	<u>968</u>	<u>-30</u>	<u>-532</u>

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998

## 6 TOTAL DIVIDEND INCOME, INTEREST INCOME AND INTEREST EXPENSE

Dividend income from Group companies			20 521	22 982
Corporation tax credits			7 981	8 853
Dividend income from associated companies			250	750
Corporation tax credits			97	292
Income from holdings in other companies	1 061	402	927	359
Interest income	8 415	12 268	10 754	14 092
Interest expenses	17 318	18 065	13 303	14 994

## EXTRAORDINARY INCOME

Contract deposits credited to income statement		<u>3 426</u>		
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## 7 INCOME TAXES

For financial period	44 855		40 678	
For earlier periods	<u>2 747</u>		<u>2 582</u>	
Total	<u>47 602</u>		<u>43 260</u>	

## 8 FIXED ASSETS BY CATEGORY

### Intangible rights

Initial cost 1 Jan	27 714	21 955	22 622	18 737
Assets of acquired subsidiary 1 Nov		370		
Additions	4 150	2 554	2 019	1 534
Disposals	-1 812	-798	-2 207	-630
Transfers between categories		<u>3 633</u>		<u>2 981</u>
Initial cost 31 Dec	30 052	27 714	22 434	22 622
Accumulated depreciation 1 Jan	-16 663	-14 830	-14 253	-12 949
Accumulated depreciation in acquired subsidiary 1 Nov		-56		
Accumulated depreciation relating to disposals and transfers	1 696	787	2 190	626
Depreciation for period	<u>-2 101</u>	<u>-2 564</u>	<u>-1 156</u>	<u>-1 930</u>
Accumulated depreciation 31 Dec	-17 068	-16 663	-13 219	-14 253
Book value 31 Dec	<u>12 984</u>	<u>11 051</u>	<u>9 215</u>	<u>8 369</u>

### Goodwill

Initial cost 1 Jan			0	
Additions			<u>5 212</u>	
Initial cost 31 Dec			5 212	
Accumulated depreciation 1 Jan			0	
Depreciation for period			<u>-1 042</u>	
Accumulated depreciation 31 Dec			-1 042	
Book value 31 Dec			<u>4 170</u>	

### Goodwill on consolidation

Initial cost 1 Jan	19 661	6 648		
Additions	80 689	13 013		
Transfers between categories	<u>-1 799</u>			
Initial cost 31 Dec	98 551	19 661		
Accumulated depreciation 1 Jan	-6 286	-4 920		
Depreciation for period	<u>-7 530</u>	<u>-1 366</u>		
Accumulated depreciation relating to transfers	417			
Accumulated depreciation 31 Dec	-13 399	-6 286		
Book value 31 Dec	<u>85 152</u>	<u>13 375</u>		

