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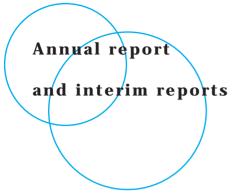


**Annual Report** 1997

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The Annual Report of Novo Group Plc will be published in English on 3 April 1998. The Annual

General Meeting of Novo Group Plc will be held at the company headquarters at Valimotie 17,

Helsinki, on 7 April. Novo Group Plc publishes an interim report three times a year.

The 1998 Interim reports will be published as follows: 12 May: I Quarter, 11 August: II Quarter, 10 November: III Quarter.

The 1998 Interim reports will be published as follows: 12 May: I Quarter, 11 August: II Quarter,

10 November: III Quarter. The Annual Report is published in Finnish, Swedish and English. Interim

reports are published in Finnish and English. Novo Group publishes investor information on its

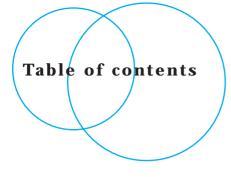
http://www.novogroup.com/english.

Internet pages at http://www.novogroup.com/english. Annual Reports and Interim Reports are also

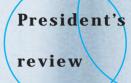
available through Corporate Communications, tel. +358 9 50 671 or via Internet at

http://www.novogroup.com. The market estimates presented in this Annual Report are based on

surveys conducted by IDC-Finland Oy, and on Novo Group's own evaluations.



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"Our financial performance

was good and the growth in

net sales was in line with the

general trend in the sector."

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The IT market continued to grow in 1997, although growth was somewhat slower than we expected. Demand for expert services, on the other hand, showed a considerable increase. In many respects, the past year marked a milestone for Novo Group Plc. At the Annual General Meeting held on 18 April, a decision was made to change the company's business name to Novo Group Ltd and the new name was introduced on 1 May 1997. A subsidiary formerly known as Tukiset Companies Ltd changed its name to Novobit Ltd.

There were several reasons for changing the name. Firstly, KT-Datacenter Ltd had been conceived as a company providing services exclusively for the public administration sector, while at the moment, more than a half of the company net sales is generated in the private sector. Secondly, the name Novo Group is more suitable for international use.

In July 1997, Novo Group sought listing on the Helsinki Stock Exchange brokers' list. In August, the Board of Directors decided to start marketing the share issue, after having received authorisation to do so in the Annual General Meeting. At the same time, the Board of Directors decided to seek listing for the company share on the official list of the Helsinki Stock Exchange. The decision to carry out a share issue was made in September. The company share was listed on the official list of the Helsinki Stock Exchange on 24 September 1997 for the first time.

In August, we signed one of the most significant service agreements in company history, as the Finnish National Road Administration decided to outsource its IT operations. In November, Novo Group Plc celebrated its 25th anniversary. A quarter of a century may not be a particularly old age for a business enterprise in general, but it is something of an achievement in the IT sector. Our line of business has seen tremendous changes within this period. Over the year, we made several business and company acquisitions. In February, Novo Group Plc purchased the entire share capital of Baltic Data Ltd. In June, we increased our holdings in the Estonianbased associated company, Eisdata Süsteemide AS. Eisdata was incorporated into the Group as a subsidiary in the beginning of July and was renamed Novo Eesti AS. In September, we purchased 80% of the share capital of an Internet service provider company called Datascout Oy,

and in October, we acquired a 40% interest in Medici Data Oy, a company that specialises in supplying information systems for the health care sector. Our objective is to focus on improving our Internet-based business activities, and to become the leading supplier of IT systems for the health care sector in the near future.

At the end of the year, we rationalised our operations in order to allocate more resources to the selected key business areas. This involved selling our mapping software operations to Tekla Oy, educational administration system operations to TT Regional Government Service, and our general education business to Oy IBM Ab. Our financial performance was good, and the growth in net sales was in line with the general trend in the sector. Growth was primarily organic, but could be partly attributed to business acquisitions. The most notable growth was achieved in the business sector and the public administration market. Extraordinary costs hampering last year's performance included the marketing and financing costs arising from changing the company name, and from the share issue and the arrangements it involved.

Hardware sales increased predominantly in the latter part of the year. Moreover, demand for hardware-related expert services soared, and services accounted for a significantly larger part of Novosys' net sales. In addition to basic workstations, we delivered a larger number of various network servers than previously. In sum, Novosys was able to maintain its strong market position. The hardware market constituted the largest individual segment of the overall IT market.

The biggest proportional growth was achieved in the operating and network services business, where demand for decentralised network monitoring and management services picked up particularly well. Organisations have become increasingly network centric, and data processing activities are more and more decentralised and take place in data networks. The Novo Group's strength lies in its ability to operate a wide selection of hardware, as well as its extensive track record in the integration, management and control of systems environments. The Group's hardware sales also provide us with a distinct synergy benefit, as they allow us to deliver to our customers a full package complete with hardware and the services required.

The software business showed a positive growth trend, as expected. Performance was boosted by business acquisitions made in previous years, as well as our preparations for the turn of the millennium and the introduction of the new European currency. We set up our own Year 2000 organisation in the beginning of 1996, and in autumn 1997 we published a list of our products that will be upgraded as required by the turn of the millennium. The enhanced teamwork project continued within the whole Group. The objective of this project is to improve the quality of our operations, as well as our productivity and profitability. Quality operations were further developed. The operations of Novosys, Novoshop and Novobit were certified during the year.

The information technology sector is still suffering from a shortage of skilled labour. The public educational system has not been able to adjust to the tremendous growth of our industry, which is why companies have begun working together to create their own training schemes. The Novo Group is also involved in a joint project aimed at producing resources for our industry faster than the conventional educational and training system.

The outlook for 1998 is relatively good. We anticipate an increased need for human resources owing to the alteration work required by the new millennium and the introduction of the Euro. Our objective is to achieve faster long-term growth than the market average, and to improve our profits. Services will account for an increasingly large part of hardware sales, and will have a positive effect on our general profitability.

I would like to thank all investors, the Group's customers and partners for their co-operation and the confidence they have shown us. My special thanks to our personnel, who have shown extraordinary flexibility and stamina when faced with considerable pressure caused by personnel turnover, typical in our line of business, and temporary shortage of workforce.

Jorma Kielenniva President and CEO



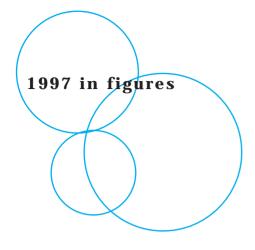
Novo Group aims to provide its partners with added value by responding quickly and reliably to

the customers' changing requirements. Novo's objective is to exploit advanced information tech-

nology potential to improve the (quality) of its customers' services, operational efficiency and com-

petitive edge.

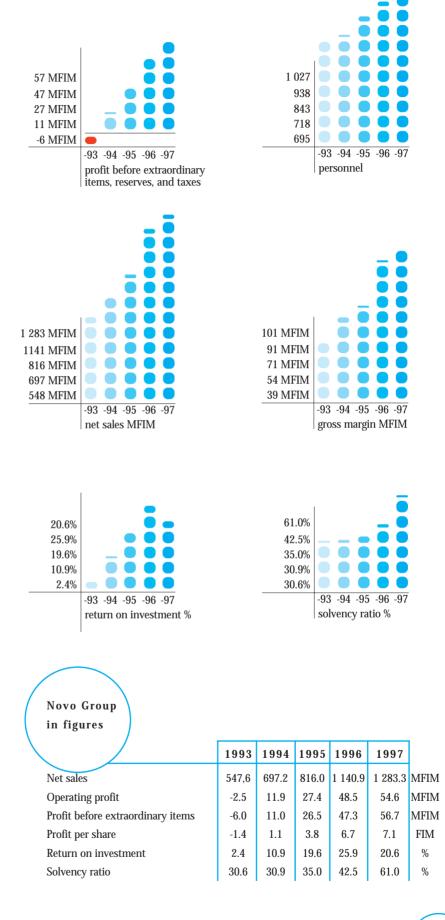


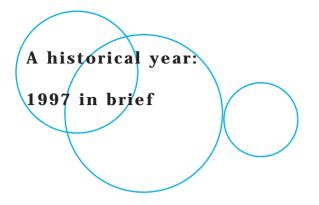


At its Annual General Meeting on 18 April 1997, KT-Datacenter Ltd decided to change its business name to Novo Group Ltd, which was subsequently changed to Novo Group Plc, and entered into the trade register on 1 September 1997.

The Novo Group offers comprehensive services in the IT sector, including software, hardware, network services, and support services involved in the design and use of information technology. The ever-increasing potential of network centric computing, as well as the gaining popularity of the Internet, along with intranets and extranets, will change the way organisations operate. The Novo Group provides services related to network centric computing and helps develop business solutions based on this concept. We offer assistance in creating strategies, designing and implementing solutions, and testing and introducing IT systems. We also offer extensive operating services for network environment management and operating security.

The Group is headquartered in Helsinki, Finland, and is supported by a service network that covers the whole country. The Group also has business operations in Estonia. The Novo Group comprises the parent company Novo Group Plc and its subsidiaries Baltic Data Ltd, Novobit Ltd, Novostore Ltd, Novosys Ltd and Novo Eesti AS.





- At the Annual General Meeting of KT-Datacenter Ltd, held on 18 April 1997, a decision was made to change the company's business name to Novo Group Ltd. The subsequent change of business name from Novo Group Ltd to Novo Group Plc was entered into the trade register on 1 September.

- In February, Novo Group Plc purchased the entire share capital of Baltic Data Ltd.

- At the Annual General Meeting of Novo Group Plc, a decision was made to lower the nominal value of a company share from FIM 20 to FIM 5. The company shares were included in the book-entry securities system starting 9 September 1997.

- At the end of June, the company acquired more shares of the Estonia-based associated company Eisdata Süsteemide AS. Eisdata Süsteemide AS became Novo Group's subsidiary (71.3%) on 1 July 1997. At the same time, it was decided that the company name would be changed to Novo Eesti AS.

- Novo Group Plc's share was approved for listing on the Helsinki Stock Exchange brokers' list on 21 July.

- The extraordinary annual meeting of Novo Group Plc held on 12 August 1997 approved the proposal of the Board of Directors to amend the redemption clause of the articles of association. The amendment involved raising the first limit, in other words, ownership of shares producing redemption obligation, from 25% to 33 1/3%.

- On 21 August, the Board of Directors decided to start marketing a share issue, after having received an authorisation at the Annual General Meeting. At the same time, the Board of Directors decided to seek listing for the company share on the official list of the Helsinki Stock Exchange.

- The Board of Directors made its decision regarding the share issue on 15 September, after a tender issue had been carried out between 1 and 12 September 1997. The company's share capital was raised by FIM 3,800,000 through a subscription issue. The Finnish general public and institutional investors in Finland, as well as the personnel of Novo Group Plc and its Finnish subsidiaries, were offered the opportunity to buy company shares. The increase of share capital was entered into the trade register on 23 September.

