

NOKIA CORP  
Form 20-F  
February 06, 2004

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As filed with the Securities and Exchange Commission on February 6, 2004.

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# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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## FORM 20-F

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE  
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2003

Commission file number 1-13202

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### Nokia Corporation

(Exact name of Registrant as specified in its charter)

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**Republic of Finland**

(Jurisdiction of incorporation)

**Keilalahdentie 4, P.O. Box 226, FIN-00045 NOKIA GROUP, Espoo, Finland**

(Address of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
<b>American Depositary Shares Shares, par value EUR 0.06</b>	<b>New York Stock Exchange New York Stock Exchange<sup>(1)</sup></b>

(1) Not for trading, but only in connection with the registration of American Depositary Shares representing these shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

Indicate the number of outstanding shares of each of the registrant's classes of capital or common stock as of the close of the period covered by the annual report.

Shares, par value EUR 0.06: **4 796 292 460**

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Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

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### INTRODUCTION AND USE OF CERTAIN TERMS

Nokia Corporation is a public limited liability company incorporated under the laws of the Republic of Finland. In this document, any reference to "we," "us," "the Group" or "Nokia" means Nokia Corporation and its subsidiaries on a consolidated basis, except where we make clear that the term means Nokia Corporation or a particular subsidiary or business group only, and except that references to "our shares," matters relating to our shares or matters of corporate governance shall refer to the shares and corporate governance of Nokia Corporation. Nokia Corporation has published its consolidated financial statements in euro for periods beginning on or after January 1, 1999. In this Form 20-F, references to "EUR,"

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"euro" or "€" are to the common currency of the European Economic and Monetary Union, or EMU, and references to "dollars," "US dollars," "USD" or "\$" are to the currency of the United States. Solely for the convenience of the reader, this Form 20-F contains conversions of selected euro amounts into US dollars at specified rates, or, if not so specified, at the rate of 1.2597 US dollars per euro, which was the noon buying rate in New York City for cable transfers in euro as certified for customs purposes by the Federal Reserve Bank of New York on December 31, 2003. No representation is made that the amounts have been, could have been or could be converted into US dollars at the rates indicated or at any other rates.

In this Form 20-F, unless otherwise stated, references to "shares" are to Nokia Corporation shares, par value EUR 0.06.

Our principal executive office is currently located at Keilalahdentie 4, P.O. Box 226, FIN-00045 Nokia Group, Espoo, Finland and our telephone number is +358 (0) 7 1800-8000.

Nokia Corporation furnishes Citibank, N.A., as Depositary, with consolidated financial statements and a related audit opinion of our independent auditors annually. These financial statements are prepared on the basis of International Accounting Standards, or IAS. Nokia's consolidated financial statements contain a reconciliation of net income and shareholders' equity to accounting principles generally accepted in the United States, or US GAAP. Upon receipt, the Depositary generally delivers these consolidated financial statements to record holders of American Depositary Receipts, or ADRs, evidencing American Depositary Shares, or ADSs. One ADS represents one share. We also furnish the Depositary with quarterly reports containing unaudited financial information prepared on the basis of IAS, as well as all notices of shareholders' meetings and other reports and communications that are made available generally to our shareholders. The Depositary makes these notices, reports and communications available for inspection by record holders of ADSs and delivers to all record holders of ADSs notices of shareholders' meetings received by the Depositary. In addition to the reports delivered to holders of ADSs by the Depositary, holders can access our consolidated financial statements as well as other information previously included in our printed annual reports, at [www.nokia.com](http://www.nokia.com). This Form 20-F is also available at [www.nokia.com](http://www.nokia.com). With each annual distribution of our consolidated financial statements, we offer our shareholders and record holders of ADSs the option of receiving all of these documents electronically in the future.

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### FORWARD-LOOKING STATEMENTS

It should be noted that certain statements herein which are not historical facts, including, without limitation, those regarding:

the timing of product and solution deliveries;

our ability to develop, implement and commercialize new products, solutions and technologies;

expectations regarding market growth, developments and structural changes;

expectations and targets for our results of operations; and

statements preceded by "believe," "expect," "anticipate," "foresee" or similar expressions

are forward-looking statements.

Because these statements involve risks and uncertainties, actual results may differ materially from the results that we currently expect. Factors that could cause these differences include, but are not limited to:

developments in the mobile communications industry and the broader mobility industry, including the development of the mobile software and services market, as well as industry consolidation and other structural changes;

timing and success of the introduction and roll-out of new products and solutions;

demand for and market acceptance of our products and solutions;

the impact of changes in technology and the success of our product and solution development;

the intensity of competition in the mobility industry and changes in the competitive landscape;

our ability to control the variety of factors affecting our ability to reach our targets and give accurate forecasts;

pricing pressures;

the availability of new products and services by network operators and other market participants;

general economic conditions globally and in our most important markets;

our success in maintaining efficient manufacturing and logistics as well as the high quality of our products and solutions;

inventory management risks resulting from shifts in market demand;

our ability to source quality components without interruption and at acceptable prices;

our success in collaboration arrangements relating to technologies, software or new products and solutions;

the success, financial condition, and performance of our collaboration partners, suppliers and customers;

any disruption to information technology systems and networks that our operations rely on;

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our ability to have access to the complex technology involving patents and other intellectual property rights included in our products and solutions at commercially acceptable terms and without infringing any protected intellectual property rights;

developments under large, multi-year contracts or in relation to major customers;

the management of our customer financing exposure;

exchange rate fluctuations, including, in particular, fluctuations between the euro, which is our reporting currency, and the US dollar, the UK pound sterling and the Japanese yen;

our ability to recruit, retain and develop appropriately skilled employees;

our ability to implement our new organizational structure; and

the impact of changes in government policies, laws or regulations

as well as the risk factors specified in this Form 20-F under "Item 3.D Risk Factors."

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**PART I**

**ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3. KEY INFORMATION**

**3.A Selected Financial Data**

The financial data set forth below at December 31, 2002 and 2003 and for each of the years in the three-year period ended December 31, 2003 have been derived from our audited consolidated financial statements included in Item 18 of this Form 20-F. Financial data at December 31, 1999, 2000 and 2001 and for each of the years in the two-year period ended December 31, 2000 have been derived from Nokia's previously published audited consolidated financial statements not included in this document.

The financial data at December 31, 2002 and 2003 and for each of the years in the three-year period ended December 31, 2003 should be read in conjunction with, and are qualified in their entirety by reference to, our audited consolidated financial statements.

The audited consolidated financial statements from which the selected consolidated financial data set forth below have been derived were prepared in accordance with IAS, and net income and shareholders' equity have been reconciled to US GAAP, which differ in some respects from IAS. For a discussion of the principal differences between IAS and US GAAP, see "Item 5.A Operating Results Principal Differences Between IAS and US GAAP" and Note 36 to our audited consolidated financial statements.

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Year ended December 31,

	1999	2000	2001	2002	2003	2003
	(EUR)	(EUR)	(EUR)	(EUR)	(EUR)	(USD)

(in millions, except per share data)

**Profit and Loss Account Data**

*Amounts in accordance with IAS*

Net sales	19 772	30 376	31 191	30 016	29 455	37 104
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	Year ended December 31,					
Operating profit	3 908	5 776	3 362	4 780	5 011	6 312
Profit before tax and minority interests	3 845	5 862	3 475	4 917	5 345	6 733
Profit from continuing operations	2 577	3 938	2 200	3 381	3 592	4 525
Net profit	2 577	3 938	2 200	3 381	3 592	4 525
Continuing operations						
Basic earnings per share <sup>(1)</sup>	0.56	0.84	0.47	0.71	0.75	0.94
Diluted earnings per share <sup>(1)</sup>	0.54	0.82	0.46	0.71	0.75	0.94
Net profit						
Basic earnings per share <sup>(1)</sup>	0.56	0.84	0.47	0.71	0.75	0.94
Diluted earnings per share <sup>(1)</sup>	0.54	0.82	0.46	0.71	0.75	0.94
Cash dividends per share <sup>(1)(2)</sup>	0.20	0.28	0.27	0.28	0.30	0.38
Average number of shares (millions of shares)						
Basic	4 594	4 673	4 703	4 751	4 761	4 761
Diluted	4 743	4 793	4 787	4 788	4 761	4 761
<b>Amounts in accordance with US GAAP</b>						
Income from continuing operations	2 542	3 847	1 903	3 603	4 097	5 161
Net income	2 542	3 847	1 903	3 603	4 097	5 161
Continuing operations						
Basic earnings per share <sup>(1)</sup>	0.55	0.82	0.40	0.76	0.86	1.08
Diluted earnings per share <sup>(1)</sup>	0.54	0.80	0.40	0.75	0.86	1.08
Net income						
Basic earnings per share <sup>(1)</sup>	0.55	0.82	0.40	0.76	0.86	1.08
Diluted earnings per share <sup>(1)</sup>	0.54	0.80	0.40	0.75	0.86	1.08

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Year ended December 31,

	1999	2000	2001	2002	2003	2003
	(EUR)	(EUR)	(EUR)	(EUR)	(EUR)	(USD)

(in millions, except per share data)

**Balance Sheet Data**

**Amounts in accordance with IAS**

Fixed assets and other non-current assets	3 487	6 388	6 912	5 742	3 837	4 833
Cash and cash equivalents	4 159	4 183	6 125	9 351	11 296	14 230
Other current assets	6 633	9 319	9 390	8 234	8 787	11 069
<b>Total assets</b>	<b>14 279</b>	<b>19 890</b>	<b>22 427</b>	<b>23 327</b>	<b>23 920</b>	<b>30 132</b>
Shareholders' equity	7 378	10 808	12 205	14 281	15 148	19 082
Minority interests	122	177	196	173	164	207
Long-term interest-bearing liabilities	269	173	207	187	20	25
Other long-term liabilities	138	138	253	274	308	388
Borrowings due within one year	793	1 116	831	377	471	593
Other current liabilities	5 579	7 478	8 735	8 035	7 809	9 837
<b>Total shareholders' equity and liabilities</b>	<b>14 279</b>	<b>19 890</b>	<b>22 427</b>	<b>23 327</b>	<b>23 920</b>	<b>30 132</b>
Net interest-bearing debt <sup>(3)</sup>	(3 097)	(2 894)	(5 087)	(8 787)	(10 805)	(13 611)
Share capital	279	282	284	287	288	363
<b>Amounts in accordance with US GAAP</b>						
Total assets	14 289	19 676	22 038	22 977	24 045	30 289

Year ended December 31,

Shareholders' equity	7 384	10 871	12 021	14 150	15 437	19 446
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- (1) Adjusted for share splits.
- (2) The cash dividend for 2003 is what the Board of Directors will propose for approval at the Annual General Meeting convening on March 25, 2004.
- (3) Net interest-bearing debt consists of borrowings due within one year and long-term interest-bearing liabilities, less cash and cash equivalents.

### *Distribution of Earnings*

We distribute retained earnings, if any, within the limits set by the Finnish Companies Act. We make and calculate the distribution, if any, either in the form of cash dividends, share buy-backs, or in some other form or a combination of these. There is no specific formula by which the amount of a distribution is determined, although some limits set by law are discussed below. The timing and amount of future distributions of retained earnings, if any, will depend on our future results and financial condition.

Under the Finnish Companies Act, we may distribute retained earnings on our shares only upon a shareholders' resolution, on the basis of our annual accounts on a consolidated and individual basis, as approved by our shareholders and, subject to limited exceptions, in the amount proposed by our Board of Directors. The amount of any distribution is limited to, among other things, the lower of our retained earnings on a consolidated and individual basis, in each case as available at the end of the preceding financial year pursuant to the annual accounts as approved by our shareholders. Subject to exceptions relating to the right of minority shareholders to request otherwise, the distribution may not exceed the amount proposed by the Board of Directors.

### *Share Buy-backs*

Under the Finnish Companies Act, Nokia Corporation may repurchase its own shares pursuant to either a shareholders' resolution or an authorization to the Board of Directors approved by the

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company's shareholders. Such authorizations to the Board of Directors are effective for a maximum of one year. The undertaking of share buy-backs is subject not only to the regulations in the Companies Act, but also to the rules of the stock exchanges on which the repurchases take place. The Board of Directors of Nokia was for the first time authorized by our shareholders, in the Extraordinary Shareholders' Meeting in 1999 to repurchase Nokia's own shares. Since then, the Board of Directors of Nokia has been regularly authorized by our shareholders in the Annual General Meetings to repurchase Nokia's own shares up to 224 million shares in 2000, 225 million shares in 2001, 220 million shares in 2002 and 225 million shares in 2003. The amount of authorization each year has been at or slightly under the maximum limit provided by the Finnish Companies Act. The Board of Directors used the authorizations approved in 1999-2002 to a certain extent, but in 2003 the Board of Directors resolved to start a repurchase plan and use a maximum of EUR 2 billion for repurchases during the current authorization.

On January 22, 2004, we announced that the Board of Directors will propose that the Annual General Meeting, convening on March 25, 2004, approve a new authorization to repurchase up to 230 million shares. The Board expects to continue the share buy-backs in 2004.

The table below sets forth actual share buy-backs by the Group in respect of each fiscal year indicated.

Number of shares	EUR millions (in total)
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	<b>Number of shares</b>	<b>EUR millions (in total)</b>
2000	3 252 000	160
2001	995 000	21
2002	900 000	17
2003	95 338 500	1 363

For more information about share buy-backs during 2003, see "Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers."

*Dividends*

The Board of Directors will propose for approval at the Annual General Meeting convening on March 25, 2004 a dividend of EUR 0.30 per share in respect of 2003.

The table below sets forth the amounts of total cash dividends per share and per ADS paid in respect of each fiscal year indicated. For the purposes of showing the US dollar amounts per ADS for 1999-2002, the dividend per share amounts have been translated into US dollars at the noon buying rate on the respective dividend payment dates.

	<b>EUR per share</b>	<b>USD per ADS</b>	<b>EUR millions (in total)</b>
1999	0.20	0.19	931
2000	0.28	0.25	1 315
2001	0.27	0.24	1 279
2002	0.28	0.30	1 341
2003	0.30 <sup>(1)</sup>	<sup>(2)</sup>	1 439 <sup>(1)</sup>

(1) To be proposed by the Board of Directors for approval at the Annual General Meeting convening on March 25, 2004.

(2) The final US dollar amount will be determined on the basis of the decision of the Annual General Meeting and the dividend payment date.

In 1999, we effected a two-for-one share split, effective in public trading on April 12, 1999, and in 2000, we effected a four-for-one share split, effective in public trading on April 10, 2000. In the table above, the dividend per share and dividend per ADS figures have been adjusted accordingly.

We make our cash dividend payments in euro. As a result, exchange rate fluctuations will affect the US dollar amount received by holders of ADSs on conversion of these dividends. Moreover, fluctuations in the exchange rates between the euro and the US dollar will affect the dollar equivalent of the euro price of the shares on the Helsinki Exchanges and, as a result, are likely to affect the market price of the ADSs in the United States. See also "Item 3.D Risk Factors Our sales, costs and results are affected by exchange rate fluctuations, particularly between the euro, which is our reporting currency, and the US dollar, the UK pound sterling and the Japanese yen as well as certain other currencies."

**Exchange Rate Data**

The following table sets forth information concerning the noon buying rate in New York City for cable transfers as certified for customs purposes by the Federal Reserve Bank of New York for euro for the years 1999 through 2003 and for each of the months in the six-month period ended January 31, 2004, expressed in US dollars per euro.

The average rate for a year means the average of the exchange rates on the last day of each month during a year. The average rate for a month means the average of the daily exchange rates during that month.

**Exchange Rates**

For the year ended December 31:	Rate at period end	Average rate	Highest rate	Lowest rate
(USD per EUR)				
1999	1.0070	1.0588	1.1812	1.0016
2000	0.9388	0.9232	1.0335	0.8270
2001	0.8901	0.8954	0.9535	0.8370
2002	1.0485	0.9495	1.0485	0.8594
2003	1.2597	1.1411	1.2597	1.0361
For the month ended:				
August 31, 2003	1.0986	1.1155	1.1390	1.0871
September 30, 2003	1.1650	1.1267	1.1650	1.0845
October 31, 2003	1.1609	1.1714	1.1833	1.1596
November 30, 2003	1.1995	1.1710	1.1995	1.1417
December 31, 2003	1.2597	1.2298	1.2597	1.1956
January 31, 2004	1.2452	1.2638	1.2853	1.2389

On January 30, 2004, the noon buying rate was USD 1.2452 per EUR 1.00.

### 3.B Capitalization and Indebtedness

Not applicable.

### 3.C Reasons for the Offer and Use of Proceeds

Not applicable.

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### 3.D Risk Factors

Set forth below is a description of factors that may affect our business, results of operations and share price from time to time.

*Changes in the mobile communications industry require us to develop complex, evolving technologies to use in our various businesses, some of which are new to us. If we fail to develop these technologies or successfully commercialize them as new advanced products and solutions that meet the demands of the market, or fail to do so on a timely basis, or if the evolution of our operating environment is slower than anticipated leading to delays in the deployment and acceptance of new services, it may have a material adverse impact on our business, our ability to meet our targets, and our results of operations.*

The mobile communications industry and the technologies that it exploits are undergoing significant changes. First, the mobile communications, information technology and media industries are converging into one broader industry, which we call the mobility industry. This is a result of advances in technologies that enable a variety of products and services from different industries to become connected with each other. We expect this convergence to lead to the creation of new mobile devices, new services and new ways in which mobile devices are used. Second, while participants in the mobile communications industry once provided complete products and solutions, the mobility industry will include increasing numbers of participants who provide specific hardware and software layers for products and solutions. Examples of such layers include operating system and user interface software, chipsets, and application software such as games software. We expect that certain layers in products and solutions will have increasing value from a business perspective, which may also result in shifts of value among different industry participants.

Our challenge is to respond to the industry changes described above as they require a completely new approach. We believe that the development and successful commercialization of new mobile devices is important and necessary. However, we also believe that it will be necessary to develop completely new business systems for distinct value domains, of which mobile devices may be only one part. In order to do this profitably, and benefit from economies of scale and our market size, we must establish common technology platforms, on the top of which the value domain specific solutions are developed. Selected parts of the common technology platforms may also be shared with the industry. In an effort to address the dynamics of the mobility industry, we reorganized our businesses into four business groups: Mobile Phones, Multimedia,

Networks and Enterprise Solutions, effective January 1, 2004.

Despite our recent reorganization, we may not be able to commercialize new products and services successfully or profitably, or respond fast enough to the changes in the industry. Factors that may cause this include the rapid development and increasing complexity of the technologies on which we must rely, which may become obsolete more quickly than we had anticipated, and which may lead to performance or other defects because they are new. As well, because we intend to use these technologies in businesses that are new to us, we face the risk that we may not successfully commercialize them into products and solutions that will be accepted in the new markets we are entering.

We aim continuously to introduce mobile devices that have improved designs and technical features, with services and price levels appropriate to the target markets. However, the development and application of the new technologies, applications and technology platforms for our mobile devices involves time, substantial costs and risks both within and outside of our control. This is true, whether we develop those technologies, applications and technology platforms internally, by acquiring or investing in other companies or through collaboration with our collaboration partners. The technologies, functionalities and features on which we choose to

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focus may not achieve as broad customer acceptance as we expect. This may result from numerous factors including the availability of more attractive alternatives or a lack of sufficient compatibility with other existing technologies, products and solutions. Additionally, even if we do select the technologies, functionalities and features that customers ultimately want, we or our collaboration partners may not be able to bring them to the market at the right time.

We believe that the success of the mobility industry and our success depend significantly on the timely development of a global business environment that is conducive to the mass-market acceptance of new services to be delivered over various kinds of networks. In order for such an environment to develop, we believe that existing market fragmentation of various kinds needs to be reduced. Market fragmentation can exist as a result of certain national business, legal and governance structures; for example, certain services, such as payment processing by banks, have traditionally been organized at the national rather than international level, with the result that service offerings are not consistent across borders. As well, the adjustment to network-based delivery of services in many instances requires substantial changes to existing industry value chains and business models, and these changes are either not yet implemented or may develop in ways inconsistent with the aim of a globally coherent mobile business environment. Finally, market fragmentation can result from technological barriers such as a lack of interoperability. Because the value of networked services is directly related to the number of users who become connected to networks and are able to use those services, we believe that the mobility industry will have to reduce the fragmentation described above by coordinating business and service solutions across traditional national and industry borders. As well, from a technological perspective, the avoidance of fragmentation will require the widespread support of interoperability in products and services across all service and consumer platforms not only mobile devices through open, global specifications and standards.

Nevertheless, although we invest significantly in the development of global standards and in their promotion worldwide, and implement open standards in our products and solutions, other market participants and end-users may not implement or adapt to them or may be delayed in implementing the often significant business model or value chain adjustments that would be necessary to reduce overall fragmentation in the market. We believe that failure or delays in these business model and value chain adjustments or in the creation and implementation of open, global standards may result in reduced long-term growth of the overall market, scarcity of interoperable products and solutions, increased market fragmentation and fewer innovative entrants to the market. For further information, see "Item 4.B Business Overview."

In our networks business, we are developing a number of network infrastructure solutions incorporating advanced technologies. Currently, our networks business designs and builds networks based primarily on GSM, EDGE and WCDMA technologies. Although these are currently the leading mobile communications technology platforms, they may not always be. Our networks business's sales and operating results may be adversely affected if these technologies or subsequent new technologies on which we focus do not achieve as broad acceptance among customers as we expect, or if we fail to adapt to different technology platforms that emerge over time.

***The development of the mobility industry is significantly altering the competitive landscape and increasing competition. We are entering businesses where the competitive landscape is new to us or still in the early stages of development. Our failure to respond successfully to this development may have a material adverse impact on our business, our ability to meet our targets, and our results of operations.***

The markets for our products and solutions are intensely competitive. Industry participants compete with each other mainly on the basis of the breadth and depth of their product portfolios,

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price, operational and manufacturing efficiency, technical performance, product features, quality, customer support, and brand recognition. Mobile network operators are increasingly offering mobile devices under their own brand, which may result in increasing competition from non-branded mobile device manufacturers. Finally, a number of factors, including actual or even alleged defaults in our products and solutions, may have a negative effect on our reputation and erode the value of the Nokia brand, which we regard as one of our key competitive advantages.

The industry trends described in the previous risk factor mean that the mobile communications industry's competitive landscape is changing in ways that present us with new risks. First, as the mobile communications, information technology and media industries are converging into one broader industry, each industry participant must now compete against a wider sphere of competitors than before, many of whom may be relatively new to each other and many of whom may have substantial competitive strengths in their core industries. For example, our principal competitors have historically been other mobile communications companies such as Ericsson, Motorola, Nortel, Samsung and Siemens. Now, in addition, we must compete in our multimedia business with consumer electronics manufacturers and in our enterprise solutions business with business device and solution providers. Second, as the mobility industry will include increasing numbers of participants who provide specific hardware and software layers within products and solutions, we must also be competitive at the level of these layers rather than solely at the level of products and solutions. As a result of these developments, we face new competitors such as, but not limited to, Cisco, Dell, HP, Microsoft, Nintendo and Sony, and we must also compete with a great number of smaller competitors and with some of our traditional competitors in new areas.

Finally, the development of new technologies and potential changes in customer behavior may also change the competitive landscape for our products and solutions in ways that we cannot currently predict. Moreover, in the businesses that we are entering that are new to us or are at the early stages of their development, such as those targeted by the Multimedia and Enterprise Solutions business groups, the competitive environment may develop differently from our expectations. As a result, we may not be able to predict and adapt successfully to the future competition facing our various business segments, and we may find that we have not optimally positioned ourselves to compete in the future.

***Reaching our targets depends on numerous factors, such as our ability to offer products and solutions that meet the demands of the market and to manage the prices and costs of our products and solutions, our operational efficiency, the pace of development and acceptance of new technologies, our entry into new business areas, and general economic conditions. Depending on those factors, some of which we may influence and others of which are beyond our control, we may fail to reach our targets and we may fail to provide accurate forecasts of our sales and results of operations.***

A variety of factors could affect our ability to reach our targets and give accurate forecasts. Although, we can influence some of these factors, some of them depend on external factors that are beyond our control.

In our mobile device businesses, we seek to maintain healthy levels of sales and profitability through offering a competitive portfolio of mobile devices, growing faster than the market, working to improve our operational efficiency, controlling our costs, and targeting timely and successful product introductions and shipments. For us a competitive portfolio means a wide and balanced mix of commercially appealing mobile devices with attractive features, functionality and design, covering all major user segments and price points. The quarterly and annual sales and operating results in our mobile device businesses also depend on a number of other factors that are not within our control. Such factors include the global growth rate in mobile device volumes, which is influenced by regional economic factors in our major markets; competitive pressures;

seasonality; the timing and success of product and service introductions by various market participants, including network operators; the commercial acceptance of new mobile devices, technologies and services; fluctuations in exchange rates; operators' and distributors' financial situation; and any harm suffered by the Nokia brand due to, for instance, the combination or use of layers or components in our products and solutions which have not been authorized by us and do not meet our and our customers' quality, safety or other corresponding standards.

Our networks business's quarterly and annual net sales and operating results can be affected by a number of factors, some of which we can influence, such as our operational efficiency, the level of our R&D investments and the deployment progress and technical success we achieve under network contracts. Other relevant factors include operator investment behavior, competitive pressures and general economic conditions although these are not within our control.

The new business areas that we have entered may be less profitable than we currently predict, in particular in the short term, or they may generate more variable operating results than we currently foresee. We expect to incur short-term operating losses in these new business areas, given our early stage investments in R&D and marketing, in particular. Also our efforts in managing prices and costs in the long-term, especially

balancing prices and volumes with R&D costs, may prove to be inadequate.

Finally, the recent war in Iraq and continuing incidents of terrorist activity in various parts of the world have created uncertainties that may affect the global economy and our results of operations adversely.

Although we may announce forecasts of our results of operations, uncertainties affecting any of these factors, particularly during difficult economic conditions, render our forecasts difficult to make, and may cause us not to reach the targets that we have forecasted, or to revise our estimates.

***Our sales and results of operations could be adversely affected if we fail to efficiently manage our manufacturing and logistics, or fail to ensure that our products and solutions meet our and our customers' quality, safety and other corresponding requirements and are delivered in time.***

Our manufacturing and logistics are complex, require advanced and costly equipment and include outsourcing to third parties. These operations are continuously modified in an effort to improve manufacturing efficiency and flexibility. We may experience difficulties in adapting our supply to the demand for our products, ramping up or down production at our facilities, adopting new manufacturing processes, finding the most timely way to develop the best technical solutions for new products, or achieving manufacturing efficiency and flexibility, whether we manufacture our products and solutions ourselves or outsource to third parties. Such difficulties may have a material adverse effect on our sales and results of operations and may result from, among other things: delays in adjusting or upgrading production at our facilities, delays in expanding production capacity, failure in our manufacturing and logistics processes, failure in our outsourcing activities, and interruptions in the data communication systems that run our operations. As part of our reorganization effective January 1, 2004, we introduced a common Customer and Market Operations horizontal group across several business groups. If we fail to successfully implement the new organization, it may have a material adverse effect on the efficiency of our manufacturing and logistics. Also, a failure could occur at any stage of our product creation, manufacturing and delivery processes, resulting in our products and solutions not meeting our and our customers' quality, safety and other corresponding requirements, or being delivered late, which could have a material adverse effect on our sales, our results of operations and reputation and the value of the Nokia brand.

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***We are developing a number of our new products and solutions in collaboration with other companies. If any of these companies were to fail to perform, we may not be able to bring our products and solutions to market successfully or on a timely basis.***

More frequently than before, we invite the providers of technology, components or software to work with us to develop technologies or new products and solutions. These arrangements involve the commitment by each company of various resources, including technology, research and development efforts, and personnel. Although we attempt to structure these arrangements to maximize cooperation and loyalty between the parties, our ability to introduce new products and solutions that meet our and our customers' quality, safety and other corresponding standards successfully and on schedule could be hampered if, for example, any of the following risks were to materialize: the arrangements with our collaboration partners do not develop as expected, the technologies provided by our collaboration partners are not sufficiently protected or infringe third parties' intellectual property rights in a way that we cannot foresee or prevent, the technologies, products or solutions supplied by companies working with us do not meet the required quality, safety and other corresponding standards or customer needs, our own quality controls fail, or the financial standing of our collaboration partners deteriorates.

***We depend on our suppliers for the timely delivery of components and for their compliance with our supplier requirements, such as, most notably, our and our customers' product quality, safety and other corresponding standards. Their failure to do so could adversely affect our ability to deliver our products and solutions successfully and on time.***

Our manufacturing operations depend to a certain extent on obtaining adequate supplies of fully functional components on a timely basis. Our principal requirements are for electronic components, such as semiconductors, microprocessors, micro controllers, memory devices and displays, which have a wide range of applications in our products. In addition, a particular component may be available only from a limited number of suppliers. Suppliers may from time to time extend lead times, limit supplies or increase prices due to capacity constraints or other factors, which could adversely affect our ability to deliver our products and solutions on a timely basis. Moreover, even if we attempt to select our suppliers and manage our supplier relationships with scrutiny, a component supplier may fail to meet our supplier requirements, such as, most notably, our and our customers' product quality, safety and other corresponding standards, and consequently some of our products are unacceptable to us and our customers, or we may fail in our own quality controls. Moreover, a component supplier may experience delays or disruption to its manufacturing, or financial difficulties. Any of these events could delay our successful delivery of products and solutions, which meet our and our customers' quality, safety and other corresponding requirements, or otherwise adversely affect our sales and our results of operations. Also, our reputation and brand value may be affected due to real or merely alleged failures in our products and solutions.

***Our operations rely on complex and highly centralized information technology systems and networks. If any system or network disruption occurs, this reliance could have a material adverse impact on our operations, sales and operating results.***

Our operations rely to a significant degree on the efficient and uninterrupted operation of complex and highly centralized information technology systems and networks, which are integrated with those of third parties. Any failure of our current or future systems or networks could have a material adverse effect on our operations, sales and operating results. Furthermore, any data leakages resulting from information technology security breaches could also adversely affect us.

All information technology systems are potentially vulnerable to damage or interruption from a variety of sources. We pursue various measures in order to manage our risks related to system and network disruptions, including the use of multiple suppliers and available information

technology security. However, despite precautions taken by us, an outage in a telecommunications network utilized by any of our information technology systems, virus or other event that leads to an unanticipated interruption of our information technology systems or networks could have a material adverse effect on our operations, sales and operating results.

***Our products and solutions include increasingly complex technology involving numerous patented and other proprietary technologies. As a consequence, evaluating the protection of the technologies we intend to use is more difficult than before, and we may face claims that we have infringed third parties' intellectual property rights. The use of increasingly complex technology may result in increased licensing costs for us, restrictions on our ability to use such technology and offer our products and solutions, the invalidation of intellectual property rights on which we depend and/or costly and time-consuming litigation.***

Our products and solutions include increasingly complex technology involving numerous patented and other proprietary technologies. As the amount of such proprietary technologies needed for our products and solutions increases and the number of protected parties and rights increases and becomes more fragmented within individual products, in addition to which the complexity of the technology and the overlap of product functionalities increase, the possibility of an infringement and related intellectual property claim against us increases. The holders of patents relevant to our product lines may be unknown to us, or may otherwise make it difficult for us to acquire a license on commercially acceptable terms. There may also be patents or other intellectual property rights held by third parties and licensed to and relied on by us that are subject to infringement or other corresponding allegations or claims by others which could damage our ability to rely on such technologies. In addition, although we endeavor to ensure that companies that work with us possess appropriate intellectual property rights, we cannot fully avoid risks of intellectual property rights infringement created by suppliers of components and various layers in our products and solutions or by companies with which we work in cooperative research and development activities. Similarly, we and our customers may face claims of infringement in connection with our customers' use of our products and solutions. Finally, as all technology standards, including those used and relied on by us, include some intellectual property rights, we cannot fully avoid risks of a claim for infringement of such rights due to our reliance on such standards.

Any such restrictions on our ability to sell our products and solutions due to expected or alleged infringements of third party intellectual property rights and any intellectual property right claims, regardless of merit, could result in material losses of profits, costly litigation, the payment of damages and other compensation, the diversion of the attention of our personnel, product shipment delays or the need for us to develop non-infringing technology or to enter into royalty or licensing agreements. If we were unable to develop non-infringing technology, or if royalty or licensing agreements were not available on commercially acceptable terms, we could be precluded from making and selling the affected products and solutions. As new features are added to our products and solutions, we may need to acquire further licenses, including from new and sometimes unidentified owners of intellectual property. The cumulative costs of obtaining any necessary licenses are difficult to predict and may over time have a negative effect on our operating results. Finally, any diminution of the protection that our own intellectual property rights enjoy could cause us to lose some of the benefits of our investments in R&D, which may have a negative effect on our results of operations. See "Item 4.B Business Overview Patents and Licenses" for a more detailed discussion of our intellectual property activities.

***The global networks business relies on a limited number of customers and large multi-year contracts. Unfavorable developments under a major contract or in relation to a major customer may affect our sales, our results of operations and cash flow adversely.***

Large multi-year contracts, which are typical in the networks industry, include a risk that the timing of sales and results of operations associated with these contracts will be different than expected. Moreover, they usually require the dedication of substantial amounts of working capital and

other resources, which impacts our cash flow negatively. Any non-performance by us under these contracts may have significant adverse consequences for us because network operators have demanded and may continue to demand stringent contract undertakings such as penalties for contract violations.

***Customer financing to network operators can be a competitive requirement and could affect our sales, results of operations, balance sheet and cash flow adversely.***

Network operators in some markets sometimes require their suppliers, including us, to arrange or provide long-term financing as a condition to obtaining or bidding on infrastructure projects. Moreover, they may require extended payment terms which mean that we must extend short-term trade credits to them. In some cases, the amounts and duration of these financings and trade credits, and the associated impact on our working capital, may be significant.

At December 31, 2003 our outstanding long-term loans to customers totaled EUR 354 million, while financial guarantees given on behalf of third parties totaled EUR 33 million. In addition, we had financing commitments totaling EUR 490 million. Total customer financing (outstanding and committed) was EUR 877 million. In 2003, we reduced our total customer financing (outstanding and committed) by EUR 1 127 million (or 56%) compared to 2002. Our continued intent is to further mitigate our total customer financing exposure, market conditions permitting. We continue to make arrangements with financial institutions and investors to sell credit risk we have incurred from the commitments and outstanding loans we have made as well as from the financial guarantees we have given.

The financial requirements for building our telecommunication networks are substantial. Some operators do not have an established customer base or revenue streams. Defaults by some of these operators have occurred in the past, and could occur again in the future for reasons beyond our control. This could result in the restructuring of customer financing arrangements and/or require us to re-assess the ultimate collectibility of such financings or trade credits. As a result, write-offs of all or a portion of the outstanding loan balances could occur and this may negatively impact our results of operations. In 2001, we recorded an impairment charge of EUR 714 million in our networks business's customer loans related to a defaulted financing to Telsim (EUR 669 million), a GSM operator in Turkey, and to the insolvency of Dolphin in the United Kingdom (EUR 45 million). In 2002, we recorded a net customer financing impairment charge of EUR 279 million. Of this amount, EUR 292 million was an impairment charge to write down the loans receivable to their estimated recoverable amount related to MobilCom, a German operator, and EUR 13 million was a partial recovery received relating to amounts written off in 2001 related to Dolphin. However, the charge relating to MobilCom was substantially reversed in 2003 by EUR 226 million as a result of our receiving repayment of the MobilCom loans receivables in the form of subordinated convertible perpetual bonds of France Telecom.

We see the current industry environment as requiring only non-material increases, if any, in customer financing. Customer financing continues to be requested by some operators in some markets, but to a considerably lesser extent and with considerably lower importance than during the past years. As a strategic market requirement, we plan to continue to extend customer financing and provide extended payment terms to a small number of selected customers. Extended payment terms may continue to result in a material aggregate amount of trade credits, but the

associated risk is mitigated by the fact that the portfolio relates to a variety of customers. We cannot guarantee that we will be successful in providing needed financing to customers. Also, our ability to manage our total customer finance and trade credit exposure depends on a number of factors, including our capital structure, market conditions affecting our customers, the level of credit available to us and our ability to mitigate exposure on acceptable terms. We cannot guarantee that we will be successful in managing the challenges connected with the total customer financing and trade credit exposure that we may from time to time have. See "Item 4.B Business Overview Networks," "Item 5.B Liquidity and Capital Resources Customer Financing," and Notes 7 and 34(b) to our consolidated financial statements included in Item 18 of this Form 20-F for a more detailed discussion of issues relating to customer financing, trade credits and related commercial credit risk.

***Our sales, costs and results are affected by exchange rate fluctuations, particularly between the euro, which is our reporting currency, and the US dollar, the UK pound sterling and the Japanese yen as well as certain other currencies.***

We operate globally and are therefore exposed to foreign exchange risks in the form of both transaction risks and translation risks. Our policy is to monitor and hedge exchange rate exposure, and we manage our operations to mitigate, but not to eliminate, the impacts of exchange rate fluctuations. Our sales and results may be materially affected by exchange rate fluctuations. Similarly, exchange rate fluctuations may also materially affect the US dollar value of any dividends or other distributions that are paid in euro. For more information, see "Item 5.A Operating Results Exchange Rates" and "Item 11. Quantitative and Qualitative Disclosures About Market Risk."

***If we are unable to recruit, retain and develop appropriately skilled employees, we may not be able to implement our strategies and, consequently, our results of operations may suffer.***

We must continue to recruit, retain and through constant competence training develop appropriately skilled employees with a comprehensive understanding of our businesses and technologies. As competition for skilled personnel remains keen, we seek to create a corporate culture that encourages creativity and continuous learning. We are also continuously developing our compensation and benefit policies and taking other measures to attract and motivate skilled personnel. Nevertheless, we have encountered in the past, and may encounter in the future, shortages of appropriately skilled personnel, which may hamper our ability to implement our strategies and harm our results of operations.