# Financial Statements

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998
<b>Other capitalized expenditure</b>				
Initial cost 1 Jan	34 519	30 896	22 121	21 857
Assets of acquired subsidiary 1 Jul	1 461	1 868		
Additions	3 190	1 762	307	264
Disposals	-4 242	-7		
Initial cost 31 Dec	34 928	34 519	22 428	22 121
Accumulated depreciation 1 Jan	-24 585	-21 938	-18 368	-17 548
Accumulated depreciation in acquired subsidiary 1 Jul	-775	-584		
Accumulated depreciation relating to disposals and transfers	4 088	5		
Depreciation for period	-5 114	-2 068	-749	-820
Accumulated depreciation 31 Dec	-26 386	-24 585	-19 117	-18 368
Book value 31 Dec	8 542	9 934	3 311	3 753
<b>Land and water areas</b>				
Initial cost 1 Jan	94 085	92 389	78 946	78 975
Assets of acquired subsidiary 1 Jul	3 560	1 039		
Additions	21 749	4 262	21 749	2 675
Disposals	-2 161	-3 605	-2 161	-2 704
Transfer from other tangible assets	14 583		13 567	
Initial cost 31 Dec	131 816	94 085	112 101	78 946
Accumulated depreciation 1 Jan	0		0	
Accumulated depreciation relating to disposals and transfers	1 561		1 561	
Depreciation for period	-1 817		-1 817	
Accumulated depreciation 31 Dec	-256		-256	
Revaluations	2 500	2 500		
Book value 31 Dec	134 060	96 585	111 845	78 946
<b>Buildings and structures</b>				
Initial cost 1 Jan	247 217	215 853	108 031	103 755
Assets of acquired subsidiary 1 Jul	29 374	3 014		
Assets of divested subsidiary 1 Jan		-101		
Exchange rate differences	21	21		
Additions	23 201	28 759	6 000	4 605
Disposals	-3 311	-329	-3 311	-329
Transfers between categories	432			
Initial cost 31 Dec	296 934	247 217	110 720	108 031
Accumulated depreciation 1 Jan	-85 030	-73 998	-48 301	-44 048
Accumulated depreciation in acquired subsidiary 1 Jul	-6 838	-289		
Accumulated depreciation in divested subsidiary 1 Jan		5		
Exchange rate differences	-4	-8		
Accumulated depreciation relating to disposals and transfers	1 955	237	2 035	237
Depreciation for period	-12 685	-10 977	-4 596	-4 490
Accumulated depreciation 31 Dec	-102 602	-85 030	-50 862	-48 301
Revaluations	1 400	1 400		
Book value 31 Dec	195 732	163 587	59 858	59 730
<b>Machinery and equipment</b>				
Initial cost 1 Jan	804 504	747 888	552 520	521 598
Assets of acquired subsidiary 1 Jul	105 353	7 891		
Assets of divested subsidiary 1 Jan		-5 237		
Exchange rate differences	979	-264		
Additions	112 004	66 367	36 819	40 562
Disposals	-26 874	-12 141	-18 485	-9 640
Transfers between categories	-64			
Initial cost 31 Dec	995 902	804 504	570 854	552 520



FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998
Accumulated depreciation 1 Jan	-397 857	-346 479	-297 806	-265 832
Accumulated depreciation in acquired subsidiary 1 Jul	-39 859	-1 632		
Accumulated depreciation in divested subsidiary 1 Jan		2 168		
Exchange rate differences	-466	117		
Accumulated depreciation relating to disposals and transfers	7 887	11 101	7 314	8 959
Depreciation for period	-64 112	-63 132	-41 787	-40 933
Accumulated depreciation 31 Dec	-494 407	-397 857	-332 279	-297 806
Book value 31 Dec	501 495	406 647	238 575	254 714
Machinery and equipment, share of book value 31 Dec	351 976	284 303	136 146	147 992
<b>Preparation of peat reserves and other tangible assets</b>				
Initial cost 1 Jan	722 264	685 275	673 471	652 752
Assets of acquired subsidiary 1 Jul	97 232	9 311		
Assets of divested subsidiary 1 Jan		-2 346		
Exchange rate differences	753	-252		
Additions	53 204	32 143	28 602	21 245
Disposals	-669	-1 867	-669	-526
Transfers between categories	-13 570		-13 567	
Initial cost 31 Dec	859 214	722 264	687 837	673 471
Accumulated depreciation 1 Jan	-259 315	-229 027	-247 287	-221 411
Accumulated depreciation in acquired subsidiary 1 Jul	-20 869	-1 183		
Accumulated depreciation in divested subsidiary 1 Jan		117		
Exchange rate differences	-109	82		
Accumulated depreciation relating to disposals and transfers	598		598	
Depreciation for period	-27 308	-29 304	-23 339	-25 876
Accumulated depreciation 31 Dec	-307 003	-259 315	-270 028	-247 287
Book value 31 Dec	552 211	462 949	417 809	426 184
<b>Holdings in Group companies</b>				
Initial cost 1 Jan			144 068	131 914
Additions			201 142	17 980
Disposals			-4 842	
Write-downs				-5 826
Initial cost 31 Dec			340 368	144 068
<b>Shares in associated companies</b>				
Initial cost 1 Jan	3 328	3 168	1 000	1 000
Additions	4 857	160	3 919	
Book value 31 Dec	8 185	3 328	4 919	1 000
<b>Other shares and holdings</b>				
Initial cost 1 Jan	20 475	22 785	17 535	19 141
Assets of acquired subsidiary 1 Jul	362			
Additions	2 106	1 384	622	1 387
Disposals	-686	-61	-475	-12
Transfers between categories		-3 633		-2 981
Book value 31 Dec	22 257	20 475	17 682	17 535
<b>9 RECEIVABLES FROM GROUP COMPANIES</b>				
Long-term loans receivable			54 239	51 255
Accounts receivable		2	5 111	5 303
Loans receivable			22 565	16 160
Prepaid expenses and accrued income		243	91	702
Total		245	82 006	73 420
<b>RECEIVABLES FROM ASSOCIATED COMPANIES</b>				
Accounts receivable	4 249	4 734	4 249	4 734