- The Board of Directors of the Helsinki Stock Exchange decided to start listing Novo's shares on its official list, starting 24 September.

- In August, Novo Group Plc signed one of the most significant service agreements in the company history with the Finnish National Road Administration, with a value of over FIM 60 million over the next three years.

- In September, Novo Group Plc acquired 80% of the share capital of an Internet service provider, Datascout Oy.

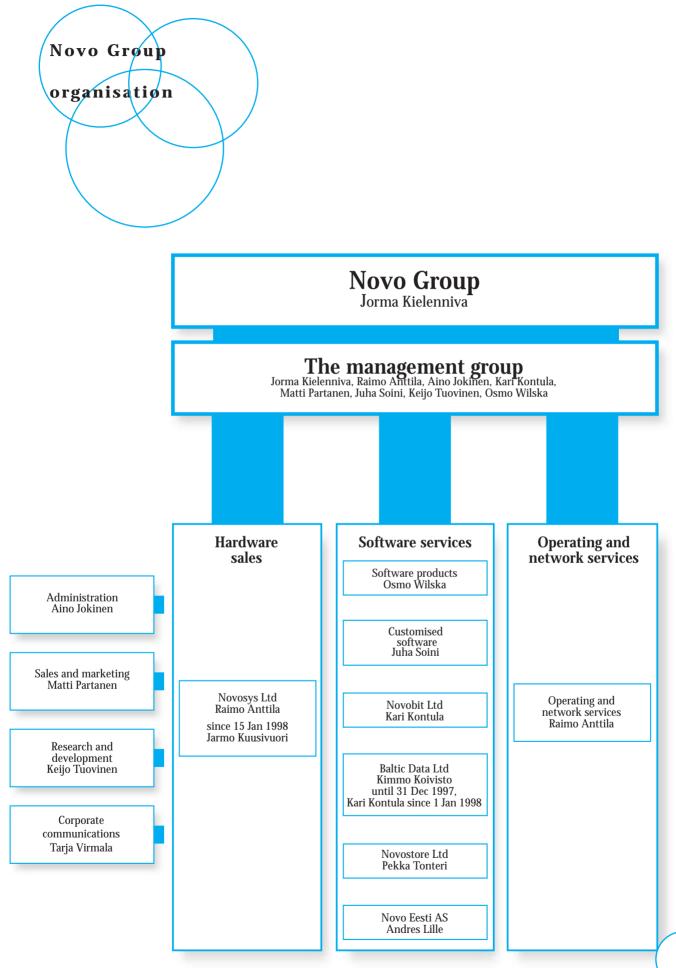
- In October, Novo acquired a 40% interest in Medici Data Oy, a company that specialises in supplying information systems for the health care sector.

- Novo Group Plc celebrated its 25th anniversary on 10 November.

- Novo Group Plc sold part of its business operations focusing on student administration data systems to TT Regional Government Service, which is part of the Tieto Group.

- Novo Group Plc relinquished its mapping software and geodetic calculation software operations.

- Novo Group Plc and IBM signed an agreement regarding training on standard software products. IBM assumed responsibility for training operations as of the beginning of 1998.





#### Developments in the business environment

A generally favourable economic development continued in 1997, which contributed to growth in the IT markets. Demand for expert services increased particularly strongly.

In the hardware market, the most notable growth was achieved towards the end of the year. Demand for hardwarerelated expert services increased significantly. The operating and network services business experienced a particularly powerful demand for decentralised network monitoring and management services. Organisations have become increasingly network centric, and more and more often, data processing is decentralised and takes place in data networks.

Getting prepared for the new millennium and the introduction of the Euro contributed to growth in the software business markets. The fact that data processing systems are becoming more networked, and that network centric computing is increasingly popular, provides companies with an excellent opportunity to modernise their business processes. This has affected the demand for both software and for expert services.

The IT business is currently suffering from a shortage of labour. The educational system has not been able to respond to the growth of our industry, therefore businesses have partnered to create new educational schemes. The Novo Group is actively involved in these joint projects.

#### Development in net sales

The Group's net sales continued to grow along the lines of the average market growth in our business sector. Net sales were up 12.5% on the previous year to FIM 1,283.3 million. The growth could be attributed to both the general growth trend of the industry and to business acquisitions.

The parent company's net sales increased by 10.0% over the previous year, and totalled FIM 384.2 million. The combined net sales of Novobit Ltd and Ercin Oy increased by 11.9%. Ercin Oy was incorporated into Novobit Ltd in 1996. The combined net sales of Novosys Ltd and its subsidiary VTKK-Toimistojärjestelmät Oy grew by 13.4 %. The net sales of Novosys Ltd amounted to FIM 896.4 million.

#### Financial performance and solvency

The Group's financial performance was good. Gross margin increased by 10.6% to FIM 100.8 million, and profit before reserves and taxes also improved, from FIM 47.3 million in the previous year to FIM 59.1 million. Extra items encumbering the financial year's profit included the marketing and financial expenses arising from the change of business name, and the share issue along with the arrangements it involved.

The parent company's gross margin was FIM 55.5 million, representing 14.5% of net sales. Profit before reserves and taxes increased to FIM 26.3 million from the previous year's FIM 23.2 million. The increase in the parent company's interest income can be partly attributed to the interests paid by Novobit Ltd on a consolidated loan for a period from 1992 to 1997.

The Group's solvency ratio improved from 42.5% to 61.0%.

#### Share issue and listing

In the Annual General Meeting of Novo Group Plc held on 18 April 1997, a decision was made to change the nominal value of the company share from FIM 20 to FIM 5. As a result, the number of shares quadrupled. Since 9 September 1997, the company shares are included in the book-entry securities system.

The share of Novo Group Plc was approved for listing on the Helsinki Stock Exchange brokers' list on 21 July 1997. On 21 August 1997, Novo Group's Board of Directors decided to start marketing a share issue, pursuant to the authorisation given at the company meeting on 18 April 1997. At the same time, the Board of Directors decided to seek listing for the company share on the official list of the Helsinki Stock Exchange.

The company shares were marketed by organising a tender issue from 1 to 12 September 1997. After this, on 15 September 1997, the Board of Directors decided to carry out a share issue based on the subscription offers received. It was decided that 760,000 new shares with a nominal value of FIM 5 be issued. Based on the subscription commitments made, the subscription price was set at FIM 145. The company's share capital was raised by FIM 3,800,000 through a subscription issue, in which the Finnish general public and institutional investors as well as the personnel of Novo Group Plc and its Finnish subsidiaries were offered the opportunity to buy company shares. The share premium generated by the issue was FIM 106.4 million.

An exception was made to the shareholders' subscription privilege in the issue in order to expand company ownership and offer an incentive for personnel. The increase of share capital was entered into the trade register on 23 September 1997. The Board of Directors of the Helsinki Stock Exchange decided to approve the company share for listing on its official list as of 24 September 1997. On this date, the listing on the Helsinki Stock Exchange brokers' list was terminated.

The extraordinary annual meeting of Novo Group Plc held on 12 August 1997 approved the proposal of the Board of Directors to amend the redemption clause of the articles of association. The amendment involved raising the first limit, in other words, ownership of shares producing redemption obligation, from 25% to 33 1/3%.

The highest quoted price for Novo Group Plc's share on the brokers' list was FIM 205 and the lowest FIM 145. By the end of the period under review, the highest quoted price for the company share on the official list of the Helsinki Stock Exchange was FIM 162 and the lowest FIM 128, and the average rate was FIM 154. A total of 497,142 shares were traded during the year, which represented 7.8% of the share capital.

# Investments and product development

The Group's gross investments totalled FIM 68.8 million, with the parent company accounting for FIM 62.1 million. Product development efforts focused on the systems designed for social and health care services, financial management, real estate management, and local government registers. Product development has been booked as annual costs.

#### Improvements in the Group structure and changes in partly-owned companies

The parent company of the Novo Group is Novo Group Plc. Subsidiaries include Adiutor Ltd, Baltic Data Ltd, Novostore Ltd, Novobit Ltd, Novo Eesti AS, Novosys Ltd and its subsidiary VTKK-Toimistojärjestelmät Oy.

At the Annual General Meeting of KT-Datacenter Ltd, held on 18 April 1997, a decision was made to change the company's business name to Novo Group Ltd. The subsequent change of business name from Novo Group Ltd to Novo Group Plc was entered into the trade register on 1 September.

In February, Novo Group Plc purchased the entire share capital of Baltic Data Ltd. At the end of June, the company acquired more shares of the Estonianbased associated company Eisdata Süsteemide AS. Eisdata Süsteemide AS became Novo Group's subsidiary (71.3%) on 1 July 1997. At the same time, it was decided that the company name would be changed to Novo Eesti AS.

In September, Novo Group Plc acquired 80% of the share capital of an Internet service provider, Datascout Oy, and in October, a 36% interest in Medici Data Oy, a company that specialises in supplying information systems for the health care sector. The business name of Datascout Oy was subsequently changed to Novostore Ltd.

Novo Group Plc increased its interest in Solid Information Technology Oy (25%) in November. In December, Novo sold its mapping software and geodetic calculation software operations to Tekla Oy, a part of its business operations focusing on student administration data systems to TT Regional Government Service, and the education and training business involving standard software products to Oy IBM Ab.

In February 1998, Novo Group Plc acquired 90% of the shares of a software company called Tiihonen Oy.

# Personnel and human resources development

At the end of the year, the Novo Group employed 1,105 people. The average number of the Group's personnel during the year was 1,027. The parent company employed 755 people at the end of the year, and the average number of personnel was 704.

Human resources development concentrated on maintaining our personnel's technical skills and competence, and on improving teamwork and customer service skills. The improved teamwork concept that was introduced in Novosys Ltd was expanded to cover the entire Group's operations.

#### Administration

Mr. Jorma Kielenniva acted as the President of Novo Group Plc. Mr. Lauri A. Manninen acted as the Chairman of the Board of Directors and Mr. Simo Lämsä as the Vice Chairman. Other members of the Board of Directors included Mr. Ilkka Hallavo, Mr. Jouko Juppala, Mrs. Marketta Nordman, Mrs. Christel von Martens and Mr. Antti Salonen. The Supervisory Board was chaired by Mr. Timo Kietäväinen, with Mr. Juhani Paloheimo acting as the First Vice Chairman and Mr. Pekka Alanen as the Second Vice Chairman. The company's auditors were Ernst & Young Auditors and Mr. Jorma Jäske. Authorised Public Accountant.

#### **Outlook for 1998**

The outlook for 1998 is good. Most information systems used by various organisations will need to be upgraded in order to ensure complete functionality at the turn of the millennium. This and the introduction of the Euro will increase the demand for human resources. Our objective is to achieve faster growth than the market average in the long run, while improving our profitability. We anticipate an increased demand for services in the hardware sales business, which will have a positive effect on our profitability.