***If we are unable to effectively and smoothly implement the new organizational structure effective January 1, 2004, we may experience a material adverse impact on our operations, sales and results of operations.***

As noted above, we made the decision, effective January 1, 2004, to implement a new organizational structure consisting of four business groups, Mobile Phones; Multimedia; Networks; and Enterprise Solutions, and the three horizontal groups of Customer and Market Operations; Technology Platforms; and Research, Venturing and Business Infrastructure. The new organization is meant to allow us to respond effectively to the development of the mobility industry, and to enhance the effectiveness and customer focus in our operations. Should we fail to implement the new organizational structure effectively and smoothly, the efficiency of our operations and performance may be affected, which may have a material adverse impact on our sales and results of operations during 2004, and possibly also thereafter.

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***Our sales derived from, and assets located in, emerging market countries may be adversely affected by economic, regulatory and political developments in those countries.***

We generate sales from and have invested in various emerging market countries. As sales from these countries represent a significant portion of our total sales, economic or political turmoil in these countries could adversely affect our sales and results of operations. Our investments in emerging market countries also may be subject to risks and uncertainties, including unfavorable taxation treatment, exchange controls, challenges in protecting our intellectual property rights, nationalization, inflation, currency fluctuations, or the absence of, or unexpected changes in, regulation.

***Allegations of health risks from the electromagnetic fields generated by base stations and mobile handsets, and the lawsuits and publicity relating to them, regardless of merit, could affect our operations negatively by leading consumers to reduce their use of mobile devices or by causing us to allocate monetary and personnel resources to these issues.***

There has been public speculation about possible health risks to individuals from exposure to electromagnetic fields from base stations and from the use of mobile devices. While a substantial amount of scientific research conducted to date by various independent research bodies has indicated that these radio signals, at levels within the limits prescribed by public health authority safety standards and recommendations, present no adverse effect to human health, we cannot be certain that future studies, irrespective of their scientific basis, will not suggest a link between electromagnetic fields and adverse health effects that would adversely affect our sales and share price. Research into these issues is ongoing by government agencies, international health organizations and other scientific bodies in order to develop a better scientific and public understanding of these issues.

Currently, we and several other mobile device manufacturers, distributors and network operators have been named as defendants in a series of class action suits filed to various US jurisdictions. These cases were consolidated before a US federal district court in Baltimore, Maryland, United States. The suits allege that the use of mobile phones without a headset poses a health risk. The cases were dismissed on March 5, 2003, on the theory that the issues raised are primarily within the jurisdiction of the Federal Communications Commission, not the courts. The dismissal is now on appeal. In addition, we and other mobile device manufacturers and network operators have been named as defendants in five lawsuits by individual plaintiffs who allege that radio emissions from mobile phones caused or contributed to each plaintiff's brain tumor. Those cases have also been consolidated before the US federal court in Baltimore. In January 2004, one of these cases was dismissed by the plaintiffs. The remaining cases have been stayed pending the decision of the US Court of Appeal in the class action appeal matter referenced above. See "Item 8.A.7 Litigation" for a more detailed discussion of these lawsuits.

Although Nokia products and solutions are designed to meet all relevant safety standards and recommendations globally, no more than a perceived risk of adverse health effects of mobile communications devices could adversely affect us through a reduction in sales of handsets or increased difficulty in obtaining sites for base stations, and could have a negative effect on our reputation and brand value as well as harm our share price.

***Changes in various types of regulation in countries around the world could affect our business adversely.***



Our business is subject to direct and indirect regulation in each of the countries in which we, the companies with which we work or our customers do business. As a result, changes in various types of regulation could affect our business adversely. For example, it is in our interest that the Federal Communications Commission maintains a regulatory environment that ensures the

continued growth of the wireless sector in the United States. In addition, changes in regulation affecting the construction of base stations and other network infrastructure could adversely affect the timing and costs of new network construction or expansion and the commercial launch and ultimate commercial success of these networks.

Moreover, the implementation of new technological or legal requirements, such as the requirement in the United States that all handsets must be able to indicate their physical location, could impact our products and solutions, manufacturing or distribution processes, and could affect the timing of product and solution introductions, the cost of our production, products or solutions as well as their commercial success. Finally, export control, tariff, environmental, safety and other regulation that adversely affects the pricing or costs of our products and solutions as well as new services related to our products could affect our net sales and results of operations. The impact of these changes in regulation could affect our business adversely even though the specific regulations do not always directly apply to us or our products and solutions.

See "Item 4.B Business Overview Government Regulation" for a more detailed discussion about the impact of various regulations.

*Our share price has been and may continue to be volatile in response to conditions in the global securities markets generally and in the communications and technology sectors in particular.*

Our share price has been subject to some volatility, in part due to generally volatile securities markets, particularly for communications and technology companies' shares, as well as developments in our sales and results of operations. Factors other than Nokia's results of operations that may affect our share price include, among other things, market expectations of our performance, projected developments in the mobile phone, device and communications network markets and the mobility industry, and any adverse changes in our brand value. In addition, our share price may be affected by factors such as the level of business activity or perceived growth in the market in general, the performance of other technology companies, announcements by or the results of operations of our competitors, customers and suppliers, potential litigation involving ourselves or our industry, and announcements concerning the success of new products and services, as well as general market volatility. See "Item 9.A Offer and Listing Details" for information regarding the trading price history of our shares and ADSs.

## **ITEM 4. INFORMATION ON THE COMPANY**

### **4.A History and Development of the Company**

Nokia is a world leader in mobile communications, contributing to the growth and sustainability of the broader mobility industry. Nokia is dedicated to enhancing people's lives and productivity by providing easy-to-use and secure products like mobile phones, and solutions for imaging, games, media, mobile network operators and businesses. For the 2003 financial year, Nokia's net sales totaled EUR 29.5 billion (USD 37.1 billion). At the end of 2003, we employed 51 359 people and had production facilities in nine countries, research and development centers in 11 countries and sales in over 130 countries, and a global network of sales, customer service and other operational units.

During our 138-year history, Nokia has evolved from its origins in the paper industry, to become a world leader in mobile communications. In 1967, we assumed our current corporate form as Nokia Corporation, a corporation under the laws of the Republic of Finland. This took place through the merger of three Finnish companies: Nokia AB, a wood pulp mill founded in 1865 which took its name from the nearby Nokia River, Finnish Rubber Works Ltd, a manufacturer of rubber boots, tires and other rubber products founded in 1898, and Finnish Cable Works, a manufacturer of cable for power transmission and telegraph and telephone networks founded in 1912.

Nokia entered the telecommunications equipment market in 1960 when an electronics department was established at Finnish Cable Works to concentrate on the production of radio transmission equipment. This was a period in which Nokia diversified in other industries as a hedge against economic cycles.

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In the 1980s, we strengthened our position in the telecommunications, consumer electronics and personal computer markets. We introduced the first fully digital local telephone exchange in Europe in 1982, and the world's first car telephone for the Nordic Mobile Telephone analogue standard that same year. Since then, Nokia has introduced mobile phones across all major cellular standards. In 1987, we acquired the consumer electronics operations and part of the components business of Standard Elektrik Lorenz of Germany, as well as the French consumer electronics company, Oceanic. At the beginning of 1988, Nokia became the largest technology company in the Nordic region, after the purchase of Ericsson's information systems division.

In the early 1990s, we made a strategic decision to make telecommunications our core business, with the goal of establishing market leadership in every major global market. Basic industry and non-telecommunications operations including paper, personal computer, rubber, footwear, chemicals, power plant, cable, aluminum and television businesses, were divested during the period from 1989 to 1996. Having decided to concentrate on telecommunications as our core business, our organizational structure evolved to consist of two main business groups, Nokia Mobile Phones and Nokia Networks. A venturing arm called Nokia Ventures Organization was later created to foster new businesses. Over the course of the decade, the relative financial contribution of the two main business groups fluctuated. However, by the end of the 1990s, Nokia Mobile Phones came to represent the largest part of our business, and together with Nokia Networks accounted for substantially all of our net sales.

Finland's competitive business climate and emphasis on innovation have contributed to our success. From the beginning of the telecommunications era, there have been several telecommunications operators in Finland. These companies were not required to purchase equipment from national suppliers, providing a spur to competition in the domestic market. The need to export products to other markets to achieve growth encouraged us to develop our business and products in an international environment and build a leading competitive position.

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Regulatory and technological changes also have played a role in our success. Deregulation of the Finnish and European telecommunications industries since the late 1980s stimulated competition and boosted customer demand. Nokia introduced the world's first car phone for the Nordic Mobile Telephone analogue standard in 1982. It weighed approximately 10 kilograms, or 22 pounds, and was used primarily as a business tool. The technological breakthrough of GSM, which could carry data in addition to high quality sound, was followed by the European resolution in 1987 to adopt GSM as the European digital standard by July 1, 1991. The first GSM call was made with a Nokia phone over the Nokia-built network of an operator called Radiolinja, and in the same year, Nokia won contracts to supply GSM networks in nine other European countries. During this period, GSM was also established as a standard in several Asian countries, opening important new markets for us. Our expertise in GSM technology has laid the foundation for our subsequent success in the broader mobile communications industry, as Nokia has introduced mobile phones and devices across all major cellular standards.

Since the early 1990s, the penetration of mobile telecommunications has grown rapidly, and the global subscriber base is currently estimated at 1.3 billion subscriptions. Our mobile phones and devices are now used by virtually every demographic segment of the population, not only as a business or communications device, but also as a source of entertainment and even a fashion accessory. Moreover, mobile communications is continuing to evolve, finding new opportunities in imaging, games, entertainment, media and enterprise use. This is taking place as the mobile communications, information technology and media industries are in the process of converging into one broader industry, the mobility industry.

Towards the end of 2003, Nokia took the decision, effective January 1, 2004, to reorganize its structure in a move to further align the company's overall structure with its strategy. As a result, we began 2004 with a strong organizational base from which to make progress in expanding mobile voice, driving consumer multimedia, and bringing extended mobility to enterprises.

Today, as a result of our reorganization effective January 1, 2004, Nokia consists of four business groups: Mobile Phones; Multimedia; Networks; and Enterprise Solutions. In addition, our organizational structure includes three horizontal groups: Customer and Market Operations; Technology Platforms; and Research, Venturing and Business Infrastructure. For a detailed description of our business, see "Item 4.B Business Overview."

Nokia is not a capital-intensive company in terms of fixed assets, but rather invests in research and development, building the Nokia brand and marketing. We expect the amount of capital expenditure during 2004 to be somewhat higher than in 2003 and to be funded from our cash flow from operations. During 2003, Nokia's capital expenditures totaled EUR 432 million, compared with EUR 432 million in 2002 and EUR 1 041 million in 2001. For further information regarding capital expenditures see "Item 5.A Operating Results" and for a description of capital expenditures by business segment see Note 2 to our consolidated financial statements included in Item 18 of this Form 20-F.

Nokia maintains listings on five major securities exchanges. Our principal executive office is located at Keilalahdentie 4, P.O. Box 226, FIN-00045 Nokia Group, Espoo, Finland and our telephone number is +358 (0) 7 1800-8000. Our agent in the United States is Nokia Inc., 6000 Connection Drive, Irving, Texas, 75039, and its telephone number is +1 (972) 894-5000.

## 4.B Business Overview

### *Industry Overview*

The mobile communications industry and the technologies that it exploits are undergoing significant changes. First, the mobile communications, information technology and media

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industries are converging into one broader industry, which we call the mobility industry. This is a result of advances in technologies that enable a variety of products and services from different industries to become connected with each other. We expect this convergence to lead to the creation of new mobile devices, new services and new ways in which mobile devices are used. Second, while participants in the mobile communications industry once provided complete products and solutions, the mobility industry will include increasing numbers of participants who provide specific hardware and software layers for products and solutions. Examples of such layers include operating system and user interface software, chipsets and application software such as games software. We expect that certain layers in products and solutions will have increasing value from a business perspective, which may also result in shifts of value among different industry participants.

We view this period as one of considerable potential, not just for Nokia but also for the broader mobile communications industry. Mobility has become a major technology and lifestyle influence, transforming the way people conduct their professional lives as well as the way they interact socially.

### *The Mobile Phones Industry*

During 2003, the market for mobile phones grew strongly in terms of volume. This was largely a reflection of high growth in markets such as India, Russia and Brazil, aided by the increased affordability of mobile telephony in these countries. There was also increased take-up of feature-rich devices in countries with higher cellular penetration.

According to Nokia's preliminary estimates, overall market volumes in 2003 reached about 471 million units, representing growth of 16% compared with the 405 million units sold in 2002. Regionally, mobile phone market volumes growth was 20% in Europe, Middle-East & Africa, 15% in Asia-Pacific and 13% in the Americas, compared to 2002.

The mobile phones industry is expanding from voice-based communications toward new, data-driven areas and applications in the realm of consumer multimedia and enterprise solutions. As evidence of growing demand for advanced products and services, annual sales of mobile camera phones clearly outsold digital cameras for the first time in 2003. Global mobile camera phone growth was supported by strong sales in Asia, particularly in Japan and Korea. Additionally, devices are becoming more computer-like in terms of functionality, while phones with color screens have become increasingly common.

During the year, several key handset vendors licensing Symbian technology launched advanced mobile devices based on the Symbian operating system. Meanwhile, Java technology was established as the standard global developer platform for mobile devices, with all major handset manufacturers deploying the technology in their products. The Series 60 software platform continued to be incorporated in the product offerings of Nokia and began to be incorporated in those of Series 60 licensees.

For information regarding anticipated trends as well as Nokia's forecasts for the mobile phones industry see "Item 5.D Trend Information."

### *The Mobile Networks Industry*

During 2003, the mobile networks market showed a decline of just over 15% in euro terms according to Nokia's preliminary estimates. This was largely the result of a continuing low level of capital investment by network operators as they continued to focus on short-term cash-flow generation and debt reduction.

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Although 2003 marked the third consecutive year of decline in the mobile networks market, encouraging signs in the fourth quarter indicated that the market was beginning to stabilize as the financial position of operators improved. As well, during the second half of 2003, operators began reconfirming their commitment to WCDMA, most notably by renewing or continuing their network equipment supply agreements, and by accelerating their deployment of networks compared to 2002.

Demand for network solutions is strong in high population and relatively low penetration markets such as China, India, Thailand, Russia and Brazil where there is an orientation towards mobile entry solutions, meaning networks optimized for cost efficient voice and basic data. In adapting to current conditions, operators in these markets have increased their strategic focus on expanding their network coverage and subscriber base.

Against this backdrop, the number of players in the mobile networks industry still remains relatively high, particularly given the size and nature of the market. Competition among industry players therefore remained intense during 2003.

Several WCDMA networks were commercially launched in Europe and Asia last year. By the end of the year there were a total of around 2.7 million WCDMA subscriptions worldwide. Meanwhile, the introduction of GSM / EDGE in the United States and Latin America maintained momentum, with more networks being launched and higher consumer up-take and acceptance compared to 2002.

For information regarding anticipated future trends as well as Nokia's forecasts concerning the mobile networks industry, see "Item 5.D Trend Information."

### ***Business Strategy***

We intend to capitalize on our leadership role by continuing to enter segments of the mobility industry that we believe will experience rapid growth or grow faster than the industry as a whole. As demand for mobile services increases, we also plan to lead the development and commercialization of high capacity networks. Historically, expanding into segments with these characteristics during the initial stages of their development has helped Nokia to establish itself as one of the world's leading players in mobile communications and has enabled Nokia to significantly influence the ways in which voice and other services have been transferred to a wireless, mobile environment. As we aim to continue to do this, our three main strategies are to: expand mobile voice, drive consumer mobile multimedia, and bring extended mobility to enterprises.

***Expand mobile voice:*** We believe that many opportunities for growth exist in the mobile voice market, and we intend to continue to focus on this area. In doing so, we aim to capitalize on our demonstrated efficiency and skill in execution and demand-supply chain management, and our history of innovation. The markets on which we intend to focus include markets with low mobile subscription rates relative to the size of the population, geographic areas where it is more cost-effective to build wireless infrastructure than fixed-line networks, and heavily populated areas, where factors such as poor housing infrastructure or theft of materials tilt the scales in favor of wireless solutions. We also intend to focus on markets where the need for network capacity is growing as a result of mobile network operators promoting the replacement of fixed networks with wireless.

***Drive consumer mobile multimedia:*** We intend to enter new product and service niches, which we expect will emerge as technologies from diverse industries start to converge, especially in the area of consumer multimedia. Our strategy is to explore, identify and extract revenue from the most profitable and fastest growing segments of the consumer multimedia business and its value chain by anticipating consumer needs in this area, and

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developing innovative products and services. In the near term, we intend to focus on imaging and games, where we have already introduced a number of products. Our strategy to drive consumer multimedia will also involve leverage of our strong position in the consumer voice market.

***Bring extended mobility to enterprise:*** We intend to capture profitable segments of the corporate market by offering products and services that will benefit companies and individual business people alike, including a diverse handset range as well as security and mobile connectivity solutions specifically tailored for enterprise needs. As we do this, we intend to capitalize on companies' needs for mobility and seamless mobile connectivity in their operations, and also expect to collaborate with leading technology and systems integration partners.

We believe that our three main strategies will position our business favorably as different digital technologies and industries converge. We also aim to drive open standards, specifications and interoperability, for the purpose of ensuring the introduction of new, interoperable mobile services worldwide. In this context, we intend to continue our pursuit of new business areas in the world of mobility, while continuing to build on our leadership in mobile voice. This in turn means that we must cultivate a strong local presence in all growing markets and pursue collaboration and investment opportunities in order to obtain complementary technologies and a strong market position.

### ***Core Business Strengths***

There are several core business strengths that we believe differentiate Nokia from our peers and enable us to maintain a leadership position in our industry:

***Brand as an asset:*** According to a variety of consumer surveys, the Nokia brand is associated with well-designed, high-quality and technologically advanced products and customer services that are also user-friendly. Our leading brand, together with our 400 million strong customer base, lead to greater market access, and enable us to attract and retain the best suppliers and employees. In 2003, we invested EUR 1 414 million in advertising and promotion, representing approximately 5% of net sales, and we intend to sustain and enhance the Nokia brand through active advertising, sponsorship and other marketing activities in all of our principal markets.

***Strong product offering:*** Our strong product offering goes beyond voice-centric mobile phones to include entirely new functional categories of mobile devices, such as enhanced communicators, entertainment and gaming devices and media and imaging phones.

***Advanced technology:*** Nokia is a frontrunner in developing leading technologies with approximately 39% of our workforce employed in the area of research and development and 12.8% of net sales (EUR 3 760 million) invested in research and development in 2003. Excluding personnel-related restructuring costs as well as impairments and write-offs of capitalized R&D expenses in Nokia Networks, R&D expenses would have represented 11.2% of net sales in 2003. For more information, see "Item 5.C Research and Development, Patents and Licenses." Almost 80% of our research and development investments are directed towards software, primarily for use in our products and solutions. Our research and development achievements are reflected in the strength of our registered and filed patent portfolio.

***Excellence in execution:*** We have demonstrated our experience, efficiency and skill in execution, and in managing our demand-supply chain to deliver new ideas and technologies in product form at the right time, and in sufficient volumes.

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***Culture and values:*** We attribute much of our success to our unique corporate culture, which emphasizes and values product innovation, customer satisfaction and employees motivated by high levels of trust, independence and opportunities for personal and professional enrichment.

### ***New Organizational Structure***

Until January 1, 2004, Nokia's organizational and reporting structure consisted of two main business groups, Nokia Mobile Phones and Nokia Networks, as well as the company's venturing arm, Nokia Ventures Organization, and the common group functions. Towards the end of 2003, Nokia took the decision, effective January 1, 2004, to reorganize its structure in a move to further align the company's overall structure with its strategy. Nokia's new structure includes four business groups which form the main reporting structure: Mobile Phones; Multimedia; Networks; and Enterprise Solutions, which provide us with a strong organizational base to make progress in the mobility industry and which also build on the changes that were first implemented in Nokia Mobile Phones in 2002.

The new structure also includes three horizontal groups that support the business groups: Customer and Market Operations; Technology Platforms; and Research, Venturing and Business Infrastructure. The horizontal groups will not be separate reporting entities, but their costs will be carried mainly by the business groups and some included in the Common Group Expenses. Within the new structure, we believe that each business group is positioned to meet the specific needs of diverse market segments, while the horizontal groups are designed to increase Nokia's operational efficiency and competitiveness and to maintain our strong economies of scale.

Our historical financial and operating results discussed in this annual report are based upon our organizational and reporting structure up until the end of 2003, while the description of our current business reflects our new organizational and reporting structure effective January 1, 2004. For a breakdown of our net sales and other operating results by category of activity and geographical location, please see Note 2 to the financial statements included in Item 18 of this annual report. Our statements related to the new organizational structure in this Form 20-F describe our organization effective as from January 1, 2004. Even though the new organizational and reporting structure is effective in substantial respects, certain details have not yet been finalized.

The following chart shows Nokia's new organizational structure:

#### *Business Groups*

*Mobile Phones* develops mobile phones for all major standards and customer segments in over 130 countries. Mobile Phones is made up of four of the nine business units from the former Nokia Mobile Phones: Mobile Phones, Mobile Entry Products, CDMA, and TDMA. Mobile Phones also includes our Vertu subsidiary. The remaining five business units from the former Nokia Mobile Phones were transferred to other business groups in the reorganization, as described below.

*Multimedia* focuses on bringing mobile multimedia to consumers in the form of advanced mobile devices. It combines four business units from the former Nokia Mobile Phones: Imaging, Entertainment and Media, Mobile Enhancements and Mobile Services, with Nokia Home Communications, formerly a unit located within the Nokia Ventures Organization.

*Networks* is a leading provider of network infrastructure, service delivery platforms and related services to mobile operators and service providers. Focusing on the GSM family of technologies, the group aims at leadership in GSM, EDGE and WCDMA networks. Pursuant to the reorganization, Networks carries on the business of the former Nokia Networks.

*Enterprise Solutions* offers businesses a range of devices and mobile connectivity solutions based on end-to-end mobility architecture. It combines the Business Applications business unit from the former Nokia Mobile Phones with Nokia Internet Communications and Nokia One, formerly units located within Nokia Ventures Organization.

#### *Horizontal Groups*

*Customer and Market Operations* includes Nokia's sales and marketing organization as well as manufacturing, logistics and sourcing. They have been organized globally to serve and support the three mobile phone and device related business groups: Mobile Phones, Multimedia and Enterprise Solutions. The Networks business group continues to have its own dedicated sales and marketing, logistics and sourcing activities.

*Technology Platforms* is responsible for Nokia-wide technology management and development. It delivers leading technologies and platforms to Nokia's business groups and external customers. The Mobile Software Unit is now operating within this horizontal group.

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*Research, Venturing and Business Infrastructure* includes the Nokia Research Center, Nokia Ventures Organization, Business Infrastructure, and Operating Resource Sourcing.

### ***Nokia Mobile Phones in 2003***

For 2003, the total mobile phone sales volumes achieved by the former Nokia Mobile Phones reached a record level of 179.3 million units, representing growth of 18% compared with 2002. Based on an estimated global sell-through market for mobile phones of 471 million units, Nokia's global market share was slightly above 38% for 2003, compared with 38% for 2002.

In 2003, key product announcements in GSM technology included the Nokia 6108 pen-based phone for the Chinese market, which is the first phone enabling text input, handwriting recognition and predictive text in English and Chinese; the Nokia 3200, the company's first high-volume, affordable camera phone; the Nokia 7600, a WCDMA/GSM dual mode phone; the Nokia 6600 imaging phone, and Nokia's first Push-to-Talk model, the Nokia 5140.

In 2003, Nokia began shipping the entry-level Nokia 2200 Series CDMA phones, designed for first-time users and emerging markets, and Nokia's first color screen CDMA product, the Nokia 3586 phone. Nokia also announced its first CDMA camera phone in 2003, the Nokia 6225; while in other technologies, important launches included the Nokia 3520, our first TDMA color display phone.

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In 2003, Nokia Mobile Phones also introduced products in new functional categories, such as the Nokia 7700 media device and the Nokia N-Gage mobile game deck, a mobile multiplayer game deck, enabling gaming over Bluetooth and GPRS connections. Our Multimedia business group is now responsible for the development and commercialization of devices such as these. Also in 2003, Nokia Mobile Phones introduced a range of business-oriented devices, such as the Nokia 6810 and Nokia 6820 messaging devices, and the Nokia D211 and Nokia D311 multimode radio cards. Our Enterprise Solutions business group is now responsible for the development and commercialization of messaging devices and data card products such as these, including the Communicator product line.

The following table sets forth net sales, operating profit and average number of employees for Nokia Mobile Phones during the past three years.

### ***Nokia Mobile Phones Net Sales, Operating Profit and Average Number of Employees***

	Year ended December 31,		
	2003	2002	2001
	EURm, except average number of employees		
Net sales	23 618	23 211	23 158
Operating profit	5 483	5 201	4 521
Average number of employees	27 196	26 090	27 320

The following table sets forth the regional distribution of net sales for Nokia Mobile Phones during the past three years.

### ***Nokia Mobile Phones Percentage of Net Sales by Region***

	2003	2002	2001
Europe, Middle-East & Africa	58%	54%	48%
Asia-Pacific	22%	24%	22%
Americas	20%	22%	30%
Total	100%	100%	100%

### ***Mobile Phones***

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Mobile Phones is continuing the development of Nokia's current core mobile phones business, based mainly on GSM, CDMA and TDMA technologies. Mobile Phones consists of four business lines: Mobile Entry, Broad Appeal, Focused Appeal, and TDMA. It also includes the CDMA business unit and our Vertu subsidiary.

Mobile Phones focuses on bringing feature-rich mobile phones to different segments of the global market. It intends to follow a consumer-driven product creation process, primarily targeting high-volume category sales.

Mobile Phones' comprehensive product portfolio consists of several categories catering for the very diverse sets of needs, lifestyles and preferences of our consumers. Earlier, category evolution has been based on voice-centric models, driven mainly by fashion elements. We believe that the future product portfolio will have new features and functionality, such as Java, MMS and XHTML, and be enhanced by the evolution from second generation to 2.5G and 3G technologies.

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The *Mobile Entry* business line addresses markets where we believe there is the greatest potential for growth and where mobile subscription rates are relatively low, by aiming to provide affordable mobile phones and cooperating with local mobile operators in creating attractively priced ownership concepts and service packages. Current products offered by this business line include the Nokia 1100 and Nokia 2300.

The *Broad Appeal* business line has the leading consumer-focused product range in high volume segments. It will target the replacement market in developed markets where the balance between price, functionality and style are key buying factors. Current products offered by this business line include the Nokia 3100 and Nokia 3200 in the expression category, and the Nokia 6220 in the classic category. Products planned for release in 2004 include the Nokia 3200 in the expression category, which allows people to customize the cover of their phone, and the Nokia 6230 in the classic category.

The *Focused Appeal* business line concentrates on products for image-conscious consumers who select their products on the basis of design or a more specialized range of features. Current products offered by this business line include the titanium-encased Nokia 8910i in the premium category and Nokia 7250i in the fashion category. Upcoming products include the Nokia 5140 in the active category, our first phone with push-to-talk functionality, and the Nokia 7200 fashion phone featuring innovative textile covers.

The *CDMA* business unit and the *TDMA* business line meet the demands of markets with these network technologies in place. Current products offered by the CDMA business unit include the Nokia 2200 entry-level phone for first-time users and emerging markets, and the Nokia 3586 which is our first color-screen CDMA product. The CDMA business unit will also be responsible for the Nokia 6225, our first CDMA camera phone. The TDMA business line is responsible for products such as the Nokia 6560 and the Nokia 3520, our first TDMA camera phone. Vertu continues to pursue its high-end brand strategy in the luxury goods category.

### **Multimedia**

Multimedia brings mobile multimedia to consumers in the form of advanced mobile devices and consists of four business units: Imaging, Games, NMedia, and Mobile Enhancements. We intend Multimedia's products to have features and functionality such as imaging, games, music, media and a range of other attractive content that takes advantage of overlapping media, telecommunications and information systems technology. Our ambitions for Multimedia are reflected in products such as Nokia's media device, the Nokia 7700, which we plan to release during 2004. Based on the Series 90 software platform, the Nokia 7700 combines mobile Internet access with the means to use, create and share rich content through easy access to a variety of media channels. Additional features include music and video playback and streaming, an integrated VGA camera, FM radio, multimedia messaging support, and a full complement of personal information management features.

In *Imaging*, Nokia aims to develop personal imaging devices that are easy to use whether capturing, sharing or printing images. Currently, notable products include the Nokia 6600 imaging phone, optimized for business users, and the Nokia 7600 fashion phone, which is Nokia's second dual-mode 3G WCDMA/GSM phone.

In *Games*, we currently offer the Nokia N-Gage. We released the Nokia N-Gage in October 2003 in over 60 countries through over 30 000 major retail, game-specific and video game outlets, in addition to mobile phone delivery channels. At the same time, we opened the N-Gage Arena, a mobile online gaming community, which is accessible via mobile networks and which enables gamers to create virtual communities and share their game-related experiences. A wide range of games titles from leading publishers is available for the Nokia N-Gage.

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In *NMedia*, we develop products that blur the traditional boundaries between various media, and also aim to introduce devices that embody new experiences for the consumer. We currently offer the Nokia 3300 music device, and plan to release the Nokia 7700 media device in 2004.

In *Mobile Enhancements*, Nokia aims to extend the Nokia brand experience by creating products that make consumers' lives easier, safer, more productive and fun. Current products include items such as the Nokia Fun Camera and the Nokia Observation Camera as well as Nokia Imagewear products, the Nokia Kaleidoscope 1 and Nokia Medallions. In Home Communications, Nokia supplies advanced digital satellite, terrestrial and cable television receivers for the home. For more information on Nokia Home Communications, see " Nokia Ventures Organization in 2003," below.

### **Networks**

Networks is a leading provider of network infrastructure, service delivery platforms and related services to mobile operators and service providers. Focusing on the GSM family of technologies, the group aims at leadership in GSM, EDGE and WCDMA radio networks. Our networks have been, or are expected to be, installed in all major global markets that have adopted these standards. In mobile networks, we have a leading position and seek to strengthen this by developing the equipment that operators need to offer voice services and advanced IP network-based multimedia services. Additionally, we are a leader in TETRA networks for professional users in the public safety and security sector, and an important player in broadband access networks. On top of its product offering, Networks offers a comprehensive portfolio of services for operators comprising network planning, deployment, maintenance, integration, optimization and operations. The organizational changes that were introduced in Nokia on January 1, 2004 did not result in any alteration to the structure of the Networks business group.

Networks' strategy addresses both mobile voice and mobile data markets. In mobile voice, we aim to drive and benefit from fixed-to-mobile substitution in mature markets. At the same time, we are working to speed up global mobile subscriber penetration by bringing wireless voice to markets where mobile penetration is low. In mobile data, we seek to accelerate the rate at which mobile multimedia services are adopted, by providing products and solutions such as messaging, downloading and streaming, as well as the network functionalities needed for network operators' profitable deployment and operation of mobile multimedia services.

By the end of 2003, Nokia had supplied GSM networks to over 120 customers. At year-end, Nokia also had 37 publicly announced 3G WCDMA deals and was rolling out 26 3G WCDMA networks in 15 countries. Nokia is a supplier to six of the 12 commercially launched 3G WCDMA networks. Nokia has also publicly announced the delivery of EDGE-capable hardware to 20 operators, and Nokia was a supplier to nine of the 11 commercially launched EDGE networks. By the end of 2003, Nokia had 76 GPRS core network customers. In 2003, Nokia introduced new solutions for IP-based mobile services. By year-end, Nokia had also supplied about 60 MMS solutions.

The mobile infrastructure market contracted by just over 15% in euro terms during 2003, according to Nokia's preliminary estimates, and Nokia's infrastructure sales declined by 14% to EUR 5.6 billion. Despite the contracting market, Nokia Networks remained one of the industry leaders with a market share in network infrastructure across all mobile standards globally of slightly above 15%.

The following table sets forth net sales, operating profit (loss) and average number of employees for Nokia Networks during the past three years.

#### ***Nokia Networks Net Sales, Operating Profit (Loss) and Average Number of Employees***

	Year ended December 31,		
	2003	2002	2001
	EURm, except average number of employees		
Net sales	5 620	6 539	7 534
Operating profit (loss)	(219)	(49)	(73)
Average number of employees	16 115	18 463	22 040

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In addition the following table sets forth the regional distribution of net sales for Nokia Networks during the same period.

### *Nokia Networks Percentage of Net Sales by Region*

	2003	2002	2001
Europe, Middle-East & Africa	50%	52%	51%
Asia-Pacific	25%	27%	38%
Americas	25%	21%	11%
Total	100%	100%	100%

In April 2003, Nokia Networks took action to improve its profitability, by reviewing its research and development projects, and reducing the number of its employees. Nokia Networks did this to bring sharper focus and lower cost to research and development, and to position Networks for long-term profitability. Following these steps, Networks comprises five units:

*Core Networks* develops network solutions primarily for mobile network operators, for both circuit-switched and packet-switched environments. This unit also includes Broadband Systems, focusing on fast internet networks for network providers and internet service providers, and Professional Mobile Radio, which provides digital TETRA networks for Public Safety and Security customers and utility and transportation companies. The Nokia IP Multimedia Core solution brings new functionality to the network, such as services using IP connections between mobile phones and devices, while the Nokia Intelligent Content Delivery system supports differentiated charging and business models for operators.

*Radio Networks* develops GSM, EDGE and WCDMA Radio Access Networks and Cellular Transmission for operators and network providers. The main products are base stations, base station controllers and cellular transmission equipment. These products are increasingly used for transportation of data traffic, in addition to traditional wireless voice traffic.

*Operations Solutions* develops products and services enabling operators to simplify and improve network and service performance, and facilitate more efficient capital and operating expenditure.

*Customer Business Teams* are Networks' channel to operator customers, responsible for sales and the overall customer relationship.

*Delivery Operations* is responsible for sourcing, manufacturing and distribution, in addition to network delivery and subsequent maintenance.

Network operators in some markets sometimes require their suppliers, including us, to arrange or provide long-term financing as a condition to obtaining or bidding on infrastructure projects. Moreover, they may require extended payment terms, which means that we must extend short-term trade credits to them. For information regarding our customer financing exposures please see Note 34(b) to our consolidated financial statements; "Item 3.D Risk Factors Customer financing to network operators can be a competitive requirement and could affect our sales, results of operations, balance sheet and cash flow adversely;" and Item "5.B Liquidity and Capital Resources Customer Financing."

### ***Enterprise Solutions***

Through the Enterprise Solutions business group, Nokia seeks to leverage its knowledge of the two crucial elements in mobilizing enterprises, high levels of security and reliability, and the ability to produce state-of-the-art, pocketable, powerful and user-friendly devices. Enterprise Solutions offers businesses a range of devices and mobile connectivity solutions based on end-to-end mobility architecture, and consists of two business units: enterprise mobility solutions and terminals. The group focuses on business devices, IP network perimeter security, firewalls and virtual private networks (VPN), secure content management (anti-virus scanning and SPAM filtering) and mobile connectivity solutions (remote access VPN and content) designed to help companies mobilize their workforces while ensuring the security and reliability of their networks.

The *Enterprise Mobility Solutions* unit provides network integrity, secure mobile connectivity, and remote content management and access solutions. These solutions are intended to ensure the security and reliability of corporate enterprises' and managed service providers' IT networks. This unit also seeks to offer solutions to enterprises that want to be able to offer their customers the opportunity for secure Internet transactions.

The Enterprise Mobility Solutions unit offers a broad portfolio of security and remote mobile connectivity network appliances to secure and connect a wide range of network environments and its clientele extends from small branch offices to large Internet data centers.

Current products include products to address secure content management and remote access, such as the Nokia Message Protector, a secure content-management system that aims to provide strong e-mail protection, SPAM rejection and anti-virus protection. Further, new purpose-built Nokia appliances with full firewall and VPN capabilities include the Nokia IP1260, a powerful high-end security appliance, and Nokia IP40, a Nokia-designed appliance to address the unique security and connectivity requirements of small and remote sites. Another important product is a new version of the Nokia Horizon Manager management system.

Nokia's mobile connectivity portfolio also now includes Nokia Access Mobilizer, which provides real-time interactive access to virtually any content on browser-enabled devices such as PDAs and mobile phones and devices. The new Nokia One Mobile Connectivity solution links corporations and their mobile employees using mobile phones and devices, PDAs, or a landline. It does so through multiple access methods including voice, SMS, web and WAP; and enables interaction, responses and alerts on mobile devices, eliminating delays in mission-critical production and business processes.

The *Terminals* unit produces mobile devices for business use, building on Nokia's long history in this area. For example, Nokia has been manufacturing the Communicator Series of devices since 1996. These integrate mobile phone and network connectivity with features such as e-mail, Internet access, calendar and other specific applications designed for corporate use.

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Other examples of terminals that the Terminals unit currently offers include the Nokia 6800, Nokia 6810 and Nokia 6820 messaging devices. All of these products have innovative design features with flip-access to a full QWERTY keyboard to enable quick and convenient text input.

#### ***Nokia Ventures Organization in 2003***

Nokia Ventures Organization existed to identify and develop new business ideas outside Nokia's current focus and to contribute to the growth and renewal of our existing core businesses. As part of its mission, the continuous renewal of Nokia, several parts of the Nokia Ventures Organization were integrated into Nokia's other business groups during 2003 and in connection with our re-organization effective January 1, 2004.

Nokia Internet Communications and Nokia One have been moved to the Enterprise Solutions business group, while Nokia Home Communications was moved to the Multimedia business group. Within Research, Venturing and Business Infrastructure, we intend that Nokia Ventures Organization will continue to act as an incubator, nurturing ideas through the development phase to profitable commercialization.