# Financial Statements

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998
<b>MATERIAL ITEMS INCLUDED IN PREPAID EXPENSES AND ACCRUED INCOME</b>				
Value added taxes	34 969		16 640	
Taxes	5 667		5 638	
Insurance compensation	7 225		7 225	
Subsidies	2 631		1 600	
Social security	1 041		1 041	
Energy charges pending invoicing	1 179			
Other prepaid expenses and accrued income	11 274		5 135	
<b>Total</b>	<b>63 986</b>		<b>37 279</b>	
<b>10 RESTRICTED EQUITY</b>				
Share capital	300 000	300 000	300 000	300 000
Ordinary reserve 1 Jan	118	82		
Exchange rate difference	12	-7		
Transfer from profits		43		
Ordinary reserve 31 Dec	130	118		
Translation difference 1 Jan	31	819		
Change in translation difference	73	-788		
Translation difference 31 Dec	104	31		
<b>Restricted equity, total</b>	<b>300 234</b>	<b>300 149</b>	<b>300 000</b>	<b>300 000</b>
<b>NON-RESTRICTED EQUITY</b>				
Contingency reserve	179 030	179 030	178 945	178 945
Other non-restricted equity 1 Jan	918 411	816 043	428 910	335 812
Distribution of dividends	-75 000	-57 000	-75 000	-57 000
Transfer from profits to ordinary reserve		-43		
Change in translation difference relating to shareholders' equity of subsidiary companies	-445	236		
Non-restricted equity of subsidiary excluded from consolidation		469		
Profit for the financial period	89 680	158 706	109 164	150 098
Other non-restricted equity 31 Dec	932 646	918 411	463 074	428 910
<b>Non-restricted equity, total</b>	<b>1 111 676</b>	<b>1 097 441</b>	<b>642 019</b>	<b>607 855</b>
<b>BREAKDOWN OF DEPRECIATION DIFFERENCE AND VOLUNTARY RESERVES</b>				
Transfers to shareholders' equity from voluntary reserves and depreciation difference 1 Jan	319 495	325 859		
Change in depreciation difference and voluntary reserves recorded as profit for financial period	-12 280	-6 364		
<b>Transfers to shareholders' equity from voluntary reserves and depreciation difference 31 Dec</b>	<b>307 215</b>	<b>319 495</b>		
Deferred tax liability	126 222	125 663		
Included in minority interest	3 048	3 638		
<b>Depreciation difference and voluntary reserves, total</b>	<b>436 485</b>	<b>448 796</b>		