#### Novo Group Plc's Board of Directors' proposal on the distribution of profits

The consolidated balance sheet showed non-restricted shareholders' equity worth of FIM 118,063,166.07, and the balance sheet of Novo Group Plc showed the following non-restricted shareholders' equity retained

earnings from previous

financial years	FIM 48,899,896.11
profit for the financial year	FIM 21,066,678.38
	FIM 69,966,574.49

The Board of Directors proposes that a dividend of FIM 2.60 per share be paid, totalling FIM 16,502,168.80, and that the remainder be retained on the profit account.

# Income statement for Novo Group Plc (FIM 1 000)

		1 Jan-31 Dec 1997	1 Jan-31 Dec 1996
NET SALES		384 243	349 418
Other operating	income	5 470	5 824
Expenses	Materials and supplies	6 427	6 181
1	Increase/decrease in inventories	-1 601	581
	External services	38 990	31 040
	Personnel expenses	174 725	161 784
	Rents	19 172	17 114
	Other expenses	<b>96 473</b>	82 725
		334 186	299 425
GROSS MARGIN	1	55 527	55 817
Depreciations	on fixed assets and other		
Ĩ	long-term expenditure	35 897	33 302
OPERATING PRO		19 630	22 515
Financial inco	ome and expenses		
	Dividend yield	188	50
	Interest income	6 525	3 307
	Other financial income	2 477	-
	Interest expenses	-1 601	-2 404
	Other financial expenses	-3 333	-236
		4 256	717
	EXTRAORDINARY ITEMS, RESERVES AND TAXES 7 income and expenses	23 886	23 232
5	Extraordinary income	2 426	-
	5	2 426	-
PROFIT BEFORE	RESERVES AND TAXES	26 312	23 232
Change in de	preciation difference	-6 809	-5 204
Change in vol	luntary reserves	10 321	10 321
Direct taxes			
	for the financial year	-8 757	-7 419
		-8 757	-7 419
PROFIT FOR THE	e Financial year	21 067	20 930

# Consolidated income statement for The Novo Group (FIM 1 000)

		1 Jan-31 Dec 1997	1 Jan-31 Dec 1996
NET SALES		1 283 268	1 140 919
Other operating	g income	5 693	5 904
Expenses	Materials and supplies	749 608	691 154
	Increase/decrease in inventories	9 675	-15 623
	External services	41 529	33 225
	Personnel expenses	<b>254 561</b>	230 410
	Rents	28 335	25 344
	Other expenses	104 474	91 153
		1 188 182	1 055 663
GROSS MARGII	N	100 779	91 160
Depreciation	s on fixed assets and other		
	long-term expenditure	44 085	40 925
	on Group goodwill	2 122	1 774
		46 207	42 699
OPERATING PRO		54 572	48 461
Financial inc	ome and expenses		
	Dividend yield	64	50
	Interest income	3 394	2 879
	Other financial income	2 478	-
	Equity earnings in partly-owned companies	2 402	334
	Interest expenses	-2 667	-3 812
	Other financial expenses	-3 556	-579
		2 115	-1 128
	E EXTRAORDINARY ITEMS, RESERVES AND TAXES	56 687	47 333
Extraordinar	y income and expenses		
	Extraordinary income	2 426	-
		2 426	-
PROFIT BEFORE	E RESERVES AND TAXES	59 113	47 333
Change in de	epreciation difference	-8 830	-5 423
Change in vo	oluntary reserves	15 270	10 321
Direct taxes			
	for the financial year	-17 846	-14 672
	for previous financial years	-5	
		-17 851	-14 672
PROFIT BEFORE	e minority interest	47 702	37 559
Minority inte	erest in the financial year's profit	-27	-
PROFIT FOR TH	ie financial year	47 675	37 559

# Balance sheet for Novo Group Plc (FIM 1 000)

ASSETS		31 Dec 1997	31 Dec 1996
	D OTHER LONG-TERM INVESTMENTS		
indingizio decete	Intangible rights	21 215	11 276
	Goodwill	5 204	7 028
	Other long-term expenditure	406	406
angible assets		26 825	18 710
ungible ussels	Land areas	2 029	2 029
	Buildings and constructions	31 645	33 080
	Machinery and equipment	72 518	62 666
	Other tangible assets	1 016	848
	-	107 208	98 623
inancial assets an ong-term investme			
	Shares and interests	24 322	16 216
	Loans receivable	5 000	5 000
		29 322	21 216
		163 355	138 549
NVENTORIES AND nventories	CURRENT ASSETS		
	Goods and products	1 839	237
Receivables	A coounta receivable	47 700	10 505
	Accounts receivable	45 520	40 595
	Loans receivable Share subscription receivables	14 166	13 342 992
	Share subscription receivables Deferred income	33 060	32 565
	Deterreu income	92 746	87 494
inancial assets			07 101
	Other securities	12 033	14 125
Cash in hand and	at banks	116 613	60 225
		223 231	162 081
IABILITIES		386 586	300 630
GHAREHOLDERS' E Restricted equity	QUITY		
losinolou oquity	Share capital	31 735	24 935
	Share issue	-	3 000
	Premium fund	<b>164 403</b>	58 003
		196 138	85 938
Von-restricted equi		40,000	00.045
	Retained earnings	48 900	32 645
	Profit for the financial year	<u>21 067</u> 69 967	<u>20 930</u> 53 575
		266 105	139 513
RESERVES		200 103	100 010
Accumulated	depreciation difference	33 025	26 217
Voluntary res	erves	-	10 321
Obligatory re	serves	1 704	1 034
		34 729	37 572
IABILITIES ong-term liabilitie	S		
9	Pension loans	22 224	31 208
	The following year's instalment	-1 556	-2 185
		20 668	29 023
hort-term liabilitie		4 220	0.465
	Pension loans	1 556	2 185
	Advances received	2 545	2 819
	Accounts payable	12 939 27 206	42 559
	Accrued liabilities Other short-term liabilities	37 296 10 748	$39\ 014\ 7\ 945$
		65 084	94 522
		85 752	123 545
		386 586	300 630

# Consolidated balance sheet for The Novo Group (FIM 1 000)

ASSETS		31 Dec 1997	31 Dec 1996
FIXED ASSETS AND Intangible assets	OTHER LONG-TERM INVESTMENTS		
interigible associ	Intangible rights	21 579	11 124
	Goodwill	7 225	11 931
	Group goodwill	4 199	4 656
	Other long-term expenditure	<u>406</u> 33 409	<u>406</u> 28 117
Tangible assets		55 409	20 117
g	Land areas	2 029	2 029
	Buildings and constructions	31 645	33 080
	Machinery and equipment	85 649	74 363
	Other tangible assets	<u> </u>	<u>848</u> 110 320
Financial assets and		120 333	110 520
ong-term investmer	Shares and interests in partly-owned companies	12 552	4 756
	Other shares and interests	3 437	3 396
		15 989	8 152
		169 737	146 589
NVENTORIES AND ( Inventories	LUKKENI ASSEIS		
	Goods and products	49 167	58 842
Receivables	Accounts receivable	162 064	134 889
	Loans receivable	1 236	1 404
	Share subscription receivables	-	992
	Deferred income	31 747	31 489
Financial assets		195 047	168 774
-IIIdiilidi dssels	Other securities	12 033	14 125
Cash in hand and a		135 296	65 850
		391 543	307 591
		561 280	454 180
LIABILITIES SHAREHOLDERS' EC Restricted equity	לעוויץ		
Nestricieu equity	Share capital	31 735	24 935
	Share issue	-	3 000
	Premium fund	164 403	58 003
Non-restricted equity	V	196 138	85 938
vonitestiteteu equity	Retained earnings	70 388	37 501
	Profit for the financial year	47 675	37 559
	,	118 063	75 060
		314 201	160 998
MINORITY INTERES	T	215	-
RESERVES			
leoenveo	Accumulated depreciation difference	36 079	27 248
	Voluntary reserves	-	15 103
		0.004	1 034
	Obligatory reserves	2 004	
IARII ITIES	Obligatory reserves	2 004 38 083	43 385
	Loans from financial institutions	<u>38 083</u> 468	43 385 787
	Loans from financial institutions Pension loans	38 083 468 33 413	43 385 787 43 245
	Loans from financial institutions	38 083 468 33 413 -2 353	43 385 787 43 245 -3 027
ong-term liabilities	Loans from financial institutions Pension loans The following year's instalment	38 083 468 33 413	43 385 787 43 245
Long-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans	38 083 468 33 413 -2 353 31 528 2 353	43 385 787 43 245 -3 027
Long-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans Advances received	38 083 468 33 413 -2 353 31 528 2 353 3 385	43 385 787 43 245 -3 027 41 005 3 027 3 242
Long-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans Advances received Accounts payable	38 083 468 33 413 -2 353 31 528 2 353 3 385 94 655	43 385 787 43 245 -3 027 41 005 3 027 3 242 129 662
LIABILITIES Long-term liabilities Short-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans Advances received Accounts payable Accrued liabilities	38 083 468 33 413 -2 353 31 528 2 353 3 385 94 655 62 860	43 385 787 43 245 -3 027 41 005 3 027 3 242 129 662 57 188
Long-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans Advances received Accounts payable	38 083 468 33 413 -2 353 31 528 2 353 3 385 94 655 62 860 14 000	43 385 787 43 245 -3 027 41 005 3 027 3 242 129 662 57 188 15 673
Long-term liabilities	Loans from financial institutions Pension loans The following year's instalment Pension loans Advances received Accounts payable Accrued liabilities	38 083 468 33 413 -2 353 31 528 2 353 3 385 94 655 62 860	43 385 787 43 245 -3 027 41 005 3 027 3 242 129 662 57 188

# Funds statement of Novo Group Plc (FIM 1 000)

	1 Jan-31 Dec 97	1 Jan-31 Dec 96
SOURCES OF FUNDS		
Income financing		
Gross margin	55 527	55 817
Obligatory reserves	670	-2 404
Financial income	9 191	3 357
Proceeds from the sale of fixed assets	1 430	2 459
Other income financing (net)	2 426	-
	69 244	59 229
Capital financing		
Share issue	110 200	46 297
	179 444	105 526
APPLICATION OF FUNDS		
Distribution of profits		
Interest on liabilities	4 934	2 640
Taxes	8 757	7 419
Dividends	4 675	1 870
Investments		
Investments in fixed assets	62 135	47 282
Repayment of capital		
Decrease in long-term liabilities	8 985	7 550
	89 486	66 761
Change in current assets	59 547	75 016
Change in inventories	1 602	-581
Change in short-term liabilities	28 809	-35 670
change in short term habilities	<u> </u>	38 765

# Consolidated funds statement of The Novo Group (FIM 1 000)

	1. Jan-31 Dec 97	1 Jan-31 Dec 96
SOURCES OF FUNDS		
Income financing		
Gross margin	100 779	91 160
Obligatory reserves	970	-2 404
Financial income	5 936	2 929
Proceeds from the sale of fixed assets	2 132	3 060
Other income financing (net)	2 426	-
	112 243	94 745
Capital financing		
Share issue parent co., minority	110 280	46 297
Increase in long-term liabilities	468	-
	222 991	141 042
APPLICATION OF FUNDS		
Distribution of profits		
Interest on liabilities	6 223	4 391
Taxes	17 851	14 672
Dividends	4 675	1 870
Investments		
Investments in fixed assets	<b>68 806</b>	57 359
Repayment of capital		
Decrease in long-term liabilities	10 619	8 068
	108 174	86 360
Change in current assets	93 627	103 076
Change in inventories	-9 675	15 623
Change in short-term liabilities	30 865	-64 017
~	114 817	54 682

#### Notes to the financial statements

#### **CONSOLIDATED FINANCIAL STATEMENTS**

The consolidated financial statements include the figures for all Group companies and partly-owned companies, apart from Kiinteistö Oy Rukavarri and Suomen Tietoverkkopalvelu Oy, which are not engaged in actual business operations and have no significant effect on the Group's financial performance. The consolidated financial statements have been prepared using the acquisition cost method. The price paid for subsidiaries' shares in excess of shareholders' equity has been shown as Group goodwill.