The following table sets forth net sales, operating profit (loss) and average number of employees for Nokia Ventures Organization during the past three years.

#### ***Nokia Ventures Organization Net Sales, Operating Profit (Loss) and Average Number of Employees***

	Year ended December 31,		
	2003	2002	2001
	EURm, except average number of employees		
Net sales	366	459	585
Operating profit (loss)	(161)	(141)	(855)
Average number of employees	1 536	1 566	2 155

*Nokia Internet Communications:* In the first half of 2003, revenue at Nokia Internet Communications continued to be affected by the slowdown in information technology spending. During the second half of 2003, the market began to show signs of improvement. Enterprises continued to rank spending on corporate network security as among their highest priorities with positive effects on the overall market growth in 2003. Sales at Nokia Internet Communications were slightly lower year on year, reflecting the continued weakness of the US dollar.

The unit introduced new product categories and solutions in 2003 that expanded Nokia's network security appliance portfolio beyond perimeter security into the secure content management and connectivity arenas. New products focused predominantly on extending mobility to enterprise

workforces, protecting corporate e-mail content and providing firewall/virtual private network benefits to remote offices.

*Nokia Home Communications:* During 2003, Nokia continued renewing and broadening its product portfolio of advanced digital satellite, terrestrial and cable television receivers with new receivers for consuming, sharing and storing diverse digital content. These new products increased the interoperability between digital TV receivers and mobile phones and devices. Nevertheless, sales in 2003 for Nokia Home Communications declined compared to 2002.

### ***Sales and Marketing***

Continuous strengthening of the Nokia brand is a critical component of our overall corporate strategy. According to a survey published in July 2003 by Interbrand, the Nokia brand was recognized as the sixth most valued brand in the world. We have invested heavily in print and broadcast advertising, such as our "Connecting People" campaign, as well as sponsorship of a variety of sporting and leisure events including the Nokia FIS snowboard world cup tour and the Nokia Sugar Bowl. We also promote our products by sponsoring movies in which Nokia phones feature prominently alongside the lead characters.

This year, Nokia also created the new N-Gage brand for its new mobile game deck. Because the games industry has a different dynamic to the mobile phone market, we required a fresh brand to create a response and connection within that industry. The N-Gage brand positions the game deck as a top-of-the-line games device. The design, technology and craftsmanship in this product live up to the high standards set for all Nokia products. We are using a wide range of media, including TV, print, outdoor, retail and online to reach our target audience of adults who enjoy and own game devices and consoles.

Generally, our product marketing is carried out partly through our own campaigns and sales promotions and partly through initiatives driven by operator and distributor customers, such as the linking of Nokia phones with operators' promotional campaigns. A significant share of our phone and device business derives from sales to operators, distributors and independent retailers, with smaller volumes provided by online channels such as NokiaUSA.com. As the popularity of mobile phones and devices increases worldwide, mobile phone and device manufacturers must address an extremely diverse audience with their marketing communications. This diversity goes beyond geographic or cultural diversity and includes differences in other factors relevant to mobile phone and device users, such as the benefits that users hope to derive from their mobile phones and devices, lifestyles, demographics and psychological profiles.

As a result of our reorganization, Nokia now includes the new horizontal group, Customer and Market Operations. This horizontal group comprises Sales and Channel Development; Marketing; Operations and Logistics; and Sourcing and Procurement. It aims to ensure a coordinated approach to the sales of mobile phones and devices, and serves and supports the Mobile Phones, Multimedia and Enterprise Solutions business groups.

Networks continues to be responsible for its own dedicated sales and marketing activities. Networks' sales and marketing channels mainly comprise dedicated global account management teams for operator customers. Product marketing is carried out primarily through our own campaigns and promotions.

### ***Production***

Nokia operated 16 manufacturing facilities in nine countries around the world as at December 31, 2003. Our principal supply requirements are for electronic components such as semiconductors, microprocessors, micro controllers, memory devices and displays, which have a wide range of applications in our communications products. Our products also incorporate software provided by third parties.

### ***Mobile Phones and Devices***

The production and logistics for the phone and device businesses of Mobile Phones, Multimedia and Enterprise Solutions will be managed by Operations and Logistics, including control of the mobile phone and device factories. The Operations and Logistics organization is also responsible for the process development in the demand supply network area, including the Enterprise

Solutions' gateway business as well as the network infrastructure business. Sourcing will be centralized within the Sourcing and Procurement unit. We consider our mobile phone and device manufacturing to be a core competence and competitive advantage. Our Customer and Market Operations organization currently operates 10 manufacturing plants in nine countries. Our US, Mexican and Brazilian plants primarily supply the North and South American markets. Three major European plants, located in Finland, Germany and Hungary, principally supply the European market and non-European countries that have adopted the GSM standard. In addition, we have a manufacturing plant in the United Kingdom serving Nokia's UK subsidiary, Vertu. We have two plants in China and one in South Korea that primarily supply the Asian markets.

We use outsourcing to add flexibility to our manufacturing activities. During 2003, outsourcing covered an estimated 20-25% of our manufacturing volume of mobile phone engines. We do not expect it to increase materially in the future.

In the past several years, we have made significant capital investments in order to automate our mobile phone and device manufacturing facilities further. Each of our plants deploys state-of-the-art technology and is highly automated. Although our plants generally manufacture for the cellular standards of local geographic markets, each plant is capable of providing mobile phones and devices for most of the world's major standards. As a result of this capability, we believe we are able to respond rapidly to the needs of different geographic markets.

In line with industry practice, we source a large proportion of components for our mobile phones and devices from a global network of suppliers. Although these components may experience some price volatility from time to time, we purchase the majority of our components under long-term contracts. Management believes that these business relationships are stable and they typically involve a high degree of cooperation in research and development, product design and manufacturing. See "Item 3.D Risk Factors We depend on our suppliers for the timely delivery of components and for their compliance with our supplier requirements, such as, most notably, our and our customers' product quality, safety and other corresponding standards. Their failure to do so could adversely affect our ability to deliver our products and solutions successfully and on time." Most raw materials that are used in Nokia mobile phones and devices including semiconductor chips, keypads, displays, covers and plastic casings, are sourced and manufactured by third party suppliers. We then assemble these components and activate the phone with our own software.

We aim to manage our own component inventory to ensure that production meets demand for our products, while minimizing inventory-carrying costs. The inventory level of components that we maintain is a function of a number of factors, including estimates of demand for each product category, product price levels, the availability of raw materials, supply chain integration with suppliers, and the rate of technological change. From time to time, our inventory levels of components may differ from actual requirements.

#### *Networks*

Our Networks business group operated six production facilities at December 31, 2003: three in Finland and three in China. In line with our strategy to invest resources in key areas to improve efficiency, over 50% of Networks' production is currently outsourced, as well as some product support activities.

Nokia generally prefers to have multiple sources for its components, but Networks sources some components for its telecommunications systems from a single or a small number of selected suppliers. As is the case with suppliers to our other business groups, management believes that these business relationships are stable and typically involve a high degree of cooperation in research and development, product design and manufacturing. This is necessary in order to

ensure optimal interoperability of products. See "Item 3.D Risk Factors We depend on our suppliers for the timely delivery of components and for their compliance with our supplier requirements, such as, most notably, our and our customers' product quality, safety and other corresponding standards. Their failure to do so could adversely affect our ability to deliver our products and solutions successfully and on time."

Some components and subassemblies for Networks products, including Nokia-specific integrated circuits and radio frequency components, servers, subassemblies such as filters, combiners and power units, cabinets and Nokia-specific connectors, are sourced and manufactured by third party suppliers. Our strategy is to focus on core competencies in our own operations and to work together with world-class companies in areas outside these core areas. This strategy improves our flexibility and reaction speed, and helps to increase our competitiveness in the telecommunications infrastructure market. We then assemble components and subassemblies into final products and solutions. Consistent with industry practice, we manufacture our telecommunications systems on a contract-by-contract basis.

#### *Technology, Research and Development*

Nokia believes that effective research and development is vital to remain competitive in the industry. As of December 31, 2003, we employed 19 849 people in research and development in 19 countries, representing approximately 39% of Nokia's total workforce, and had research and development centers in 11 countries. R&D expenses totaled EUR 3 760 million in 2003, an increase of 23% from 2002 (EUR 3 052 million). If personnel related restructuring costs (EUR 15 million) as well as impairments and write-offs of capitalized R&D costs (EUR 455 million) in Nokia Networks totaling EUR 470 million were excluded, the increase in R&D expenses would have been 8%. R&D expenses represented 12.8% of net sales in 2003, compared to 10.2% of net sales in 2002. Excluding the restructuring costs, impairments and write-offs made in Nokia Networks, R&D expenses would have represented 11.2% of net sales in 2003.

Research and development in Nokia takes place within the Nokia Research Center, the Technology Platforms horizontal group, and the respective business groups. Technology that is exploratory or has a long lead-time is located within Nokia Research Center. Research that is poised for commercialization or entering the market will generally be based within Technology Platforms, while technology research within business groups relates primarily to commercialized technology.

#### *Product Creation Strategy*

Management believes that the mobility industry will be characterized by increasingly diverse product lines in the future across voice-centric, multimedia, and enterprise businesses. Hence the introduction of new product standards and the development of different product features will be tailored to the specific needs and lifestyles of various user groups. Consequently, we intend to focus on bringing mobile multimedia to consumers in the form of images, games, music and a range of other attractive content. In the area of enterprise solutions, our research and development activities will target mobile terminals for mobile business users, and secure mobile access to office applications from corporate and non-corporate environments. Furthermore, we continue to support the improvement of traditional mobile phones by introducing new features and improving affordability. Finally, we support the improvement of entry-level phones to aid the introduction of voice terminals to new markets.

Nokia remains committed to a global and open mobile software and services market. We aim to achieve this objective by working together with customers, suppliers and industry participants in the Open Mobile Alliance and other industry fora, and by focusing on end-to-end solutions in all our development activities. By driving open standards, specifications and interoperability, our aim

is to ensure the introduction of new, interoperable mobile services worldwide. This is expected to boost innovation by independent software producers as well as provide consumers with a wide and varied selection of competitive, yet interoperable products and services.

#### *Nokia Research Center*

Looking beyond current product development, Nokia's corporate research center develops disruptive technologies and creates competencies in technology areas vital to the company's future success. The research center also supports Nokia's four business groups by interacting closely with them in order to develop new concepts, technologies, and applications.

Conducting research within a cooperative and global network underpins our long-term technology visions and disruptive technology exploration. We cooperate with universities and other industry players in research and development to widen the scope of technology.

#### *Technology Platforms*

As part of Nokia's recent restructuring, the new Technology Platforms horizontal group was created to serve Nokia businesses and external customers through the reliable delivery of leading technologies and platforms. The Technology Platforms horizontal group brings together the Technology, Mobile Software, Consumer Insights and Nokia Design units of the former Nokia Mobile Phones and the Technology Modules from the former Nokia Networks. We expect that the Technology Platforms horizontal group will continue to work together with developers, suppliers and collaboration partners where we feel it is mutually beneficial.

Nokia's platform creation strategy for its mobile phones and devices incorporates two aspects. First, we develop standard technology platforms incorporating characteristics and components that are often common across all product lines. These platforms include industry standard components, such as microprocessors and operating systems, some of which are partly purchased from outside suppliers and partly developed in-house. The standard platforms are configurable for different business needs. Second, we develop high value-added software and radio technology designed according to specific system standards. This enables us to offer a full product range covering all major cellular and non-cellular standards with the minimum amount of specialization of components. As a result, we have been able to outsource most of the components for our products, while concentrating our efforts primarily on the development of high value-added software.

Nokia Mobile Software, now part of the Technology Platforms horizontal group, will provide software solutions for mobile phones and devices. The key product is Series 60, a horizontal terminal software platform, which allows a licensee to differentiate both its devices and its services from those of its competitors. This key product has not yet been fully commercialized. However, to date, Series 60 has been licensed to Panasonic, Samsung, Sendo and Siemens. Series 60 is also used in Nokia devices. The commercially available products based on Series 60 are the Nokia 7650, the Nokia 3650, the Nokia N-Gage and the Nokia 6600. Series 60 runs on top of the Symbian Operating System, which has wide support from the mobile industry as well as a very active and large group of applications developers and operators. Further, Series 60 incorporates a comprehensive suite of open applications technologies that have a key role in mobile services such as multimedia messaging (MMS), Java and browsing. At the moment, revenue from our software licensing activities is immaterial.

Additionally, Nokia Mobile Software serves a software developer community of more than one million registered members by delivering architecture and developer platforms for Series 60, Series 40 and Series 90 devices that harmonize technologies and provide true volumes.

#### *Research and Development in Nokia's Business Groups*

Business group research and development is directed towards the commercialization of technology and its integration into products and solutions. Although the business groups utilize technology platforms where appropriate in an effort to achieve consistent high quality and economies of scale, the research activities within the business groups also extend to business-specific technologies, such as product mechanics and product-specific applications.

#### **Competition**

##### *Mobile Phones and Devices*

For 2003, the total mobile phone sales volumes achieved by the former Nokia Mobile Phones reached a record level of 179.3 million units, representing growth of 18% compared with 2002. Based on the estimated global sell-through market for mobile phones, Nokia's global market share was slightly above 38% for 2003, compared with 38% for 2002. This establishes Nokia as the market leader, with a market share approximately equal to the combined share of our three nearest competitors. According to Nokia's preliminary estimates, overall market volumes in 2003 reached about 471 million units.

Mobile phone market participants compete mainly on the basis of the breadth and depth of their product portfolios, price, operational and manufacturing efficiency, technical performance, product features, quality, customer support, and brand recognition. Mobile network operators are increasingly offering mobile phones under their own brand, which may result in increasing competition from non-branded mobile device manufacturers.

Historically, our principal competitors have been other mobile communications companies such as Ericsson, Motorola, Nortel, Samsung and Siemens. However, in future we will face new competition, particularly in Multimedia and Enterprise Solutions where we will compete with consumer electronics manufacturers and business device and solution providers, respectively. Further, as the industry now includes increasing numbers of participants who provide specific hardware and software layers within products and solutions, we will compete at the level of these layers rather than solely at the level of products and solutions. As a result of these developments, we face new competitors such as, but not limited to, Cisco, Dell, HP, Microsoft, Nintendo and Sony, and we will also compete with a great number of smaller competitors and with some of our traditional competitors in new areas.

It is difficult to predict how the competitive landscape of the mobility industry will develop in the future. In the mobility industry, the parameters of competition are less firmly established than in mature, low-growth industries, where the competitive landscape does not change greatly from year to year. See "Item 3.D Risk Factors The development of the mobility industry is significantly altering the competitive landscape and increasing competition. We are entering businesses where the competitive landscape is new to us or still in the early stages of development. Our failure to respond successfully to this development may have a material adverse impact on our business, our ability to meet our targets, and our results of operations."

##### *Networks*

In the networks business, our principal competitors include Alcatel, Ericsson, Motorola, Nortel and Siemens. Competition among vendors remains intense as the market contracts and operators prioritize cash flow and rapid return on investment.

We are aiming to increase our market share in growth markets, by supporting operators to achieve the lowest total cost of ownership for their networks. We do this by providing solutions

for operators in markets where the average revenue per user is very low, with the aim of increasing the penetration of mobile phones through increased affordability.

#### *Seasonality*

Our mobile phone and device sales are somewhat affected by seasonality. However, over the past two years, we have seen a trend towards less seasonality. This trend has resulted, first, from the fact that the purchasing behavior of first-time mobile phone buyers tends to be more seasonal than that of people who are upgrading their phone for a new model. Because replacement sales comprise an increasing percentage of sales, the seasonality of mobile phone sales has decreased. The trend towards less seasonality has also been aided by an increase of our geographical sales reach. The times at which people give gifts vary across the world, and as our global sales coverage increases, this softens the seasonality of sales. In contrast, previously, the first quarter of the year was characterized by slightly lower sales than the fourth quarter, due to the effect of holiday sales. The second quarter of the year was another high season, as consumers in the Northern Hemisphere prepared for summer vacations. The third quarter was usually slower than the second and fourth quarters, as consumers postponed purchases until the holiday season.

Our networks business has also experienced some seasonality during the last few years. Sales have been higher in the last quarter of the year compared with the first quarter of the following year, due to operators' planning and budgeting reasons.

#### *Patents and Licenses*

The detailed designs of our products are based primarily on our own research and development, work and design and comply with all relevant public standards. We intensively seek to safeguard our investments in technology through adequate patent protection including design patents, trademark registrations and copyrights that are used to protect proprietary features of our products. In 2003, we filed new patent applications for more than 1 200 new inventions.

Nokia is a holder of several essential patents for various telecommunications standards. An essential patent covers a feature that is incorporated into a public standard that all manufacturers are required to meet. In accordance with the rules of standardization bodies such as the European Telecommunication Standardization Institute, we are committed to promoting open standards by granting licenses on a fair, reasonable and non-discriminatory basis. We have entered into several license agreements with other companies relating to essential patents and other patents. Many of these agreements are cross-license agreements with major telecommunications companies that cover broad product areas and allow Nokia to choose its preferred product design.

Despite the steps that we have taken to protect our intellectual property rights, we cannot be certain that any rights or pending applications will be granted or that the rights granted in connection with any future patents will be sufficiently broad to protect our technology. Any patents that are granted to us may be challenged, invalidated or circumvented, and any right granted under our patents may not provide competitive advantages for Nokia.

In addition, with the introduction of new mobile data and other evolving technologies, such as those enabling multimedia services, our products increasingly include complex technological solutions that incorporate a variety of patented and proprietary technologies. A 3G mobile handset, for example, may incorporate three times as many components, including substantially more complex software, as our GSM phones. As the number of entrants in the market grows, as the Nokia product range becomes more diversified, and as the complexity of the technology and the overlap of product functionalities increase, the possibility of an infringement and related intellectual property claim against us increases. The holders of patents relevant to our products may be unknown to us or make it difficult for us to acquire licenses on commercially acceptable

terms. In addition, although we endeavor to ensure that companies that work with us possess appropriate intellectual property rights, we cannot fully avoid risks of intellectual property rights infringement created by suppliers of components and various layers in our products and solutions or by companies with which we work in cooperative research and development activities. Similarly, we and our customers may face claims of infringement in connection with our customers' use of our products and solutions. Finally, as all the technology standards, including those used and relied on by us, include some intellectual property rights, we cannot fully avoid risks of a claim for infringement of such rights due to our



reliance on such standards. It is therefore more likely that we will be required to obtain additional licenses or that some of the components or layers in these handsets, or other products or solutions of ours, will be protected by intellectual property rights of which we are unaware, potentially causing us to infringe the rights of others.

The business models for mobile services have not yet been established in many aspects. The unavailability of licenses for copyrighted content, delayed negotiations or restrictive copyright licensing terms may have an adverse effect on the cost or timing of content-related services by us, operators or third party service providers, and may also indirectly affect the sales of our handsets.

From time to time we are subject to patent claims from third parties. We believe that, based on industry practice, any necessary licenses or rights under patents that we may require can be obtained on terms that would not have a material adverse effect on our business, results of operations or financial condition. Nevertheless, necessary licenses may not be available on acceptable terms, if at all. The inability to obtain necessary licenses or other rights or the need to engage in litigation could have a material adverse effect on our business, results of operations and financial condition. See "Item 3.D Risk Factors Our products and solutions include increasingly complex technology involving numerous patented and other proprietary technologies. As a consequence, evaluating the protection of the technologies we intend to use is more difficult than before, and we may face claims that we have infringed third parties' intellectual property rights. The use of increasingly complex technology may result in increased licensing costs for us, restrictions on our ability to use such technology and offer our products and solutions, the invalidation of intellectual property rights on which we depend and/or costly and time-consuming litigation."

### ***Government Regulation***

Our products are subject to various Federal Communications Commission, or FCC, regulations in the United States. FCC regulation of the commercial mobile radio service industry has a direct and substantial impact on our business. It is in our interest that the FCC maintains a regulatory environment that ensures the continued robust growth of the wireless sector in the United States. FCC type acceptance regulations require that our products meet specified radio frequency emission standards and not cause unallowable interference with other services. It is very important to our business that the FCC, along with other US government agencies, take actions to ensure that sufficient spectrum is made available to meet the demand for advanced wireless products and solutions. In addition, a continued deregulatory and pro-competitive approach by the FCC and other agencies toward the Internet and the delivery of advanced mobile services should allow us to expand our business operations by offering businesses and consumers new and innovative mobile communications products and solutions.

EU regulation in many areas has a direct effect on the business of Nokia and our customers within the single market of the European Union. In February 2002, the Council of Ministers adopted a telecommunications package consisting of a general framework directive on electronic communications and services and three specific directives relating to authorization, access and interconnection, and universal service and users' rights. A fourth, and final, directive was adopted

in July 2002, relating to privacy and data protection. Together these directives provide a new harmonized EU regulatory framework for all types of electronic communication networks and services that aims to increase competition in the communications sector. EU Member States have 15 months to implement these directives into their national laws, and are currently in the process of doing so. In addition, in recent years, a number of EU regulatory measures have been introduced to open telecommunications competition and to address consumer protection and environmental policy issues relating to the sector. For example, a directive was adopted in September 2002, aiming to reduce national regulatory obstacles by eliminating exclusive or special rights to electronic communications networks and services. We are in a continuous dialogue with the EU institutions through our experts, industry associations and our office in Brussels.

Our business is subject to direct and indirect regulation, interpretations of regulations and possibility for enforcement actions by the FCC and other regulatory bodies in each of the countries in which we or our customers do business. As a result, changes in various types of regulation and their interpretation could affect our business adversely. For example, it is in our interest that the Federal Communications Commission maintain a regulatory environment that ensures the continued growth and healthy development of the wireless sector in the United States. In addition, changes in regulation affecting the construction of base stations and other network infrastructure could adversely affect the timing and costs of new network construction or expansion and the commercial launch and ultimate commercial success of these networks.

Moreover, the implementation of new technological or legal requirements, such as the requirement in the United States that all handsets must be able to indicate their physical location, could impact our products and solutions, manufacturing or distribution processes, and could affect the timing of product introductions, the cost of our production or products as well as their commercial success. Finally, export control, tariff, environmental, safety and other regulation that adversely affects the pricing or costs of our products and solutions as well as new services related to our products could affect our net sales and operating results. The impact of these changes in regulation could affect our business adversely even though the specific regulations do not always apply to us or our products and solutions directly.

**Corporate Responsibility**

Mobile communications creates opportunities for sustainable development, stimulating economic development and improving social well-being. It can give people a voice and enable widespread information sharing.

As market leader and a leading world brand, our impact on society comes with responsibilities that go beyond providing useful, safe and quality products. For instance, we need to consider how to help bridge the digital divide, how environmental needs can be met in our product design and life-cycle thinking, how working conditions are made safe within our company and in our supply chain, and how we can make mobile communication universal while respecting local economies and cultures.

We believe that it makes good business sense to look after the markets we operate in, to anticipate risks, demonstrate company values, work at increasing employee satisfaction, enhance corporate governance principles, and build a reputation for citizenship.

During 2003, we made progress in the area of corporate responsibility. Developments included the expansion of our global community involvement program, Make a Connection, to 16 countries, reaching over 1.25 million people, and the Philippines pilot of BRIDGEit, an innovative program that uses mobile technology to bring interactive, multimedia learning materials to teachers and students in poor and remote areas. Our global employee volunteering initiative, Nokia Helping

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Hands, also grew, and is now underway in more than 25 countries. We also signed a 3-year frame agreement for cooperation with WWF (World Wide Fund for Nature).

We believe that translating stakeholder expectations into business value is a key to future success. In addition to expanding existing internal and external communication channels, in 2003 we piloted e-RADAR, an electronic tool for gathering and analyzing employee opinions on a wide range of corporate responsibility subjects. Another new initiative was the creation of a dedicated tool on our web site to take into account the concepts and guidelines set forth by GRI (Global Reporting Initiative).

Nokia is actively participating in a number of international initiatives, such as the United Nations' Global Compact and ICT Task Force, International Youth Foundation, World Business Council for Sustainable Development and WWF. As a result of our performance in economic, environmental and social issues, and increased transparency in reporting, Nokia was again included in Socially Responsible Investment (SRI) benchmarks, such as the Dow Jones Sustainability Indexes and the FTSE4Good. In 2003, Nokia was ranked number one in the Global Communications Technology and European Technology market industry sectors within the Dow Jones Sustainability Index.

For more information on our corporate governance principles, please see "Item 6.C Board Practices."

**Employee Development The "Nokia Way"**

Fundamental to our success is the "Nokia Way" for all personnel. The Nokia Way is a philosophy of attracting and retaining the best people and maintaining continuous renewal. We strive to instill in each employee a set of four core values: customer satisfaction, respect, achievement, and renewal. We believe these are critical in order for a global organization such as Nokia to work together effectively.

Nokia's employee-value proposition framework remains strong. The four fundamentals of the proposition, together with the elements encompassed by each of them, are as follows:

**Nokia Way and Values:** fact-based management/value-based leadership, code of conduct, equal opportunities, diversity, internal communications and feedback channels.

**Performance-based rewarding:** base pay and benefits, equity-based instruments, Nokia connecting people bonus and incentive payments.

**Professional and personal growth:** career development, job rotation, training and performance management.

*Work life balance:* health & safety, flexible working hours, telecommuting opportunities and leave.

#### 4.C Organizational Structure

The following is a list of Nokia's significant subsidiaries as of December 31, 2003:

Company	Country of Incorporation	Nokia Ownership Interest	Nokia Voting Interest
Nokia Inc.	United States	100%	100%
Nokia GmbH	Germany	100%	100%
Nokia UK Limited	England & Wales	100%	100%
Nokia TMC Limited	South Korea	100%	100%
Beijing Capitel Nokia Mobile Telecommunications Ltd	China	52.9%	52.9%
Nokia Finance International B.V.	The Netherlands	100%	100%
Nokia Komárom Kft	Hungary	100%	100%
Nokia do Brazil Tecnologia Ltda	Brazil	100%	100%
Nokia Italia Spa	Italy	100%	100%
Nokia France S.A.	France	100%	100%
Dongguan Nokia Mobile Phones Company Ltd	China	70%	70%
Beijing Nokia Hang Xing Telecommunications Systems Co. Ltd	China	69%	69%

#### 4.D Property, Plants and Equipment

At December 31, 2003, Nokia operated 16 manufacturing facilities in nine countries around the world. None of these facilities is subject to a material encumbrance. The following is a list of their location, use and capacity:

Country	Location and Product	Productive Capacity, Net (m <sup>2</sup> ) <sup>(1)</sup>
BRAZIL	NG Industrial Limitada, Manaus (mobile phones)	15 197
CHINA	Beijing Nokia Hang Xing Telecommunications Co Ltd, Beijing (switching systems, base station controllers, transcoders)	5 535
	Beijing Capitel Nokia Mobile Telecommunications Ltd, Beijing (mobile phones and base stations)	28 902
	Dongguan Nokia Mobile Phones Company Ltd, Dongguan (mobile phones)	9 973
	Nokia Citic Digital Technology Co (Beijing) Ltd, Beijing (multimedia terminals)	500
	Nokia (Suzhou) Telecommunications Co, Ltd, Suzhou (base stations and cellular network transmission products)	7 650
FINLAND	Nokia Mobile Phones, Salo (mobile phones)	42 157
	Nokia Networks, Espoo (switching systems, base station controllers, transcoders, radio access products)	8 997
	Nokia Networks, Limingantulli (plug-in units for both GSM and WCDMA base station product families)	7 224
	Nokia Networks, Rusko (base stations)	13 069
GERMANY	Nokia Mobile Phones Produktions GmbH, Bochum (mobile phones)	26 019

Country	Location and Product	Productive Capacity, Net (m <sup>2</sup> ) <sup>(1)</sup>
HUNGARY	Nokia Komárom (mobile phones)	9 742
MEXICO	Nokia Mexico S.A. de CV, Tampas (mobile phone batteries, mobile phones)	9 102
REPUBLIC OF KOREA	Nokia TMC Ltd, Masan (mobile phones)	25 000
UNITED KINGDOM	Nokia UK Ltd, Fleet (mobile phones)	2 728
UNITED STATES	Nokia Inc. (Alliance), Fort Worth, Texas (mobile phones)	26 201

(1) Productive capacity equals the total area allotted to manufacturing and to the storage of manufacturing-related materials.

## ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

### 5.A Operating Results

Until January 1, 2004, Nokia's organizational and reporting structure consisted of two main business groups, Nokia Mobile Phones and Nokia Networks, as well as the company's venturing arm, Nokia Ventures Organization, and the common group functions. Towards the end of 2003, Nokia took the decision, effective January 1, 2004, to reorganize its structure in a move to further align the company's overall structure with its strategy. Nokia's new structure includes four business groups, which form the main reporting structure: Mobile Phones; Multimedia; Networks; and Enterprise Solutions, which provide us with a strong organizational base to make progress in the mobility industry and which also build on the changes that were first implemented within the Nokia Mobile Phones in 2002.

The new structure also includes three horizontal groups that service and support the business groups: Customer and Market Operations; Technology Platforms; and Research, Venturing and Business Infrastructure. The horizontal groups will not be separate reporting entities, but their costs will be carried mainly by the business groups and some included in the Common Group Expenses. Within the new structure, we believe that each of the four business groups is positioned to meet the specific need of diverse market segments, while the horizontal groups are designed to increase Nokia's operational efficiency and competitiveness and to maintain our strong economies of scale.

The following discussion and analysis by management of our operating and financial results is based upon our organizational and reporting structure until the end of 2003, and should be read in conjunction with our consolidated financial statements included in Item 18 of this Form 20-F. Our consolidated financial statements and the financial information discussed below have been prepared in accordance with IAS. For a discussion of the principal differences between IAS and US GAAP, see " Principal Differences between IAS and US GAAP" below and Note 36 to our consolidated financial statements.

Business segment data in the following discussion and analysis is prior to inter-segment eliminations. See Note 2 to our consolidated financial statements.

#### *Introduction*

At Nokia, one of our top priorities is to continue to strengthen our leading market position in a profitable way. We believe that further market share gains and further market growth are important to expanding our customer base and growing our future business potential. Our leading position enhances the positive effects of our economies of scale, which we believe should strengthen our competitive position in the mobility industry. We have invested significantly in research and development, introducing new products and creating increased consumer recognition of

the Nokia brand. We currently have manufacturing facilities and research and development centers in each of our three geographical regions, and we supply our products in over 130 countries worldwide. In 2003, 57% of our net sales originated from Europe, Middle-East & Africa, 22% from Asia-Pacific and 21% from the Americas. Based on sales, the ten largest markets in 2003 were the United States, the United Kingdom, Germany, China, United Arab Emirates, India, Italy, France, Brazil and Spain, representing 61% of total sales.

For further information regarding our business and operations please see "Item 4 Information on the Company."

### *Critical accounting policies*

Our accounting policies affecting our financial condition and results of operations are more fully described in Note 1 to our consolidated financial statements included in Item 18 of this Form 20-F. Certain of Nokia's accounting policies require the application of judgment by management in selecting appropriate assumptions for calculating financial estimates, which inherently contain some degree of uncertainty. Management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the reported carrying values of assets and liabilities and the reported amounts of revenues and expenses that may not be readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Nokia believes the following are the critical accounting policies and related judgments and estimates used in the preparation of its consolidated financial statements.

#### *Revenue recognition*

Revenue from the majority of the Group is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable. The remainder of revenue is recorded under the percentage of completion method.

Nokia Mobile Phones' and Nokia Ventures Organization's, as well as certain of Nokia Networks', revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable. This requires us to assess at the point of delivery whether these criteria have been met. Upon making such assessment, revenue is recognized. In particular, Nokia records estimated reductions to revenue for customer programs and incentive offerings, including special pricing agreements, price protection and other volume based discounts, mainly in the mobile phone business. Sales adjustments for volume based discount programs are estimated based largely on historical activity under similar programs. Price protection adjustments are based on estimates of future price reductions and certain agreed customer inventories at the date of the price adjustment.

Nokia Networks' revenue from contracts involving solutions achieved through modification of telecommunications equipment is recognized on the percentage of completion basis when the outcome of the contract can be estimated reliably. A contract's outcome can be estimated reliably when total contract revenue can be estimated reliably, it is probable that economic benefits associated with the contract will flow to the company, and the stage of contract completion can be measured reliably. When we are not able to meet those conditions, the policy is to recognize revenues only equal to costs incurred to date, to the extent that such costs are expected to be recovered. Completion is measured by reference to costs incurred to date as a percentage of estimated total project costs.

The percentage of completion method relies on estimates of total expected contract revenue and costs, as well as the dependable measurement of the progress made towards completing the particular project. Recognized revenues and profit are subject to revisions during the project in the event that the assumptions regarding the overall project outcome are revised. The cumulative impact of a revision in estimates is recorded in the period such revisions become known and estimable. Losses on projects in progress are recognized immediately when known and estimable.

Revenue recognition on initial 3G network contracts started in 2002 when Nokia Networks achieved 3G functionality for its single-mode and dual-mode WCDMA 3G systems. Upon achieving 3G functionality for WCDMA network projects, we began recognizing revenue under the cost-to-cost input method of percentage of completion accounting and have consistently applied

this method since that point. Until the time the 3GPP specifications required by our customers were met, we deferred the application of the cost-to-cost input model.

Nokia Networks' current sales and profit estimates for projects may change due to the early stage of a long-term project, new technology, changes in the project scope, changes in costs, changes in timing, changes in customers' plans, realization of penalties, and other corresponding factors.

#### *Customer financing*

We have provided customer financing and agreed extended payment terms with selected customers in our Nokia Networks business. In establishing credit arrangements, management must assess the creditworthiness of the customer and the timing of cash flows expected to be received under the arrangement. However, should the actual financial position of our customers or general economic conditions differ from our assumptions, we may be required to re-assess the ultimate collectibility of such financings and trade credits, which could result in a write-off of these balances in future periods and thus negatively impact our profits in future periods. Our assessment of the net recoverable value considers the collateral and security arrangements of the receivable as well as the likelihood and timing of estimated collections. For information about MobilCom/France Telecom, see Notes 7 and 15 to our consolidated financial statements. See also Note 34(b) to our consolidated financial statements for a further discussion of long-term customer loans.

#### *Allowances for doubtful accounts*

We maintain allowances for doubtful accounts for estimated losses resulting from the subsequent inability of our customers to make required payments. If the financial conditions of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required in future periods. Management specifically analyzes accounts receivables and analyzes historical bad debt, customer concentrations, customer creditworthiness, current economic trends and changes in our customer payment terms when evaluating the adequacy of the allowance for doubtful accounts.

#### *Inventory-related allowances*

We periodically review our inventory for excess inventory, obsolescence and declines in market value below cost and record an allowance against the inventory balance for any such declines. These reviews require management to estimate future demand for our products. Possible changes in these estimates could result in revisions to the valuation of inventory.

#### *Warranty provisions*

We provide for the estimated cost of product warranties at the time revenue is recognized. Nokia's products are covered by product warranty plans of varying periods, depending on local practices and regulations. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers, our warranty obligations are affected by actual product failure rates (field failure rates) and by material usage and service delivery costs incurred in correcting a product failure. Our warranty provision is established based upon our best estimates of the amounts necessary to settle future and existing claims on products sold as of the balance sheet date. As our new products incorporate complex technologies, as we continuously introduce new products, and as local laws, regulations and practices may change, it will be increasingly difficult to anticipate our failure rates, the length of warranty periods and repair costs. While we believe that our warranty provisions are adequate and that the judgments applied are appropriate, the ultimate cost of product warranty could differ

materially from our estimates. When the actual cost of quality of our products is lower than we originally anticipated, we release an appropriate proportion of the provision, and if the cost of quality is higher than anticipated, we increase the provision.

#### *Provision for intellectual property rights, or IPR, infringements*

We provide for the estimated future settlements related to asserted and unasserted IPR infringements based on the probable outcome of each infringement. The ultimate outcome or actual cost of settling an individual infringement may vary from our estimates.

Our products and solutions include increasingly complex technologies involving numerous patented and other proprietary technologies. Although we proactively try to ensure that we are aware of any patents related to our products and solutions under development and thereby

avoid inadvertent infringement of proprietary technologies, the nature of our business is such that patent infringements may and do occur. Through contact with parties claiming infringement of their patented technology, or through our own monitoring of developments in patent cases involving our competitors, we identify potential IPR infringements.

We estimate the outcome of all potential IPR infringements made known to us through assertion by third parties, or through our own monitoring of patent-related cases in the relevant legal systems. To the extent that we determine that an identified potential infringement will more likely than not result in an outflow of resources, we record a liability based on our best estimate of the expenditure required to settle infringement proceedings.

Our experience with claims of IPR infringement is that there is typically a discussion period with the accusing party, which can last from several months to years. In cases where a settlement is not reached, the discovery and ensuing legal process typically lasts a minimum of one year. For this reason, the ultimate outflow relating to IPR infringement claims can last for varying periods of time, resulting in irregular movements in the IPR infringement provision.

#### *Capitalized development costs*

We capitalize certain development costs when it is probable that a development project will be a success and certain criteria, including commercial and technological feasibility, have been met. These costs are then amortized on a systematic basis over their expected useful lives, which due to the constant development of new technologies is between two to five years. During the development stage, management must estimate the commercial and technological feasibility of these projects as well as their expected useful lives. Should a product fail to substantiate its estimated feasibility or life cycle, we may be required to write off excess development costs in future periods.

Whenever there is an indicator that development costs capitalized for a specific project may be impaired, the recoverable amount of the asset is estimated. An asset is impaired when the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is defined as the higher of an asset's net selling price and value in use. Value in use is the present value of discounted estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. For projects still in development, these estimates include the future cash out flows that are expected to occur before the asset is ready for use. See Note 7 to our consolidated financial statements.