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998
<b>DISTRIBUTABLE NON-RESTRICTED GROUP EQUITY</b>				
Non-restricted equity per consolidated balance sheet	1 111 676	1 097 441	642 019	607 855
Reserved for use of Board of Directors	-300	-300	-300	-300
Depreciation difference and voluntary reserves shown as shareholders' equity	-307 215	-319 495		
Positive translation differences shown as non-restricted equity	-105	-200		
Share of associated company profits	-2 517	-2 328		
Other restrictions on distribution		-173		
<b>Distributable non-restricted Group equity</b>	<b>801 539</b>	<b>774 945</b>	<b>641 719</b>	<b>607 555</b>
<b>11 PROVISIONS</b>				
Provision for expenditure on environmental work at sites released from peat production	21 038	21 468	21 038	21 468
Guarantee provision	400		400	
Provision for closure of landfill sites	1 728	1 500		
	<u>23 166</u>	<u>22 968</u>	<u>21 438</u>	<u>21 468</u>
Deferred tax asset included in provisions	6 486	6 431	6 003	6 011
<b>12 LIABILITIES DUE AFTER MORE THAN FIVE YEARS</b>				
Loans from financial institutions	175 135	18 145	111 137	490
Pension fund loans	25 559	10 096	22 239	6 348
Other long-term liabilities	1 718	2 109	1 718	2 109
Total	<u>202 412</u>	<u>30 350</u>	<u>135 094</u>	<u>8 947</u>
<b>CONTRACT DEPOSITS AND OTHER LIABILITIES</b>				
Contract deposits	43 179	6 771	1 400	1 400
Other long-term liabilities	4 588	4 567	4 588	2 579
Total	<u>47 767</u>	<u>11 338</u>	<u>5 988</u>	<u>3 979</u>
<b>LIABILITIES TO GROUP COMPANIES</b>				
Accounts payable			1 587	871
Other current liabilities			14 277	38 845
Accrued liabilities			85	201
Total			<u>15 949</u>	<u>39 917</u>
<b>LIABILITIES TO ASSOCIATED COMPANIES</b>				
Advances received	2 791		2 791	
Accrued liabilities	2 896	561	2 896	561
Total	<u>5 687</u>	<u>561</u>	<u>5 687</u>	<u>561</u>
<b>MATERIAL ITEMS INCLUDED IN ACCRUED LIABILITIES</b>				
Holiday pay	30 402		12 141	
Value added tax on advance invoices	7 504		7 504	
Interest	5 146		4 473	
Wages and salaries	4 558		2 027	
Taxes	5 006		2 577	
Valuation items	2 087			
Social security	3 009			
Peat contractors' payments	2 487		2 487	
Real-estate related expenses	3 285		3 285	
Other accrued liabilities	8 664		5 095	
Total	<u>72 148</u>		<u>39 589</u>	

# Financial Statements

FIM 1000 Note Number	Group		Parent Company	
	1999	1998	1999	1998

## GUARANTEES GIVEN

### Debts secured by mortgages

Loans from financial institutions	82 529			
Pension fund loans	2 526			
Overdraft commitments	20 000		3 934	
Total	105 055		3 934	

**Mortgages given as security for debt, total** 161 305 5 000

### Other guarantees given for corporate commitments

Charges on assets 1 000

### Debts secured by shares

Overdraft facility				
Book value of shares used as security	1 878		1 878	
<b>Shares used as security, total</b>	<u>1 878</u>		<u>1 878</u>	

## CONTINGENT LIABILITIES AND COMMITMENTS

### Pension commitments

Vapo Oy's Managing Director and those members of the Board of Directors who are Vapo employees have the option of retiring on a full pension at the age of 60–62 years.

### Payments due on leasing contracts

During the current period	3 970		353	
During later periods	61 278		488	
Total	65 248		841	

### Contingent liabilities for Group companies

Guarantees	49 890		115 474	
Other contingent liabilities	20 406		20 406	
Total	70 296		135 880	

### Other guarantees for corporate commitments

Guarantees 2 677 4 040

### Other contingent liabilities

Timber purchase contracts	44 128			
Open forward contracts	44 997			
Total	89 125			