Partly-owned companies include Suomen Tietoverkkopalvelu Oy, Solid Information Technology Ltd, Kiinteistö Oy Rukavarri, VR-Data Oy and Medici Data Oy, which was acquired during the financial year. Partly-owned companies have been consolidated using the equity method. The Groups' share of the partly-owned companies' profit for the financial year, equivalent to the Group's holding in these companies, is shown under financial items. The change in reserves shown in the consolidated income statement can not be directly derived from the balance sheet owing to changes in the Group structure. Inventories have been valued at variable cost in accordance with the FIFO principle.

	Parent company	Parent company	Group	Group
1. Net sales by business operations FIM 1000 *)	<b>199</b> 7	1996	1997	1996
Software services	221 492	201 313	322 517	283 941
Operating services	160 192	146 331	191 812	165 273
Hardware sales	2 559	1 774	768 939	691 705
Total	384 243	349 418	1 283 268	1 140 919

\*) The method for calculating the distribution of net sales has been changed.

Long-term projects are booked as income based on their degree of manufacturing. The degree of manufacturing is calculated by proportioning the real costs to the total cost estimate. Anticipated losses involved in the projects have been booked as expenses.

2. Financial performance of the Group,					
rolling figures for 12 months, FIM million.	1 -3/97	4-6/9		10-12/97	1/97-12/97
Net sales	274.2	302		440.4	1 283.0
Operating profit	7.8	14		33.0	54.6
Net financial income	0.6		.1 -2.8	4.2	2.1
Profit before reserves and taxes	8.4	14	.6 -3.4	39.5	59.1
3. Performance-related personnel	Parent cor	npany	Parent company	Group	Group
expenses and fringe benefits		1997	1996	1997	1996
Personnel					
- average		<b>704</b>	652	1 027	938
- at the end of the year		755	659	1 105	959
Payments to the members of the Supervisory Board					
and the Board of Directors and to the Pr	esident				
- salaries FIM 1000		829	823	2 083	1 963
- remunerations FIM 1000		<b>68</b>	98	189	180
- fringe benefits FIM 1000		41	44	137	176
Other salaries FIM 1000	1	<b>33 689</b>	124 392	192 300	175 778
Other fringe benefits FIM 1000		1 913	1 795	5 165	4 796
Pension costs FIM 1000		18 913	18 251	28 624	26 355
Other personnel costs					
- statutory FIM 1000		13 920	12 676	<b>19 499</b>	16 839
- voluntary FIM 1000		7 307	5 543	<b>11 866</b>	9 295
J.	1	76 680	163 622	<b>259 863</b>	235 382
	Parent cor	nnanv	Parent company	Group	Group
4. Depreciations according to plan FIM 1000	I arene con	1997	1996	1997	1996
Intangible rights		5 701	5 428	5 610	5 404
Goodwill		1 824	1 350	4 706	4 232
Buildings		1 435	1 435	1 435	1 435
Machinery and equipment		26 734	22 433	32 131	27 193
Immediate write-off		~0 / 0 t	2 471	5~ 131	2 471
Other tangible assets		203	185	203	190
Group goodwill		~UJ	105	2 122	1 774
Group goodwill		35 897	33 302	46 207	42 699
		JJ 03/	33 302	4U 4U/	42 000

Fixed assets have been activated at the direct acquisition cost. Depreciation according to plan has been calculated as straight-line depreciation based on the useful economic life of assets. The depreciation periods according to plan are as follows:

Intangible rig	ghts and other long-term expenditure	I	Machinery a	nd equipments	
	PC software Software Goodwill Other long-term expenditure Group goodwill	years 3 5 5 5 5 - 10	Computer har Personal com Other fixed a Cars	puters	years 5 3 5 5 5
Buildings	Buildings Building materials Fallout shelters Asphalt work	$35 \\ 15 \\ 35 \\ 5$	Other tangib	le assets Other tangible assets	5
5. Financial in The Group's i	ncome and expenses nternal financial income and expenses	Paren	t company 1997	Parent company 1996	
Financial inco	ome from Group companies Interest income from short-term inves Interest income from consolidated loar		<b>415</b> -97 <b>3 003</b>	801	
Financial exp	enses arising from Group companies Interest expenses		6	1	
Financial inco	ome and expenses Other financial income includes proce Other financial expenses include expe				
<b>6. Extraordin</b> Extraordinary	a <mark>ry items</mark> / items comprise significant items resulti	ing from oper	ations other tha	n the Group's business operations.	
7 Obligatory	TASAMAS				

#### 7. Obligatory reserves

The Group's obligatory reserves include FIM 1,750 thousand worth of guarantee reserves related to software deliveries. The Group's tax liabilities corresponding to the voluntary reserves totalled FIM 10,101,966 on 31 December 1997, while on 31 December 1996 they totalled FIM 11,858,243. Confirmed losses have not been taken into account in the tax liabilities.

8. Intangible and tangible assets	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Intangible assets	1557	1550	1337	1990
Intangible rights and other long-term expenditure				
Acquisition cost on 1 Jan.	20 688	25 420	20 444	25 443
Increases	15 685	4 792	16 122	5 068
Decreases	-119	-	-119	-254
Acquisition cost 31 Dec.	36 254	30 212	36 447	30 257
Accumulated depreciation 1 Jan.	-9 006	-13 103	-8 926	-13 332
Depreciation on disposal 1 Jan31 Dec.	74	-	74	7
Depreciation 1 Jan31 Dec.	-5 701	-5 428	- <b>5 610</b>	-5 404
Book value 31 Dec.	21 621	11 681	<b>21 985</b>	11 528
	4.7 0.004	0.470	0.040	0.400
Accumulated difference between total and planned depreciation		6 476	8 249	6 488
Increase in depreciation difference 1 Jan31 Dec.	7 306	1 749	7 429	1 761
Accumulated difference between total and planned depreciation	B1 Dec. <b>15 530</b>	8 225	<b>15 678</b>	8 249
	D	D	<b>C</b>	C
	Parent company	Parent company	Group	Group
Goodwill	<u>1997</u> 9 118	<u> </u>	1997	$\frac{1996}{17574}$
Acquisition cost 1 Jan.	9118		20 384	
Increases 1 Jan31 Dec.	- 0.110	2 810	-	2 810
Acquisition cost 31 Dec.	9 118	9 118	20 384	20 384 -4 220
Accumulated depreciation 1 Jan.	-2 090 -1 824	-740	-8 453 -4 706	
Depreciation 1 Jan31 Dec.		-1 350		-4 232
Book value 31 Dec.	5 204	7 028	7 225	11 932

Accumulated difference between total and planned depreciation 1 Jan. Increase in depreciation difference 1 Jan.-31 Dec. Accumulated difference between total and planned depreciation  $\overline{31 \text{ Dec.}}$ 1 330 856 1 469 875 474 594 1 330 1 469 1 3 3 0 1 469

	Group	Group	
Group goodwill	1997	1996	
Acquisition cost 1 Jan.	10 079	8 082	
Increases 1 Jan31 Dec.	1 664	3 915	
Acquisition cost 31 Dec.	11 743	11 997	
Accumulated depreciation 1 Jan.	-5 422	-5 567	
Depreciation 1 Jan31 Dec.	-2 122	-1 774	
Book value 31 Dec.	4 199	$4\ 656$	10

### Notes to the financial statements (FIM 1,000)

			_	-
	Parent company	Parent company	Group	Group
Buildings and constructions	1997	1996	1997	1996
Acquisition cost 1 Jan. Acquisition cost 31 Dec.	<u>46 265</u> 46 265	46 265	46 265 46 265	$\frac{46\ 265}{46\ 265}$
Accumulated depreciation 1 Jan.	-13 185	-11 750	-13 185	-11 750
Depreciation 1 Jan31 Dec.	-1 435	-1 435	-1 435	-1 435
Book value 31 Dec.	31 645	33 080	31 645	33 080
Accumulated difference between total and planned depreciation	on 1 Jan. <b>4 595</b>	4 762	4 595	4 762
Decrease in depreciation difference 1 Jan31 Dec.	-241	-167	-241	-167
Accumulated difference between total and planned depreciation	on 31 Dec. <b>4 354</b>	4 595	4 354	4 595
	Parent company	Parent company	Group	Group
Tangible assets	1997	1996	1997	1996
Machinery and equipment				
Acquisition cost 1 Jan.	106 143	90 497	128 185	114 063
Increases	37 878	37 035	45 552	44 463
Decreases	-3 819	-9 771	-6 109	-18 231
Acquisition cost 31 Dec.	140 202	117 761	167 628	140 295
Accumulated depreciation 1 Jan.	-43 477 2 527	$-34\ 095\ 3\ 905$	-52 687 2 839	$-40\ 464\ 4\ 197$
Depreciation on disposal 1 Jan31 Dec. Depreciation 1 Jan31 Dec.	-26 734	-24 905	-32 131	-29 664
Book value 31 Dec.	72 518	62 666	<u>-32 131</u> 85 649	74 364
	, w 010	02 000	00 010	, 1 00 1
Accumulated difference between total and planned depreciation	on 1 Jan. <b>11 450</b>	8 474	12 318	9 264
Increase in depreciation difference 1 Jan31 Dec.	-	2 975	1 898	$3\ 054$
Decrease in depreciation difference 1 Jan31 Dec.	-417	-	-417	-
Accumulated difference between total and planned depreciation	on 31 Dec. <b>11 033</b>	11 449	13 799	12 318
Share of machinery and equipment of book value on 31 Dec.	66 715	56 232	67 977	57 135
	Parent company	Parent company	Group	Group
Other tangible assets	<u>1997</u>	1996	1997	1996
Acquisition cost 1 Jan.	1 153	854	1 153	1 361
Increases	372	341	372	341
Acquisition cost 31 Dec. Accumulated depreciation 1 Jan.	1 525 -306	1 195 -163	1 525 -306	1 702 -665
Depreciation 1 Jan31 Dec.	-203	-185	-203	-190
Book value 31 Dec.	1 016	847	1 016	847
Accumulated difference between total and planned depreciation	on 1 Jan. 617	444	617	435
Increase in depreciation difference 1 Jan31 Dec.	161	173	161	182
Accumulated difference between total and planned depreciation	on 31 Dec. <b>778</b>	617	778	617
	Depent company	Depent company	Crown	Crown
Shares and interests	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Book value 1 Jan.	16 216	1330	8 153	5 957
Increases 1 Jan31 Dec.	8 200	2 303	7 930	2 303
Decreases 1 Jan31 Dec.	-94	-508	-94	-107
Book value 31 Dec.	24 322	16 216	15 9 <b>8</b> 9	8 153
Acquisition cost is only given for undepreciated assets that are	e currently in use			
	D (		C	C
Total depresention differences	Parent company	Parent company	Group	Group
<b>Total depreciation difference</b> Accumulated difference between total and planned depreciation	0n 1 Jan. <b>26 216</b>	1996 21 012	<u>1997</u> 27 248	$\frac{1996}{21824}$
Increase in depreciation difference 1 Jan31 Dec.	<b>7 467</b>	5 371	9 488	5 591
Decrease in depreciation difference 1 Jan. 31 Dec.	-658	-167	-658	-167
Accumulated difference between total and planned depreciation		26 216	36 078	27 248
1 I				
	Parent company	Parent company	Group	Group
9. Taxable value of fixed assets	1997	1996	1997	1996
Land areas	4 302	4 304	4 302	4 304
Buildings Shares of subsidiaries	17 884 6 737	$\begin{array}{c}17\ 885\\4\ 211\end{array}$	17 884	17 885
Shares of subsidiaries Shares of partly-owned companies	6 /3/ 3 738	4 211 2 592	3 738	$2592^{-1}$
Other shares and interests	2 224	2 859	2 385	3 028
o and billiob und interests	34 885	31 851	28 309	27 809
	01 000	01 001		