Impairment reviews are based upon our projections of anticipated future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used

based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. While we believe that our assumptions are appropriate, such amounts estimated could differ materially from what will actually occur in the future. For IAS, discounted estimated cash flows are used to identify the existence of an impairment while for US GAAP undiscounted future cash flows are used. Consequently, an impairment could be required under IAS but not under US GAAP.

#### *Valuation of long-lived and intangible assets and goodwill*

We assess the carrying value of identifiable intangible assets, long-lived assets and goodwill annually, or more frequently if events or changes in circumstances indicate that such carrying value may not be recoverable. Factors we consider important, which could trigger an impairment review, include the following:

significant underperformance relative to historical or projected future results;

significant changes in the manner of our use of the acquired assets or the strategy for our overall business; and

significant negative industry or economic trends.

When we determine that the carrying value of intangible assets, long-lived assets or goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on discounted projected cash flows.

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This review is based upon our projections of anticipated future cash flows. The most significant variables in determining cash flows are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of products and forecasted life cycle and forecasted cash flows over that period. While we believe that our assumptions are appropriate, such amounts estimated could differ materially from what will actually occur in the future. For IAS these discounted cash flows are prepared at a cash generating unit level, and for US GAAP these cash flows are prepared at a reporting unit level. Consequently, an impairment could be required under IAS and not US GAAP or vice versa.

### *Deferred taxes*

Management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and the extent to which deferred tax assets can be recognized. We recognize deferred tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilized. We have considered future taxable income and tax planning strategies in assessing whether deferred tax assets should be recognized.

### *Pensions*

The determination of our pension benefit obligation and expense for defined benefit pension plans is dependent on our selection of certain assumptions used by actuaries in calculating such amounts. Those assumptions are described in Note 5 to our consolidated financial statements and include, among others, the discount rate, expected long-term rate of return on plan assets and annual rate of increase in future compensation levels. A portion of our plan assets is invested in equity securities. The equity markets have experienced volatility, which has affected the value of

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our pension plan assets. This volatility may make it difficult to estimate the long-term rate of return on plan assets. Actual results that differ from our assumptions are accumulated and amortized over future periods and therefore generally affect our recognized expense and recorded obligation in such future periods. Our assumptions are based on actual historical experience and external data regarding compensation and discount rate trends. While we believe that our assumptions are appropriate, significant differences in our actual experience or significant changes in our assumptions may materially affect our pension obligation and our future expense.

### *Results of Operations*

The following table sets forth the net sales and operating profit for our business groups for the years indicated.

#### *Net Sales and Operating Profit by Business Group*

	Year ended December 31,					
	2003		2002		2001	
	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)
	EURm					
Nokia Mobile Phones	23 618	5 483	23 211	5 201	23 158	4 521
Nokia Networks	5 620	(219)	6 539	(49)	7 534	(73)
Nokia Ventures Organization	366	(161)	459	(141)	585	(855)
Common Group Expenses		(92)		(231)		(231)
Eliminations	(149)		(193)		(86)	
<b>Total</b>	<b>29 455</b>	<b>5 011</b>	<b>30 016</b>	<b>4 780</b>	<b>31 191</b>	<b>3 362</b>



The following table sets forth the regional distribution of our net sales for the years indicated.

*Percentage of Net Sales by Region*

	Year ended December 31,		
	2003	2002	2001
Europe, Middle-East & Africa	57%	54%	49%
Asia-Pacific	22%	24%	26%
Americas	21%	22%	25%
Total	100%	100%	100%

Nokia is not a capital intensive company in terms of fixed assets, but rather invests in research and development, building the Nokia brand and marketing. In 2003, capital expenditures totaled EUR 432 million. During the past three years, principal capital expenditures included office and manufacturing facilities, production lines, test equipment and computer hardware used primarily in research and development. For more information, see "Item 5.B Liquidity and Capital Resources." Research and development expenses consist primarily of costs related to developing mobile devices and related software as well as telecommunications infrastructure software and hardware. In 2003, research and development expenses were EUR 3 760 million. Our total selling and marketing expenses in 2003 amounted to EUR 2 649 million, including EUR 1 414 million of advertising and promotional expenses. For further information regarding our research and development activities, see "Item 4.B Business Overview Technology, Research and Development" and "Item 5.C Research and Development, Patents and Licenses." For further information regarding

our investments in building the Nokia brand and our marketing activities, see "Item 4.B Business Overview Sales and Marketing."

At the end of 2003, we employed 51 359 people world-wide, compared to 51 748 and 53 849 at December 31, 2002 and 2001, respectively. In 2003, our personnel decreased by a net total of 389 employees as a result of restructuring at Nokia Networks, offset by recruitment mainly in research and development at Nokia Mobile Phones. In 2002, we decreased our personnel by 2 101, mainly as a result of outsourcing and restructuring at Nokia Networks and Nokia Ventures Organization.

**2003 compared to 2002**

*Nokia Net Sales and Operating Profit*

In 2003, economic conditions started to improve in the US and elsewhere in the Americas, and in the latter part of the year the Asia-Pacific market also began to show signs of recovery. In the main European markets, weak economic conditions continued. The US dollar continued to depreciate against the euro, falling by 17% in 2003 (year-end rate compared to year-end rate for the previous year). This currency development had a material negative impact on our net sales expressed in euros because approximately 50% of our net sales are generated in US dollars and currencies closely following the US dollar. For more information, see "Exchange Rates" below.

Our net sales totaled EUR 29 455 million in 2003 and EUR 30 016 million in 2002, representing a decrease of 2% in 2003. At constant currency, net sales would have grown 7% year on year. Our gross margin in 2003 improved to 41.5% compared to 39.1% in 2002, with the improvement coming primarily from Nokia Mobile Phones and to a lesser extent from Nokia Networks. In 2003, the clear improvement in the quality of our mobile phones resulted in a lower quality cost per phone than in 2002. Also the product mix consisted of slightly more lower-end phones with lower product costs, and contributed to a lower average cost per phone. Depreciation of the US dollar and also the Japanese yen also contributed to a lower average cost per phone because more than 50% of our mobile phone components are sourced in US dollars and approximately 25% in Japanese yen. All these factors together decreased cost of sales in Nokia Mobile Phones. In Nokia Networks, quality in our network deliveries improved towards the end of the year impacting positively on the gross margin. Also the product mix as well as the depreciation of sourcing currencies contributed to higher margins than in 2002.

Our operating profit increased by 5% to EUR 5 011 million in 2003, compared to EUR 4 780 million in 2002, as a result of the increase in our gross margins, as described in the previous paragraph. Our operating margin was 17.0% in 2003, compared to 15.9% in 2002. We continued to invest significantly in research and development. R&D expenses totaled EUR 3 760 million in 2003, an increase of 23% from 2002 (EUR 3

052 million). If personnel related restructuring costs (EUR 15 million) as well as impairments and write-offs of capitalized R&D costs (EUR 455 million) in Nokia Networks totaling EUR 470 million were excluded, the increase in R&D expenses would have been 8%. R&D expenses represented 12.8% of net sales in 2003, compared to 10.2% of net sales in 2002. Excluding the restructuring costs, impairments and write-offs in Nokia Networks, R&D expenses would have represented 11.2% of net sales in 2003.

In 2003, Nokia's operating profit included the following exceptional items, each within Nokia Networks: a positive adjustment of EUR 226 million as a result of the customer finance impairment recorded in 2002 related to MobilCom, the above mentioned R&D related costs totaling EUR 470 million, other restructuring costs of EUR 80 million, as well as a goodwill impairment of EUR 151 million. The goodwill impairment charge related to Nokia Networks' Core Networks business. The positive adjustment related to MobilCom is discussed below under " Segment Results Nokia Networks" and "Item 5.B Liquidity and Capital Resources Customer Financing."

### *Segment Results*

*Nokia Mobile Phones* Net sales of Nokia Mobile Phones reached their highest level ever at EUR 23 618 million in 2003, representing an increase of 2%, compared to EUR 23 211 million in 2002, driven by the consumer uptake of color-screen and camera phones, Nokia's growing presence in growth markets, and Nokia's increased share of the US, China and CDMA markets. While Nokia Mobile Phones volumes grew by 18%, net sales were adversely affected by the weak US dollar. At constant currency, Nokia Mobile Phones net sales would have grown 12% year on year. Sales growth in Europe, Middle-East & Africa was to a large extent offset by lower sales in the Americas and Asia-Pacific. In 2003, entry-level phones represented a somewhat higher portion of our sales volumes across all regions in comparison to 2002, and our sales volumes developed positively in the Americas and high growth markets such as India, Brazil and Russia where entry level phones predominated. This development together with the weakening US dollar impacted negatively on our average selling price per phone and net sales.

For 2003, Nokia's total mobile phone sales volumes grew by 18%, faster than market, to 179.3 million units, compared with 152 million units in 2002. Based on the estimated global sell-through market for mobile phones, Nokia's global market share was slightly above 38% for 2003, compared to 38% in 2002. According to Nokia's preliminary estimates, overall market volumes in 2003 reached about 471 million units, representing growth of 16% compared with the 405 million units sold in 2002. Regionally, mobile phone market volumes growth was 20% in Europe, Middle-East & Africa, 15% in Asia-Pacific and 13% in the Americas, compared to 2002.

Nokia Mobile Phones launched 40 new products during 2003 with an emphasis on more advanced devices, CDMA technology, entry-level phones and market localization. Of the new products launched, 31 models had color-screens, 14 models had cameras and 24 models were MMS-enabled. There were 12 Nokia camera phone models on the market by year-end.

We strengthened our position in three strategic areas by attaining the number one market position in the United States and the number one position in GSM in China, as well as significantly increasing global CDMA market share.

Nokia Mobile Phones continued to invest in research and development. Nokia Mobile Phones R&D costs totaled EUR 2 064 million (8.7% of Nokia Mobile Phones net sales) in 2003, representing an increase of 10%, compared to EUR 1 884 million (8.1% of Nokia Mobile Phones net sales) in 2002.

In 2003, Nokia Mobile Phones selling and marketing expenses increased by 14% to EUR 2 053 million, including advertising and promotional expenses of EUR 1 368 million, compared to 2002, when Nokia Mobile Phones selling and marketing expenses were EUR 1 804 million, including advertising and promotional expenses of EUR 1 080 million. In 2003, the selling and marketing expenses represented 8.7% of Nokia Mobile Phones net sales, compared to 7.8% in 2002.

Nokia Mobile Phones operating profit increased by 5% to EUR 5 483 million in 2003 compared to EUR 5 201 million in 2002. Nokia Mobile Phones operating margin improved to 23.2% in 2003, from 22.4% in 2002. This improvement primarily came from lower product costs in 2003, compared to 2002. Improved product quality and our product mix, which included more lower-end, lower cost phones, as well as the depreciation of our main sourcing currencies, the US dollar and the Japanese yen, were the main contributors to lower product costs.

*Nokia Networks* Net sales of Nokia Networks decreased by 14% to EUR 5 620 million in 2003 compared to EUR 6 539 million in 2002 due to an overall market decline. At constant currency, the net sales decrease would have been 9%. Although sales grew in the Americas, this was more than offset by lower sales in Europe, Middle-East & Africa and Asia-Pacific, compared with 2002.

During 2003, the mobile networks market declined by just over 15% in euro terms, according to Nokia's preliminary estimates, while network operators continued to focus on short-term cash flow generation and debt reduction. Although 2003 marked the third consecutive year of decline in the mobile networks market, encouraging signs in the fourth quarter indicated that the market began to stabilize as the financial position of network operators improved. As well, during the second half of 2003, operators began to reconfirm their commitment to 3G WCDMA, most notably by renewing or continuing their network equipment supply agreements, and by accelerating the deployment of the networks compared to 2002.

By the end of 2003, Nokia was a supplier to six of the world's 12 commercially launched 3G WCDMA networks and was rolling out 26 3G WCDMA networks in 15 countries. Altogether, Nokia has 37 publicly announced 3G WCDMA deals.

In 2003, Nokia announced 18 GSM, GPRS or GSM/GPRS/EDGE deals in various parts of the world, in addition to four EDGE deals in Latin America and Asia-Pacific. EDGE gained momentum during the year and at year-end, Nokia was a supplier to nine of the 11 commercially launched EDGE networks. This included a nationwide EDGE deployment and network opening with AT&T Wireless in the United States.

In 2003, Nokia Networks took action to improve profitability, by ceasing certain ongoing research and development projects and reducing the number of its employees. Nokia Networks research and development costs totaled EUR 1 540 million in 2003 (27.4% of Nokia Networks' net sales). These include restructuring costs of EUR 15 million relating to personnel reduction, impairments (EUR 275 million) and write-offs (EUR 180 million) of capitalized R&D costs, totaling EUR 470 million. In 2002, Nokia Networks R&D costs were EUR 995 million (15.2% of Nokia Networks net sales). If the restructuring costs, impairments and write-offs were excluded, R&D expenses would have been 19.0% of net sales in 2003, representing growth in R&D expenses of 8% compared with 2002.

Selling and marketing expenses in Nokia Networks were EUR 476 million in 2003 (8.5% of Nokia Networks net sales), compared to EUR 640 million (9.8% of Nokia Networks net sales) in 2002.

Nokia Networks operating loss increased to EUR 219 million in 2003 compared to an operating loss of EUR 49 million in 2002. Nokia Networks operating margin was negative at (3.9)% in 2003 and (0.7)% in 2002. In 2003, Nokia Networks operating loss included the aforementioned EUR 470 million in restructuring costs, impairments and write-offs related to R&D, and, in addition, restructuring costs in other functions of EUR 80 million. The operating loss in 2003 also included a goodwill impairment of EUR 151 million in Nokia Networks' Core Networks business in connection with Amber Networks. This impairment was due to the negative future market outlook and the decision to discontinue some of the related development projects. We have evaluated the carrying value of goodwill arising from Amber Networks acquisition to determine if the carrying value exceeds recoverable amounts. The impairment was calculated by comparing the discounted cash flows of the relevant business to the carrying value of assets for this business. In addition, Nokia Networks operating loss included a positive adjustment of EUR 226 million related to the customer finance impairment in 2002 related to MobilCom. For a further discussion of the MobilCom loans, see "Item 5.B Liquidity and Capital Resources Customer Financing" and Notes 7 and 15 to our consolidated financial statements."

*Nokia Ventures Organization* Net sales from Nokia Ventures Organization totaled EUR 366 million in 2003 compared to EUR 459 million in 2002. Nokia Ventures Organization reported operating losses of EUR 161 million in 2003 compared to EUR 141 million in 2002. Operating results included a net loss of EUR 27 million from Nokia Venture Partners investments mainly resulting from the impairment of certain investments. In the first half of 2003, revenue at Nokia Internet Communications continued to be affected by the slowdown in information technology spending.

During the second half of 2003 the market began to show signs of improvement. Enterprises continued to rank spending on corporate network security as among their highest priorities, with positive effects on overall market growth in 2003. Sales at Nokia Internet Communications were slightly lower in 2003, reflecting the continued weakness of the US dollar. During 2003, Nokia Home Communications continued renewing and broadening its product portfolio. However, the market for digital set top boxes developed slower than expected leading in decrease in sales compared to 2002.

*Common Group Expenses* This line item, which comprises Nokia Head Office, Nokia Research Center and other general functions' operating losses, totaled EUR 92 million in 2003, compared to EUR 231 million in 2002. In 2003, this included a gain of EUR 56 million from the sale of the remaining shares of Nokian Tyres. During 2002, the company's investment in certain equity securities suffered a permanent decline in value resulting in an impairment of available-for-sale investments of EUR 55 million.

*Net Financial Income*

Net interest and other financial income totaled EUR 352 million in 2003 compared to EUR 156 million in 2002. Net financial income in 2003 resulted from a continued strong cash position reflected in the negative net debt to equity ratio of -71% at December 31, 2003, compared to a net debt to equity ratio of -61% at December 31, 2002. See " Exchange Rates" below. At year-end 2003, we had cash and cash equivalents of EUR 11 296 million compared to EUR 9 351 million at year-end 2002.

*Profit Before Taxes*

Profit before taxes and minority interests increased 9% and totaled EUR 5 345 million in 2003 compared to EUR 4 917 million in 2002. Taxes amounted to EUR 1 699 million and EUR 1 484 million in 2003 and 2002, respectively.

*Minority Interests*

Minority shareholders' interest in our subsidiaries' profits totaled EUR 54 million in 2003 compared to EUR 52 million in 2002.

*Net Profit and Earnings per Share*

Net profit in 2003 increased to EUR 3 592 million, compared to EUR 3 381 million in 2002, representing a year-on-year increase in net profit of 6% in 2003. Basic earnings per share increased to EUR 0.75 in 2003 compared to EUR 0.71 in 2002.

**2002 compared to 2001**

*Nokia Net Sales and Operating Profit*

The year 2002 was characterized by intense competition and a continued weakened global economy. Our net sales totaled EUR 30 016 million in 2002 and EUR 31 191 million in 2001, representing a decrease in net sales of 4% in 2002. This mainly reflected continuing difficult operating conditions in our network infrastructure business. Our gross margin in 2002 improved to 39.1% compared to 36.6% in 2001, reflecting primarily a decrease in product costs in Nokia Mobile Phones. Our operating profit increased by 42% to EUR 4 780 million in 2002, compared to EUR 3 362 million in 2001. Our operating margin was 15.9% in 2002, compared to 10.8% in 2001. We continued to invest significantly in research and development. Research and development expenses totaled EUR 3 052 million in 2002, an increase of 2% from 2001 (EUR 2 985 million). Research and development expenses represented 10.2% of net sales in 2002 compared to 9.6% of net sales in 2001.

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During 2002, operating profit was negatively impacted by a net charge of EUR 265 million in relation to the obligations of MobilCom and by goodwill impairments of EUR 182 million primarily in the Nokia Networks business. The goodwill impairments relate to Nokia Networks' IP Mobility Networks business as well as to Nokia Internet Communications within Nokia Ventures Organization. We have evaluated the carrying value of goodwill arising from certain acquisitions to determine if the carrying value exceeds recoverable amounts. The impairments were calculated by comparing the discounted cash flows of the relevant business to the carrying value of assets for this business. The net charge related to MobilCom is discussed below under " Segment Results Nokia Networks" and "Item 5.B Liquidity and Capital Resources Customer Financing."

*Segment Results*

*Nokia Mobile Phones* Net sales of Nokia Mobile Phones were EUR 23 211 million in 2002, virtually flat compared to EUR 23 158 million in 2001. Healthy sales growth in Europe and continued growth in Asia-Pacific were offset by lower sales in the Americas. In addition, handset sales in the second half of 2002, while high in volume, tended towards the less expensive mass-market end of the product portfolio.

For 2002, Nokia sales volumes reached a record level of 152 million units compared with 140 million in 2001, representing faster than market growth of 9%, compared with 2001. Nokia again increased its market share for the fifth consecutive year reaching an estimated 38% for the full year 2002, based on the number of Nokia mobile phones sold into our distribution channels as a percentage of estimated aggregate retail unit sales. In 2002, Nokia shipped a record number of 33 new mobile phone models.

According to Nokia's preliminary estimates, the mobile phone market returned to growth in 2002 with overall market volumes reaching about 405 million units. This represents growth of more than 5% compared with volumes in 2001 of around 380 million units. Replacement purchases are estimated to have accounted for roughly half of the total industry sales volume in 2002 compared with 45% in 2001. Market volume continued to grow year on year in Europe and Asia-Pacific, both rising by approximately 8%. Demand in the Americas is estimated to have

grown by approximately 4%, compared with the previous year.

Nokia Mobile Phones continued to invest in research and development. Nokia Mobile Phones' research and development costs totaled EUR 1 884 million (8.1% of Nokia Mobile Phones' net sales) in 2002 compared to EUR 1 599 million (6.9% of Nokia Mobile Phone's net sales) in 2001.

Nokia Mobile Phones' operating profit increased by 15% to EUR 5 201 million in 2002 compared to EUR 4 521 million in 2001. Nokia Mobile Phones' operating margin was 22.4% in 2002 and 19.5% in 2001. The higher operating margin in Nokia Mobile Phones in 2002 resulted primarily from lower product costs compared to 2001.

*Nokia Networks* Net sales of Nokia Networks were EUR 6 539 million in 2002 compared to EUR 7 534 million in 2001. Reduced investments by operators continued to have a significant negative impact resulting in an overall sales decline of 13% compared with 2001. Net sales in 2002 included revenue related to single-mode WCDMA and dual-mode GSM/WCDMA network equipment, as the relevant milestones for such recognition were met during the year.

During 2002, the combined effects of a general economic slowdown and high 3G license costs induced most mobile network operators to focus increasingly on short-term cash flow generation and debt reduction while cutting back on their level of capital investments. As a result, the size of overall mobile network infrastructure market in 2002 decreased by approximately 20% compared with the previous year, while Nokia Network's accessible market contracted about 15% in 2002.

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As the year progressed, steady developments were made in the 3G WCDMA network business. Despite a slower than previously anticipated rollout phase, towards the end of the year, the first WCDMA networks were taken into pre-commercial and commercial use. In September 2002, the first Nokia delivered WCDMA network was taken into test use, while the first commercial launch of a Nokia-based 3G network took place in December with J-Phone in Japan.

During the year, Nokia took measures to align its operations to better reflect current market conditions, reducing the number of employees in its delivery and maintenance services as well as in production. Nokia also streamlined its professional mobile radio unit to reflect the slower than expected growth of this market. Nokia Networks' research and development costs were EUR 995 million in 2002 (15.2% of Nokia Networks' net sales) and EUR 1 135 million in 2001 (15.1% of Nokia Networks' net sales).

Nokia Networks' operating loss decreased to EUR 49 million in 2002 compared to an operating loss of EUR 73 million in 2001. Nokia Networks' operating margin was (0.7)% in 2002 and (1.0)% in 2001. In 2002, Nokia Networks' operating loss was impacted by lower sales volume, compared to 2001, and clearly lower profitability of initial phase 3G contracts compared to the average profitability of GSM projects.

In addition, Nokia Networks' operating results were negatively impacted by a net charge of EUR 265 million to write down customer loans to MobilCom, a German operator, and to write off various other amounts related to MobilCom. This impairment was the result of financial difficulties of MobilCom. For a further discussion of the MobilCom loans, see "Item 5.B Liquidity and Capital Resources Customer Financing."

Operating results in 2002 were also negatively impacted by goodwill impairments of EUR 121 million in Nokia Networks' IP Mobility Network business. The impairment of Amber of EUR 104 million was due to a major negative change in future market outlook. The impairment of Rooftop of EUR 17 million was due to a decision to discontinue related products.

*Nokia Ventures Organization* Net sales from Nokia Ventures Organization totaled EUR 459 million in 2002 compared to EUR 585 million in 2001. Nokia Ventures Organization reported operating losses of EUR 141 million in 2002 compared to EUR 855 million in 2001. Operating results included a net gain of EUR 81 million from Nokia Venture Partners investments mainly resulting from the sale of its investment in PayPal. During 2002, operating results were negatively impacted by goodwill impairments of EUR 61 million related to Network Alchemy and Ramp Networks. Both impairments were due to decisions to discontinue product development. In 2002, the slowdown in information technology spending continued to impact expenditures on corporate network security resulting in flat growth in this industry.

*Common Group Expenses* This line item, which comprises Nokia Head Office, Nokia Research Center and other general functions' operating losses, totaled EUR 231 million in 2002, unchanged from 2001. During 2002, the company's investment in certain equity securities suffered a permanent decline in value resulting in an impairment of available-for-sale investments of EUR 55 million.

*Net Financial Income*

Net interest and other financial income totaled EUR 156 million in 2002 compared to EUR 125 million in 2001. Net financial income in 2002 resulted from a positive net operating cash flow of EUR 5 814 million and a net debt to equity ratio of -61% at December 31, 2002, compared to EUR 6 547 million and a net debt to equity ratio of -41% at December 31, 2001. See " Exchange Rates" below. At year-end 2002, we had cash and cash equivalents of EUR 9 351 million compared to EUR 6 125 million at year-end 2001.

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#### *Profit Before Taxes*

Profit before taxes and minority interests increased 41% and totaled EUR 4 917 million in 2002 compared to EUR 3 475 million in 2001. Taxes amounted to EUR 1 484 million and EUR 1 192 million in 2002 and 2001, respectively.

#### *Minority Interests*

Minority shareholders' interest in our subsidiaries' profits totaled EUR 52 million in 2002 compared to EUR 83 million in 2001.

#### *Net Profit and Earnings per Share*

Net profit in 2002 increased to EUR 3 381 million, compared to EUR 2 200 million in 2001, representing a year-on-year increase in net profit of 54% in 2002. Basic earnings per share increased to EUR 0.71 in 2002 compared to EUR 0.47 in 2001.

#### *Related Party Transactions*

There have been no material transactions during the last three fiscal years to which any director, executive officer or 5% shareholder, or any relative or spouse of any of them, was party. There is no significant outstanding indebtedness owed to Nokia by any director, executive officer or 5% shareholder.

There are no material transactions with enterprises controlling, controlled by or under common control with Nokia or associate of Nokia.

See Notes 31 and 32 to our consolidated financial statements included in Item 18 of this Form 20-F.

#### *Exchange Rates*

Nokia's business and results of operations are from time to time affected by changes in exchange rates, particularly between the euro and other currencies such as the US dollar, the Japanese yen and the UK pound sterling. See "Item 3.A Selected Financial Data Exchange Rate Data." Foreign currency denominated assets and liabilities, together with highly probable purchase and sale commitments, give rise to foreign exchange exposure. In general, depreciation of another currency relative to the euro has an adverse effect on Nokia's sales and operating profit, while appreciation of another currency has a positive effect, with the exception of Japanese yen, being the only significant foreign currency in which Nokia has more purchases than sales.

During 2003 and 2002, both the US dollar as well as the UK pound sterling depreciated (average rate for the year compared to average rate for the previous year) against the euro. The US dollar with approximately 16.1% and 6.1%, respectively, and the UK pound sterling with approximately 9.1% and 1.5%, respectively. In 2001, the US dollar appreciated approximately 3.3% and the UK pound sterling depreciated approximately 1.6% against the euro. The change in value of the US dollar and the UK pound sterling had a slightly negative impact on Nokia's operating profit in 2003 and 2002, and slightly positive effect in 2001. In 2003, 2002 as well as 2001, the Japanese yen depreciated approximately 9.8%, 7.7% and 8.6%, respectively against the euro, which had a slightly positive impact on our operating profit, due to the fact that Nokia had net purchases in Japanese yen.

The continued strengthening of the euro, if prolonged against currencies in which we have revenues, particularly the US dollar, will have an increasingly significant impact on our sales expressed in euros. In addition to the impact of exchange rate fluctuations on our results of

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operations discussed above, Nokia's balance sheet is also affected by the translation into euro for financial reporting purposes of the shareholders' equity of our foreign subsidiaries that are denominated in currencies other than the euro. In general, this translation increases our shareholders' equity when the euro depreciates, and affects shareholders' equity adversely when the euro appreciates against the relevant other currencies (year-end rate to previous year-end rate).

For a discussion on the instruments used by Nokia in connection with our hedging activities, see Note 34 to our consolidated financial statements included in Item 18 of this Form 20-F. See also "Item 11. Quantitative and Qualitative Disclosures About Market Risk" and "Item 3.D Risk Factors Our sales, costs and results are affected by exchange rate fluctuations, particularly between the euro, which is our reporting currency, and the US dollar, UK pound sterling and the Japanese yen as well as certain other currencies."

#### ***Principal Differences Between IAS and US GAAP***

Nokia's consolidated financial statements are prepared in accordance with IAS.

Our net profit in 2003 under IAS was EUR 3 592 million, compared to EUR 3 381 million in 2002 and EUR 2 200 million in 2001. Under US GAAP, Nokia would have reported net income of EUR 4 097 million in 2003, compared to EUR 3 603 million in 2002 and EUR 1 903 million in 2001.

The principal differences between IAS and US GAAP that affect our net profit or loss, as well as our shareholders' equity, relate to the treatment of development costs, impairment of capitalized development costs, pension costs, provision for social security costs on stock options, stock compensation expense, identifiable intangible assets acquired, amortization and impairment of goodwill, translation of goodwill, net investment in foreign companies and certain cash flow hedges. See Note 36 to our consolidated financial statements included in Item 18 of this Form 20-F for a description of the principal differences between IAS and US GAAP and for a description of the anticipated impact on the consolidated financial statements of the adoption of recently issued US GAAP accounting standards.

#### **5.B Liquidity and Capital Resources**

At December 31, 2003, Nokia's cash and cash equivalents increased to EUR 11 296 million, compared to EUR 9 351 million at December 31, 2002, primarily as a result of continued good profitability as well as a result of a decline in cash used in investing activities and a decline in the amount of income taxes paid. We hold our cash and cash equivalents predominantly in euros. Cash and cash equivalents totaled EUR 6 125 million at December 31, 2001.

Net cash from operating activities was EUR 5 244 million in 2003, compared to EUR 5 814 million in 2002 and EUR 6 547 million in 2001. Net cash generated from operating activities decreased primarily due to high year-end sales increasing receivables in working capital. At the beginning of 2002, a significant amount of 2001 taxes became payable in addition to normal advances for 2002 taxes.

Net cash used in investing activities in 2003 was EUR 313 million, compared to EUR 868 million in 2002 and EUR 2 679 million in 2001. Cash flow from investing activities in 2003 included additions to capitalized R&D expenses of EUR 218 million, representing a decrease compared to EUR 418 million in year 2002 and EUR 431 million in 2001. Long-term loans made to customers decreased to EUR 97 million in 2003, compared to EUR 563 million in 2002 and EUR 1 129 million in 2001. Capital expenditures for 2003 were EUR 432 million, remaining unchanged from 2002. Capital expenditures totaled EUR 1 041 million in 2001. Major items of capital expenditure

included office and manufacturing facilities, production lines, test equipment and computer hardware used primarily in research and development.

Net cash used in financing activities increased to EUR 2 780 million in 2003, compared to EUR 1 580 million in 2002, primarily as a result of the purchase of treasury shares with EUR 1 355 million. Net cash used in financing activities decreased to EUR 1 580 million in 2002 compared to EUR 1 895 million in 2001, primarily as a result of decreases in repayment of short-term borrowings and higher proceeds from stock option exercises.

At December 31, 2003, Nokia had EUR 20 million in long-term interest-bearing liabilities and EUR 471 million in short-term borrowings, offset by EUR 11 296 million in cash and bank deposits and current available-for-sale investments, resulting in a net cash balance of EUR 10 805 million, compared to EUR 8 787 million at the end of 2002. In addition we hold EUR 816 million of subordinated convertible perpetual bonds of France Telecom not included in cash and cash equivalents. We are not unconditionally permitted to sell these bonds until the end of June 2004. For further information regarding our long-term liabilities, including interest rate structure and currency mix, see Note 23 to our consolidated financial statements included in Item 18 of this Form 20-F. Our ratio of net interest-bearing debt, defined as short-term and

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long-term debt less cash and cash equivalents, to equity, defined as shareholders' equity and minority interests, was -71%, -61%, and -41% at December 31, 2003, 2002 and 2001, respectively. The change in 2003 resulted from both our continued good profitability and the improvements in our cash position.

The total dividends per share were EUR 0.30 for the year ended December 31, 2003, subject to shareholders' approval (EUR 0.28 and EUR 0.27 for the years ended December 31, 2002 and 2001, respectively). See "Item 3.A Selected Financial Data Distribution of Earnings."

Nokia has no potentially significant refinancing requirements in 2004. Nokia expects to incur additional indebtedness from time to time as required to finance working capital needs. At December 31, 2003, Nokia had a USD 500 million US Commercial Paper (USCP) program and a USD 500 million Euro Commercial Paper (ECP) program. In addition, at the same date, Nokia had a Finnish local commercial paper program totaling EUR 750 million. At December 31, 2003, we also had a committed credit facility of USD 2 000 million and a number of short-term uncommitted facilities. For further information regarding our short-term borrowings, including the average interest rate, see Note 25 to our consolidated financial statements included in Item 18 of this Form 20-F.

Nokia has historically maintained a high level of liquid assets. Management estimates that the cash and cash equivalents level of EUR 11 296 million at the end of 2003, together with Nokia's available credit facilities, cash flow from operations, funds available from long-term and short-term debt financings, as well as the proceeds of future equity or convertible bond offerings, will be sufficient to satisfy our future working capital needs, capital expenditure, research and development and debt service requirements at least through 2004. The ratings of our short and long-term debt from credit rating agencies have not changed during the year. The ratings at December 31, 2003, were:

Short-term	Standard & Poor's	A-1
	Moody's	P-1
Long-term	Standard & Poor's	A
	Moody's	A1

We believe that Nokia will continue to be able to access the capital markets on terms and in amounts that will be satisfactory to us, and that we will be able to obtain bid and performance bonds, to arrange or provide customer financing as necessary to support our business and to engage in hedging transactions on commercially acceptable terms.

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Nokia is not a capital intensive company in terms of fixed assets, but rather invests in research and development, building the Nokia brand and marketing. In 2003, capital expenditures totaled EUR 432 million, and were at the same level as in 2002 (EUR 432 million). In 2002 the decrease was 59% compared to 2001 (EUR 1 041 million). This decrease over the three-year period is a result of aligning our manufacturing capacity to match the slower market growth for mobile phones and lower demand for network infrastructure. Principal capital expenditures during the three years included office and manufacturing facilities, production lines, test equipment and computer hardware used primarily in research and development. We expect the amount of our capital expenditures during 2004 to be somewhat higher than 2003 and to be funded from our cash flow from operations.

### *Customer Financing*

Network operators in some markets sometimes require their suppliers, including us, to arrange or provide long-term financing as a condition to obtaining or bidding on infrastructure projects. Customer financing continues to be requested by some operators in some markets, but to a considerably lesser extent and with considerably lower importance than during the past years. Extended payment terms may continue to result in a material aggregate amount of trade credits, but the associated risk is mitigated by the fact that the portfolio relates to a variety of customers. See "Item 3.D Risk Factors Customer financing to network operators can be a competitive requirement and could affect our sales, results of operations, balance sheet and cash flow adversely."

The following table sets forth Nokia's total customer financing (outstanding and committed) for the years indicated.

### *Customer Financing*

At December 31,		
2003	2002	2001



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	At December 31,		
	EURm		
Financing commitments	490	857	2 955
Outstanding long-term loans (net of allowances and write-offs)	354	1 056	1 128
Outstanding financial guarantees and securities pledged	33	91	127
	<u>877</u>	<u>2 004</u>	<u>4 210</u>

The term customer financing portfolio at December 31, 2003 mainly consists of outstanding and committed customer financing to wireless operators Hutchison 3G UK Ltd in the United Kingdom and to TNL PCS S.A. (Telemar) in Brazil. Total committed customer financing to Hutchison 3G UK Ltd amounted to EUR 653 million, of which outstanding financing was EUR 354 million, while total committed customer financing to Telemar amounted to EUR 191 million, of which none was outstanding.

See Notes 7 and 34(b) to our consolidated financial statements included in Item 18 of this Form 20-F for additional information relating to our committed and outstanding customer financing.

In 2003, we reduced our total customer financing (outstanding and committed) by EUR 1 127 million (or 56%) compared to 2002. Our outstanding loans have decreased mainly due to the fact that the MobilCom loan was exchanged for subordinated convertible perpetual bonds of France Telecom. These bonds are now treated as current available-for-sale investments. In addition the reduction has been achieved through repayments of outstanding loans and release of outstanding guarantees as well as arrangements with banks, financial institutions and Export

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Credit Agencies, and mutual agreement with the borrower. Our continued intent is to further mitigate our total customer financing exposure, market conditions permitting. We continue to make arrangements with financial institutions and investors to sell credit risk we have incurred from the commitments and outstanding loans we have made as well as from the financial guarantees we have given.

In 2002, we recorded a net charge of EUR 265 million to write down the loans receivable to their estimated recoverable amount and to write off various other amounts related to MobilCom. However, this charge was substantially reversed in 2003 by EUR 226 million as a result of the company receiving repayment of the MobilCom loans receivables in the form of subordinated convertible perpetual bonds of France Telecom.

As a strategic market requirement, we plan to continue to extend customer financing and provide extended payment terms to a small number of selected customers.

We expect our customer financing commitments to be financed mainly through cash flow from operations as well as through the capital markets.

The following table sets forth the amounts of Nokia's customer financing commitments and the periods in which these commitments will expire if they are not utilized pursuant to the terms of the related financing arrangements. Such amounts can also be available to customers in periods prior to expiration. The amounts represent the maximum amount of commitments.

*Customer Financing Commitments Expiration Per Period*

	2004	2005-2006	2007	Total
	EURm			
Customer financing commitments	191	299		490

All customer financing commitments are available under loan facilities negotiated with customers of Nokia Networks. Availability of the amounts is dependent upon the borrower's continuing compliance with stated financial and operational covenants and compliance with other administrative terms of the facility. The loans are available to fund capital expenditure relating to purchases of network infrastructure equipment and services from Nokia Networks, or working capital requirements. Certain loans are partially secured through either guarantees by the borrower's direct or indirect parent or other group companies, or shares and/or other assets of the borrower, its parent or other entities under common ownership.

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The following table sets forth the amounts of Nokia's contingent commitments related to customer financing for the periods indicated. The amounts represent the maximum principal amount of commitments.

### *Contingent Commitments Expiration Per Period*

	2004	2005- 2006	2007- 2008	Thereafter	Total
	EURm				
Guarantees of Nokia's performance	104	30	16	21	171
Financial guarantees and securities pledged on behalf of customers	30	3			33
<b>Total</b>	<b>134</b>	<b>33</b>	<b>16</b>	<b>21</b>	<b>204</b>

Guarantees of Nokia's performance include EUR 139 million of guarantees that are provided to certain Nokia Networks customers in the form of bank guarantees, standby letters of credit and

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other similar instruments. These instruments entitle the customer to claim payment as compensation for non-performance by Nokia of its obligations under network infrastructure supply agreements. Depending on the nature of the instrument, compensation is payable either immediately upon request, or subject to independent verification of non-performance by Nokia.