## PARENT COMPANY SHARES AND HOLDINGS

	Parent Company shareholding %	Group share of shareholders' equity	Parent Number of shares	Company Nominal value FIM 1000	shareholding Book value FIM 1000
<b>Group companies</b>		<b>FIM 1000</b>			
Vapo Timber Oy group, Jyväskylä	100	306 207	5 000	25 000	71 000
Biolappi Oy, Jyväskylä	100	50	100	50	140
Suo Oy, Jyväskylä	100	377	150 000	150	8
Biofilter Oy, Helsinki	100	1 091	60	600	760
Kekkilä Oy group, Eurajoki	60	55 114	1 514 383	15 144	48 717
Vapo Energi Ab, Haaparanta	100	3 510	13 000	780	2 674
VAM Vapo Wastech Ltd Oy, Jyväskylä	100	5 171	32	3 200	6 150
Mustankorkea Oy, Jyväskylä	55	2 966	275	2 750	2 750
Lieksan Lämpö Oy, Lieksa	100	3 963	379 000	3 790	16 256
Voimavasu Oy, Jyväskylä	50	610	1 000	1 000	1 000
Vapon Tuulivoima Oy, Jyväskylä	90	230	9	225	225
Forssan Energia Oy, Forssa	100	42 683	1 000	5 000	190 688
<b>Total</b>					<b>340 368</b>
<b>Associated companies</b>					
Mäntän Energia Oy, Mänttä	50	3 267	2 000	1 000	1 000
Keski-Pohjanmaan Komposti Oy, Himanka	50		3 919	3 919	3 919
					4 919
<b>Other Parent Company owned shares and holdings</b>					<b>17 682</b>

## CALCULATION OF FINANCIAL RATIOS

Return on capital invested (ROI) %	= 100 x	$\frac{\text{Profit before extraordinary items + interest and other financial expenses}}{\text{Average capital invested}}$
Return on equity (ROE) %	= 100 x	$\frac{\text{Profit before extraordinary items - taxes}}{\text{Average of (Shareholders' equity + reserves + minority interest)}}$
Solvency ratio %	= 100 x	$\frac{\text{Shareholders' equity + reserves + minority interest}}{\text{Balance sheet total - advances received}}$
Earnings / share	=	$\frac{\text{Profit before extraordinary items - taxes - minority interest}}{\text{Average number of shares}}$
Shareholders' equity / share	=	$\frac{\text{Shareholders' equity}}{\text{Number of shares at end of period}}$
Dividend / share (FIM)	=	$\frac{\text{Dividend for period}}{\text{Number of shares at end of period}}$
Dividend / earnings (%)	= 100 x	$\frac{\text{Dividend / share}}{\text{Earnings / share}}$

# Financial Statements

## PROPOSAL FOR THE DISTRIBUTION OF PROFITS

The Group's non-restricted shareholders' equity is FIM 1 112 million. According to the consolidated balance sheet, distributable funds represent FIM 802 million of this total. The Parent Company's non-restricted shareholders' equity is FIM 642 million, of which profit for the financial period is FIM 109 million.

The Board of Directors proposes that the profit for the period as shown in the financial statements be utilized as follows:

- a dividend of FIM 57 million or 19% of the registered share capital be paid;
- a total of FIM 52 million be transferred to the retained earnings account.

Jyväskylä, 16 March 2000

Esko Muhonen  
Chairman, Managing Director

Juha Tuominen Aarno Heinonen Mauri Jaakonaho Raimo Rantala

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## AUDITORS' REPORT

To the shareholders of Vapo Oy

We have audited the accounting, the financial statements and the corporate governance of Vapo Oy for the period 1 January to 31 December 1999. The financial statements, which include the report of the Board of Directors, Parent Company and consolidated income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the Managing Director. Based on our audit

we express an opinion on these financial statements and on corporate governance. We have conducted the audit in accordance with the 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, the Board of Directors and the Managing Director 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 Parent Company's and the Group's result of operations as well as of the financial position,
- the financial statements, with the consolidated financial statements, can be adopted,
- the members of the Supervisory Board, the Board of Directors and the Managing Director of the Parent Company can be discharged from liability for the period audited by us, and
- the proposal by the Board of Directors regarding the distribution of the profit for the accounting period is in compliance with the Companies Act.

Jyväskylä, 16 March 2000

TUOKKO DELOITTE & TOUCHE OY  
Certified Public Accountants  
Yrjö Tuokko, CPA

## STATEMENT OF THE SUPERVISORY BOARD

The Supervisory Board has examined Vapo Oy's Financial Statements, Consolidated Financial Statements and Auditors' Report for 1999, and has found that these require no comment on the part of the Supervisory Board.