10. Fire insurance value of fixed	l assets and inv	entories	Parent compan 199 200 54	<b>7</b> 1996	Group 1997 281 162	Group 1996 260 361
					Pro	ofit/loss show
			Share of		11	on the last
11. Shares and	Ownership/	No.	shareholders'	Nominal	Book	financial
interests on 31 Dec. 1997	voting rights	of shares	equity	value	value	statements
Parent company's ownership in the Group companies						
Novosys Ltd, Helsinki	100%	15 000	54 262	1 500	1 599	22 431
Novobit Ltd, Espoo	100%	5 000	2 752	50	7 073	2 893
Novo Eesti AS	71%	1 070	380	EEK 1125	425	4
Tallinn, Estonia	1000/	50	710	100	1.075	005
Baltic Data Ltd, Helsinki	100%	58	713	100	1 275	285
Novostore Ltd, Helsinki	80%	$\begin{array}{c} 640 \\ 30 \end{array}$	249	320	691	-89
Adiutor Oy, Helsinki	100%	30	214	30	305	194
Subsidiaries' ownership						
Vtkk-Toimistojärjestelmät Oy	100%	67 500	17 552	6 750	19 905	1 563
vikk formistoju jestennut o y	100/0	07 000	17 002	0 100	10 000	1 000
			Share of			
	Ownership/	No.	shareholders'	Nominal	Book	Forecast
	voting rights	of shares	equity	value	value	profit/loss
Partly-owned companies	0 0		1 5			1
owned by the parent company						
Suomen Ťietoverkkopalvelu Oy,	41%	41	30	6	31	-2
Helsinki						
Medici Data Oy, Oulu	36%	250	1 017	250	1 500	259
Solid Information Technology Lt	d, 25%	$63\ 584$	2 383	127	4 369	1 650
Helsinki						
Kiinteistö Oy Rukavarri, Kuusam	0 33%	10	1 909	10	2 157	24
VR-Data Oy, Helsinki	40%	100	4 914	1 000	2 000	5 385
The consolidated and partly-own	ned companies'	balance shee	ts were drawn up on	n 31 December 1997.		

Other shares and interests	Owner- ship	No. of shares	Nominal value	Book value	
Owned by the parent company Kiinteistö Oy Kuusankosken Ostoskeskus, Kuusankoski	7%	225	151	808	
Kiinteistö Oy Satakunnankatu 19-21, Tampere	4%	102	102	926	
Datatie Oy, Helsinki Telephone companies' shares	1%	10 1 734	50	117 978	
<b>Owned by subsidiaries</b> Other shares					
Lupporinki Oy	17%	14	98	341	
Etäyhteys Pace Oy	18%	9	9	9	
Telephone companies' share		65		170	
		Parent		company	
12. Group receivables and liabilities Group receivables			1997	1996	
Consolidated loan			5 000	5 000	
Accounts receivable			226	243	
Loans receivable, sho	rt-term		12 930	12 930	
Deferred income			4 118	2 082	
			22 274	20 255	
Group liabilities					
Advances received			16	-	
Accounts payable			3 317	4 041	
Accrued liabilities			383	132	
			3 716	4 173	

### Notes to the financial statements (FIM 1,000)

	es and liabilities/partly-owned companies	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Receivables	Accounts receivable Loans receivable, short-term Deferred income	1 712 1 236 233	$egin{array}{c} 1 \ 053 \\ 1 \ 104 \\ 132 \end{array}$	1 712 1 236 236	$egin{array}{c} 1 \ 053 \\ 1 \ 104 \\ 160 \end{array}$
Liabilities		3 181	2 289	3 184	2 317
	Accounts payable Accrued liabilities	495	$ \begin{array}{r}     148 \\     130 \\     278 \end{array} $	<b>496</b> 3	497 130
		498	218	499	627
Net principle debited partia	biting in the balance sheet has been applied to items ally in the balance sheet.	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Deferred inco Non-invoiced Advances rece	receivables	16 272 14 034	9 115 9 069	16 272 14 034	9 115 9 069
	es maturing in one year or more	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Deferred inco Loans receiva		662 5 000 5 662	$     \begin{array}{r}       1 264 \\       5 000 \\       6 264     \end{array} $	662 - 662	1 264
<b>16. Advance</b> Advance invo	payments outstanding ices			Group 1997 20 374	Group 1996 15 651
	turing in five years or more	Parent company 1997	Parent company 1996	Group 1997	Group 1996
Pension loans		15 461	21 711	23 234	30 085
	nd other contingent liabilities	Parent company 1997	Parent company 1996	Group 1997	Group 1996
For own debt Pledges Mortgages on Mortgages on		4 751 26 000	8 041 26 000	4 751 26 000 14 000	8 041 26 000 14 000
<b>For a Group o</b> Pledges Guarantees	company's debt	- 29 163	39 116	51	44
	<b>gent liabilities</b> olved in pension loans es	317 10 431	340 10 431	317 10 431	340 10 431
<b>Leasing liabil</b> Leasing paym Leasing paym	i <b>ties</b> ents in 1998/1997 ents in 1999/1998 or later	1 672 1 027	4 644 1 525	2 2 <b>88</b> 1 163	5 476 2 193
Repurchase li	abilities	60	121	60	121

### Notes to the financial statements (FIM 1,000)

19. Changes in shareholders' equity		Parent company 1997	Parent comp	any <b>Group</b> 996 <b>1997</b>	Group 1996
Restricted equity Share capital 1 Jan. Share issue 97/ Bonus issue 96		24 935 6 800	15 5	584         24 935           351         6 800	$15\ 584\ 9\ 351$
Share capital 31 Dec.		31 735	24 9		24 935
Share issue Dec. 1996		-	3 (	- 000	3 000
Premium fund 1 Jan. Bonus issue 96		58 003	24 ( -9 :		24 057 -9 351
Profit from the share issue		106 400	-9.		-9 351 43 297
Premium fund 31 Dec.		164 403	58 (		58 003
Total restricted equity		196 138	85 9	938 <b>196 138</b>	85 938
Non-restricted equity					
Non-restricted equity 1 Jan.		53 575	34 3		39 371
Distribution of dividends Translation difference		-4 675	-1 8		-1 870
Profit for the financial year		21 067	20 9	- <b>3</b> 930 <b>47 675</b>	37 559
Non-restricted equity 31 Dec.		69 967	53 5		75 060
TOTAL SHAREHOLDERS' EQUITY		266 105	139 :	513 <b>314 201</b>	160 998
20. INCREASES OF THE SHARE CAPITAL			Increase	Right to	Number
	oscription		of share	dividend fot the	of new
	price <sup>1</sup>	period	capital, FIM	financial year	shares 1)
Bonus issue 1996		1.5 30.6.96	9 350 580	1997	1 870 116
Directed issue 1996					
Personnel Institutional investors	69.75 77.50		$\begin{array}{c} 130 \ 940 \\ 2 \ 869 \ 060 \end{array}$	1997 1997	26 188 573 812
Directed issue 1997		Bidding period			
Personnel	145.00	1.912.9.97	76 550	1997	15 310
Institutional investors, general public	145.00	1.912.9.97	3 723 450	1997	744 690
$^{\scriptscriptstyle 1)}$ With a new nominal value (FIM 5 per share)					
21. The Group's financial indicators and per-share ratios	1993	1994	1995	1996	1997
Net sales, FIM million	547.6		816.0	1 140.9	1 283.3
Gross margin, FIM million % of net sales	39.4 7.2		71.0 8.7	91.2 8.0	100.8 7.9
Operating profit (-loss), FIM million	-2.5		27.4	48.5	54.6
% of net sales	-0.5	1.7	3.4	4.2	4.3
Profit before extraordinary items, FIM million	-6.0		26.5	47.3	56.7
% of net sales Profit before reserves and taxes, FIM million	-1.1 -5.4		$\begin{array}{c} 3.3\\ 26.9\end{array}$	4.1 47.3	4.4 59.1
% of net sales	-1.0		3.3	4.1	4.6
Balance sheet total, FIM million	297.2	308.5	321.9	454.2	561.3
Return on investment, %	2.4 -7.4		19.6 18.6	25.9 22.1	20.6 15.5
Return on equity, % Solvency ratio, %	-7.4		35.0	42.5	<b>61.0</b>
Gross investments in fixed assets, FIM million	46.9	33.2	47.6	57.4	68.8
% of net sales	8.6	4.8	5.8	5.0	5.4
Average number of personnel	695	718	843	938	1 027

22. Per-share ratios	1993	1994	1995	1996	1997
Profit/share, FIM Dividend/share, FIM <sup>1)</sup> Dividend/profit, % (share issue adjust Equity/share Effective dividend yield, % Price/earnings ratio (P/E)	-1.4 0.2 ed) <sup>1)</sup> n/a 18.0	1.1 0.3 29.4 18.9	3.8 0.4 9.8 22.4	$6.7 \\ 0.9 \\ 13.9 \\ 34.3$	7.1 2.6 <sup>2)</sup> 36.6 <sup>3)</sup> 53.6 2.0 18.0
Development of share price and tradi - lowest of the financial year, FIM - highest of the financial year, FIM - closing day rate, FIM - average rate for the financial year, F	0				128 205 128 154
Market value, FIM million					812,4
No. of shares traded - percentage of the share capital					<b>497 142</b> 7.8%
The share issue adjusted no. of share in thousands - on average - at the end of the financial year	s 4 987 4 987	4 987 4 987	4 987 4 987	4 989 5 587	5 797 6 347

<sup>1)</sup> According to the proposal on dividend payment
<sup>2)</sup> 1997 figures are based on the no. of shares at the end of the financial year.
<sup>3)</sup> The proposed dividend is 40.0% of the profits.
(profit before extraordinary items - taxes - minority interest)
<sup>4)</sup> Development of share price and trading during listing on the brokers' list as well as on the official list is shown.