Financial guarantees and securities pledged on behalf of customers represent guarantees relating to payment by certain Nokia Networks customers under specified loan facilities between such customers and their creditors. Nokia's obligations under such guarantees are released upon the earlier of expiration of the guarantee or early payment by the customer.

Please see Note 29 to our consolidated financial statements for further information regarding commitments and contingencies.

### 5.C Research and Development, Patents and Licenses

Success in the mobile communications industry requires continuous introduction of new products and solutions based on the latest available technology. This places considerable demands on our research and development activities. Consequently, in order to maintain our competitiveness, we have made substantial research and development expenditures in each of the last three years. Our consolidated research and development costs for 2003 were EUR 3 760 million, an increase of 23% over 2002 (EUR 3 052 million) and an increase of 2% in 2002 compared to 2001 (EUR 2 985 million). These costs represented 12.8%, 10.2% and 9.6% of net sales in 2003, 2002 and 2001, respectively. During 2003, Nokia Networks took action to improve profitability, by ceasing certain ongoing research and development projects, resulting in a reduction of the number of R&D employees. Nokia Networks did this to bring sharper focus and lower cost to research and development, and to position Nokia Networks for long-term profitability. If the restructuring costs, impairments and write-offs of capitalized R&D costs in Nokia Networks totaling EUR 470 million were excluded, the R&D costs of Nokia Group would have represented 11.2% of net sales in 2003.

To enable our future growth, we continued to invest in our worldwide research and development network, as well as increasing our collaboration with third parties. At December 31, 2003, we employed 19 849 people in research and development in 19 countries, representing approximately 39% of Nokia's total workforce, and had research and development centers in 11 countries. Research and development expenses of Nokia Mobile Phones as a percentage of its net sales were 8.7% in 2003, 8.1% in 2002 and 6.9% in 2001. In the case of Nokia Networks, research and development costs represented 27.4%, 15.2% and 15.1% of its net sales in 2003, 2002 and 2001, respectively. If the restructuring costs, impairments and write-offs totaling EUR 470 million described in the previous paragraph were excluded, the R&D costs of Nokia Networks would have represented 19.0% of net sales in 2003. See "Item 4.B Business Overview Technology, Research and Development" and " Patents and Licenses."

### 5.D Trend Information

#### *General*

During the past years, Nokia's business and results of operations have been affected by a number of important trends. The rapid growth in the global mobile communications market has been spurred by the digitalization and convergence of voice and data transmission. In 2001, the mobile communications industry experienced a year of transition leading to a market decline. However, growth started to emerge in 2002 with the launch of feature-rich multimedia products offering new advanced mobile services.

In 2003, mobile phone volumes continued to increase, growing by 16% to 471 million units, according to Nokia's preliminary estimates, compared to an estimated 405 million units in 2002.

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The upturn was largely due to high volumes in growth markets where mobile telephony became more affordable. Also in 2003, feature-rich mobile devices continued to make significant inroads in countries with higher cellular penetration, paving the way for the adoption of new technologies and services. Even though the mobile network infrastructure market continued its decline in 2003, encouraging signs in the fourth quarter indicated that the market was beginning to stabilize as the financial position of operators improved, leading to an overall spending increase in the market.

### *Technologies*

In technology, two notable industry trends are emerging. First, the convergence of the mobile communications, information technology and media industries into one mobility industry is becoming apparent. This development opens the possibility for entirely new product and service categories, such as mobile games, multimedia and enterprise solutions. Second, while participants in the mobile communications industry once provided complete products and solutions, the mobility industry will include increasing numbers of participants that provide specific hardware and software layers for products and solutions. We expect that certain layers will have increasing value from a business perspective, which may also result in shifts of value among different industry participants. Although both of these trends present new challenges, as described above in the first two risk factors in "Item 3.D Risk Factors," we believe that these trends also expand the potential for future growth in the mobile communications industry.

The significance of software in consumer and business-focused mobile devices is increasing. Software enables valuable applications and intuitive user interfaces, which drive mobile device use, boost the mobile services market and benefit many players in the mobility industry. Nokia sees Java, the Symbian operating system (OS) and the Series 60 handset software platform as key elements in this evolution. Java enables the creation and downloading of mobile device applications that attract more consumers and business users. The installed base of advanced mobile devices running the Symbian OS reached several million units in 2003. The Nokia-licensed Series 60 platform incorporates open technologies, including MMS, Java and the Symbian OS, and is expected to move beyond advanced phones to volume products in the coming years.

While 2002 featured initial rollouts of 3G mobile communications technologies, such as WCDMA and EDGE, 2003 witnessed the commercial deployment of 3G with 12 commercial WCDMA networks launched by operators and 11 EDGE networks. The transition from 2G to 3G is a process that is expected to take several years, although we expect the full-scale commercialization of 3G mobile devices and the launch of more than 50 WCDMA 3G networks to have taken place by the end of 2004.

We believe that open standards continue to be an important building block for enabling the interoperability needed to take advantage of networked services. SMS, MMS and other multimedia services become more valuable to all the market participants as the number of users who can access them increases. Open standards also ensure a sustainable, global mobile software and services business. The evolution of applications and services in the mobile communications industry has led to greater cooperation among industry players, facilitating faster adoption of mobile services as well as market growth for the entire mobile communications industry. Nokia continues to drive and implement open standards in cooperation with various industry participants in order to promote a multi-vendor market with open competition and interoperability worldwide. For more information, please see the first risk factor in "Item 3.D Risk Factors."

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### *Mobile Devices*

In 2004, Nokia continues to expect that the mobile device market volumes will grow by somewhat over 10%, from an estimated 471 million units in 2003. Volume growth in 2004 is expected to come from increased penetration in growth markets and ongoing upgrades in developed

markets. Growth markets, such as China, India, Russia and Brazil, offer opportunities to expand wireless voice to new subscribers. To address this opportunity Nokia launched a line of affordable, entry-level phones and cost-optimized networks solutions and services in 2003. For the upgrade market, camera phones and phones with other multimedia features and services will be instrumental in the growth. These features and services are also expected to encourage consumers to move from monochrome display screens to color screen handsets.

A specific area of potential growth for Nokia's mobile devices is the CDMA technology area, as Nokia has started shipments to operators in China, India and all major United States CDMA operators. During 2003, Nokia significantly increased its share of the global CDMA handset market and launched 11 CDMA phones. In 2004, CDMA will continue to be one of our focus areas, and Nokia expects its CDMA technology and product offering to expand in line with market demand.

For 2003 Nokia estimates the global mobile subscriber base to have grown to 1.3 billion subscriptions and forecasts the number to reach two billion in 2008. During 2003, feature-rich phones with color screens and access to new services compelled consumers and business users to upgrade existing devices or to move toward multiple device ownership. Camera phones also appealed to consumers, driving new and upgrade purchases. The annual share of the replacement market represented more than 60% of volumes in 2003, a trend Nokia intends to continue capitalizing on by introducing a steady stream of new attractive mobile devices. In 2003, Nokia Mobile Phones continued to refresh its product offering by launching 40 new products, many with color screens and MMS capability, and 14 with built-in cameras.

Multimedia messaging (MMS), color-screens and cameras are three important trends in mobile devices. Multimedia messaging is spreading around the globe, with around 180 operators offering commercial services. With a total of 24 multimedia-enabled phones by the end of 2003, Nokia plans for the vast majority of our 2004 device models to also be multimedia-enabled. Phones equipped with color screens and cameras support the development of multimedia and other advanced services. They also encourage the sharing and storing of personal digital content. Color displays, in particular, are seen as a key enabler of future growth in mobile imaging, games, and enterprise services.

Nokia sees significant growth potential in the multimedia and enterprise segments of the emerging mobility industry. Many of the businesses that the Multimedia and Enterprise Solutions business groups are targeting are new to us or still in the early stages of development. As a result, pursuing business opportunities in these segments means that we will have to compete with a variety of competitors and face new uncertainties and risks. For more information, please see the second risk factor in "Item 3.D Risk Factors."

For the multimedia business, the key trends are the emergence and development of the new mobility industry and the evolution of mobile phones into devices that are with the user wherever they go. Consequently, adding multimedia features to phones further encourages the use of such devices. In mobile imaging, the success of the digital camera market and the move from voice to visual communications are attracting consumers. In mobile games, the momentum comes from the possibility for multiplayer and online game playing regardless of place or time. For mobile media and music, the development of the fixed Internet has produced a mass of digital information and entertainment content that can now be mobilized. In 2004, the mobile multimedia market will still be in its infancy; however, Nokia expects to see demand continue to

develop for mobile cameras, games, and media and music as consumers become more aware of mobile multimedia services.

In the enterprise market, the advent of mobile computing, phones and networks means the workplace is no longer tied to a physical location. Mobile voice and messaging have already dramatically changed working patterns and behavior and the increased mobilization of data will add to those changes as businesses continue to benefit from the efficiency brought by mobility. Nokia sees that complete end-to-end solutions, covering mobile devices, gateway platforms, network security and applications will be key growth drivers in this segment. For the mobilization of businesses, high levels of security and good maintenance and manageability are key issues, which need to be assured for the mass adoption of new mobile working practices. We anticipate that 2004 will be a year of initial building in the mobile enterprise solutions market by the industry and Nokia.

#### ***Mobile Networks***

During 2003, we saw the beginning of full commercial launches of 3G accompanied by positive momentum in certain market segments, such as packet core networks. Nonetheless, as operators continued to focus on containing capital and operating expenses, the total mobile network infrastructure market contracted by just over 15% in euro terms, according to Nokia's preliminary estimates.

The mobile infrastructure market will remain challenging, but operators are increasing investments as evidenced by the market beginning to stabilize towards the end of 2003. In 2004 the infrastructure industry is expected to be at the same level as 2003 or slightly up, in euro terms.

Operators will need to make investments in mobile network infrastructure in China, India, Russia and other growth markets to support the rapidly expanding number of mobile phone users.

Globally, mobile data traffic continued to grow as a part of operators' revenues due to the increased popularity of mobile data services, such as MMS and mobile email. Mobile data services are a key driver for future market development.

With the mass-market adoption of mobile data services by consumers and business users, operators need to balance existing network optimization with the roll out of new data networks and services. As mobile data services have increased the complexity of network build outs and integration, Nokia sees services to operators as an ever more important part of the mobile infrastructure market.

Nokia sees the current industry environment as requiring only non-material increases, if any, in customer financing. We expect some operators in some markets to continue to look for customer financing, but to a considerably lesser extent and with considerably lower importance than during the past years. Extended payment terms may continue to result to a material aggregate amount of trade credits, but the portfolio is not, and is not expected to be, highly concentrated but relates to a number of various customers. See "Item 3.D Risk Factors Customer financing to network operators can be a competitive requirement and could affect our sales, results of operations, balance sheet and cash flow adversely" and "Item 5.B Liquidity and Capital Resources."

### 5.E Off-Balance Sheet Arrangements

There are no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

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### 5.F Tabular Disclosure of Contractual Obligations

The following table sets forth our contractual obligations for the periods indicated.

#### *Contractual Obligations Payments Due by Period*

	<u>2004</u>	<u>2005-2006</u>	<u>2007-2008</u>	<u>Thereafter</u>	<u>Total</u>
	EURm				
Long-term debt		2		85	87
Operating leases	176	264	189	124	753
Inventory purchases	1 033	12	6		1 051
	<u>1 209</u>	<u>278</u>	<u>195</u>	<u>209</u>	<u>1 891</u>

Nokia does not believe it has material funding requirements for its fully-funded domestic defined benefit pension plans, which represent a majority of all its pension obligations. Benefit payments related to the underfunded foreign defined benefit plans are not expected to be material in the future. Therefore, these amounts have not been included in the table above for any of the years presented.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### 6.A Directors and Senior Management

Pursuant to the provisions of the Finnish Companies Act and our articles of association, the control and management of Nokia is divided among the shareholders in a general meeting, the Board of Directors and the Group Executive Board.

The current members of the Board of Directors were elected at the Annual General Meeting on March 27, 2003, in accordance with the proposal of the Corporate Governance and Nomination Committee. On the same date, the Chairman and Vice Chairman were elected by the Board members. Certain information with respect to these individuals is set forth below.

**Board of Directors**

Chairman Jorma Ollila, b. 1950

*Chairman and CEO and Chairman of the Group Executive Board of Nokia Corporation. Board member since 1995. Chairman since 1999.*

Master of Political Science (University of Helsinki), Master of Science (Econ.) (London School of Economics), Master of Science (Eng.) (Helsinki University of Technology).

President and CEO, and Chairman of the Group Executive Board of Nokia Corporation 1992-1999, President of Nokia Mobile Phones 1990-1992, Senior Vice President, Finance of Nokia 1986-1989. Holder of various managerial positions at Citibank within corporate banking 1978-1985.

Member of the Board of Directors of Ford Motor Company and UPM-Kymmene Corporation and Vice Chairman of Otava Books and Magazines Group Ltd. Member of The European Round Table of Industrialists.

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Vice Chairman Paul J. Collins, b. 1936

*Board member since 1998. Vice Chairman since 2000.*

BBA (University of Wisconsin), MBA (Harvard Business School).

Vice Chairman of Citigroup Inc. 1998-2000, Vice Chairman and member of the Board of Directors of Citicorp and Citibank N.A. 1988-2000. Holder of various executive positions at Citibank within investment management, investment banking, corporate planning as well as finance and administration 1961-1988.

Member of the Board of Directors of BG Group and Kimberly-Clark Corporation.

Georg Ehrnrooth, b. 1940

*Board member since 2000.*

Master of Science (Eng.) (Helsinki University of Technology). President and CEO of Metra Corporation 1991-2000, President and CEO of Lohja Corporation 1979-1991. Holder of various executive positions at Wärtsilä Corporation within production and management 1965-1979. Chairman of the Board of Directors of Assa Abloy AB (publ) and Varma-Sampo Mutual Pension Insurance Company, Vice Chairman of the Board of Directors of Rautaruukki Corporation, member of the Board of Directors of Oy Karl Fazer Ab, Sandvik AB (publ) and Sampo plc. Chairman of The Center for Finnish Business and Policy Studies (EVA).

Dr. Bengt Holmström, b. 1949

*Paul A. Samuelson Professor of Economics at MIT, joint appointment at the MIT Sloan School of Management.*

*Board member since 1999.*

Bachelor of Science (Helsinki University), Master of Science (Stanford University), Doctor of Philosophy (Stanford University).

Edwin J. Beinecke Professor of Management Studies at Yale University 1985-1994. Member of the Board of Directors of Kuusakoski Oy. Member of the American Academy of Arts and Sciences and Foreign Member of The Royal Swedish Academy of Sciences.

Per Karlsson, b. 1955

*Independent Corporate Advisor.*

*Board member since 2002.*

Degree in Economics and Business Administration (Stockholm School of Economics).

Executive Director, with mergers and acquisitions advisory responsibilities, at Enskilda M&A, Enskilda Securities (London) 1986-1992. Corporate strategy consultant at the Boston Consulting Group (London) 1979-1986.

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Robert F. W. van Oordt, b. 1936

*Chairman of Rodamco Europe N.V.*

*Board member since 1998.*

Drs of Economics (University of Amsterdam).

CEO of Rodamco Europe N.V. 2000-2001, Chairman of the Executive Board of NV Koninklijke KNP BT 1993-1996, Chairman of the Executive Board of Bühmann-Tetterode N.V. 1990-1993, Executive Vice President and COO and member of the Board of Directors of Hunter Douglas Group N.V. 1979-1989. Consultant and partner with McKinsey & Company Inc. 1967-1979.

Chairman of Rodamco Europe N.V., member of the Supervisory Board of Draka Holding N.V., member of the Board of Directors of Fortis Bank N.V., Schering-Plough Corporation and N.V. Umicore S.A.

Dame Marjorie Scardino, b. 1947

*Chief Executive and member of the Board of Directors of Pearson plc.*

*Board member since 2001.*

BA (Baylor), JD (University of San Francisco).

Chief Executive of The Economist Group 1993-1997, President of the North American Operations of The Economist Group 1985-1993.

Lawyer 1976-1985 and publisher of the Georgia Gazette newspaper 1978-1985.

Vesa Vainio, b. 1942

*Board member since 1993.*

LL.M. (University of Helsinki).

Chairman 1998-1999 and 2000-2002 and Vice Chairman 1999-2000 of the Board of Directors of Nordea AB (publ). Chairman of the Executive Board and CEO of Merita Bank Ltd and CEO of Merita Ltd 1992-1997. President of Kymmene Corporation 1991-1992. Holder of various other executive positions in Finnish industry 1972-1991.

Chairman of the Board of Directors of UPM-Kymmene Corporation.

Arne Wessberg, b. 1943

*Chairman of the Board of Directors and Chief Executive Officer of Yleisradio Oy (Finnish Broadcasting Company). Board member since 2001.*

Studies in economics in the University of Tampere 1963-1966.

Chairman of the Board of Eurosport Consortium 1998-2000, member 1989-1997. Member of the Board of Trustees of IIC 1996-1998 and 1993-1995. Holder of various positions at Yleisradio Oy (Finnish Broadcasting Company) in different executive roles 1979-1994 and as a reporter and editor 1971-1976.

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President of the European Broadcasting Union (EBU), member of the Board of Directors of the International Council of NATAS and member of the Trilateral Commission (Europe).

On January 22, 2004, with an amendment on February 6, 2004, we announced the proposal of the Corporate Governance and Nomination Committee to the Annual General Meeting convening on March 25, 2004 regarding the election of the members of the Board of Directors. As Mr. Robert F. W. van Oordt has reached the Nokia Board's retirement age of 68 years, as provided by the Corporate Governance Guidelines of Nokia, he will not stand for re-election to the Board. The Corporate Governance and Nomination Committee will propose to the Annual General Meeting that the number of Board members be decreased from the current nine to eight and that the following persons be re-elected for a term of one year: Mr. Paul J. Collins, Mr. Georg Ehnrooth, Dr. Bengt Holmström, Mr. Per Karlsson, Mr. Jorma Ollila, Dame Marjorie Scardino,

Mr. Vesa Vainio and Mr. Arne Wessberg.

**Group Executive Board**

Our articles of association provide for a Group Executive Board, which is responsible for managing the operations of Nokia. The Chairman and the members of the Group Executive Board are elected by the Board of Directors. Only the Chairman of the Group Executive Board can be a member of both the Board of Directors and the Group Executive Board. The current members of our Group Executive Board are set forth below.

Chairman Jorma Ollila, b. 1950

*Chairman and CEO of Nokia Corporation.  
Group Executive Board member since 1986. Chairman since 1992.  
Joined Nokia 1985.*

Master of Political Science (University of Helsinki), Master of Science (Econ.) (London School of Economics), Master of Science (Eng.) (Helsinki University of Technology).

President and CEO, and Chairman of the Group Executive Board of Nokia Corporation 1992-1999, President of Nokia Mobile Phones 1990-1992, Senior Vice President, Finance of Nokia 1986-1989. Holder of various managerial positions at Citibank within corporate banking 1978-1985.

Member of the Board of Directors of Ford Motor Company and UPM-Kymmene Corporation and Vice Chairman of Otava Books and Magazines Group Ltd. Member of The European Round Table of Industrialists.

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Pekka Ala-Pietilä, b. 1957

*President of Nokia Corporation and Head of Customer and Market Operations.  
Group Executive Board member since 1992.  
Joined Nokia 1984.*

Master of Science (Econ.) (Helsinki School of Economics and Business Administration).

President of Nokia Corporation and Head of Nokia Ventures Organization 1999-2003. Executive Vice President and Deputy to the CEO of Nokia Corporation and President of Nokia Communications Products 1998-1999, President of Nokia Mobile Phones 1992-1998, Vice President, Product Marketing of Nokia Mobile Phones 1991-1992, Vice President, Strategic Planning of Nokia Mobile Phones 1990-1991.

Member of the Supervisory Board of SAP AG. Member of the Science and Technology Policy Council of Finland, member of the Board of the Finnish-American Chamber of Commerce, member of the Board of the Economic Information Bureau.

Dr. Matti Alahuhta, b. 1952

*Executive Vice President, Chief Strategy Officer.  
Group Executive Board member since 1993.  
With Nokia 1975-1982, rejoined 1984.*

Doctor of Science (Technology) (Helsinki University of Technology).

President of Nokia Mobile Phones 1998-2003. President of Nokia Telecommunications 1993-1998, Executive Vice President of Nokia Telecommunications 1992, Senior Vice President, Public Networks of Nokia Telecommunications 1990-1992.

Member of the Board of Directors of Kone Oyj. Chairman of the Board of Technology Industries of Finland, Vice Chairman of the Board of the



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Confederation of Finnish Industry and Employers, Vice Chairman of the Executive Committee of The International Institute for Management Development (IMD).

Sari Baldauf, b. 1955

*Executive Vice President and General Manager of Networks.  
Group Executive Board member since 1994.  
Joined Nokia 1983.*

Master of Science (Business Administration) (Helsinki School of Economics and Business Administration).

President of Nokia Networks 1999-2003, Executive Vice President of Nokia APAC 1997-1998, President, Cellular Systems of Nokia Telecommunications 1988-1996, Vice President, Business Development of Telenokia 1987-1988.

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Member of the Board of Directors of SanomaWSOY Oyj. Member of the Board of International Youth Foundation (Baltimore, USA) and member of the Board of Foundation for Economic Education.

Dr. J. T. Bergqvist, b. 1957

*Senior Vice President and General Manager, Business Units, Networks.  
Group Executive Board member since 2002.  
Joined Nokia 1983.*

Doctor of Science (Technology) (Helsinki University of Technology).

Executive Vice President and General Manager, IP Mobility Nokia Networks 2001-2003, Senior Vice President, Radio Access Systems of Nokia Telecommunications 1997-2000, Vice President, Cellular Transmission Business, Network and Access Systems of Nokia Telecommunications 1995-1996, Area General Manager, Area Management of Nokia Telecommunications 1993-1994, Area General Manager, Marketing of Nokia Cellular Systems 1990-1992.

Member of the Board of Directors of Norvestia plc.

Mary T. McDowell, b. 1964

*Senior Vice President and General Manager of Enterprise Solutions.  
Group Executive Board member since January 1, 2004.  
Joined Nokia 2004.*

Bachelor of Science (Computer Science) (College of Engineering at the University of Illinois).

Senior Vice President, Strategy and Corporate Development of Hewlett-Packard Company 2003, Senior Vice President & General Manager, Industry-Standard Servers of Hewlett-Packard Company 2002-2003, Senior Vice President & General Manager, Industry-Standard Servers of Compaq Computer Corporation 1998-2002, Vice President, Marketing, Server Products Division of Compaq Computer Corporation 1996-1998. Holder of executive, managerial and other positions at Compaq Computer Corporation 1986-1996.

Member of the Board of Visitors for the College of Engineering at the University of Illinois.

Olli-Pekka Kallasvuo, b. 1953

*Executive Vice President and General Manager of Mobile Phones.  
Group Executive Board member since 1990.  
With Nokia 1980-81, rejoined 1982.*

LL.M. (University of Helsinki).

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Executive Vice President, CFO of Nokia 1999-2003, Executive Vice President of Nokia Americas and President of Nokia Inc. 1997-1998, Executive Vice President, CFO of Nokia 1992-1996, Senior Vice President, Finance of Nokia 1990-1991.

Chairman of the Board of Directors of F-Secure Corporation, Nextrom Holding S.A. and Sampo plc.

Pertti Korhonen, b. 1961

*Senior Vice President, Chief Technology Officer.  
Group Executive Board member since 2002.  
Joined Nokia 1986.*

Master of Science (Electronics Eng.) (University of Oulu).

Executive Vice President of Nokia Mobile Software 2001-2003. Senior Vice President, Global Operations, Logistics and Sourcing of Nokia Mobile Phones 1999-2001, Senior Vice President, Global Operations and Logistics of Nokia Mobile Phones 1998-1999, Vice President, Logistics of Nokia Mobile Phones 1996-1998, Vice President, Manufacturing Europe of Nokia Mobile Phones 1993-1996, Project Executive of Nokia Mobile Phones UK Ltd, 1991-1993, Vice President, R&D of Nokia Mobile Phones, Oulu 1990-1991.

Hallstein Moerk, b. 1953

*Senior Vice President, Human Resources.  
Group Executive Board member since January 1, 2004.  
Joined Nokia 1999.*

Diplomøkonom (Econ.) (Norwegian School of Management).

Holder of various positions at Hewlett-Packard Corporation 1979-1999.

Member of the Board of Directors of Flisekompaniet. Member of the Board of Advisors for Center for HR Strategy, Rutgers University.

Dr. Yrjö Neuvo, b. 1943

*Senior Vice President, Technology Advisor.  
Group Executive Board member since 1993.  
Joined Nokia 1993.*

Master of Science (Eng.), Licentiate of Science (Technology) (Helsinki University of Technology), Ph.D. (EE) (Cornell University).

Executive Vice President, CTO of Nokia Mobile Phones 1999-2003, Senior Vice President, Product Creation of Nokia Mobile Phones 1994-1999, Senior Vice President, Technology of Nokia 1993-1994, National Research Professor of The Academy of Finland 1984-1992, Professor of Tampere University of Technology 1976-1992, Visiting Professor of University of California, Santa Barbara 1981-1982.

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Vice Chairman of the Board of Directors of Vaisala Corporation. Member of Finnish Academy of Technical Sciences, The Finnish Academy of Science and Letters, and Academiae Europae, Foreign member of Royal Swedish Academy of Engineering Sciences, and Fellow of the Institute of Electrical and Electronics Engineers.

Richard A. Simonson, b. 1958

*Senior Vice President, Chief Financial Officer.*

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*Group Executive Board member since January 1, 2004.  
Joined Nokia 2001.*

Bachelor of Science (Mining Eng.) (Colorado School of Mines), Master of Business Administration (Finance) (Wharton School of Business at University of Pennsylvania).

Vice President & Head of Customer Finance of Nokia Corporation 2001-2003, Managing Director of Telecom & Media Group of Barclays 2001, Head of Global Project Finance and other various positions at Bank of America Securities 1985-2001.

Veli Sundbäck, b. 1946

*Senior Vice President, Corporate Relations and Responsibility of Nokia Corporation.*

*Group Executive Board member since 1996.  
Joined Nokia 1996.*

LL.M. (University of Helsinki).

Executive Vice President, Corporate Relations and Trade Policy of Nokia Corporation 1996-2003. Secretary of State at the Ministry for Foreign Affairs 1993-1995, Under-Secretary of State for External Economic Relations at the Ministry for Foreign Affairs 1990-1993.

Chairman of the Board of Directors of Huhtamäki Oyj. Member of the Board of EICTA (European Information, Communications and Consumer Electronics Technology Industry Association), member of the Bureau of the United Nations Information and Communication Technologies Task Force (UN ICT TF), Vice Chairman of the Board of the International Chamber of Commerce, Finnish Section, Chairman of the Trade Policy Committee of The Confederation of Finnish Industry and Employers, Chairman of the Board of the Finland-China Trade Association.

Anssi Vanjoki, b. 1956

*Executive Vice President and General Manager of Multimedia.*

*Group Executive Board member since 1998.  
Joined Nokia 1991.*

Master of Science (Econ.) (Helsinki School of Economics and Business Administration).

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Executive Vice President of Nokia Mobile Phones 1998-2003. Senior Vice President, Europe & Africa of Nokia Mobile Phones 1994-1998, Vice President, Sales of Nokia Mobile Phones 1991-1994, 3M Corporation 1980-1991.

Governor of European Foundation of Quality Management.

### **6.B Compensation**

#### ***Compensation of the Members of the Board of Directors and the Group Executive Board***

##### *Board of Directors*

For the year ended December 31, 2003, the aggregate compensation of the eight non-executive members of the Board of Directors was approximately EUR 0.875 million. Non-executive members of the Board of Directors do not receive bonuses or stock options. The remuneration for members of our Board of Directors for each term expiring at the close of the next Annual General Meeting is resolved annually by our Annual General Meeting, after being proposed by the Corporate Governance and Nomination Committee of our Board.

The following table depicts the total annual remuneration paid to the members of our Board of Directors, as resolved by the Annual General Meetings in the respective years. Since the fiscal period 1999, approximately 60% of each Board member's annual retainer has been paid in cash,

with the balance in Nokia Corporation shares acquired from the market.

Year	Chairman		Vice Chairman		Other Members	
	Gross Annual Retainer (EUR 1 000)	Shares Received <sup>(1)</sup>	Gross Annual Retainer (EUR 1 000)	Shares Received <sup>(1)</sup>	Gross Annual Retainer (EUR 1 000)	Shares Received <sup>(1)</sup>
2001	130	1 530	100	1 178	75	882
2002	130	2 650	100	2 038	75	1 529
2003	150	4 032	150 <sup>(2)</sup>	4 032 <sup>(2)</sup>	100 <sup>(3)</sup>	2 688 <sup>(3)</sup>

(1) As part of the Gross Annual Retainer for that year.

(2) Includes a retainer of EUR 125 000 for services as Vice Chairman of the Board and EUR 25 000 for services as Chairman of the Personnel Committee. Of the shares received in 2003, 3 360 shares were for services as Vice Chairman of the Board and 672 shares for services as Chairman of the Personnel Committee.

(3) The 2003 retainer of Mr. Robert F. W. van Oordt amounted to a total of EUR 125 000, consisting of a retainer of EUR 100 000 for services as Member of the Board and EUR 25 000 for services as Chairman of the Audit Committee. The shares received by Mr. Robert F. W. van Oordt amounted to a total of 3 360 shares, consisting of 2 688 shares for services as a Member of the Board and 672 shares for services as Chairman of the Audit Committee.

### **Report of the Personnel Committee of the Board**

*The Personnel Committee of the Board of Directors has provided the following report on executive compensation paid or awarded to executive officers for 2003:*

#### **Role and Composition of the Committee**

*The Personnel Committee of the Board of Directors has overall responsibility for evaluating and deciding on compensation for the company's top executives. The Committee approves incentive compensation plans, policies and programs that affect executives and other significant incentive plans. The Committee also reviews executive development plans, management succession plans, diversity programs and the annual employee opinion survey.*

*The Committee recommends to the Board of Directors items regarding the compensation of the CEO and the President, and all equity-based plans.*

*None of the Committee members are current or former executives of the company. None of the Committee members participate in any of the plans or programs that the Committee oversees. In accordance with its charter, the Committee evaluates its work, and such an evaluation was conducted in 2003.*

#### **Compensation Philosophy and Objectives**

*The company operates in the extremely competitive and rapidly evolving high technology industry. The key objectives of the executive compensation programs are to attract, retain, and motivate talented executive officers that drive Nokia's success and industry leadership.*

*The executive compensation programs are designed to:*

*Provide to executives a total compensation package that is competitive with the relevant market,*

*Provide competitive base pay rates,*

*Deliver significant variable cash compensation for the achievement of stretch financial goals,*

*Align the interests of the executives with those of the shareholders through long-term incentives in the form of equity-based awards.*

#### Compensation Components and Determination

*The compensation program for executives includes the following:*

*Base salaries targeted at competitive market levels*

*Short-term cash incentives paid twice each year based on performance for each of Nokia's short-term plans that end on June 30 and December 31 of each year. Short-term incentive payments are primarily determined based on a formula that considers the company's performance to pre-established targets for Net Sales, Operating Profit and Net Working Capital efficiency measures. Certain executives may have objectives related to quality, technology innovation, new product revenue, or other objectives of key strategic importance, which may require a discretionary assessment of performance by the Committee.*

*Stock option awards for the CEO and Group Executive Board members are determined on the basis of each executive's performance and a comparison of that executive's compensation to the relevant market. All stock options are granted at fair market value. Additional details on the stock option plan are described in "Item 6.E Share Ownership Stock Option Ownership."*

*The Committee considers the compensation practices of other relevant companies in the same or similar industries and the compensation levels of the executive officers in these relevant companies when it makes decisions regarding the compensation for the company's executive officers. The relevant*

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*companies include both high technology and telecommunications firms that are headquartered in Europe and the United States. The Committee has access to, and uses outside independent consultants.*

#### Compensation of the Chief Executive Officer and President

*Subject to Board approval, the Committee establishes performance objectives and evaluates the performance of the Chief Executive Officer. The Committee reviews the compensation of the Chief Executive Officer. The review is made consistent with the principles and programs described previously. The Committee makes recommendations to the Board of Directors for approval.*

*The Chief Executive Officer establishes performance objectives and evaluates the performance of the President, and makes compensation recommendations to the Personnel Committee. The Committee reviews the Chief Executive Officer's recommendations for the President, and makes recommendations to the Board of Directors for approval.*

#### Changes in Compensation Programs

*In recognition of Nokia's share price and executive retention needs, in July 2003 the Committee recommended to the Board of Directors a grant of Restricted Shares to 28 key executives, including one member of the 2003 Group Executive Board, for a total of 452 250 shares. These Restricted Shares vest in October 2006.*

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*The granting of Restricted Shares complements our equity programs and is subject to the approval of the Board of Directors. It is the Committee's philosophy that Restricted Shares will be used only for key management positions and other critical resources. In the future, grants of Restricted Shares will be expanded to a broader population of our executives, key management positions and critical resources.*

### 2004 Equity Program

*Throughout 2003, the Committee worked closely with management to develop a new equity-based long-term incentive program for both executives and the broader population of eligible employees. The review of the existing stock option plan was initiated to introduce a stronger element of performance in our equity compensation plans.*

*The key objectives of the 2004 Equity Program are:*

*To introduce a stronger element of performance in the long term incentives,*

*To align the potential value received by participants with the expense to the company and the performance of the company,*

*To enhance employee motivation,*

*To reflect trends in the competitive labor market.*

*The 2004 Equity Program will use a combination of Stock Options, Performance Shares, and on a limited basis Restricted Shares. A full description of the 2004 Equity Program is in "Item 6.E Share Ownership - Nokia's Equity Based Compensation Program 2004."*

### **Group Executive Board**

For the year ended December 31, 2003, Nokia had a Group Executive Board consisting of 10 members. Three new members have been appointed to serve on the Group Executive Board as from January 1, 2004. The aggregate compensation, excluding gains realized upon the exercise of stock options, of the 10 members of the Group Executive Board for 2003, including Mr. Jorma Ollila, was approximately EUR 10.9 million. Of this amount, approximately EUR 5.4 million was paid pursuant to bonus arrangements for the 2003 calendar year. The bonuses of the members of the Group Executive Board are paid as a percentage of annual base salary based on Nokia's Short-Term Incentive Plan, which is described above in "Report of the Personnel Committee of the Board."

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Subject to the requirements of Finnish law, the independent directors of the Board will confirm the compensation and the employment conditions of Messrs. Jorma Ollila and Pekka Ala-Pietilä upon the recommendation of the Personnel Committee. The compensation and employment conditions of the other members of the Group Executive Board are approved by the Personnel Committee.

The compensation of our five most highly paid executive officers for 2003 is detailed in the following table.

Name and Principal Position in 2003	Year	Salary (EUR)	Bonus <sup>(1)</sup> (EUR)	Other Annual Compensation	Other Compensation (EUR)
Jorma Ollila <sup>(2)</sup> Chairman and Chief Executive Officer		1 400 000			
	2003	1 386	2 253 192	*	150 000
	2002	666	1 384 967	*	130 000
Pekka Ala-Pietilä President of Nokia Corporation and Head of Nokia Ventures Organization	2003	711 279	520 143	*	
	2002	662 090	271 192	*	
Matti Alahuhta President of Nokia Mobile Phones	2003	626 953	532 138	*	
	2002	591 719	297 265	*	

Name and Principal Position in 2003	Year	Salary (EUR)	Bonus <sup>(1)</sup> (EUR)	Other Annual Compensation	Other Compensation (EUR)
Olli-Pekka Kallasvuo <sup>(3)</sup>					
Executive Vice President and Chief Financial Officer	2003	575 083	505 724	*	
	2002	520 788	285 072	*	42 142
Sari Baldauf <sup>(4)</sup>	2003	514 943	387 627	*	31 535
President of Nokia Networks	2002	476 705	60 875	*	

(1) Bonus amounts are based on the performance of the Group and the individual for the fiscal year and were paid under Nokia's Short Term Incentive Plan, which is described in the "Report of the Personnel Committee."

(2) "Other Compensation" in 2003 for Mr. Jorma Ollila includes EUR 150 000 for his services as Chairman of the Board, of which EUR 90 000 was paid in cash and the balance paid in 4 032 Nokia shares. "Other Compensation" in 2002 for Mr. Jorma Ollila includes EUR 130 000 for his services as Chairman of the Board, of which EUR 78 000 was paid in cash and the balance paid in 2 650 shares.

(3) "Other Compensation" in 2002 for Mr. Olli-Pekka Kallasvuo represents a payment for the 20 year anniversary of his employment with Nokia, consistent with a policy for all Finnish-based employees.

(4) "Other Compensation" in 2003 for Ms. Sari Baldauf represents a payment for the 20 year anniversary of her employment with Nokia, consistent with a policy for all Finnish-based employees.

\* Each executive listed received benefits and perquisites in 2003 not exceeding the lesser of EUR 50 000 or 10% of the executive's total compensation.

Our executives forming the Group Executive Board in 2003 participate in the Finnish TEL pension system, which provides for a retirement benefit based on years of service and earnings according to the prescribed statutory system. Under the Finnish TEL pension system, base pay, incentives and other taxable fringe benefits are included in the definition of earnings, although gains realized from stock options are not. The Finnish TEL pension scheme provides for early retirement benefits at age 60 and full retirement benefits at age 65. The current TEL provisions cap the total pension benefit at 60% of the pensionable earnings amount.