The Supervisory Board recommends the adoption of the Parent Company Income Statement and Balance Sheet and of the Consolidated Income Statement and Balance Sheet and supports the proposal of the Board of Directors as regards the distribution of profits.

The Company's articles of association stipulate that all the members of the Supervisory Board are elected each year at the Annual General Meeting.

**Helsinki, 29 March 2000**

Markku Koski

Aarne Heikkilä Terttu Kangasharju Juha Karpio Katri Komi Reijo Laitinen  
Christel Liljeström Erkki Pulliainen Taisto Turunen Jan Vapaavuori

# ADDRESSES

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## MUSTANKORKEA OY

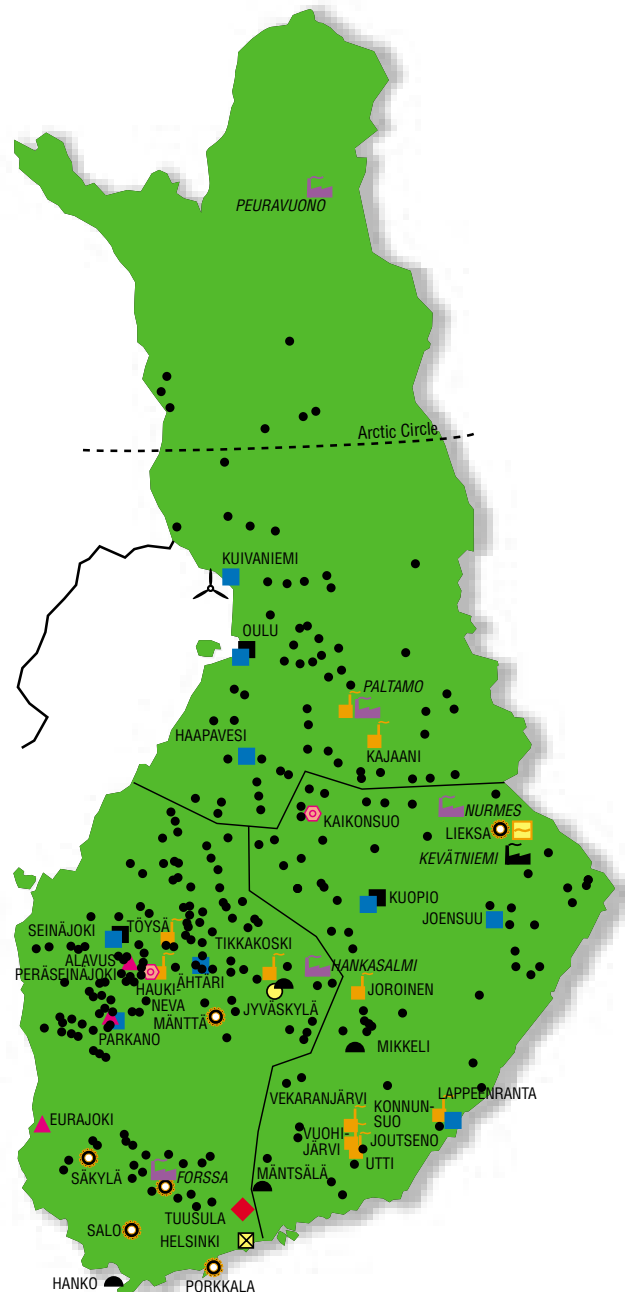
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Working with nature



## GROUP FACILITIES IN FINLAND

- Group administration
- Vapo Oy Energy Business unit office
- Regional centre unit office
- Peat production site
- ⚙ Power plant
- 🔥 Heating plant
- 🔧 Engineering workshop
- 🌬 Wind power park
- 📦 Heating distribution company
- 🏠 Vapo Timber Oy Sawmill
- 📍 Kekkilä Oyj Kekkilä Oyj
- 🌿 Horticultural peat plant
- 🏠 Vapo Oy Biotech Composting plant
- 📍 Helsinki office



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