23. Shareholders by sector on 31 December 1997*	No. of shares	%	
Companies	325 550	5.13	
Companies Financial and insurance institutions	1 534 872	24.18	
Public sector entities	3 360 725	52.95	
Non-profit organisations	783 774	12.35	
Private households	229 160	3.61	
In administrative registration			
and foreign holding	$60\ 500$	0.95	
and foreign holding Joint book-entry account and interim list	52 407	0.83	
Total	6 346 988	100	

#### 24. Distribution of ownership by number of shares owned on 31 December 1997\*

	SHAR	REHOLDERS	NUMBER O	F SHARES
number of shares	No.	%	No.	%
1 - 100	592	42.35	42 991	0.68
101 - 1.000	626	44.78	220 656	3.48
1.001 - 10.000	136	9.73	415 876	6.55
10.001 - 100.000	37	2.65	1 043 846	16.45
100.001 - 1.000.000	6	0.43	3 296 048	51.93
1.000.001 -	1	0.07	1 275 164	20.09
Total	1 398	100.00	6 294 581	99.17
Joint book-entry account and interim list			52 407	0.83
Grand total	1 398	100.00	6 346 988	100.00

\* The figures include 960 shares in joint accounts that were not distributed in the bonus issue in June 1996 (so-called remainder).

#### 25. Shareholders on 31 December 1997\*

	No.	%
The City of Helsinki	1 275 164	20.1
Postipankki Ltd	753 336	11.9
The Association of Finnish Local Authorities	719 204	11.3
The City of Vantaa	608 996	9.6
The City of Espoo	602 608	9.5
The Local Government Pensions Institution	362 520	5.7
PSP-rahoitus Oy	249 384	3.9
Tapiola Oy	79 508	1.3
Norvestia Oy Ab	69 436	1.1
Helsingin Puhelin Oyj	60 000	0.9
Others	1 566 832	24.7
TOTAL	6 346 988	100.0
Number of shareholders	1 398	
No. of shares in administrative registration	60 500	0.95%
No. of company shares owned by the Board of	Directors,	
the Supervisory Board and the President	6 232	0.10%

\* The figures include 960 shares in joint accounts that were not distributed in the bonus issue in June 1996 (so-called remainder).

Calculation of key ratios:

Return on equity (ROE), %=	Profit before extraordinary items - taxes * Shareholders' equity + voluntary reserves and depreciation difference* + minority interest (average)	x 100
Return on investment (ROI), %=	Profit before extraordinary items + interest and other financial expenses Balance sheet total - non-interest bearing liabilities (average)	x 100
Solvency ratio=	Shareholders' equity + voluntary reserves and depr. difference* + minority interest Balance sheet total - advances received	x 100
Profit/share=	Profit before extraordinary items - taxes* - minority interest The average share issue adjusted number of shares	x 100
Shareholders' equity/share=	Shareholders' equity + voluntary reserves and depr. difference* - minority interest The share issue adjusted number of shares at the end of the period	x 100
Dividend/share (share issue adjusted)=	Dividend per share for the financial year divided by the adjustment factors based on subsequent share issues	
Dividend/profit, %=	Dividend/share Earnings/share	x 100
Price/earnings (P/E) ratio=	Share issue adjusted average rate on the closing date earnings/share	-
Effective dividend yield, %=	Dividend/share Average rate on the closing date	x 100

 $^{\ast}$  Deferred tax liability has been taken into account in accordance with the tax rate valid at the time the financial statements were drawn up.



#### To the shareholders of Novo Group Plc:

We have audited the accounting, the financial statements, and the administration of Novo Group Plc for the financial year 1 January to 31 December 1997. The financial statements prepared by the Board of Directors and the President include a report on operations, an income statement, a balance sheet, and notes to the financial statements for both the Group and the parent company. Based on our audit, we give our opinion on the financial statements and administration.

We have conducted our audit in accordance with the Finnish generally accepted auditing standards. Those standards require that we examine the accounting record and the preparation principles, the contents and presentation of the financial statements to an extent sufficient to obtain reasonable assurance that the financial statements are free of material misstatement or deficiencies. The purpose of our audit of company administration has been to ensure that the Board of Directors, Supervisory Board and President have complied with the Companies Act.

In our opinion, the financial statements, which show that the parent company's profit was FIM 21.066.678,38, have been prepared in accordance with the Accounting Act and other rules and regulations governing the preparation of financial statements in Finland. The financial statements give a true and fair view, as defined in the Accounting Act, of the company's result of operations, as well as of its financial position. The financial statements can be approved, and the President and the members of the parent company's Board of Directors and Supervisory Board can be discharged from liability for the period audited by us. The proposal by the Board of Directors on the usage of the non-restricted shareholders' equity is in compliance with the Companies Act.

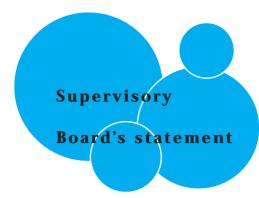
Helsinki, 6 March 1998

Authorised Public Accountants - ERNST & YOUNG

diber & alos

Mikael Holmström, Authorised Public Accountant

Jorma Jäske, Authorised Public Accountant



The Supervisory Board has reviewed the financial statements for 1997, and the auditors' report. The Supervisory Board is in favour of confirming the income statement and balance sheet, and the consolidated income statement and balance sheet, and agrees with the Board of Directors on the disposal of non-restricted shareholders' equity.

limla Timo Kietäväinen

Helsinki, 12 March 1998

Chairman of the Supervisory Board

### The Supervisory Board of Novo Group Plc

Mr. Timo Kietäväinen, Vice President Chairman, member since 1992

Mr. Juhani Paloheimo, Vice President First Vice Chairman, member since 1993

Mr. Pekka Alanen, Vice President Second Vice Chairman, member since 1990

Mr. Olli Ahovaara, Senior Systems Analyst member since 1993

Mr. Seppo Hakalin, Senior Accountant member since 1990

Mr. Esko Hanninen, Mayor member since 1990

Mr. Reijo Hautala, Deputy Mayor member since 1990

Mrs. Anja Höök-Tiihonen, Deputy Director of Co-operation member since 1990

Mr. Veijo Jalava, Vice President member since 1990 Mr. Erkki Laakkonen, City Clerk member since 1994

Mr. Veikko Lehikoinen, Municipal Counsellor member since 1990

Mrs. Elina Lehto, Director (resigned 1 June 1997) member since 1994

Mr. Gunnar Lindberg, Managing Director member since 1990

Mr. Berndt Långvik, Director member since 1990

Mr. Jouko Malinen, Senior Systems Analyst member since 1993

Mr. Hannes Manninen, Mayor member since 1994

Mr. Aulis Mattila, Director of Finance member since 1994

Mr. Pertti Mattila, Managing Director member since 1990 Mr. Juhani Nylund, Planning Manager member since 1990

Mr. Matti Pelttari, Mayor member since 1990

Mr. Rauno Saari, Secretary of State member since 1994

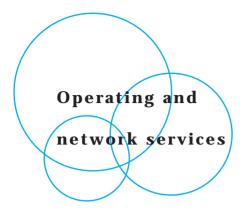
Mrs. Seija Saittakari, Bank Employee member since 1996

Mr. Jouko Sillanpää, Project Planner member since 1994

Mrs. Maarit Toveri, Financial Manager member since 1994

Mrs. Marja-Liisa Viherä, Team Leader member since 1994

Mr. Kim Zilliacus, Regional Secretary member since 1990.





Operating and network services' share of the consolidated net sales in 1997.



Operating and network services' share of the consolidated net sales in 1996.

Operating and network services business developed positively, with net sales up 16.1% from the previous year, totalling FIM 191.8 million (FIM 165.3 million). Operating and network services accounted for 15% (14%) of the consolidated net sales.

Operating and network service business is conducted through the parent company's operating and network services unit, and through Novosys Ltd as a part of its systems deliveries. The Novo Group offers design, management and support services related to hardware, data-communications networks and systems environments, as well as mailing and printing services. The company also offers Internet services.

The objective of service operations is to maintain and ensure the operational reliability of customers' networks, as well as the workstations and servers linked to these networks. Operating services cover two kinds of services; either Novo Group Plc leases its own hardware capacity to the customer, or it maintains the customer's equipment. Business operations can be divided into three groups:service centres, network services, and printing and mailing services. Novo Group Plc has 16 regional service centres throughout Finland. Novo Group Plc's operating and network services are used by organisations both in the public sector and the business sector.

"We produce tools that are designed to make life easier for our customers. They help predict

a number of problems, and allow such problems to be solved befo

implicity are definite assets in that task. A simple symbol that illustrates how a device

works is a much faster wa

plain its function than describing its technologi

or appearance.

ncil provides the quickest tool for visualising ideas

# Operating and network services

#### Market situation

The markets for operating and network services continued to grow. Compared with the previous year, the markets for management and support services related to hardware and data-communications networks are estimated to have grown by 10%. The total market for such services in Finland valued approximately FIM 2.7 billion, which is about 17% of the total IT market.

Data processing is becoming more and more network centric. Organisations have become increasingly dependent upon fully functional networks, and system failures may result in sizeable business losses. Customers expect operational reliability and uninterrupted service from their information systems. The Helsinki service centre provides 24-hour services to any location in Finland, seven days a week. The opening hours of other service centres have also been extended according to local customers' needs. The number of service centres remained the same. The regional service centre in Porvoo was closed, and a new centre was opened in Rovaniemi in the autumn.

In the persistently harsh competitive situation, Novo Group's strengths include extensive hardware expertise and solid experience in the integration, management and control of various operating environments. Our nation-wide service and data-communications network provides us with yet another competitive advantage. Novo Group boasts special expertise in taking charge of large service units. The Group's hardware sales also

provide us with a distinct synergy benefit, as they allow us to offer cus-

tomers a full package, complete with hardware and the necessary services.

We experienced marked growth in the demand for management and monitoring services for decentralised networks. The emphasis in services is shifting from mainframe-based services to operating and monitoring services in the NT operating system environment.

Within organisations, data processing has become more decentralised and more networked. Typical of this trend is that all the essential operative applications are grouped and placed in one cluster of servers, while decentralised servers focus on producing standard services for the network. This type of development is conducive to increased demand for monitoring and management services.