For Mr. Jorma Ollila, Mr. Pekka Ala-Pietilä, Dr. Matti Alahuhta, Mr. Olli-Pekka Kallasvuo and Ms. Sari Baldauf, Nokia offers a full retirement benefit at age 60. The full retirement benefit is based on the executive's pensionable earnings at age 60, assuming that the executive continues

service with Nokia through age 65. Nokia does not offer any such benefit to any other members of the 2003 Group Executive Board.

## 6.C Board Practices

### *The Board of Directors*

The operations of the company are managed under the direction of the Board of Directors, within the framework set by the Finnish Companies Act and our articles of association and the complementary Corporate Governance Guidelines and related charters as adopted by the Board.

The Board represents and is accountable to the shareholders of the company. The Board's responsibilities are active and not passive and include the responsibility to regularly evaluate the strategic direction of the company, management policies and the effectiveness with which management implements its policies. The Board's responsibilities further include overseeing the structure and composition of the company's top management and monitoring legal compliance and the management of risks related to the company's operations. In doing so the Board may set out annual ranges and/or individual limits for capital expenditures, investments and divestitures and financial commitments not to be exceeded without Board approval.

The Board has the responsibility for appointing and discharging the Chief Executive Officer and the President and the other members of the Group Executive Board. Subject to the requirements of Finnish law, the independent directors of the Board will confirm the compensation and the employment conditions of the Chief Executive Officer and the President upon the recommendation of the Personnel Committee. The compensation and employment conditions of the other members of the Group Executive Board are approved by the Personnel Committee.

The basic responsibility of the members of the Board is to act in good faith and with due care so as to exercise their business judgment on an informed basis in what they reasonably and honestly believe to be the best interests of the company and its shareholders. In discharging that obligation, the directors must inform themselves of all relevant information reasonably available to them.

Pursuant to the articles of association, Nokia Corporation has a Board of Directors composed of a minimum of seven and a maximum of ten members. The members of the Board are elected for a term of one year at each Annual General Meeting, which convenes each March or April. Since the Annual General Meeting held on March 27, 2003, the Board has consisted of nine members. Nokia's CEO, Mr. Jorma Ollila, also serves as the Chairman of the Board. The other members of the Board are all non-executive and independent as defined in the Finnish rules and regulations. In January 2004, the Board determined that seven members of the Board are independent, as defined in the New York Stock Exchange's listing standards approved in November 2003. In addition to the Chairman, Dr. Bengt Holmström was determined to be non-independent due to a family relationship with an executive officer of a Nokia supplier of whose consolidated gross revenues Nokia accounts for an amount that exceeds the limit provided in the NYSE listing standards, but that is less than 10%. The Board convened nine times during 2003, three of the meetings were held in the form of a conference call, and the average ratio of attendance at the meetings was 99%. The non-executive directors meet without executive directors at least twice a year, or more often as they deem appropriate. The Board and each committee also has the power to hire independent legal, financial or other advisors as it deems necessary.

The Board elects a Chairman and a Vice Chairman from among its members for one term at a time. On March 27, 2003 the Board resolved that Mr. Jorma Ollila should continue to act as Chairman and that Mr. Paul J. Collins should continue to act as Vice Chairman. The Board also appoints the members and the chairmen for its committees from among its non-executive, independent members for one term at a time.

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Under Finnish law, if the roles of the Chairman and the Chief Executive Officer are combined, the company must have a President. The responsibilities of the President are defined in the Finnish Companies Act and other relevant legislation along with any additional guidance and instructions given from time to time by the Board and the Chief Executive Officer. The responsibilities of the Chief Executive Officer are determined by the Board.

The Board and each of its committees conducts annual performance self-evaluations, the results of which are discussed in the committees, respectively, and in the full Board. The Corporate Governance Guidelines concerning the directors' responsibilities, the composition and selection of the Board, Board committees and certain other matters relating to corporate governance are available on our website, [www.nokia.com](http://www.nokia.com).

We also have a company Code of Conduct which is equally applicable to all of our employees, directors and management and is accessible at our website, [www.nokia.com](http://www.nokia.com). As well, we have a Code of Ethics for the Principal Executive Officers and the Senior Financial Officers. For more information about our Code of Ethics, see "Item 16B. Code of Ethics."

In November 2003, the US Securities and Exchange Commission approved changes to the New York Stock Exchange's listing standards related to the corporate governance practices of listed companies. Under these rules, listed foreign private issuers, like Nokia, must disclose any significant ways in which their corporate governance practices differ from those followed by US domestic companies under the NYSE listing standards. There are no significant differences in the corporate governance practices followed by Nokia as compared to those followed by US domestic companies under the NYSE listing standards, except that Nokia follows the requirements of Finnish law with respect to the approval of equity compensation plans. Under Finnish law, stock option plans require shareholder approval at the time of their launch. All other plans that include the delivery of company stock in the form of newly issued shares or treasury shares require shareholder approval at the time of the delivery of the shares or, if shareholder approval is granted through an authorization to the Board of Directors, not earlier than one year in advance of the delivery of the shares. The NYSE listing standards require that equity compensation plans be approved by a company's shareholders. Nokia's corporate governance practices also comply with the Corporate Governance Recommendation for Listed Companies approved by the Helsinki Exchanges in December 2003.

#### ***Committees of the Board of Directors***

**The Audit Committee** consists of a minimum of three members of the Board, who meet all applicable independence, financial literacy and other requirements of Finnish law and applicable stock exchange rules. Since March 27, 2003, the Committee has consisted of the following four



members of the Board: Messrs. Robert F.W. van Oordt (Chairman), Georg Ehrnrooth, Per Karlsson and Arne Wessberg.

The Audit Committee is established by the Board primarily for the purpose of overseeing the accounting and financial reporting processes of the company and audits of the financial statements of the company. The Committee is responsible for assisting the Board's oversight of (1) the quality and integrity of the company's financial statements and related disclosure, (2) the external auditor's qualifications and independence, (3) the performance of the external auditor subject to the requirements of Finnish law, (4) the performance of the company's internal controls and risk management and risk audit function, and (5) the company's compliance with legal and regulatory requirements. The Committee also maintains procedures for the receipt, retention and treatment of complaints received by the company regarding accounting, internal controls, or auditing matters and for the confidential, anonymous submission by employees of the company of concerns regarding accounting or auditing matters. Under Finnish law, our external auditor is elected by our shareholders at the Annual General Meeting. The Audit Committee makes a

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recommendation to the shareholders in respect of the appointment of the external auditor based upon its evaluation of the qualifications and independence of the auditor to be proposed for election or re-election. The Audit Committee meets at least four times per year based upon a schedule established at the first meeting following the appointment of the Committee. The Committee meets separately with the representatives of the management and the external auditor at least twice a year. The Audit Committee held four meetings in 2003.

**The Personnel Committee** consists of a minimum of three members of the Board. Since March 27, 2003, the Personnel Committee has consisted of the following four members of the Board: Mr. Paul J. Collins (Chairman), Dr. Bengt Holmström, Dame Marjorie Scardino and Mr. Vesa Vainio.

The primary purpose of the Personnel Committee is to oversee the personnel policies and practices of the company. It assists the Board in discharging its responsibilities relating to all compensation, including equity compensation, of the company's executives and the terms of employment of the same. The Committee has overall responsibility for evaluating, resolving and making recommendations to the Board regarding (1) compensation of the company's top executives and their employment conditions, (2) all equity-based plans, (3) incentive compensation plans, policies and programs of the company affecting executives, and (4) other significant incentive plans. The Committee is responsible for ensuring the above compensation programs are performance-based, properly motivate management, support overall corporate strategies and align with shareholders' interests. The Committee is responsible for the review of senior management development and succession plans. The Personnel Committee convened three times in 2003.

**The Corporate Governance and Nomination Committee** consists of three to five members of the Board. Since March 27, 2003, the Corporate Governance and Nomination Committee has consisted of the following three members of the Board: Mr. Paul J. Collins (Chairman), Dr. Bengt Holmström and Mr. Vesa Vainio.

The Corporate Governance and Nomination Committee's purpose is (1) to prepare the proposals for the general meetings in respect of the composition of the Board along with the director remuneration to be approved by the shareholders, and (2) to monitor issues and practices related to corporate governance and to propose necessary actions in respect thereof.

The Committee fulfills its responsibilities by (i) actively identifying individuals qualified to become members of the Board, (ii) recommending to the shareholders the director nominees for election at the Annual General Meetings, (iii) monitoring significant developments in the law and practice of corporate governance and of the duties and responsibilities of directors of public companies, (iv) assisting the Board and each committee of the Board in its annual performance self-evaluation, including establishing criteria to be used in connection with such evaluation, and (v) developing and recommending to the Board and administering the Corporate Governance Guidelines of the company. The Corporate Governance and Nomination Committee held four meetings in 2003.

The charters of each of the committees are available on our website, [www.nokia.com](http://www.nokia.com).

#### ***Service Contracts of the Chairman and CEO and of the President***

We have a service contract with each of Mr. Jorma Ollila and Mr. Pekka Ala-Pietilä, each of an indefinite duration. The Board has also agreed with Mr. Jorma Ollila on the continuation of his services as CEO of Nokia through 2006.

Mr. Jorma Ollila's contract has provisions for severance payments for up to 24 months of compensation (both base compensation and bonus) in the event of his termination of employment for reasons other than cause, including a change of control. As previously mentioned, Mr. Jorma Ollila is further entitled to a full statutory pension from the date he turns 60 years of age, instead of the statutory age of 65.

Mr. Pekka Ala-Pietilä's contract has provisions for severance payments for up to 18 months of compensation (both base compensation and bonus) in the event of his termination of employment for reasons other than cause, including a change of control. As previously mentioned, Mr. Pekka Ala-Pietilä is entitled to a full statutory pension from the date he turns 60 years of age, instead of the statutory age of 65.

## 6.D Employees

At December 31, 2003, Nokia employed 51 359 people, compared with 51 748 at December 31, 2002 and 53 849 at December 31, 2001. The average number of personnel for 2003, 2002 and 2001 was 51 605, 52 714 and 57 716, respectively, divided according to their activity and geographical location as follows:

	<b>2003</b>	<b>2002</b>	<b>2001</b>
Nokia Mobile Phones	27 196	26 090	27 320
Nokia Networks	16 115	18 463	22 040
Nokia Ventures Organization	1 536	1 566	2 155
Common Group Functions	6 758	6 595	6 201
<b>Nokia Group</b>	<b>51 605</b>	<b>52 714</b>	<b>57 716</b>
Finland	22 626	22 615	23 653
Other European countries	11 479	12 057	14 045
Americas	9 947	10 093	11 215
Asia-Pacific	7 553	7 949	8 803
<b>Nokia Group</b>	<b>51 605</b>	<b>52 714</b>	<b>57 716</b>

Management believes that we have a good relationship with our employees and with the labor unions.

## 6.E Share Ownership

The following tables set forth the number of shares and ADSs beneficially held by members of the Board of Directors and the Group Executive Board as of December 31, 2003 (not including the new Group Executive Board Members whose service began on January 1, 2004).

### *Board of Directors*

	<b>Shares<sup>(1)</sup></b>	<b>ADSs</b>
Jorma Ollila <sup>(2)</sup>	189 388	
Paul J. Collins		109 376
Georg Ehrnrooth <sup>(3)</sup>	305 559	
Bengt Holmström	7 687	
Per Karlsson <sup>(3)</sup>	8 517	
Robert F.W. van Oordt	7 719	
Marjorie Scardino		5 099
Vesa Vainio	18 347	
Arne Wessberg	5 099	
<b>Total</b>	<b>542 316</b>	<b>114 475</b>

- (1) The number of shares includes not only shares acquired as compensation for services as member of the Board of Directors, but also shares acquired by any other means.

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- (2) For Mr. Jorma Ollila's holdings of stock options, see the table under "Stock Option Ownership" below.

- (3) Mr. Georg Ehrnrooth's and Mr. Per Karlsson's holdings include both shares held personally and shares held through a company.

#### Group Executive Board

	<b>Shares</b>
Pekka Ala-Pietilä	49 600
Matti Alahuhta	129 200
Sari Baldauf	183 200
J.T. Bergqvist	12 800
Olli-Pekka Kallasvuo	44 000
Pertti Korhonen	15 300
Yrjö Neuvo	74 540
Veli Sundbäck	110 000
Anssi Vanjoki	106 000
<b>Total</b>	<b>724 640</b>

On December 31, 2003, the aggregate interest of the members of the Board of Directors and the Group Executive Board (not including the new Group Executive Board members whose service began on January 1, 2004) in our outstanding share capital was 1 381 431 shares and ADSs, representing less than 1% of the issued share capital and voting rights in Nokia Corporation.

#### Stock Option Ownership

The following tables provide certain information relating to stock options held by members of the Group Executive Board as of December 31, 2003 (not including the new Group Executive Board members whose service began on January 1, 2004). These stock options were issued pursuant to the Nokia Stock Option Plans 1999, 2001 and 2003. For a description of our stock option plans, including information regarding the expiration date of the options under these plans, please see "Nokia Stock Option Plans," "Other Employee Stock Option Plans" and "Nokia's Equity Based Compensation Program 2004."

Number of shares represented by exercisable options as of December 31, 2003

	1999 A <sup>(1)</sup>	1999 B <sup>(1)</sup>	1999 C <sup>(1)</sup>	2001 A and B <sup>(2)</sup>	2001 C 4Q/01 <sup>(3)</sup>	2002 A and B <sup>(4)</sup>
<b>Exercise price per share</b>	<b>EUR 16.89</b>	<b>EUR 56.28</b>	<b>EUR 29.12</b>	<b>EUR 36.75</b>	<b>EUR 26.67</b>	<b>EUR 17.89</b>
Jorma Ollila	1 020 000	1 056 000	544 000	562 500	218 750	312 500
Pekka Ala-Pietilä	0	475 200	244 800	140 625	54 686	78 125
Matti Alahuhta	340 000	369 600	190 400	56 250	21 875	54 687
Sari Baldauf	420 000	369 600	190 400	56 250	21 875	54 687
J.T. Bergqvist	100 000	92 400	47 600	22 500	8 750	21 875
Olli-Pekka Kallasvuo	0	369 600	190 400	56 250	21 875	54 687
Pertti Korhonen	34 000	94 120	27 880	16 875	6 561	21 875
Yrjö Neuvo	280 000	264 000	136 000	39 375	15 311	21 875
Veli Sundbäck	400 000	264 000	136 000	22 500	8 750	12 500
Anssi Vanjoki	280 000	264 000	136 000	39 375	15 311	31 250

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**Number of shares represented by unexercisable options as of December 31, 2003**

	<b>2001 B<sup>(2)</sup></b>	<b>2001 C 4Q/01<sup>(3)</sup></b>	<b>2002 B<sup>(4)</sup></b>	<b>2003 2Q<sup>(5)</sup></b>
<b>Exercise price per share</b>	<b>EUR 36.75</b>	<b>EUR 26.67</b>	<b>EUR 17.89</b>	<b>EUR 14.95</b>
Jorma Ollila	437 500	281 250	687 500	800 000
Pekka Ala-Pietilä	109 375	70 314	171 875	170 000
Matti Alahuhta	43 750	28 125	120 313	120 000
Sari Baldauf	43 750	28 125	120 313	120 000
J.T. Bergqvist	17 500	11 250	48 125	50 000
Olli-Pekka Kallasvuo	43 750	28 125	120 313	120 000
Pertti Korhonen	13 125	8 439	48 125	50 000
Yrjö Neuvo	30 625	19 689	48 125	40 000
Veli Sundbäck	17 500	11 250	27 500	50 000
Anssi Vanjoki	30 625	19 689	68 750	100 000

- (1) Each 1999 A, B and C option originally granted entitles the holder to subscribe for four shares of Nokia stock. The exercise price per share and the number of shares for the 1999 A, B and C options have been adjusted for the share split that took place in April 2000.
- (2) Each 2001 A and B option originally granted entitles the holder to subscribe for one share of Nokia stock. The 2001 A and B options were 25% exercisable on July 1, 2002. An additional 6.25% of the original grant amount becomes exercisable each calendar quarter thereafter, so that the options will be fully exercisable on July 1, 2005. As of December 31, 2003, of the original grant of 2001 A and B options, 56.25% was vested and exercisable.
- (3) Each 2001 C option originally granted entitles the holder to subscribe for one share of Nokia stock. The 2001 C options were 25% exercisable on January 1, 2003 and an additional 6.25% will be exercisable each calendar quarter thereafter, so that the options will be fully exercisable on January 2, 2006. As of December 31, 2003, of the original grant of 2001 C options, 43.75% was vested and exercisable.
- (4) Each 2002 A and B option originally granted entitles the holder to subscribe for one share of Nokia stock. The 2002 A and B options were 25% exercisable on July 1, 2003 and an additional 6.25% will be exercisable each calendar quarter thereafter, so that the options will be fully exercisable on July 3, 2006. As of December 31, 2003, of the original grant of 2002 A and B options, 31.25% was vested and exercisable.
- (5) Each 2003 option originally granted entitles the holder to subscribe for one share of Nokia stock. The 2003 options will be 25% exercisable on July 1, 2004 and an additional 6.25% will be exercisable each calendar quarter thereafter, so that the options will be fully exercisable on July 2, 2007. As of December 31, 2003, of the original grant of 2003 options none was vested and exercisable.

On December 31, 2003, the aggregate holdings of exercisable stock options of members of the Group Executive Board (not including the new Group Executive Board members whose service

began on January 1, 2004) called for approximately 10.4 million shares, representing less than 1% of the issued share capital and voting rights in Nokia Corporation.

<b>Options sold or exercised in 2003</b>	<b>Number of shares represented by outstanding options as of December 31, 2003</b>	<b>Total potential realizable value of "In the Money" shares represented by outstanding options as of December 31, 2003<sup>(2)</sup></b>
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	Number of Underlying Shares	Value Realized <sup>(1)</sup> (EUR 1 000)			Exercisable	Unexercisable
			Exercisable	Unexercisable	(EUR 1 000)	
Jorma Ollila	180 000	530	3 713 750	2 206 250	0	0
Pekka Ala-Pietilä	720 000	891	993 436	521 564	0	0
Matti Alahuhta	80 000	774	1 032 812	312 188	0	0
Sari Baldauf	80 000	774	1 112 812	312 188	0	0
J. T. Bergqvist	0	0	293 125	126 875	0	0
Olli-Pekka Kallasvuo	300 000	631	692 812	312 188	0	0
Pertti Korhonen	8 000	8	201 311	119 689	0	0
Yrjö Neuvo	0	0	756 561	138 439	0	0
Veli Sundbäck	0	0	843 750	106 250	0	0
Anssi Vanjoki	0	0	765 936	219 064	0	0

(1) "Value realized" represents either (a) the total gross value received in respect of options sold over the Helsinki Exchanges or (b) the difference between the aggregate closing market price (on the Helsinki Exchanges on the exercise day) of the Nokia shares subscribed for, and the exercise price of the options exercised for share subscriptions.

(2) The "total potential realizable value" of the stock options is based on the difference between the exercise price of the options (post split) and the closing market price of Nokia shares on the Helsinki Exchanges as of December 31, 2003 of EUR 13.71.

On December 31, 2003, the total outstanding exercisable stock options held by all participants in the Nokia stock option plans, including the Group Executive Board, called for 144.3 million shares, with a total potential realizable value on December 31, 2003 of EUR 0.05 million. On December 31, 2003, there were outstanding unexercisable stock options for a total of 90.5 million shares, with a potential realizable value of EUR 0.3 million. The potential realizable value for both the outstanding exercisable and unexercisable stock options is based on the difference between the exercise price of the stock options (post split) and the closing market price of Nokia shares on the Helsinki Exchanges as of December 31, 2003 of EUR 13.71.

### *Insiders' Trading in Securities*

The Board of Directors has established a policy in respect of insiders' trading in Nokia securities. Under the policy, the holdings of Nokia securities by the primary insiders (as defined) are public information, which is available in the Finnish Central Securities Depository and on the company's website. As well, both primary insiders and secondary insiders (as defined) are subject to a number of trading restrictions and rules, including among other things, prohibitions on trading in Nokia securities during the three-week "closed-window" period immediately preceding the disclosure of our quarterly results and the four-week "closed-window" period immediately preceding the disclosure of our annual results. We update our insider trading policy from time to time and monitor our insiders' compliance with the policy on a regular basis. Nokia's Insider Policy is in line with the Helsinki Exchanges Guidelines for Insiders.

### *Stock Ownership Guidelines for Executive Management*

The goal of our long-term, equity-based incentive awards is to recognize progress towards the achievement of our strategic objectives, and to focus executives on building value for shareholders. In addition to stock option grants, we encourage stock ownership by our top executives. In January 2001, we introduced a stock ownership commitment guideline with minimum recommendations tied to annual fixed salaries. For the members of the Group Executive Board, the recommended minimum investment in our shares corresponds to two times the member's annual base salary, to be fulfilled by January 2006. This timeline is adjusted for persons, including also the new Group Executive Board members whose service began on January 1, 2004, to whom we have started to apply the guidelines after their initial introduction.

### *Nokia Stock Option Plans*

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For a summary of the existing Nokia stock option plans, in some of which the Group Executive Board members participate, please see Note 21 to our consolidated financial statements included in Item 18 of this Form 20-F. The plans under Note 21 have been approved by the Annual General Meetings in the year of the launch of the plan.

### *Restricted Shares*

In 2003, we granted a total of 452 250 Restricted Shares to 28 of our key management personnel who are critical to the future success of Nokia. These Restricted Shares will vest in October 2006, at which time the shares will be transferred and delivered to the recipients. Until the shares are transferred and delivered, the recipients will not have any voting or dividend rights associated with these shares. Mr. Pertti Korhonen, a member of the 2003 Group Executive Board, was granted 35 000 Restricted Shares in 2003.

### *Other Employee Stock Option Plans*

Unlike our other stock option plans, the plans described below do not result in an increase of our share capital.

In 1999 we introduced a stock option plan available to our employees in the United States and Canada: The Nokia Holding Inc. 1999 Stock Option Plan. For more information on this plan, see Note 21 to our consolidated financial statements included in Item 18 of this Form 20-F.

In 2000, we introduced an Employee Share Purchase Plan, which permits all full-time Nokia employees located in the United States to acquire Nokia ADSs at a 15% discount. The ADSs to be purchased are funded through monthly payroll deductions from the salary of the participants, and the ADSs are purchased on a monthly basis. As of December 31, 2003, a total of 1 446 457 ADSs had been purchased under the plan since its inception, and there were a total of approximately 1 100 participants.

In connection with the acquisition of Ipsilon, we assumed Ipsilon's 1995 stock option plan. The former employees, officers and directors of Ipsilon are eligible to participate in this plan. We intend to issue no more options pursuant to this plan. As of December 31, 2003, options to purchase 529 025 ADSs were outstanding at an average exercise price of USD 27.64186 per ADS.

In connection with the acquisition of certain US corporations, we have replaced stock options held by the employees, officers or consultants of the acquired corporations immediately prior to the respective acquisition with stock options that entitle those persons to purchase Nokia ADSs. The maximum aggregate number of ADSs that may be issued under these arrangements is 7 050 000. As of December 31, 2003 options to purchase 3 591 935 ADSs were outstanding at an average exercise price of USD 18.62968 per ADS.

### *Nokia's Equity Based Compensation Program 2004*

On January 22, 2004, the Board of Directors approved a new equity based compensation program 2004 for Nokia, as proposed by the Personnel Committee. Under this program, Nokia will introduce Performance Shares as the main element of its broad based equity compensation program to further emphasize the performance element in the employees' long-term incentives. As part of this change, Nokia will grant significantly fewer stock options in 2004 compared to 2003.

The new, more diversified program aligns the potential value received by participants directly with the performance of the company. The target group for this new share-based incentive program continues to be broad and to include a wide number of employees on many levels of the organization. However, the number of actual participants will be smaller as the program increases the focus on rewarding achievement and on retaining high potential and critical employees.

### *Performance Shares*

Performance Shares represent a commitment by the company to deliver Nokia shares to employees at a future point in time, subject to the company's fulfillment of pre-defined performance criteria. Performance Shares will vest subject to the company's performance reaching at least one of the threshold levels measured by two independent, pre-defined performance criteria: the company's Average Net Sales Growth and EPS Growth (basic, reported) for the 2004 to 2007 period. Both the EPS and Average Net Sales Growth criteria will have an equal weight of 50%.

The initial threshold for the Average Annual Net Sales Growth criteria is 4% resulting in the vesting of up to 2 million Performance Shares. Similarly, the first threshold for the annual EPS Growth criteria is 3% resulting in the vesting of up to 2 million Performance Shares. The maximum performance for Average Annual Net Sales Growth criteria is 16% resulting in the vesting of up to 8.5 million Performance Shares.

Similarly, the maximum performance for the annual EPS Growth criteria is 12% resulting in the vesting of up to 8.5 million Performance Shares. The EPS percentages above are approximate figures based on the criteria expressed in euro cents. Performance exceeding the set criteria does not increase the number of Performance Shares vesting.

Under the 2004 Program, the maximum performance level for both criteria will result in the vesting of the maximum of 17 million Performance Shares. If the threshold levels of performance are not achieved, none of the Performance Shares will vest. For performance between the threshold and maximum performance levels the payout follows a linear scale. If required performance levels are achieved, the first payout will take place in 2006 up to a maximum of 4 million shares. The second and final payout, if applicable, will be in 2008. The company will determine the method by which the shares are obtained for delivery, which may include the use of one or more of the following: treasury shares, newly issued shares, shares purchased on the open market, or cash settlement.

#### *Stock Options and Restricted Shares*

Under the 2004 program, Nokia will issue significantly fewer Stock Options for incentive purposes than in 2003 when approximately 30 million options were granted under the Stock Option Program out of the maximum of 94.6 million Stock Options as approved by the Annual General Meeting the same year. In 2004, the maximum number of Stock Options to be granted is 7 million.

In addition, Nokia has used Restricted Shares on a very limited scale to retain high potential and critical employees. Going forward, the company will continue to use a limited number of

Restricted Shares to recruit, retain, reward and motivate selected high potential and critical employees. In 2004, the maximum number of Restricted Shares to be granted is 2 million.

The maximum number of shares and/or options to be granted under the 2004 Equity Program is 26 million, or approximately 0.6 per cent of all outstanding shares.

#### *Administration of the Program*

Following the approval of the program by the Board of Directors, the Personnel Committee will administer the program according to its charter, including the determination of the principles under which grants will be made. The Board of Directors will approve the grants to the CEO and the President.

## **ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**

### **7.A Major Shareholders**

No persons are known by Nokia to hold currently more than 5% of the voting securities of Nokia Corporation. As far as we know, Nokia is not directly or indirectly owned or controlled by another corporation or by any government, and there are no arrangements that may result in a change of control of Nokia. During the past three years, the only shareholder we have known to hold 5% of our voting securities has been Janus Capital Corporation, which informed us on December 9, 1999 that its holdings of Nokia shares exceeded 5% of our total share capital. Janus Capital Corporation informed us on July 26, 2001 that its ownership position had decreased below 5% of our total share capital. Its address is 100 Fillmore Street, Denver, Colorado, 80206-4923, United States.

As at December 31, 2003, 1 213 157 321 ADSs (equivalent to the same number of shares or approximately 25.3% of the total outstanding shares) were outstanding and held of record by 22 005 registered holders in the United States. We are aware that many ADSs are held of record by brokers and other nominees, and accordingly the above numbers are not necessarily representative of the actual number of persons who are beneficial holders of ADSs or the number of ADSs beneficially held by such persons. Based on information available from Automatic Data Processing, Inc. ("ADP"), the number of beneficial owners of ADSs as of December 31, 2003 was approximately 1.4 million.

As at December 31, 2003, there were approximately 133 991 holders of record of our shares. Of these holders, around 658 had registered addresses in the United States and held a total of some 6 927 183 of our shares, approximately 0.14% of the total outstanding shares. In addition, certain accounts of record with registered addresses other than in the United States hold our shares, in whole or in part, beneficially for United States persons.

## 7.B Related Party Transactions

There have been no material transactions during the last three fiscal years to which any director, executive officer or 5% shareholder, or any relative or spouse of any of them, was a party. There is no significant outstanding indebtedness owed to Nokia by any director, executive officer or 5% shareholder.

There are no material transactions with enterprises controlling, controlled by or under common control with Nokia or associate of Nokia.

See Notes 31 and 32 to our consolidated financial statements included in Item 18 of this Form 20-F.

## 7.C Interests of Experts and Counsel

Not applicable.

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## ITEM 8. FINANCIAL INFORMATION

### 8.A Consolidated Statements and Other Financial Information

**8.A.1** See Item 18 for our audited consolidated financial statements.

**8.A.2** See Item 18 for our audited consolidated financial statements, which cover the last three financial years.

**8.A.3** See page F-1 for the audit report of our accountants, entitled "Report of Independent Auditors."

**8.A.4** Not applicable.

**8.A.5** Not applicable.

**8.A.6** See Note 2 to our consolidated financial statements included in Item 18 of this Form 20-F for the amount of our export sales.

**8.A.7 Litigation** We are party to routine litigation incidental to the normal conduct of our business. Our management does not believe that liabilities related to these proceedings, in the aggregate, are likely to be material to our financial condition or results of operations.

We and several other mobile device manufacturers, distributors and network operators were named as defendants in a series of class action suits filed in various US jurisdictions. The cases were consolidated before a US federal district court in Baltimore, Maryland, United States. The actions were brought on behalf of a purported class of persons in the United States as a whole consisting of all individuals that purchased mobile phones without a headset. In general, the complaints allege that the defendants should have included a headset with every hand-held mobile telephone as a means of reducing any potential health risk associated with the telephone's use, and assert causes of action based on negligence, fraud and misrepresentation. The relief sought by the complaint included unspecified amounts of compensation for phone and headset costs, and attorneys' fees. All of the cases were dismissed by the Federal Court. That dismissal is now on appeal.

We have also been named as a defendant along with other mobile device manufacturers and network operators in five lawsuits by individual plaintiffs who allege that the radio emissions from mobile phones caused or contributed to each plaintiff's brain tumor. The cases have been removed from the courts where they were filed and are now before a US federal district court in Baltimore, Maryland, United States. In January 2004, one of those cases was dismissed by the plaintiffs. The remaining cases have been stayed pending the decision of the US Court of Appeal in the class action appeal matter referenced above.

We believe that the allegations described above are without merit, and intend to defend these actions vigorously. The courts that have reviewed similar matters to date have found that there is no reliable scientific basis for the plaintiffs' claims.

One of our customers in Turkey, Telsim Mobil Telekomunikasyon Hiz. A.S., has defaulted on its obligations under a financing arrangement secured by us. In accordance with the terms of the financing documentation, the matter has been submitted to arbitration proceedings in Zürich, which we are vigorously pursuing to recover all amounts due to us. In addition, in conjunction with co-plaintiff Motorola Credit Corporation, we



have been successful in a US lawsuit against individual members of the Uzan family and certain Uzan controlled corporations. The lawsuit alleges that the defendants violated the US Racketeering Influenced and Corrupt Organizations Act by fraudulently inducing us and Motorola, through a pattern of fraudulent and illegal conduct, to provide financing to Telsim, which is owned and controlled by the Uzans and their affiliates. In July 2003, the trial judge held that Nokia was entitled to a USD 1.7 billion judgment, which will be

entered against the Uzans once certain appeal issues have been resolved. We wrote off our total financing exposure to Telsim prior to 2003.

In 1999, Nokia entered into a license agreement with InterDigital Technology Corporation (IDT) for certain technology that provided for a fixed royalty payment through 2001 and most favored licensee treatment from 2002 through 2006. The patents being licensed were subject to litigation by other manufacturers. In March 2003, IDT settled patent litigation with Ericsson and Sony-Ericsson and announced that it intended to apply the settlement royalty rates to Nokia under the most favored licensee provision. After failed attempts at negotiating a settlement, Nokia filed an arbitration demand seeking access to information necessary to an evaluation of the matter that has been withheld by IDC. IDC has responded with a counterclaim seeking to apply the Ericsson and Sony-Ericsson royalty rates to Nokia. Nokia believes that the claim is without merit and intends to defend the matter vigorously.

Based upon the information currently available, management does not expect the resolution of any of the matters discussed above to have a material adverse effect on our financial condition or results of operations.

**8.A.8** See "Item 3.A Selected Financial Data Distribution of Earnings" for a discussion of our dividend policy.

**8.B Significant Changes**

No significant changes have occurred since the date of our consolidated financial statements included in this Form 20-F. See "Item 5.D Trend Information."

**ITEM 9. THE OFFER AND LISTING**

**9.A Offer and Listing Details**

Our capital consists of shares traded on the Helsinki Exchanges under the symbol "NOK1V." American Depositary Shares, or ADSs, each representing one of our shares are traded on the New York Stock Exchange under the symbol "NOK." The ADSs are evidenced by American Depositary Receipts, or ADRs, issued by Citibank, N.A., as Depositary under the Amended and Restated Deposit Agreement dated as of March 28, 2000 (as amended), among Nokia, Citibank, N.A. and registered holders from time to time of ADRs. ADSs were first issued in July 1994.

The table below sets forth, for the periods indicated, the reported high and low quoted prices for our shares on the Helsinki Exchanges and the high and low quoted prices for the shares, in the form of ADSs, on the New York Stock Exchange. In 1999, Nokia effected a two-for-one share split, effective in public trading on April 12, 1999. In 2000, Nokia effected a four-for-one share split,

effective in public trading on April 10, 2000. Price per share and price per ADS figures for 1999 and 2000 have been adjusted accordingly.

Helsinki Exchanges		New York Stock Exchange	
Price per share		Price per ADS	
High	Low	High	Low

	Helsinki Exchanges		New York Stock Exchange	
	EUR		USD	
<b>1999<sup>(1)</sup></b>	45.00	13.74	47.77	15.94
<b>2000</b>	64.88	35.81	61.88	29.44
<b>2001</b>	46.50	14.35	44.69	12.95
<b>2002</b>				
First Quarter	29.45	22.39	26.90	19.41
Second Quarter	23.45	12.42	20.94	12.00
Third Quarter	15.57	11.10	15.14	10.76
Fourth Quarter	19.97	13.35	20.15	12.98
Full Year	29.45	11.10	26.90	10.76
<b>2003</b>				
First Quarter	16.16	11.44	17.23	12.67
Second Quarter	15.57	13.07	18.14	14.25
Third Quarter	15.93	12.43	18.17	14.25
Fourth Quarter	15.43	13.45	18.45	16.02
Full Year	16.16	11.44	18.45	12.67
<b>Most recent six months</b>				
August 2003	14.92	12.43	16.39	14.25
September 2003	15.44	13.21	17.07	15.07
October 2003	14.87	13.45	17.31	16.02
November 2003	15.43	14.65	17.98	17.08
December 2003	15.28	13.61	18.45	16.65
January 2004	16.91	13.78	21.23	17.17

(1) Until April 9, 1999, Nokia had two classes of shares, K shares and A shares, which were consolidated on that date into one class of shares.

## 9.B Plan of Distribution

Not applicable.

## 9.C Markets

The principal trading markets for the shares are the New York Stock Exchange, in the form of ADSs, and the Helsinki Exchanges, in the form of shares. In addition, the shares are listed on the Frankfurt, Stockholm and Paris stock exchanges. The shares were also listed on the London stock exchange until their de-listing upon the company's application, effective November 26, 2003.

## 9.D Selling Shareholders

Not applicable.

## 9.E Dilution

Not applicable.

**9.F Expenses of the Issue**

Not applicable.

**ITEM 10. ADDITIONAL INFORMATION**

**10.A Share Capital**

Not applicable.

**10.B Memorandum and Articles of Association**

*Registration*

Nokia is organized under the laws of the Republic of Finland and registered under the business identity code 0112 038 - 9. Nokia's corporate purpose under Article 1 of the articles of association is to engage in the telecommunications industry and other sectors of the electronics industry, including the manufacture and marketing of telecommunications systems and equipment, mobile phones, consumer electronics and industrial electronic products. We also may engage in other industrial and commercial operations, as well as securities trading and other investment activities.

*Director's Voting Powers*

Under Finnish law, a director shall refrain from taking any part in the consideration of a contract or other issue that may provide any material benefit to him. Under Finnish law, there is no age limit requirement for directors, and there are no requirements under Finnish law that a director must own a minimum number of shares in order to qualify to act as a director. Under Finnish law, a company may lend funds to a director only out of the distributable profits and against sufficient collateral. However, lending for the purpose of acquiring the company's shares is not permitted.

*Share Rights, Preferences and Restrictions*

For a description of dividend rights attaching to our shares, see "Item 3.A Selected Financial Data Distribution of Earnings." Dividend entitlement lapses after ten years, if a dividend remains unclaimed for that period, in which case the unclaimed dividend will be retained by Nokia.

Each share confers the right to one vote. Votes may be used at general meetings called by the Board of Directors. According to Finnish law, a company generally must hold an Annual General Meeting once a year. In addition, the board is obliged to call an extraordinary general meeting at the request of shareholders representing a minimum of one tenth of all outstanding shares. The members of the board are elected for a term of one year at each Annual General Meeting.

Under Finnish law, shareholders may attend and vote at a general meeting in person or by proxy. It is not customary in Finland for a company to issue forms of proxy to its shareholders. Accordingly, Nokia does not do so. However, registered holders and beneficial owners of ADSs are issued forms of proxy by the Depositary.

To attend and vote at a general meeting, a shareholder must be registered in the register of shareholders in the Finnish book-entry system. A registered holder or a beneficial owner of the ADSs, like other beneficial owners whose shares are registered in the company's register of shareholders in the name of a nominee, may vote his shares provided that he arranges to have his name entered in the temporary register of shareholders as of the record date of the meeting.

The record date is the tenth calendar day preceding the meeting. To be entered into the temporary register of shareholders as of the record date of the meeting, a holder of ADSs must provide the Depositary, or have his broker or other custodian provide the Depositary, on or before

the voting deadline as well as the blocking deadline if any, as defined in the proxy material issued by the Depository, a proxy with the following information: the name, address, and social security number or another corresponding personal identification number of the holder of the ADSs, the number of shares to be voted by the holder of the ADSs, and the voting instructions. The register of shareholders as of the record date of each general meeting is public until the end of the respective meeting.