The Novo Group is major supplier of operating and network services for private companies and for the local administration. As far as the public administration sector is concerned, Novo was able to consolidate its position significantly during the past year.

A team-based organisational structure was introduced in the operating and network services unit. Result cards were prepared for use in all business areas. The most notable service agreement of the year was signed with the National Road Administration. It outsourced part of its operations to the Novo Group, effective as of the beginning of October. The agreement also involved personnel arrangements: 51 people from the National Road Administration were employed by Novo Group. The value of the agreement will total more than FIM 60 million over the next three years. Agreements were also signed with the Vehicle Administration Centre, the Regional Development Fund, and several other companies and public administration organisations.

# Service and product development

Regional co-operation with our hardware supplier, Novosys, will provide us with the opportunity to offer a more extensive service selection. Entirely new service packages were produced for the management of servers and small network environments.

Large-scale introduction of control tools designed to improve customer service took place in the spring. A follow-up and reporting system for customer orders was introduced at the end of the year.

Some hardware used for operating services was renewed, and new networking models were developed together with our partners. The printing and mailing services unit invested in new printing and enveloping equipment.

#### Prospects for the near future

The operating and network services anticipate increased demand. Strong growth is expected in the demand for management and monitoring services for network-based computing. Customers will be more inclined to purchase more extensive services and outsource their IT operations. Outsourcing related to networks and workstation support is expected to increase over the next few years, while demand for the more traditional mainframe computers will probably be more restricted. Competition in the printing services sector is likely to become tougher. "When a customer decides to outsource their data management operations, it is our job to

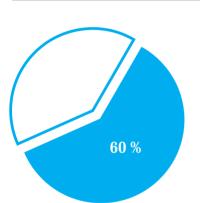
fully grasp the nature of our customer's business and any problems involved. The Finnish

National Road Administration is a perfect example: as former employees of this company,

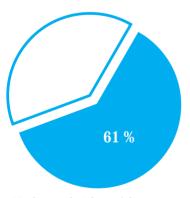
we are familiar with its business, its organisation and needs. Moreover, it's easy to pick up

the phone and call a person you know, regardless of the matter at hand."





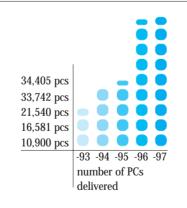
Hardware sales' share of the consolidated net sales in 1997.



Hardware sales' share of the consolidated net sales in 1996.

The Group's hardware sales are conducted by Novosys Ltd, which also offers expert services related to the hardware. Novosys experienced reasonable growth over the past year: the combined net sales of Novosys Ltd and VTKK-Toimistojärjestelmät Oy increased by 13.4%. Novosys Ltd's net sales were FIM 896.4 million. Hardware sales accounted for FIM 768.9 million of the total net sales, and represented 60% (61) of the consolidated net sales.

Novosys Ltd sells personal computers, servers, data-communications equipment, accessories and software, and services related to this hardware. Novosys, product portfolio covers a range of top brands, including Canon, Compaq, Digital,



Hewlett Packard, Fujitsu, IBM and Toshiba. Novosys specialises in supplying complete IT systems for professional use. Novosys' retail outlet chain, Novoshop, specialises in providing small organisations, home offices and private households with personal computers and accessories.

Novosys has 12 offices and six Novoshop outlets in Finland. Novosys has customers in all market segments. The bulk of the company's net sales comes from system purchases by large organisations. The Tammisto installation cent

could be compared to a car-tuning shop.

Here, we customise the equipment to

be perfectly suited for each customer

complete with all the nece

software and accessories. Last year,

Novosys delivere 3

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Dan Da

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requirements. This is

translates into at its bes



#### Market situation

The hardware market is estimated to have grown by about 13%. In the private consumer market, growth was slower than anticipated, particularly in the latter part of the year. The value of the hardware market in Finland was approximately FIM 8.0 billion, which represents 50% of the overall IT market. The proportion of hardware sales to the total market has decreased somewhat from previous years. Novosys holds a market share of approximately 10% in the hardware business. In terms of net sales, Novosys is Finland's largest hardware retailer.

Intense competition has persisted, but Novosys is well positioned to face the situation: it is well-known in the field, is not restricted to specific hardware, possesses a high level of expertise, and can boast of a nation-wide service network.

Customers place several requirements on hardware suppliers, including full delivery reliability, technological expertise, a wide variety of services, reasonable prices, and general reliability. As organisations introduce new, network-based systems and upgrade their hardware and system software platforms, the hardware supplier must have the skills and expertise required for integrating existing systems into a new environment, and designing and implementing a fully functional and reliable new data processing environment.

Demand for hardware has increased significantly, and as a result, delivery capacity has become a key factor in the competitive balance. Novosys has its own warehouse and logistics centre in Tammisto, Vantaa, which helps the company ensure a successful delivery process. The organisation was modified to further improve the delivery process, and agreements were made with hardware manufacturers on operational policies that improve availability considerably. These measures have strengthened Novosys' delivery reliability significantly. The company delivered 34,405 computer systems during the past year. Most of the deliveries involved installation services, which is why the logistics centre also houses an installation services centre. There was a marked increase in the demand for expert services. The biggest relative growth was achieved in the sale of technical expert services and software. In addition to basic workstations, Novosys delivered a large number of various network servers. The business sector continued to be Novosys' largest customer segment. Sales in the public administration sector increased, particularly over the last quarter. Over the year, Novosys signed important delivery agreements with a number of customers, including Postipankki Ltd, Finland Post Ltd, Tietokesko Oy and Oy Veikkaus Ab (the national lottery and money-game company).

The seventh Novoshop retail outlet was opened in Joensuu in June. At the end of the year, the Novoshop in City-Sokos department store in Helsinki was closed, because the shop did not meet its sales targets. New service concepts were developed for the SME sector. All in all, the Novoshop business operations represented a rather modest part of Novosys' total net sales.

# Service and product development

Demand for hardware and operating environment expert services will continue to grow. Information systems environments are becoming increasingly complex, and customers will have more and more trouble managing a system comprised of multiple components.

To meet the customers' needs, Novosys has developed expert services geared toward improving the usability of the hardware, and profiled these services.

Efforts to improve teamwork continued. Training was organised with the aim of improving employee skills and expertise with regard to products and processes.

In February 1997, Novosys Ltd was awarded an SFS-EN ISO 9001 quality certificate. The operations of the Novoshop chain were certified in June.

#### **Prospects for the near future**

The favourable market development is expected to continue in 1998. As customers introduce new, network-based systems, they will also need to change or upgrade their hardware and systems software.

Novosys is well prepared for the future, and has every chance of maintaining its market position and achieving growth, regardless of the fierce competition. Delivery capacity and reliability have been sharpened, and new expert services have been developed, for which we anticipate increasing demand. Our business operations will focus more strongly on data-communications products, expert services and the sale of software licences. Our product portfolio includes hardware, operating systems and software from the world's leading manufacturers.

"We deliver the right computer

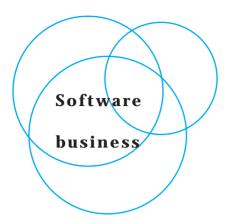
to the right desk, on the right

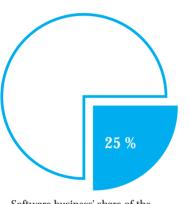
day, customised to meet specific

requirements. This is a real-life

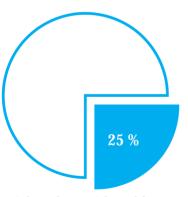
example of fast and reliable

delivery."





Software business' share of the consolidated net sales in 1997.



Software business' share of the consolidated net sales in 1996.

The software business performed as expected in the past financial year. Net sales increased by 13.6% over the previous year, amounting to FIM 322.5 million (FIM 283.9 million). Software business represented 25% (25%) of the consolidated net sales.

The Novo Group's software business operations are carried out through the parent company's software products business unit, customised software business unit, and research and development business unit, and through Baltic Data Ltd, Novobit Ltd, Novostore Ltd and Novo Eesti AS. In addition, Novosys Ltd supplies software licences as a part of its systems deliveries. Software services are divided into three lines: software products, customer-specific software, and businessspecific software customised from own and other suppliers' basic software. The Novo Group offers its customers complete IT packages that include the hardware, individual customer- or business-specific solutions, and the related expert services.

We offer software maintenance services and can integrate the software with other suppliers' products. For financial and personnel administration, materials management and logistics, real estate management, customer service and communications, we offer systems that are not restricted to any particular line of business. When developing new software solutions, we make full use of the potential offered by telematics and data networks. Our business-specific solutions cater to the needs of local administration, public administration, the health care sector and the business sector. "Vacancies in Internet is

Novo Group's first example of

the new approach adopted in

the software business.

We compile data

and process it into a

that is more useful to peopl

nternet makes

job-seeking easier and faster.

Job-seekers can even send

their applications direct

through the data network."

**Software** 

business

The markets for software and expert services experienced sustained growth. The markets are estimated to have grown by more than 16%. The value of the software and expert service market was roughly FIM 5.2 billion, which accounts for some 33% of the total market.

Market situation

Novo Group Plc. acquired 36% of the share capital of Medici Data Oy, a company that specialises in supplying data systems for the health care sector. Business acquisitions are an integral part of Novo's re-defined product strategy in the social services and health care sector. We anticipate marked growth in the health care sector in the near future. Medici Data Oy and Novo Group merged their health care sector product development operations. The objective of this partnership is to make Medici Data one of the leading software houses in the health care sector.

Novo Group acquired 80% of Datascout Oy's share Datascout capital. is involved in producing Internet-based recruiting services aimed at both applicants and employers. Datascout Oy's name was changed to Novostore Ltd. The purpose of this deal was to extend Novo's Internet-based business operations. Novostore produces a variety of content services, software products and www-based services.

Novo Group Plc sold a part of its business operations that focuses on student administration data systems to TT Regional Government Service, a company in the Tieto Group. The company focuses on providing data systems for polytechnics, universities, and vocational training institutes. Novo Group also divested its mapping software and geodetic calculation software businesses to Tekla Oy. In this conjunction, Novo Group Plc, Tekla Oy and Karttakeskus Oy signed a product development and marketing agreement on the data systems for municipal land use and mapping operations.

Novo Group Plc and IBM signed an agreement regarding training on standard software products. IBM took over the training business, effective as of the beginning of 1998.

Business acquisitions and divestitures were geared toward improving the structure of Novo's software business and releasing resources to develop core business areas and set up new growth businesses.

Novo Group has a strong position on the software market for local administration, hospitals and the SME sector. Furthermore, we have

been able

to gain a stronger foothold in public administration, as well. The major challenges include succeeding in the markets for large business organisations, as well as in exports. Novo Group's priority areas comprise the markets for financial administration, personnel administration, and real estate management software, where we have already achieved favourable growth. One of our special expertise areas

is public administration. The size of the Group provides us with a competitive advantage, particularly when it comes to customer-specific systems projects.

The management system in the software business unit was reorganised. The organisation was made better suited for teamwork, and result cards were prepared for use in all business areas. The parent company's software services unit was divided into two: software products and customised systems. Customised systems were further divided into business-specific areas of responsibility. The subsidiaries' business ideas were specified more clearly.

Novo Group was able to consolidate its position, particularly in the markets for financial and personnel administration and real estate management systems. Demand for software packages picked up in the SME sector, and Novobit Ltd improved its position as a supplier of administrative applications for small and mediumsized organisations.

The most extensive projects in the customised systems business unit included upgrading the systems of the Local Government Pensions Institution, customising the filing system of Postipankki Ltd, and supplying a hauling equipment production control system to the state railway company, VR Ltd.

Exports developed more slowly than we anticipated. Novo was involved in several projects financed by the European Union. Over the year, a co-operation project with the Chinese Academy for Surveying and Mapping was launched. This consortium also includes the Satellite Image Centre of the National Land Survey of Finland. The purpose of this project is to produce a new mapping system that will make use of more precise and accurate satellite imaging technology. The approach of the year 2000 and the introduction of Euro have increased demand for services, both profiled services and those requiring mainly human resources. Systems alterations assert pressure on organisations in terms of their operational policies, which was reflected as an increased demand in consultation services. The Novo Group is well-prepared for a potential peak period, and will be able to supply complete information technology services packages for organisations hoping to modernise their operations.

Demand for services built around new network technology and the Internet has picked up considerably. Furthermore, the outlook for the health care sector is also promising: markets for both products and services are expected to grow significantly. Administrative applications will no longer account for the most dramatic growth; instead, complete systems that regulate the overall operations will become the key business area.

During the year, co-operation agreements were signed with Finnair, Pelika RAY Oy (Finnish slot machine association), and various universities. For Finnair Oy, Novo and Cetec B.V. of Holland will produce a crew optimisation and shift scheduling system, while the agreement with Pelika RAY involved a complete system including software products, customised services and other service packages. The agreement signed with the universities covered the delivery of a data system for financial administration, teaching and study support.

#### **Research and development**

The past year had significant implications for the Novo Group's research and development. The market requires increasingly flexible and reliable data systems with faster start-up features. At the same time, the constantly accelerating technological development introduces more demanding and complex environments. To meet these demands, we introduced new tools and equipment from the world's leading computer tool suppliers in 1997. These tools enabled us to handle the entire data system development process, from design to implementation and installation. To ensure fast deliveries and overall project management, we established a partnership network with several Finnish and foreign subcontractors and specialists.

During the period under review, the largest product development projects were the Basic Registers 2000, Soster and Primas real estate management systems. The Basic Registers 2000 project involves the production of a system that incorporates the list of titles, construction supervision and city plan, replacing several existing programmes. We tested some new tools in connection with the project, with encouraging results. Products for real estate management are designed to help manage large volumes of real estate information. The Primas product development project was completed during the year, and a decision was made to reconstruct the product strategy for the social services and health care sector.

**Prospects for the near future** The year 2000 and the introduction of Euro will further increase the demand for both products and expert and consultation services. Further growth is also expected in the demand for services linked to network centric computing, and we anticipate a real boom in the market for electronic trading applications. In the health care sector, there will be a marked increase in the demand for patient administration systems, and for new type of services that support the care chain concept. The most serious factor hampering our growth is the aggravating shortage of skilled employees.



that all data processing

environments be checked

Moving into the new millennium involves certain IT-related problems. If the data system interprets the calendar date incorrectly, there could be wide-ranging and unexpected implications.

The year 2000 problem has to do with the fact that years are expressed as two-digit numbers. This convention was introduced in order to save memory space and to accelerate the saving process. Moreover, since the processors operated with two-digit dates, it would not have made much sense to use four-digit dates in the software either.

The fact that only decades, and not centuries, were used in the digits is now causing problems. Different computers and their operating systems, controlling systems and applications interpret post-1999 dates in different ways.

The year 2000 (Y2000) problem is global. It involves hardware, operating systems, user interfaces and application software. Owing to the required alterations, more hardware capacity and memory space will be required, and the programmes must run faster. In this era of network-based computing, all problemcharting, alterations and testing must be conducted so that the interdependencies between various data processing environments are taken into account. Novo Group's first step in tackling the Y2000 problem was finding out which of its own products, if any, needed to be upgraded to a new, year 2000 format. At the same time, Novo introduced a year 2000 policy concerning company procedures with various products and services on the one hand, and customer groups

on the other. Products and operational policies for the next millennium, and relevant customer recomm e n d a t i o n s, were published in September 1997.

The majority of the alteration work required to upgrade Novo Group's own standard products used

by the company's customers was completed in 1997. In 1997, Novo also began testing Y2000-converted systems environments for these products. The bulk of these upgraded versions will be delivered to customers in 1998. As Novo Group is also involved in retail, the company has also checked the operability of the products it sells with the manufacturers. Novo Group has consistently emphasised to its customers their own responsibility in securing the operability of the entire systems environment. For customers that use non-standard products, or buy products and services from other companies within the Group, Y2000 problemcharting and alterations will be carried

We chart the risks

and find solutions

to problems to ensure

a smooth transition

vidual agreements. Since 1997, Novo Group has offered its customers a service that involves charting the risks related to the year 2000.

out in accordance with indi-

The year 2000 problem should be addressed quickly, but at the moment, a shortage of skilled labour is

the major obstacle. In addition, customers are simultaneously undergoing another data system change as they prepare for the introduction of a common European currency.

### Terminology used in the annual report

#### Application

- Completing a data processing task using information technology. Application software: the software running the operations needed by a basic user.

# Applications development system

- A system that essentially facilitates the production of application software. It includes special tools for data input, display, reporting and data management.

#### Architecture

- The data processing environment that determines the features of, for example, an operating system, hardware generation or application.

#### **Complete service package**

- A range of hardware, software and IT services that enables the supplier to produce and deliver all the components required in a typical data system environment.

#### Customer-specific software

- Software customised to meet the customer's specific requirements.

#### Data management tools

- IT devices used by several users via the data network, for instance, in order to manage and control the computer hardware, software, or the entire system, and to ensure their operational reliability.

#### Data processing

- Completing a task or a series of tasks involving data, such as combination, selection, reorganisation or calculation, in order to produce desired results.

#### Data processing tools

- Tools used for automatic data processing on a computer: software and their accessories and operating systems, databases, and other parts of the data system that are invisible to the end-user.

#### Data system

- A system used for data processing comprising hardware, software and peripheral equipment

#### Database

- A collection of data describing a certain object, which is being used and updated by one or more data systems.

#### Decentralised data processing/ data system

- Data processing that takes place in various parts of the network.

#### Definition

- Describing a certain structure or system using means and methods agreed upon in advance. Cf. data system building stages: definition, implementation, testing

#### Expert services

- A problem-solving method based on expert skills and competence, by which the most suitable IT solution for a particular situation can be offered using expert human resources rather than technical devices.

#### Extranet

- A cluster of data networks created using Internet technology, parts of which may be open to all users, while access to some parts can be restricted to selected users.

#### Framework software

- Software that serves as the core of a larger package and that will be complemented with customer-specific or operation-specific accessory parts.

#### Implementation

- A stage in the data system building after definition but before testing that is usually carried out using certain application development systems.

#### Improved teamwork process

- A term that Novo Group uses to describe the process aimed at improving the company's ability to change, its operational structures, its methods of measuring performance, and the work carried out by individuals and teams.

#### Information technology

- A concept that comprises the processing of information, knowledge and messages produced or conceived by people with technical devices and equipment.

#### Installation

- Putting software or hardware into working order at the customer's place of business.

#### Integration services

- Services by which the service provider integrates a user's software and hardware to create a fully functional package.

#### Internet

- Originally a system used by the research community and universities, but now open to all users; a global web comprised of numerous data networks and the links between them.

#### Intranet

- A cluster of data networks and the links between them that is created using Internet technology, and that can only be accessed by a defined user group and is completely closed for anyone outside this group.

#### Introduction

- Putting a new system into regular use.

#### Mainframe computer

- A computer that is operated from terminals linked to it.

#### Network services

- Novo Group's business operation that includes the construction and introduction of various data networks, their management and monitoring, and ensuring their operational reliability.

#### Network centric computing

- A data processing model that enables the transfer of information between various units linked together to form a network.

#### Networking

- A more intensive and close co-operation between companies and other organisations, or between individuals and groups, in order to promote a common goal.

#### **Operating services**

-Services purchased from an external service provider aimed at maintaining and supporting the IT services.

#### **Operative application**

- A software application that is an integral part of the user's key operations, for instance production control or a customer service application.

#### Package software

- Software that is marketed in its standard format to a very large group of users.

#### Printing and mailing services

- The Novo Group printing service prints invoices on paper, places them in envelopes, and either mails them to given addresses or takes care of the transportation to an agreed place. Server

- A device that serves several workstations in a network, and that handles certain tasks, such as printing or data storage.

#### Software business

- Business activities involved in the development, marketing, introduction and maintenance of software.

#### Software product

- Computer software that has been specially-designed to perform a certain set of tasks, and that is marketed chiefly in standard format to various users.

#### Support services

- Services and assistance provided for the end-users of data systems

#### System software

- The system software and accessories required to operate a certain computer.

#### Systems environment

- An entity comprised of hardware and software in which the former features constitute a marginal condition for the validity of new devices and software introduced into the system.

#### Testing

- A stage in the data system building that follows definition and implementation. It involves testing the compatibility of the components in the system with each other and with the environment, in situations that are as close to real usage as possible.

#### Upgrading

- Updating software, in whole or part, to a more recent version, or making it compatible with another environment.

#### User interface

- The devices or functions with which the user is linked to the data system or a network service. Cf. graphic user interface or browser.

#### Workstation

- The set of equipment used by an individual user.

#### www

- World wide web - a network that covers the entire world. For example, a WWW-application is an application that includes a WWW interface to allow access to the web.

# The Board of Directors

of Novo Group Plc







Lauri A.Manninen, MBA, Budget Manager/The City of Helsinki, Chairman of the Board of Directors since 1990

Ilkka Hallavuo, MBA, Bank Manager/Postipankki (Postal Savings Bank) Ltd., Member of the Board of Directors since 1993

Jouko Juppala, M. Soc., Director of Administration /The City of Vantaa, Member of the Board of Directors since 1990

Simo Lämsä, Master of Laws, Managing Director/The Local Government Pensions Institution, Member of the Board of Directors since 1990 and Vice Chairman since 1993

Christel von Martens, MBA, Development Manager/The Association of Finnish Local Authorities, Member of the Board of Directors since 1995

Marketta Nordman, MBA, Head of Financial Planning/The City of Espoo, Member of the Board of Directors since 1995

Antti Salonen, BA, Municipal Manager/The Municipality of Kalvola, Member of the Board of Directors since 1990











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