As a further prerequisite for attending and voting at a general meeting, shareholders must give notice to Nokia of their intention to attend no later than the date and time specified by the Board of Directors in the notice of the meeting. By completing and returning the form of proxy provided by the Depository, a holder of ADSs authorizes the Depository to give this notice.

Each of our shares confers equal rights to share in our profits, and in any surplus in the event of our liquidation.

Under Finnish law, the rights of shareholders related to shares are as stated by law and in our articles of association. Amendment of the articles of association requires a decision of the general meeting, supported by two-thirds of the votes cast and two-thirds of the shares represented at the meeting.

#### *Disclosure of Shareholder Ownership*

According to the Finnish Securities Market Act of 1989, as amended, a shareholder shall disclose his ownership to the company and the Financial Supervision when it reaches, exceeds or goes below  $\frac{1}{20}$ ,  $\frac{1}{10}$ ,  $\frac{3}{20}$ ,  $\frac{1}{5}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$  or  $\frac{2}{3}$  of all the shares outstanding. The term "ownership" includes ownership by the shareholder, as well as selected related parties.

#### *Purchase Obligation*

Our articles of association require a shareholder that holds one-third or one-half of all of our shares to purchase the shares of all other shareholders that request that he do so, at a price generally based on the historical weighted average trading price of the shares. A shareholder of this magnitude also is obligated to purchase any subscription rights, stock options, warrants or convertible bonds issued by the company if so requested by the holder.

Under the Finnish Securities Market Act of 1989, as amended, a shareholder whose holding exceeds two-thirds of the total voting rights in a company shall, within one month, offer to purchase the remaining shares of the company, as well as any subscription rights, warrants, convertible bonds or stock options issued by the company. The purchase price shall be the market price of the securities in question. The market price is determined, among other things, on the basis of the average of the prices paid for the security in public trading during the preceding twelve months, and any higher price paid by the shareholder, as well as any other special circumstances.

Under the Finnish Companies Act of 1978, as amended, a shareholder whose holding exceeds nine-tenths of the total number of shares or voting rights in Nokia has both the right and the obligation to purchase all the shares of the minority shareholders for the current price. The current price is determined, among other things, on the basis of the recent market price of the shares. The purchase procedure under the Companies Act differs, and the purchase price may differ, from the purchase procedure and price under the Securities Market Act, as discussed above.

#### *Pre-Emptive Rights*

In connection with any offering of shares, the existing shareholders have a pre-emptive right to subscribe for shares offered in proportion to the amount of shares in their possession. However, a general meeting of shareholders may vote, by a majority of two-thirds of the votes cast and

two-thirds of the shares represented at the meeting, to waive this pre-emptive right provided that, from the company's perspective, important financial grounds exist.

Under the Act on the Control of Foreigners' Acquisition of Finnish Companies of 1992, clearance by the Ministry of Trade and Industry is required for a non-resident of Finland, directly or indirectly, to acquire one-third or more of the voting power of a company. The Ministry of Trade and Industry may refuse clearance where the acquisition would jeopardize important national interests, in which case the matter is referred to the Council of State. These clearance requirements are not applicable if, for instance, the voting power is acquired in an issuance of shares that is proportional to the holder's ownership of the shares. Moreover, the clearance requirements do not apply to residents of countries in the European Economic Area or countries that have ratified the Convention on the Organization for Economic Cooperation and Development.

### 10.C Material Contracts

Nokia is not party to any material contract other than those entered into in the ordinary course of business.

### 10.D Exchange Controls

There are currently no Finnish laws which may affect the import or export of capital, or the remittance of interest or other payments.

### 10.E Taxation

#### *General*

The taxation discussion set forth below is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects relevant to ownership of our shares represented by ADSs.

The statements of United States and Finnish tax laws set out below are based on the laws in force as of the date of this Form 20-F and may be subject to any changes in US or Finnish law, and in any double taxation convention or treaty between the United States and Finland, occurring after that date.

For purposes of this summary, beneficial owners of ADSs that are considered residents of the United States for purposes of the current income tax convention between the United States and Finland, referred to as the "Treaty," and that are entitled to the benefits of the Treaty under the "Limitation on Benefits" provisions contained in the Treaty, are referred to as "US Holders." Beneficial owners that are citizens or residents of the United States, corporations created in or organized under US law, and estates or trusts (to the extent their income is subject to US tax either directly or in the hands of beneficiaries) generally will be considered to be residents of the United States under the Treaty. Special rules apply to US Holders that are also residents of Finland and to citizens or residents of the United States that do not maintain a substantial presence, permanent home, or habitual abode in the United States. For purposes of this discussion, it is assumed that the Depositary and its custodian will perform all actions as required by the deposit agreement with the Depositary and other related agreements between the Depositary and Nokia.

If a partnership holds ADSs, the tax treatment of a partner will depend upon the status of the partner and activities of the partnership. If a US holder is a partner in a partnership that holds ADSs, the holder is urged to consult its own tax advisor regarding the specific tax consequences of owning and disposing of its ADSs.

Because this summary is not exhaustive of all possible tax considerations such as situations involving persons that are dealers or whose functional currency is not the US dollar, who may be

subject to special rules that are not discussed herein holders of shares or ADSs that are US Holders are advised to satisfy themselves as to the overall United States federal, state and local tax consequences, as well as to the overall Finnish and other applicable non-US tax consequences, of their ownership of ADSs and the underlying shares by consulting their own tax advisors. This summary does not discuss the treatment of ADSs that are held in connection with a permanent establishment or fixed base in Finland.

For the purposes of both the Treaty and the United States Internal Revenue Code of 1986, as amended, referred to as the Code, US Holders of ADSs will be treated as the owners of the underlying shares that are represented by those ADSs. The US federal income tax consequences to US Holders of ADSs, as discussed below, apply as well to US Holders of shares.

The holders of ADSs will, for Finnish tax purposes, be treated as the owners of the shares that are represented by the ADSs. The Finnish tax consequences to the holders of shares, as discussed below, also apply to the holders of ADSs.

#### *Taxation of Cash Dividends*

For US federal income tax purposes, the gross amount of dividends paid to US Holders of ADSs, including any related Finnish withholding tax, will be treated as ordinary income to the extent paid or deemed paid out of the current or accumulated earnings and profits of Nokia (as determined under US federal income tax principles). To the extent that an amount received by a US Holder exceeds the allocable share of current and accumulated earnings and profits of Nokia, such excess will be applied first, to reduce such US Holder's tax basis in his ADSs and then, to the extent it exceeds the US holder's tax basis, it will constitute gain from a deemed sale or exchange of such ADSs. Dividends will not

be eligible for the dividends received deduction allowed to corporations under Section 243 of the Code. The amount includable in income (including any Finnish withholding tax) will equal the US dollar value of the payment, determined at the time such payment is received by the custodian, regardless of whether the payment is in fact converted into US dollars. Generally, any gain or loss resulting from currency exchange rate fluctuations during the period between the time such payment is received and the date the dividend payment is converted into US dollars will be treated as ordinary income or loss to such holder.

Under the Finnish Act on Taxation of Non-residents' Income and Wealth, non-residents of Finland are generally subject to a withholding tax at a rate of 29% payable on dividends paid by a company. However, pursuant to the Treaty, dividends paid to US Holders will generally be subject to Finnish withholding tax at a reduced rate of 15% of the gross amount of such dividend.

Subject to conditions and limitations, Finnish withholding taxes will be treated as foreign taxes eligible for credit against a US Holder's US federal income tax liability. Dividends received with respect to the ADSs will generally constitute foreign source passive income for foreign tax credit purposes, but in some circumstances may constitute financial services income or general limitation basket income. In lieu of a credit, a US Holder of ADSs may elect to deduct all of his foreign taxes.

Further, in accordance with the imputation system of taxation of dividends, the Finnish corporate income tax paid by a company can, in the case of a shareholder that is a resident of Finland and, therefore, liable for Finnish income tax, be credited against the Finnish income tax of the shareholder to the extent that it relates to the dividends distributed to the shareholder. However, the tax paid by a company cannot be credited against the Finnish income taxes, if any, of a US Holder.

#### *Recent United States Tax Law Changes Applicable to Individuals*

Under 2003 US tax legislation, some US Holders (including individuals) are eligible for reduced rates of US federal income tax (currently a maximum of 15%) in respect of "qualified dividend income" received in taxable years beginning after December 31, 2002 and beginning before January 1, 2009. For this purpose, qualified dividend income generally includes dividends paid by non-US corporations if, among other things, (i) the shares with respect to which the dividend has been paid are readily tradable on an established securities market in the United States, or (ii) the non-US corporation is eligible for the benefits of a comprehensive US income tax treaty (such as the US-Finland income tax treaty) which provides for the exchange of information. We currently believe that dividends paid with respect to our shares and ADSs will constitute qualified dividend income for US federal income tax purposes, however, this is a factual matter and is subject to change. Furthermore, some of the eligibility requirements for non-US corporations are not entirely clear and further guidance from the Internal Revenue Service is anticipated. In addition, the Internal Revenue Service is expected to issue certification procedures for 2004 whereby a non-US corporation will have to certify as to the eligibility of its dividends for the reduced US federal income tax rates.

#### *Tax on Sale or Exchange*

A US Holder generally will recognize taxable gain or loss on the sale or exchange of ADSs in an amount equal to the difference between the US dollar value of the amount realized and the adjusted tax basis (determined in US dollars) in the ADSs. If the ADSs are held as a capital asset, this gain or loss generally will be long-term capital gain or loss if, at the time of the sale or exchange, the ADSs have been held for more than one year. Any capital gain or loss, for foreign tax credit purposes, generally will constitute US source gain or loss. In the case of a US Holder that is an individual, any capital gain generally will be subject to US federal income tax at preferential rates if specified minimum holding periods are met. The deductibility of capital losses is subject to significant limitations.

The sale by a US Holder of the ADSs or the underlying shares, other than an individual that, by reason of his residence in Finland for a period exceeding six months, is or becomes liable for Finnish income tax according to the relevant provisions of Finnish tax law, generally will not be subject to income tax in Finland, in accordance with Finnish tax law and the Treaty.

#### *Finnish Capital Taxes*

Under the Treaty, the holding of ADSs or the underlying shares by US Holders generally will not subject a US Holder to Finnish tax on net capital.

#### *Finnish Transfer Tax*

Transfers of shares will be, and transfers of ADSs may be, subject to the Finnish transfer tax only when one of the parties to the transfer is subject to Finnish taxation under the Finnish Income Tax Act by virtue of being a resident of Finland or a Finnish branch of a non-Finnish credit institution. In case the Finnish Transfer Tax Act is applicable, transfer tax, however, would not be payable on stock exchange transfers. Otherwise, the transfer tax would be payable at the rate of 1.6% of the transfer value of the security traded.

***Finnish Inheritance and Gift Taxes***

A transfer of an underlying share by gift or by reason of the death of a US Holder and the transfer of an ADS are not subject to Finnish gift or inheritance tax provided that none of the deceased

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person, the donor, the beneficiary of the deceased person or the recipient of the gift is resident in Finland.

***Non-Residents of the United States***

Beneficial owners of ADSs that are not US Holders will not be subject to US federal income tax on dividends received with respect to ADSs unless this dividend income is effectively connected with the conduct of a trade or business within the United States. Similarly, non-US Holders generally will not be subject to US federal income tax on the gain realized on the sale or disposition of ADSs, unless (a) the gain is effectively connected with the conduct of a trade or business in the United States or (b) in the case of an individual, that individual is present in the United States for 183 days or more in the taxable year of the disposition and other conditions are met.

***US Information Reporting and Backup Withholding***

Dividend payments with respect to shares or ADSs and proceeds from the sale or other disposition of ADSs may be subject to information reporting to the Internal Revenue Service and possible US backup withholding at the current rate of 28%. Backup withholding will not apply to you, however, if you furnish a correct taxpayer identification number or certificate of foreign status and make any other required certification or if you are otherwise exempt from backup withholding. Amounts withheld as backup withholding may be credited against your US federal income tax liability, and you may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the Internal Revenue Service and furnishing any required information.

You should consult your own tax advisor regarding the application of the information reporting and backup withholding rules, including the final regulations.

**10.F Dividends and Paying Agents**

Not applicable.

**10.G Statement by Experts**

Not applicable.

**10.H Documents on Display**

The documents referred to in this report can be read at the Securities and Exchange Commission's public reference facilities at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549.

**10.I Subsidiary Information**

Not applicable.

**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Nokia's overall risk management concept is based on visibility of the key risks preventing Nokia from reaching its business objectives. This covers all risk areas: strategic, operational, financial and hazard risks. Risk management at Nokia is a systematic and pro-active way to analyze, review and manage all opportunities, threats and risks related to Nokia's objectives rather than to solely eliminate risks.

The principles documented in Nokia's Risk Policy and accepted by the Audit Committee of the Board of Directors require risk management and its elements to be integrated into business

processes. One of the main principles is that the business or function owner is also the risk owner, however, it is everyone's responsibility at Nokia to identify risks preventing us from reaching our objectives.

Key risks are reported to the business and Group level management to create assurance on business risks and to enable prioritization of risk management implementation at Nokia. In addition to general principles there are specific risk management policies covering, for example, treasury and customer finance risks.

### **Financial Risks**

The key financial targets for Nokia are growth, profitability, operational efficiency and a strong balance sheet. The objective for the Treasury function is twofold: to guarantee cost-efficient funding for the Group at all times, and to identify, evaluate and hedge financial risks in close co-operation with the business groups. There is a strong focus in Nokia on creating shareholder value. The Treasury function supports this aim by minimizing the adverse effects caused by fluctuations in the financial markets on the profitability of the underlying businesses and by managing the balance sheet structure of the Group.

Nokia has Treasury Centers in Geneva, Singapore/Beijing and Dallas/Sao Paolo, and a Corporate Treasury unit in Espoo. This international organization enables Nokia to provide the Group companies with financial services according to local needs and requirements.

The Treasury function is governed by policies approved by top management. Treasury Policy provides principles for overall financial risk management and determines the allocation of responsibilities for financial risk management in Nokia. Operating Policies cover specific areas such as foreign exchange risk, interest rate risk, use of derivative financial instruments, as well as liquidity and credit risk. Nokia is risk averse in its Treasury activities. Business Groups have detailed Standard Operating Procedures supplementing the Treasury Policy in financial risk management related issues.

### **Market risk**

#### ***Foreign exchange risk***

Nokia operates globally and is thus exposed to foreign exchange risk arising from various currency combinations. Foreign currency-denominated assets and liabilities, together with expected cash flows from highly probable purchases and sales, give rise to foreign exchange exposures. These transaction exposures are managed against various local currencies because of Nokia's substantial production and sales outside the Eurozone.

Due to the changes in the business environment, currency combinations may also change within the financial year. The most significant non-euro sales currencies during the year were US dollar (USD), UK pound sterling (GBP) and Australian dollar (AUD). In general, depreciation of another currency relative to the euro has an adverse effect on Nokia's sales and operating profit, while appreciation of another currency has a positive effect, with the exception of Japanese yen, being the only significant foreign currency in which Nokia has more purchases than sales.

The following chart shows the break-down by currency of the underlying net foreign exchange transaction exposure as of December 31, 2003 (in some of the currencies, especially the US dollar, Nokia has both substantial sales as well as cost, which have been netted in the chart).



According to the foreign exchange policy guidelines of the Group, material transaction foreign exchange exposures are hedged. Exposures are mainly hedged with derivative financial instruments such as forward foreign exchange contracts and foreign exchange options. The majority of financial instruments hedging foreign exchange risk have a duration of less than a year. The Group does not hedge forecasted foreign currency cash flows beyond two years.

Nokia uses the Value-at-Risk ("VaR") methodology to assess the foreign exchange risk related to the Treasury management of the Group exposures. The VaR figure represents the potential fair value losses for a portfolio resulting from adverse changes in market factors using a specified time period and confidence level based on historical data. To correctly take into account the non-linear price function of certain derivative instruments, Nokia uses Monte Carlo simulation. Volatilities and correlations are calculated from a one-year set of daily data. The VaR figures assume that the forecasted cash flows materialize as expected. The VaR figures for the Group transaction foreign exchange exposure, including hedging transactions and Treasury exposures for netting and risk management purposes, with a one-week horizon and 95% confidence level, are shown in Table 1, below.

**Table 1**

*Transaction foreign exchange position Value-at-Risk*

VaR	2003	2002
	EURm	EURm
At December 31	16.7	5.9
Average for the year	9.3	14.3
Range for the year	5.8-16.7	4.9-27.6

Since Nokia has subsidiaries outside the Eurozone, the euro-denominated value of the shareholders' equity of Nokia is also exposed to fluctuations in exchange rates. Equity changes caused by movements in foreign exchange rates are shown as a translation difference in our consolidated financial statements included in Item 18 of this Form 20-F. Nokia uses, from time to time, foreign exchange contracts and foreign currency-denominated loans to hedge its equity exposure arising from foreign net investments.

#### **Interest rate risk**

The Group is exposed to interest rate risk through market value fluctuations of balance sheet items (i.e. price risk) and through changes in interest income or expenses (i.e. re-investment risk).

Interest rate risk mainly arises through interest-bearing liabilities and assets. Estimated future changes in cash flows and balance sheet structure also expose the Group to interest rate risk.

Treasury is responsible for monitoring and managing the interest rate exposure of the Group. Due to the current balance sheet structure of Nokia, emphasis is placed on managing the interest rate risk of investments.

Nokia uses the VaR methodology to assess and measure the interest rate risk in the investment portfolio, which is benchmarked against a one-year investment horizon. The VaR figure represents the potential fair value losses for a portfolio resulting from adverse changes in market factors using a specified time period and confidence level based on historical data. For interest rate risk VaR, Nokia uses variance-covariance methodology. Volatilities and correlations are calculated from a one-year set of daily data. The VaR-based interest rate risk figures for an investment portfolio with a one-week horizon and 95% confidence level are shown in Table 2, below.

**Table 2***Treasury investment portfolio Value-at-Risk*

VaR	2003	2002
	EURm	EURm
At December 31	9.8	5.4
Average for the year	6.7	5.1
Range for the year	4.7-11.9	3.1-8.7

**Equity price risk**

Nokia has certain strategic minority investments in publicly traded companies. These investments are classified as available-for-sale. The fair value of the equity investments at December 31, 2003 was EUR 8 million (EUR 137 million in 2002).

There are currently no outstanding derivative financial instruments designated as hedges of these equity investments. The VaR figures for equity investments, shown in Table 3, below, have been calculated using the same principles as for interest rate risk.

**Table 3***Equity investments Value at Risk*

VaR	2003	2002
	EURm	EURm
At December 31	0.2	6.5
Average for the year	3.5	8.8
Range for the year	0.2-9.4	5.5-19.0

In addition to the listed equity holdings, Nokia invests in private equity through Nokia Venture Funds. The fair value of these available-for-sale equity investments at December 31, 2003 was USD 85 million (USD 54 million in 2002). Nokia is exposed to equity price risk on social security costs relating to stock compensation plans. Nokia hedges this risk by entering into cash settled equity swap and option contracts.

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

Not applicable.

**PART II****ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

**ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

None.

**ITEM 15. CONTROLS AND PROCEDURES**

(a)

*Disclosure Controls and Procedures.* Our Chairman and Chief Executive Officer and our Executive Vice President, Chief Financial Officer, after evaluating the effectiveness of the Group's disclosure controls and procedures (as defined in US Exchange Act Rules 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that, as of such date, the Group's disclosure controls and procedures were effective.

(b)

*Internal Control Over Financial Reporting.* There were no changes in the Group's internal control over financial reporting that occurred during the year ended December 31, 2003 that have materially affected, or are reasonably likely to materially affect, the Group's internal control over financial reporting.

**ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

The Board of Directors has determined that Mr. Per Karlsson is an "audit committee financial expert" as defined in Item 16A of Form 20-F. Mr. Per Karlsson and each of the other members of the Audit Committee is an "independent director" as defined in Section 303A.02 of the New York Stock Exchange's Listed Company Manual.

**ITEM 16B. CODE OF ETHICS**

We have adopted a code of ethics that applies to our Chief Executive Officer, President, Chief Financial Officer and Corporate Controller. This code of ethics is posted on our website, [www.nokia.com](http://www.nokia.com), and may be found as follows:

1. From our main web page, first click on "About Nokia."
2. Next, click on "Company."
3. Next, click on "Corporate Governance."
4. Next, click on "Board of Directors."
5. Finally, click on "Code of Ethics."

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

PricewaterhouseCoopers Oy has served as Nokia's independent public accountant for each of the fiscal years in the three-year period ended December 31, 2003, for which audited financial statements appear in this annual report on Form 20-F. The auditor is elected annually by the Annual General Meeting. The Audit Committee will propose to the Annual General Meeting convening on March 25, 2004 that PricewaterhouseCoopers Oy be elected as the auditor for 2004.

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The following table presents the aggregate fees for professional services and other services rendered by PricewaterhouseCoopers to Nokia in 2003 and 2002.

	2003	2002
	EURm	EURm
Audit Fees <sup>(1)</sup>	4.6	3.6
Audit-related Fees <sup>(2)</sup>	0.9	1.2
Tax Fees <sup>(3)</sup>	6.0	6.7
All Other Fees <sup>(4)</sup>	0.7	1.5
	12.2	13.0

- (1) Audit Fees consist of fees billed for the annual audit of the company's consolidated financial statements and the statutory financial statements of the company's subsidiaries. They also include fees billed for other audit services, which are those services that only the external auditor reasonably can provide, and include the provision of comfort letters and consents, attestation services relating to internal controls and the review of documents filed with the SEC. The fees for 2003 include EUR 0.8 million of accrued audit fees for the 2003 year-end audit that were not billed until 2004; the fees for 2002 include EUR 0.8 million of accrued audit fees for the 2002 year-end audit that were not billed until 2003.
- (2) Audit-related Fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the company's financial statements or that are traditionally performed by the external auditor, and include consultations concerning financial accounting and reporting standards; internal control reviews; review of security controls and operational effectiveness of systems; due diligence related to acquisitions; and employee benefit plan audits.
- (3) Tax Fees include fees billed for tax compliance services, including the preparation of original and amended tax returns and claims for refund; tax consultations, such as assistance and representation in connection with tax audits and appeals, tax advice related to mergers and acquisitions, transfer pricing, and requests for rulings or technical advice from taxing authorities; tax planning services; and expatriate tax compliance, consultation and planning services.
- (4) All Other Fees include fees billed for forensic accounting and occasional training services. Fees billed for 2002 include EUR 0.9 million related to services provided by PwC Consulting prior to its sale to IBM in 2002. All forensic accounting in 2002 and 2003 relates to Telsim; for more information, see "Item 8.A.7 Litigation."

### ***Audit Committee Pre-approval Policies and Procedures***

The Audit Committee of Nokia's Board of Directors is responsible, among other matters, for the oversight of the external auditor subject to the requirements of Finnish law. The Audit Committee has adopted a policy regarding pre-approval of audit and permissible non-audit services provided by our independent auditors (the "Policy").

Under the Policy, proposed services either (i) may be pre-approved by the Audit Committee without consideration of specific case-by-case services ("general pre-approval"); or (ii) require the specific pre-approval of the Audit Committee ("specific pre-approval"). The Audit Committee may delegate either type of pre-approval authority to one or more of its members. The appendices to the Policy set out the audit, audit-related, tax and other services that have received the general pre-approval of the Audit Committee, including those described in the footnotes to the table,

above; these services are subject to annual review by the Audit Committee. All other audit, audit-related, tax and other services must receive a specific pre-approval from the Audit Committee.

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The Audit Committee establishes budgeted fee levels annually for each of the four categories of audit and non-audit services that are pre-approved under the Policy, namely, audit, audit-related, tax and other services. Requests or applications to provide services that require specific approval by the Audit Committee are submitted to the Audit Committee by both the external auditor and the Chief Financial Officer. At each regular meeting of the Audit Committee, the external auditor provides a report in order for the Audit Committee to review the services that the external auditor is providing, as well as the status and cost of those services.

During 2003, services provided to Nokia by PricewaterhouseCoopers representing less than 2% of audit-related fees (equivalent to less than 0.5% of the total fees) were approved by the Audit Committee pursuant to the *de minimis* exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

### ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

### ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

The following table sets out certain information concerning purchases of Nokia shares by Nokia Corporation and its affiliates during 2003.

Period	(a) Total Number of Shares Purchased <sup>(1)</sup>	(b) Average Price Paid per Share (EUR)	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs <sup>(1)</sup>	(d) Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
January 1/1/03-1/31/03	390 000	13.38	0	220 000 000 <sup>(2)</sup>
February 2/1/03-2/28/03	0	0.00	0	220 000 000 <sup>(2)</sup>
March 3/1/03-3/31/03	0	0.00	0	225 000 000 <sup>(3)</sup>
April 4/1/03-4/30/03	11 910 000	15.13	11 500 000	213 500 000 <sup>(3)</sup>
May 5/1/03-5/31/03	8 500 000	14.96	8 500 000	205 000 000 <sup>(3)</sup>
June 6/1/03-6/30/03	0	0.00	0	205 000 000 <sup>(3)</sup>
July 7/1/03-7/31/03	15 200 000	13.23	15 200 000	189 800 000 <sup>(3)</sup>
August 8/1/03-8/31/03	18 584 450	13.38	18 584 450	171 215 550 <sup>(3)</sup>
September 9/1/03-9/30/03	0	0.00	0	171 215 550 <sup>(3)</sup>
October 10/1/03-10/31/03	21 260 000	14.49	21 200 000	150 015 500 <sup>(3)</sup>
November 11/1/03-11/30/03	19 494 050	15.01	19 494 050	130 521 500 <sup>(3)</sup>
December 12/1/03-12/31/03	0	0.00	0	130 521 500 <sup>(3)</sup>
<b>Total</b>	<b>95 338 500</b>	<b>14.30</b>	<b>94 478 500</b>	

(1) The difference between the "Total Number of Shares Purchased" and the "Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs" represents repurchases of

a total of 860 000 shares in open-market transactions effected by affiliates of Nokia Corporation to cover the Group's obligations in connection with certain employee stock option plans. For more information, see "Item 6.E Share Ownership Other Employee Stock Option Plans."

- (2) On March 21, 2002, the Annual General Meeting approved the Board's proposal to authorize the Board to resolve to repurchase a maximum of 220 million Nokia shares by using funds available for distribution of profits. The authorization was effective for a period of one year and expired on March 21, 2003.
- (3) On March 27, 2003, the Annual General Meeting authorized the Board to repurchase a maximum of 225 million Nokia shares by using funds available for distribution of profits. The authorization is effective for a period of one year until March 27, 2004.

### PART III

#### ITEM 17. FINANCIAL STATEMENTS

Not applicable.

#### ITEM 18. FINANCIAL STATEMENTS

The following financial statements are filed as part of this Annual Report on Form 20-F:

Consolidated Financial Statements	
Report of Independent Auditors	F-1
Consolidated Profit and Loss Accounts	F-2
Consolidated Balance Sheets	F-3
Consolidated Cash Flow Statements	F-4
Consolidated Statements of Changes in Shareholders' Equity	F-6
Notes to the Consolidated Financial Statements	F-7

#### ITEM 19. EXHIBITS

- \*1 Articles of Association of Nokia Corporation.
6. See Note 28 to our consolidated financial statements included in Item 18 of this Form 20-F for information on how earnings per share information was calculated.
8. List of significant subsidiaries.
- 12.1 Certification of Jorma Ollila, Chairman and Chief Executive Officer of Nokia Corporation, pursuant to Section 302 of the Sarbanes- Oxley Act of 2002.
- 12.2 Certification of Richard A. Simonson, Senior Vice President and Chief Financial Officer of Nokia Corporation, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
13. Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 14(a). Consent of Independent Accountants.

\*

Incorporated by reference to our annual report on Form 20-F for the fiscal year ended December 31, 2000.

## GLOSSARY OF TERMS

**3G:** Third generation communications technology.

**3GPP (3<sup>rd</sup> Generation Partnership Project):** An agreement involving telecommunications standards bodies to produce technical specifications and reports for "third generation" mobile systems, based on evolved GSM core networks and the radio access technologies that they support. The scope of 3GPP also extends to the maintenance and development of GSM technical specifications and reports, including GPRS and EDGE.

**Access network:** A network for the delivery of voice, data, text and images to end users.

**ADSL (Asymmetric Digital Subscriber Line):** A transmission system that supports high bit rates over existing copper twisted pair access networks, providing a high bit rate channel from the network toward an ATM end system and a lower bit rate channel from the ATM end system toward the network.

**All-IP Network:** An integrated telecommunications network that uses IP for the transport of all user data and signalling data.

**Analogue:** A signaling technique in which signals are conveyed by continuously varying the frequency, amplitude or phase of the transmission.

**Base station:** Fixed transceiver (transmitter and receiver) equipment used for communicating with mobile phones in a mobile network. A base station may cover one or more cells or a part of a cell.

**Bluetooth:** Short range radio technology that expands wireless connectivity to personal and business mobile devices by enabling users to connect their mobile phones, computers, printers, digital cameras, network access points and other electronic devices to one another without cables.

**Broadband network:** A network that delivers higher bandwidth by using transmission channels capable of supporting data rates greater than the primary rate of 9.6 Kbit/s.

**Circuit switching:** Electronic communications via a dedicated channel, or circuit, for the duration of the communication.

**CDMA (Code Division Multiple Access):** A continuous digital transmission technology that uses a coding system to mix discrete voice signals together during transmission and then separates the signals at the end of transmission.

**CDMA 2000:** A wireless technology that is based on the CDMA platform and can provide ISDN-like speeds of up to 144 Kbps.

**Cellular network:** A mobile telephone network consisting of switching centers (digital exchanges), radio base stations and transmission equipment. A cellular telephone network services an area that is divided into a number of smaller regions, called cells. This facilitates a continuous connection between the base stations and the mobile phones. The connection is maintained even if the mobile phone user moves from the area covered by one base station to the area of another base station.

**Core network:** A combination of exchanges and the basic transmission equipment that together form the basis for network services.

**DSL (Digital Subscriber Line):** A method of transmission utilized to transmit high-speed data on any existing copper line or local loop to a subscriber's telephone or other end user device.

**Digital:** A signaling technique in which a signal is encoded into digits for transmission.

**DVB (Digital Video Broadcasting):** A standard for digital satellite, cable and terrestrial video broadcasting.

**EDGE (Enhanced Data Rates for Global Evolution):** A technology to boost cellular network capacity and increase data rates of existing GSM networks to as high as 473 kbit/s.

**ETSI (European Telecommunications Standards Institute) Standards:** Standards produced by the ETSI that contain technical specifications laying down the characteristics required for a telecommunications product.

**GPRS (General Packet Radio Services):** A service that provides packet switched data, primarily for second generation GSM networks.

**GSM (Global System for Mobile Communications):** A digital cellular network that operates in the 900 MHz frequency band, the frequency adopted for use in most European and Asian countries, as well as the 1800 MHz band.

**GSM 1900 system:** A GSM-based cellular system that operates in the 1900 MHz frequency band (also referred to as PCS 1900 or DCS 1900).

**IP (Internet Protocol):** A network layer protocol that offers a connectionless Internet network service and forms part of the TCP/IP protocol.

**ISP (Internet Service Provider):** A company that provides access to the Internet and World Wide Web via a fixed or mobile network.

**Iu Interface:** An interface standardized by the Third Generation Partnership Program. It enables multi-vendor interconnection between a core network and a radio network.

**LAN (Local Area Network):** A computer network that spans a small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN).

**MMS (Multimedia Messaging Services):** Enables mobile phone users to send and receive messages with rich content, such as images, polyphonic ring tones, audio clips and even short videos. MMS is an open standard defined by the Open Mobile Alliance (OMA).

**Mobile Phone Engine:** The mobile phone engine is the generic, internal part of a mobile phone. It does not include the phone cover, key mat or other version-specific mechanical parts, and is free of customer- or language-specific software.

**MSP (Managed Service Provider):** A company that manages information technology services for other companies by delivering outsourced IT management and problem resolution for e-business and mission-critical systems. MSPs ordinarily provide and manage their services remotely using an interactive Web page as the user interface.

**OMA (Open Mobile Alliance):** Delivers open standards for the mobile industry, helping to create interoperable services which work across countries, operators and mobile terminals and are driven by users' needs. To expand the mobile market, companies supporting the Open Mobile Alliance will work to stimulate the fast and wide adoption of a variety of new, enhanced mobile information, communication and entertainment services. The Open Mobile Alliance includes all key elements of the wireless value chain, and contributes to the timely and efficient introduction of services and applications.

**Packet:** Part of a message transmitted over a packet switched network.

**Packet switching:** A technique that enables digitized data to be chopped up into a number of packets—sometimes called datagrams—and sent out over various network routes to their location.

**PDA:** Personal Digital Assistant.

**Platform, platform concept:** A basic system on which different applications can be developed.

**Service delivery platforms:** The foundation on which mobile network operators' services and applications are built. Service delivery platforms handle a set of common functions for all services, such as charging, maintaining subscription profiles, authentication and authorization. They



can also offer other service-enabling functions such as messaging, content download and digital rights management. In addition to these functions, service delivery platforms permit new services to be deployed easier and faster.

**TCP/IP (Transmission Control Protocol/Internet Protocol):** A public transmission protocol, originally defined by the US Department of Defense, that offers message routing and reliable data transmission.

**TDMA (Time Division Multiple Access):** A digital transmission technology that breaks voice signals into sequential pieces of a defined length, places each piece into an information conduit at specific intervals and then reconstructs the pieces at the end of the conduit.

**TD SCDMA (Time Division Synchronous Code Division Multiple Access):** A proposed Chinese standard for high-speed mobile communications networks.

**TETRA (Terrestrial Trunked Radio):** An open digital trunked radio standard defined by ETSI to meet the needs of the most demanding professional mobile radio users.

**VPN (Virtual Private Network):** A private network built using a public network as a base.

**WAP (Wireless Application Protocol):** A global, license-free and platform-independent protocol designed for Internet content and advanced telephony services on digital cellular phones and other wireless terminals.

**WCDMA (Wideband Code Division Multiple Access):** A digital transmission technology based on CDMA and planned to be used as the air interface access method in third generation mobile systems.

**WLAN (Wireless Local Area Network):** A local area network using wireless connections, such as radio, microwave or infrared links, in place of physical cables.

**xDSL:** Various forms of Digital Subscriber Line technologies.

**XHTML (Extensible HyperText Markup Language):** XHTML is the markup language used in WAP 2.0 specification, which is now a part of the OMA WAP 2.0 Release. XHTML bridges the divide between WAP and WWW worlds, providing an open platform for global content creation.

## REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Shareholders of  
NOKIA CORPORATION:

We have audited the accompanying consolidated balance sheets of Nokia Corporation and its subsidiaries as of December 31, 2003 and 2002, and the related consolidated statements of profit and loss, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2003. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nokia Corporation and its subsidiaries at December 31, 2003 and 2002 and the consolidated results of their operations and their consolidated cash flows for each of the three years in the period ended December 31, 2003 in conformity with International Accounting Standards.

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International Accounting Standards vary in certain respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of consolidated net profit for each of the three years in the period ended December 31, 2003, and the determination of consolidated shareholders' equity at December 31, 2003 and 2002, to the extent summarized in Note 36 to the consolidated financial statements.

Espoo, Finland  
January 22, 2004

/s/ PRICEWATERHOUSECOOPERS OY

PricewaterhouseCoopers Oy  
Authorized Public Accountants

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**Nokia Corporation and Subsidiaries**

**Consolidated Profit and Loss Accounts**

	Notes	Financial year ended December 31		
		2003	2002	2001
		EURm	EURm	EURm
<b>Net sales</b>		<b>29,455</b>	30,016	31,191
Cost of sales		(17,237)	(18,278)	(19,787)
Research and development expenses		(3,760)	(3,052)	(2,985)
Selling, general and administrative expenses	6, 7	(3,363)	(3,239)	(3,523)
Customer finance impairment charges, net of reversals	7	226	(279)	(714)
Impairment of goodwill	7	(151)	(182)	(518)
Amortization of goodwill	9	(159)	(206)	(302)
<b>Operating profit</b>	2, 3, 4, 5, 6, 7, 9	<b>5,011</b>	4,780	3,362
Share of results of associated companies	32	(18)	(19)	(12)
Financial income and expenses	10	352	156	125
<b>Profit before tax and minority interests</b>		<b>5,345</b>	4,917	3,475
Tax	11	(1,699)	(1,484)	(1,192)
Minority interests		(54)	(52)	(83)
<b>Net profit</b>		<b>3,592</b>	3,381	2,200
		<b>2003</b>	<b>2002</b>	<b>2001</b>
<b>Earnings per share</b>	28	<b>EUR</b>	<b>EUR</b>	<b>EUR</b>
Basic		0.75	0.71	0.47
Diluted		0.75	0.71	0.46
<b>Average number of shares (000's shares)</b>	28	<b>2003</b>	<b>2002</b>	<b>2001</b>
Basic		4,761,121	4,751,110	4,702,852

Financial year ended December 31

Diluted	<b>4,761,160</b>	4,788,042	4,787,219
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See Notes to Consolidated Financial Statements.

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## Nokia Corporation and Subsidiaries

## Consolidated Balance Sheets

	Notes	December 31	
		2003	2002
		EURm	EURm
<b>ASSETS</b>			
<b>Fixed assets and other non-current assets</b>			
Capitalized development costs	12	537	1,072
Goodwill	12	186	476
Other intangible assets	12	185	192
Property, plant and equipment	13	1,566	1,874
Investments in associated companies	14	76	49
Available-for-sale investments	15	121	238
Deferred tax assets	24	743	731
Long-term loans receivable	16	354	1,056
Other non-current assets		69	54
		<b>3,837</b>	5,742
<b>Current assets</b>			
Inventories	17, 19	1,169	1,277
Accounts receivable, net of allowances for doubtful accounts (2003: EUR 367 million, 2002: EUR 300 million)	18, 19	5,231	5,385
Prepaid expenses and accrued income	18	1,106	1,156
Other financial assets		465	416
Available-for-sale investments	15	816	
Available-for-sale investments, cash equivalents	15, 34	10,151	7,855
Bank and cash	34	1,145	1,496
		<b>20,083</b>	17,585
<b>Total assets</b>		<b>23,920</b>	23,327
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
Share capital	21	288	287
Share issue premium		2,272	2,225
Treasury shares, at cost		(1,373)	(20)
Translation differences		(85)	135
Fair value and other reserves	20	93	(7)
Retained earnings	22	13,953	11,661

	December 31	
	<u>          </u>	<u>          </u>
	15,148	14,281
<b>Minority interests</b>	<b>164</b>	173
<b>Long-term liabilities</b>	<b>23</b>	
Long-term interest-bearing liabilities	20	187
Deferred tax liabilities	24	207
Other long-term liabilities	67	67
	<u>          </u>	<u>          </u>
	328	461
<b>Current liabilities</b>		
Short-term borrowings	25	377
Current portion of long-term debt		84
Accounts payable		2,919
Accrued expenses	26	2,468
Provisions	27	2,470
		<u>          </u>
		8,280
		8,412
Commitments and contingencies	29	
		<u>          </u>
<b>Total shareholders' equity and liabilities</b>	<b>23,920</b>	23,327
	<u>          </u>	<u>          </u>

See Notes to Consolidated Financial Statements.

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## Nokia Corporation and Subsidiaries

## Consolidated Cash Flow Statements

	Financial year ended December 31		
Notes	<u>          </u>	<u>          </u>	<u>          </u>
	2003	2002	2001
	EURm	EURm	EURm
<b>Cash flow from operating activities</b>			
Net profit	3,592	3,381	2,200
Adjustments, total	33	2,953	4,132
		<u>          </u>	<u>          </u>
Net profit before change in net working capital	6,545	6,532	6,332
Change in net working capital	33	(203)	978
		<u>          </u>	<u>          </u>
Cash generated from operations	6,342	7,487	7,310
Interest received	256	229	226
Interest paid	(33)	(94)	(155)
Other financial income and expenses	119	139	99

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	Financial year ended December 31		
	(1,440)	(1,947)	(933)
Income taxes paid			
<b>Net cash from operating activities</b>	<b>5,244</b>	5,814	6,547
<b>Cash flow from investing activities</b>			
Acquisition of Group companies, net of acquired cash (2003: EUR 0 million, 2002: EUR 6 million, 2001: EUR 12 million)	(7)	(10)	(131)
Purchase of non-current available-for-sale investments	(282)	(99)	(323)
Purchase of shares in associated companies	(61)		
Additions to capitalized development costs	(218)	(418)	(431)
Long-term loans made to customers	(97)	(563)	(1,129)
Proceeds from repayment and sale of long term loans receivable	315	314	
Proceeds from (+)/payment of ( ) other long-term receivables	(18)	(32)	84
Proceeds from (+)/payment of ( ) short-term loans receivable	63	(85)	(114)
Capital expenditures	(432)	(432)	(1,041)
Proceeds from disposal of shares in Group companies, net of disposed cash		93	
Proceeds from sale of non-current available-for-sale investments	381	162	204
Proceeds from sale of fixed assets	19	177	175
Dividends received	24	25	27
<b>Net cash used in investing activities</b>	<b>(313)</b>	(868)	(2,679)
<b>Cash flow from financing activities</b>			
Proceeds from stock option exercises	23	163	77
Purchase of treasury shares	(1,355)	(17)	(21)
Capital investment by minority shareholders		26	4
Proceeds from long-term borrowings	8	100	102
Repayment of long-term borrowings	(56)	(98)	(59)
Proceeds from (+)/repayment of ( ) short-term borrowings	(22)	(406)	(602)
Dividends paid	(1,378)	(1,348)	(1,396)
<b>Net cash used in financing activities</b>	<b>(2,780)</b>	(1,580)	(1,895)
<b>Foreign exchange adjustment</b>	<b>(182)</b>	(163)	(43)
<b>Net increase in cash and cash equivalents</b>	<b>1,969</b>	3,203	1,930
<b>Cash and cash equivalents at beginning of period</b>	<b>9,351</b>	6,125	4,183
<b>Cash and cash equivalents at end of period</b>	<b>11,320</b>	9,328	6,113
Change in net fair value of current available-for-sale investments	(24)	23	12
<b>As reported on balance sheet</b>	<b>11,296</b>	9,351	6,125

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<b>Movement in cash and cash equivalents:</b>			
At beginning of year, as previously reported	9,351	6,125	4,183
On adoption of IAS 39, remeasurement of current available-for-sale investments to fair value			42

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At beginning of year, as restated	9,351	6,125	4,225
Net fair value gains (+)/losses ( ) on current available-for-sale investments	(24)	23	(30)
Net increase in cash and cash equivalents	1,969	3,203	1,930
As reported on balance sheet	11,296	9,351	6,125
At end of year, comprising:			
Bank and cash	1,145	1,496	1,854
Current available-for-sale investments, cash equivalents	15, 34	10,151	7,855
	11,296	9,351	6,125

The figures in the consolidated cash flow statement cannot be directly traced from the balance sheet without additional information as a result of acquisitions and disposals of subsidiaries and net foreign exchange differences arising on consolidation.

See Notes to Consolidated Financial Statements.

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Nokia Corporation and Subsidiaries

Consolidated Statements of Changes in Shareholders' Equity

	Number of shares	Share capital	Share issue premium	Treasury shares	Translation differences <sup>(1)</sup>	Fair value and other reserves <sup>(1)</sup>	Retained earnings	Total
	(000's)							
<b>Group, EURm</b>								
Balance at December 31, 2000	4,692,133	282	1,695	(157)	347		8,641	10,808
Effect of adopting IAS 39						(56)		(56)
Balance at January 1, 2001, restated	4,692,133	282	1,695	(157)	347	(56)	8,641	10,752
Share issue related to acquisitions	18,329	1	331					332
Stock options exercised	23,057	1	76					77
Stock options issued on acquisitions			20					20
Stock options exercised related to acquisitions			(10)					(10)
Acquisition of treasury shares	(995)			(21)				(21)
Reissuance of treasury shares	3,778		(52)	157				105
Dividend							(1,314)	(1,314)
Translation differences					65			65
Net investment hedge losses					(86)			(86)
Cash flow hedges, net						76		76
Available-for-sale investments, net						0		0
Other increase, net							9	9
Net profit							2,200	2,200

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	Number of shares	Share capital	Share issue premium	Treasury shares	Translation differences <sup>(1)</sup>	Fair value and other reserves <sup>(1)</sup>	Retained earnings	Total
Balance at December 31, 2001	4,736,302	284	2,060	(21)	326	20	9,536	12,205
Stock options exercised	50,377	3	160					163
Stock options exercised related to acquisitions			(17)					(17)
Tax benefit on stock options exercised			22					22
Acquisition of treasury shares	(900)			(17)				(17)
Reissuance of treasury shares	983			18				18
Dividend							(1,279)	(1,279)
Translation differences					(285)			(285)
Net investment hedge gains					94			94
Cash flow hedges, net of tax						60		60
Available-for-sale investments, net of tax						(87)		(87)
Other increase, net							23	23
Net profit							3,381	3,381
Balance at December 31, 2002	4,786,762	287	2,225	(20)	135	(7)	11,661	14,281
Share issue related to acquisitions	1,225		18					18
Stock options exercised	7,160	1	22					23
Stock options exercised related to acquisitions			(6)					(6)
Tax benefit on stock options exercised			13					13
Acquisition of treasury shares	(95,339)			(1,363)				(1,363)
Reissuance of treasury shares	460			10				10
Dividend							(1,340)	(1,340)
Translation differences					(375)			(375)
Net investment hedge gains					155			155
Cash flow hedges, net of tax						2		2
Available-for-sale investments, net of tax						98		98
Other increase, net							40	40
Net profit							3,592	3,592
Balance at December 31, 2003	4,700,268	288	2,272	(1,373)	(85)	93	13,953	15,148

(1) Accumulated other comprehensive income comprises translation differences and fair value and other reserves.

Dividends declared per share were EUR 0.30 for 2003 (EUR 0.28 for 2002 and EUR 0.27 for 2001), subject to shareholders' approval.

See Notes to Consolidated Financial Statements.

**Notes to the Consolidated Financial Statements**

**1. Accounting principles**

**Basis of presentation**

The consolidated financial statements of Nokia Corporation ("Nokia" or "the Group"), a Finnish limited liability company with domicile in Helsinki, are prepared in accordance with International Accounting Standards (IAS). The consolidated financial statements are presented in millions of euros (EURm), except as noted, and are prepared under the historical cost convention except as disclosed in the accounting policies below. The notes to the consolidated financial statements also conform with Finnish Accounting legislation. On January 22, 2004, the Group's Board of Directors authorized these financial statements for issue.

In 2001 the Group adopted IAS 39, Financial Instruments: Recognition and Measurement (IAS 39). The effects of adopting the standard are summarized in the consolidated statement of shareholders' equity and cash flow statements.

**Use of estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Principles of consolidation**

The consolidated financial statements include the accounts of Nokia's parent company ("Parent Company"), and each of those companies in which it either owns, directly or indirectly through subsidiaries, over 50% of the voting rights, or over which it has control of their operating and financial policies. The Group's share of profits and losses of associated companies (generally 20% to 50% voting rights or over which the Group has significant influence) is included in the consolidated profit and loss account in accordance with the equity method of accounting.

All inter-company transactions are eliminated as part of the consolidation process. Minority interests are presented separately in arriving at the net profit. They are also shown separately from shareholders' equity and liabilities in the consolidated balance sheet.

Profits realized in connection with the sale of fixed assets between the Group and associated companies are eliminated in proportion to share ownership. Such profits are deducted from the Group's equity and fixed assets and released in the Group accounts over the same period as depreciation is charged.

The companies acquired during the financial periods presented have been consolidated from the date on which control of the net assets and operations was transferred to the Group. Similarly the result of a Group company divested during an accounting period is included in the Group accounts only to the date of disposal.

**Goodwill**

Acquisitions of companies are accounted for using the purchase method of accounting. Goodwill represents the excess of the purchase cost over the fair value of assets less liabilities of acquired companies. Goodwill is amortized on a straight-line basis over its expected useful life. Useful lives vary between two and five years depending upon the nature of the acquisition. Expected useful

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lives are reviewed at each balance sheet date and, where these differ significantly from previous estimates, amortization periods are changed accordingly.

The Group assesses the carrying value of goodwill annually or, more frequently, if events or changes in circumstances indicate that such carrying value may not be recoverable. If such indication exists the recoverable amount is determined for the cash-generating unit, to which goodwill belongs. This amount is then compared to the carrying amount of the cash-generating unit and an impairment loss is recognized if the recoverable amount is less than the carrying amount. Impairment losses are recognized immediately in the profit and loss account.



## Transactions in foreign currencies

Transactions in foreign currencies are recorded at the rates of exchange prevailing at the dates of the individual transactions. For practical reasons, a rate that approximates the actual rate at the date of the transaction is often used. At the end of the accounting period, the unsettled balances on foreign currency receivables and liabilities are valued at the rates of exchange prevailing at the year-end. Foreign exchange gains and losses related to normal business operations are treated as adjustments to sales or to cost of sales. Foreign exchange gains and losses associated with financing are included as a net amount under financial income and expenses.

## Foreign Group companies

In the consolidated accounts all items in the profit and loss accounts of foreign subsidiaries are translated into euro at the average foreign exchange rates for the accounting period. The balance sheets of foreign Group companies are translated into euro at the year-end foreign exchange rates with the exception of goodwill arising on the acquisition of a foreign company, which is translated, to euro at historical rates. Differences resulting from the translation of profit and loss account items at the average rate and the balance sheet items at the closing rate are also treated as an adjustment affecting consolidated shareholders' equity. On the disposal of all or part of a foreign Group company by sale, liquidation, repayment of share capital or abandonment, the cumulative amount or proportionate share of the translation difference is recognized as income or as expense in the same period in which the gain or loss on disposal is recognized.

## Fair valuing principles

### *Financial assets and liabilities*

Under IAS 39, the Group classifies its investments in marketable debt and equity securities and investments in unlisted equity securities into the following categories: held-to-maturity, trading, or available-for-sale depending on the purpose for acquiring the investments. All investments of the Group are currently classified as available-for-sale. Available-for-sale investments are fair valued by using quoted market rates, discounted cash flow analyses and other appropriate valuation models at the balance sheet date. Certain unlisted equities for which fair values cannot be measured reliably are reported at cost less impairment. All purchases and sales of investments are recorded on the trade date, which is the date that the Group commits to purchase or sell the asset.

The fair value changes of available-for-sale investments are recognized in shareholders' equity. When the investment is disposed of, the related accumulated fair value changes are released from shareholders' equity and recognized in the profit and loss account. The accumulated fair value

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changes are calculated using a weighted average purchase price method. An impairment is recorded when the carrying amount of an available for sale investment is greater than the estimated fair value and there is objective evidence that the asset is impaired. The cumulative net loss relating to that investment is removed from equity and recognized in the profit and loss account for the period. If, in a subsequent period, the fair value of the investment increases and the increase can be objectively related to an event occurring after the loss was recognized, the loss is reversed, with the amount of the reversal included in the profit and loss account.

The fair values of other financial assets and financial liabilities are assumed to approximate their carrying values, either because of their short maturities, or where their fair values cannot be measured reliably.

### *Derivatives*

Fair values of forward rate agreements, interest rate options and futures contracts are calculated based on quoted market rates at the balance sheet date. Interest rate and currency swaps are valued by using discounted cash flow analyses. The changes in the fair values of these contracts are reported in the profit and loss account.

Fair values of cash settled equity derivatives are calculated by revaluing the contract at year-end quoted market rates. Changes in the fair value are reported in the profit and loss account.

Forward foreign exchange contracts are valued with the forward exchange rate. Changes in fair value are calculated by comparing this with the original amount calculated by using the contract forward rate prevailing at the beginning of the contract. Currency options are valued at the balance sheet date by using the Garman & Kohlhagen option valuation model. Changes in the fair value on these instruments are reported in the profit and loss account except to the extent they qualify for hedge accounting.

Embedded derivatives are identified and monitored in the Group and fair valued at the balance sheet date. In assessing the fair value of embedded derivatives the Group uses a variety of methods, such as option pricing models and discounted cash flow analysis, and makes assumptions that are based on market conditions existing at each balance sheet date. The fair value changes are reported in the profit and loss account.

### **Hedge accounting**

#### *Hedging of anticipated foreign currency denominated sales and purchases*

The Group applies hedge accounting for "Qualifying hedges". Qualifying hedges are those properly documented cash flow hedges of the foreign exchange rate risk of future anticipated foreign currency denominated sales and purchases that meet the requirements set out in IAS 39. The cash flow being hedged must be "highly probable" and must ultimately impact the profit and loss account. The hedge must be highly effective both prospectively and retrospectively.

The Group claims hedge accounting in respect of certain forward foreign exchange contracts and options, or option strategies, which have zero net premium or a net premium paid, and where the critical terms of the bought and sold options within a collar or zero premium structure are the same and where the nominal amount of the sold option component is no greater than that of the bought option.

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For qualifying foreign exchange forwards the change in fair value is deferred in shareholders' equity to the extent that the hedge is effective. For qualifying foreign exchange options the change in intrinsic value is deferred in shareholders' equity to the extent that the hedge is effective. Changes in the time value are at all times taken directly as adjustments to sales or to cost of sales in the profit and loss account.

Accumulated fair value changes from qualifying hedges are released from shareholders' equity into the profit and loss account as adjustments to sales and cost of sales, in the period when the hedged cash flow affects the profit and loss account. If the hedged cash flow is no longer expected to take place, all deferred gains or losses are released into the profit and loss account as adjustments to sales and cost of sales, immediately. If the hedged cash flow ceases to be highly probable, but is still expected to take place, accumulated gains and losses remain in equity until the hedged cash flow affects the profit and loss account.

Changes in the fair value of any derivative instruments that do not qualify for hedge accounting under IAS 39 are recognized immediately in the profit and loss account. The fair value changes of derivative instruments that directly relate to sales and purchases are recognized as adjustments to sales and cost of sales respectively. The fair value changes from all other derivative instruments are recognized in financial income and expenses.

#### *Foreign currency hedging of net investments*

The Group also applies hedge accounting for its foreign currency hedging on net investments. Qualifying hedges are those properly documented hedges of the foreign exchange rate risk of foreign currency-denominated net investments that meet the requirements set out in IAS 39. The hedge must be effective both prospectively and retrospectively.

The Group claims hedge accounting in respect of forward foreign exchange contracts, foreign currency-denominated loans, and options, or option strategies, which have zero net premium or a net premium paid, and where the terms of the bought and sold options within a collar or zero premium structure are the same.

For qualifying foreign exchange forwards the change in fair value that reflects the change in spot exchange rates is deferred in shareholders' equity. The change in fair value that reflects the change in forward exchange rates less the change in spot exchange rates is recognized in the profit and loss account. For qualifying foreign exchange options the change in intrinsic value is deferred in shareholders' equity. Changes in the time value are at all times taken directly to the profit and loss account. If a foreign currency-denominated loan is used as a hedge, all foreign exchange gains and losses arising from the transaction are recognized in shareholders' equity.

Accumulated fair value changes from qualifying hedges are released from shareholders' equity into the profit and loss account only if the legal entity in the given country is sold or liquidated.

### **Revenue recognition**

Sales from the majority of the Group are recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable. The remainder of the sales is recorded under the percentage of completion method.

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Sales and cost of sales from contracts involving solutions achieved through modification of telecommunications equipment are recognized on the percentage of completion method when the outcome of the contract can be estimated reliably. A contract's outcome can be estimated reliably when total contract revenue and the costs to complete the contract can be estimated reliably, it is probable that the economic benefits associated with the contract will flow to the company and the stage of contract completion can be measured reliably. When the Group is not able to meet those conditions, the policy is to recognize revenues only equal to costs incurred to date, to the extent that such costs are expected to be recovered.

Completion is measured by reference to cost incurred to date as a percentage of estimated total project costs, the cost-to-cost method.

The percentage of completion method relies on estimates of total expected contract revenue and costs, as well as dependable measurement of the progress made towards project completion. Recognized revenues and profits are subject to revisions during the project in the event that the assumptions regarding the overall project outcome are revised. The cumulative impact of a revision in estimates is recorded in the period such revisions become known and estimable. Losses on projects in progress are recognized immediately when known and estimable.

All the Group's material revenue streams are recorded according to the above policies.

#### **Shipping and handling costs**

The costs of shipping and distributing products are included in cost of sales.

#### **Research and development**

Research and development costs are expensed as they are incurred, except for certain development costs, which are capitalized when it is probable that a development project will be a success, and certain criteria, including commercial and technological feasibility, have been met. Capitalized development costs, comprising direct labor and related overhead are amortized on a systematic basis over their expected useful lives between two and five years.

#### **Other intangible assets**

Expenditures on acquired patents, trademarks and licenses are capitalized and amortized using the straight-line method over their useful lives, but not exceeding 20 years. Where an indication of impairment exists, the carrying amount of any intangible asset is assessed and written down to its recoverable amount. Costs of software licenses associated with internal-use software are capitalized. These costs are included within other intangible assets and are amortized over a period not to exceed three years.

#### **Pensions**

The Group companies have various pension schemes in accordance with the local conditions and practices in the countries in which they operate. The schemes are generally funded through payments to insurance companies or to trustee-administered funds as determined by periodic actuarial calculations.

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The Group's contributions to defined contribution plans and to multi-employer and insured plans are charged to the profit and loss account in the period to which the contributions relate.

For defined benefit plans, principally the reserved portion of the Finnish TEL system, pension costs are assessed using the projected unit credit method: the cost of providing pensions is charged to the profit and loss account so as to spread the service cost over the service lives of employees. The pension obligation is measured as the present value of the estimated future cash outflows using interest rates on high quality

corporate bonds that have terms to maturity approximating the terms of the related liabilities. Actuarial gains and losses outside the corridor are recognized over the average remaining service lives of employees.

### Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation. Depreciation is recorded on a straight-line basis over the expected useful lives of the assets as follows:

Buildings and constructions	20	33 years
Production machinery, measuring and test equipment		3 years
Other machinery and equipment	3	10 years

Land and water areas are not depreciated.

Maintenance, repairs and renewals are generally charged to expense during the financial period in which they are incurred. However, major renovations are capitalized and included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Group. Major renovations are depreciated over the remaining useful life of the related asset.

Gains and losses on the disposal of fixed assets are included in operating profit/loss.

### Leases

The Group has entered into various operating leases, the payments under which are treated as rentals and charged to the profit and loss account on a straight-line basis over the lease terms.

### Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined using standard cost, which approximates actual cost, on a first in first out (FIFO) basis. Net realizable value is the amount that can be realized from the sale of the inventory in the normal course of business after allowing for the costs of realization.

In addition to the cost of materials and direct labor, an appropriate proportion of production overheads are included in the inventory values.

An allowance is recorded for excess inventory and obsolescence.

### Cash and cash equivalents

The Group manages its short-term liquidity through holdings of cash and highly liquid interest-bearing securities (included as current available-for-sale investments in the balance sheet). For the

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purposes of the cash flow statement, these holdings are shown together as cash and cash equivalents.

### Accounts receivable

Accounts receivable are carried at the original invoice amount to customers less an estimate made for doubtful receivables based on a periodic review of all outstanding amounts, which includes an analysis of historical bad debt, customer concentrations, customer creditworthiness, current economic trends and changes in our customer payment terms. Bad debts are written off when identified.

### Borrowings

Borrowings are classified as originated loans and are recognized initially at an amount equal to the proceeds received, net of transaction costs incurred. In subsequent periods, they are stated at amortized cost using the effective yield method; any difference between proceeds (net of transaction costs) and the redemption value is recognized in the profit and loss account over the period of the borrowings.

### **Loans to customers**

Loans to customers are recorded at amortized cost. Loans are subject to regular and thorough review as to their collectibility and as to available collateral; in the event that any loan is deemed not fully recoverable, provision is made to reflect the shortfall between the carrying amount and the present value of the expected cash flows. Interest income on loans to customers is accrued monthly on the principal outstanding at the market rate on the date of financing and is included within other operating income within selling, general and administrative expenses.

### **Income taxes**

Current taxes are based on the results of the Group companies and are calculated according to local tax rules.

Deferred tax assets and liabilities are determined, using the liability method, for all temporary differences arising between the tax basis of assets and liabilities and their carrying values for financial reporting purposes. Currently enacted tax rates are used in the determination of deferred income tax.

Under this method the Group is required, in relation to an acquisition, to make provision for deferred taxes on the difference between the fair values of the net assets acquired and their tax bases.

The principal temporary differences arise from intercompany profit in inventory, warranty and other provisions, untaxed reserves and tax losses carried forward. Deferred tax assets relating to the carry forward of unused tax losses are recognized to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilized.

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### **Stock options**

Stock options are granted to employees. The options are granted with a fixed exercise price set on a date outlined in the plan. When the options are exercised, the proceeds received, net of any transaction costs, are credited to share capital (nominal value) and share premium. Treasury shares are acquired by the Group to meet its obligations under employee stock option plans in the United States. When treasury shares are issued on exercise of stock options any gain or loss is recognized in share issue premium. Tax benefits on options exercised in the United States are credited to share issue premium.

### **Provisions**

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, the reimbursement would be recognized as an asset but only when the reimbursement is virtually certain.

The Group recognizes the estimated liability to repair or replace products still under warranty at the balance sheet date. The provision is calculated based on historical experience of the level of repairs and replacements.

The Group recognizes the estimated liability for non-cancellable purchase commitments for inventory in excess of forecasted requirements at each balance sheet date.

The Group recognizes a provision for the estimated future settlements related to asserted and unasserted Intellectual Property Rights (IPR) infringements, based on the probable outcome of each case as of each balance sheet date.

The Group recognizes a provision for social security costs on unexercised stock options granted to employees at the date options are granted. The provision is measured based on the fair value of the options, and the amount of the provision is adjusted to reflect the changes in the Nokia share price.

### **Dividends**

Dividends proposed by the Board of Directors are not recorded in the financial statements until they have been approved by the shareholders at the Annual General Meeting.

**Earnings per share**

The Group calculates both basic and diluted earnings per share in accordance with IAS 33, Earnings per share, (IAS 33). Under IAS 33, basic earnings per share is computed using the weighted average number of shares outstanding during the period. Diluted earnings per share is computed using the weighted average number of shares outstanding during the period plus the dilutive effect of stock options outstanding during the period.

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**2. Segment information**

Nokia is organized on a worldwide basis into three primary business segments: Nokia Mobile Phones, Nokia Networks, and Nokia Ventures Organization. Nokia's reportable segments are strategic business units that offer different products and services for which monthly financial information is provided to the Board.

Nokia Mobile Phones develops, manufactures and supplies mobile phones and wireless data products, including a complete range of mobile phones for all major digital and analog standards worldwide.

Nokia Networks is a leading provider of mobile and IP network infrastructure and related services. Nokia Networks aims to be a leader in IP mobility core, radio and broadband access for network providers and operators.

Nokia Ventures Organization exists to create new businesses outside the natural development path of the company's core activities. The unit comprises venture capital activities, incubation, and a portfolio of new ventures, including two more mature businesses: Nokia Internet Communications and Nokia Home Communications.

Common Group Functions consists of common research and general Group functions.

The accounting policies of the segments are the same as those described in Note 1. Nokia accounts for intersegment revenues and transfers as if the revenues or transfers were to third parties, that is, at current market prices. Nokia evaluates the performance of its segments and allocates resources to them based on operating profit.

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No single customer represents 10% or more of Group revenues.

	<b>Nokia Mobile Phones</b>	<b>Nokia Networks</b>	<b>Nokia Ventures Organization</b>	<b>Common Group Functions</b>	<b>Total reportable segments</b>	<b>Eliminations</b>	<b>Group</b>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>

**2003****Profit and Loss Information**

Net sales to external customers	23,475	5,620	349	11	29,455		29,455
Net sales to other segments	143	0	17	(11)	149	(149)	
Depreciation and amortization	441	520	8	169	1,138		1,138
Impairment and customer finance charges		200	40		240		240
Operating profit	5,483	(219)	(161)	(92)	5,011		5,011
Share of results of associated companies				(18)	(18)		(18)

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	Nokia Mobile Phones	Nokia Networks	Nokia Ventures Organization	Common Group Functions	Total reportable segments	Eliminations	Group
<b>Balance Sheet Information</b>							
Capital expenditures <sup>(1)</sup>	331	44	3	54	432		432
Segment assets <sup>(2)</sup>	4,832	4,108	106	1,071	10,117	(22)	10,095
of which:							
Investments in associated companies				76	76		76
Unallocated assets <sup>(3)</sup>							13,825
<b>Total assets</b>							<b>23,920</b>
Segment liabilities <sup>(4)</sup>	5,273	1,628	147	159	7,207	(22)	7,185
Unallocated liabilities <sup>(5)</sup>							1,423
<b>Total liabilities</b>							<b>8,608</b>

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**2002**

**Profit and Loss Information**

Net sales to external customers	22,997	6,538	441	40	30,016		30,016
Net sales to other segments	214	1	18	(40)	193	(193)	
Depreciation and amortization	546	542	33	190	1,311		1,311
Impairment and customer finance charges		400	83	55	538		538
Operating profit	5,201	(49)	(141)	(231)	4,780		4,780
Share of results of associated companies				(19)	(19)		(19)

**Balance Sheet Information**

Capital expenditures <sup>(1)</sup>	224	93	8	107	432		432
Segment assets <sup>(2)</sup>	4,888	6,163	114	965	12,130	(26)	12,104
of which:							
Investments in associated companies				49	49		49
Unallocated assets <sup>(3)</sup>							11,223
<b>Total assets</b>							<b>23,327</b>
Segment liabilities <sup>(4)</sup>	5,080	1,861	188	225	7,354	(24)	7,330
Unallocated liabilities <sup>(5)</sup>							1,543
<b>Total liabilities</b>							<b>8,873</b>

**2001**

**Profit and Loss Information**

Net sales to external customers	23,107	7,521	563		31,191	31,191
Net sales to other segments	51	13	22		86	(86)
Depreciation and amortization	642	511	115	162	1,430	1,430
Impairment and customer finance charges		925	307	80	1,312	1,312
Operating profit	4,521	(73)	(855)	(231)	3,362	3,362
Share of results of associated companies				(12)	(12)	(12)

(1) Including goodwill and capitalized development costs, capital expenditures amount to EUR 670 million in 2003 (EUR 860 million in 2002). The goodwill and capitalized development costs consist of EUR 36 million in 2003 (EUR 41 million in 2002) for Nokia Mobile Phones, EUR 182 million in 2003 (EUR 377 million in 2002) for Nokia Networks, EUR 20 million in 2003 (EUR 1 million in 2002) for Nokia Ventures Organization and EUR 0 million in 2003 (EUR 9 million in 2002) for Common Group Functions.

(2) Comprises intangible assets, property, plant and equipment, investments, inventories and accounts receivable as well as prepaid expenses and accrued income except those related to interest and taxes.

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(3) Unallocated assets including prepaid expenses and accrued income related to taxes and deferred tax assets (EUR 834 million in 2003 and EUR 853 million in 2002).

(4) Comprises accounts payable, deferred income, accrued expenses and provisions except those related to interest and taxes.

(5) Unallocated liabilities including prepaid income and accrued expenses related to taxes and deferred tax liabilities (EUR 394 million in 2003 and EUR 248 million in 2002).

	2003	2002	2001
	EURm	EURm	EURm
<b>Net sales to external customers by geographic area by location of customer</b>			
Finland	347	353	453
USA	4,475	4,665	5,614
Great Britain	2,693	3,111	2,808
Germany	2,297	1,849	2,003
China	2,013	2,802	3,418
Other	17,630	17,236	16,895
Total	29,455	30,016	31,191
	2003	2002	
	EURm	EURm	

**Segment assets by geographic area**

Finland	4,215	4,913
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	<u>2003</u>	<u>2002</u>
USA	1,563	1,777
Great Britain	344	627
Germany	387	431
China	1,011	1,107
Other	2,575	3,249
Total	<u>10,095</u>	<u>12,104</u>

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
<b>Capital expenditures by market area</b>			
Finland	160	188	477
USA <sup>(1)</sup>	49	71	151
Great Britain	9	27	34
Germany	17	21	37
China	53	47	131
Other <sup>(1)</sup>	144	78	211
Total	<u>432</u>	<u>432</u>	<u>1,041</u>

(1) Including goodwill and capitalized development costs, capital expenditures amount to EUR 670 million in 2003 (EUR 860 million in 2002 and EUR 2,064 million in 2001). The goodwill and capitalized development costs consist of EUR 20 million in USA in 2003 (EUR 1 million in USA in 2002 and EUR 582 million in 2001) and EUR 218 million in other areas in 2003 (EUR 427 million in 2002 and EUR 441 million in 2001).

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### 3. Percentage of completion

Contract sales recognized under the cost-to-cost method of percentage of completion accounting were approximately EUR 4.8 billion in 2003 (EUR 5.9 billion in 2002 and EUR 6.7 billion in 2001). Billings in advance of contract revenues, included in prepaid income, were EUR 195 million at December 31, 2003 (EUR 108 million in 2002 and EUR 146 million in 2001). Contract revenues recorded prior to billings were EUR 665 million at December 31, 2003 (EUR 573 million in 2002 and EUR 319 million in 2001).

Revenue recognition on initial 3G network contracts started in 2002 when Nokia Networks achieved 3G functionality for its single-mode and dual-mode WCDMA 3G systems. Upon achieving 3G functionality for WCDMA network projects, the Group began recognizing revenue under the cost-to-cost input method of percentage of completion accounting and have continued to apply the method in 2003. Until the time 3GPP specifications required by our customers were met, the application of the cost-to-cost input model was deferred.

### 4. Personnel expenses

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Wages and salaries	2,501	2,531	2,388
Pension expenses, net	184	224	193

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
Other social expenses	341	385	524
Personnel expenses as per profit and loss account	<u>3,026</u>	<u>3,140</u>	<u>3,105</u>

Pension expenses, comprised of multi-employer, insured and defined contribution plans were EUR 146 million in 2003 (EUR 167 million in 2002 and EUR 196 million in 2001).

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Remuneration of the Chairman and the other members of the Board of Directors, Group Executive Board and Presidents and Managing Directors*	22	19	16
* Incentives included in remuneration	5	4	2

Pension commitments for the management:

The retirement age of the management of the Group companies is between 60-65 years.

For the Chief Executive Officer and the President of the Parent Company the retirement age is 60 years. There are also three other Group Executive Board members whose retirement age is 60 years.

## 5. Pensions

The most significant pension plans are in Finland and are comprised of the Finnish state TEL system with benefits directly linked to employee earnings. These benefits are financed in two distinct portions. The majority of benefits are financed by contributions to a central pool with the majority of the contributions being used to pay current benefits. The other part comprises reserved benefits which are pre-funded through the trustee-administered Nokia Pension Foundation. The pooled portion of the TEL system is accounted for as a defined contribution plan

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and the reserved portion as a defined benefit plan. The foreign plans include both defined contribution and defined benefit plans.

The amounts recognized in the balance sheet relating to single employer defined benefit schemes are as follows:

	<u>2003</u>		<u>2002</u>	
	Domestic Plans	Foreign Plans	Domestic Plans	Foreign Plans
	EURm	EURm	EURm	EURm
Fair value of plan assets	683	204	636	126
Present value of funded obligations	(666)	(343)	(539)	(261)
Surplus/(Deficit)	17	(139)	97	(135)
Unrecognized net actuarial (gains)/losses	140	61	45	63
Prepaid/(Accrued) pension cost in balance sheet	157	(78)	142	(72)

The amounts recognized in the profit and loss account are as follows:

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Current service cost	54	58	49
Interest cost	46	47	40
Expected return on plan assets	(55)	(61)	(75)
Net actuarial losses (gains) recognized in year	3	2	(16)
Past service cost		11	
Curtailement	(10)		(1)
<b>Total, included in personnel expenses</b>	<b>38</b>	<b>57</b>	<b>(3)</b>

Movements in prepaid pension costs recognized in the balance sheet are as follows:

	<u>2003</u>	<u>2002</u>
	EURm	EURm
Prepaid pension costs at beginning of year	70	73
Net income (expense) recognized in the profit and loss account	(38)	(57)
Contributions paid	47	54
Prepaid pension costs at end of year	<b>79*</b>	<b>70*</b>

\*  
Included within prepaid expenses and accrued income.

The principal actuarial weighted average assumptions used were as follows:

	<u>2003</u>		<u>2002</u>	
	<u>Domestic</u>	<u>Foreign</u>	<u>Domestic</u>	<u>Foreign</u>
	%	%	%	%
Discount rate for determining present values	5.25	5.30	5.50	5.58
Expected long term rate of return on plan assets	6.00	6.87	7.25	6.56
Annual rate of increase in future compensation levels	3.50	3.49	3.50	3.09
Pension increases	2.30	2.27	2.30	2.29

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## 5. Pensions (Continued)

The prepaid pension cost above is made up of a prepayment of EUR 164 million (EUR 150 million in 2002) and an accrual of EUR 85 million (EUR 80 million in 2002).

The domestic pension plans' assets include Nokia securities with fair values of EUR 19 million in 2003 (EUR 125 million in 2002).

The foreign pension plan assets include a self investment through a loan provided to Nokia by the Group's German pension fund of EUR 64 million (EUR 66 million in 2002). (Note 31)

The actual return on plan assets was EUR 41 million in 2003 (EUR (66) million in 2002).

**6. Selling and marketing expenses, administration expenses and other operating income and expenses**

	<b>2003</b>	<b>2002</b>	<b>2001</b>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
Selling and marketing expenses	(2,649)	(2,579)	(2,363)
Administration expenses	(630)	(701)	(737)
Other operating expenses	(384)	(292)	(605)
Other operating income	300	333	182
<b>Total</b>	<b>(3,363)</b>	<b>(3,239)</b>	<b>(3,523)</b>

Other operating income for 2003 includes a gain of EUR 56 million on the sale of the remaining shares of Nokian Tyres Ltd. In 2003, Nokia Networks recorded a charge of EUR 80 million for personnel expenses and other costs in connection with the restructuring taken in light of the general downturn in market conditions, of which EUR 15 million was paid during 2003. Other operating expenses included restructuring charges of EUR 166 million in 2001.

Other operating income for 2002 includes a gain of EUR 106 million relating to the sale of Nokia Venture Partner's investment in PayPal within Nokia Ventures Organization. Other operating expenses for 2002 are composed of various items which are individually insignificant.

The Group expenses advertising and promotion costs as incurred. Advertising and promotional expenses were EUR 1,414 million in 2003 (EUR 1,174 million in 2002 and EUR 849 million in 2001).

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**7. Impairment**

<b>2003</b>	<b>Nokia Mobile Phones</b>	<b>Nokia Networks</b>	<b>Nokia Ventures Organization</b>	<b>Common Group Functions</b>	<b>Group</b>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
Customer finance impairment charges, net of reversals		(226)			(226)
Impairment of goodwill		151			151
Impairment of available-for-sale investments			27		27
Impairment of capitalized development costs		275			275
<b>Total, net</b>		<b>200</b>	<b>27</b>		<b>227</b>
<b>2002</b>					
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
Customer finance impairment charges, net		279			279
Impairment of goodwill		121	61		182
Impairment of available-for-sale investments			22	55	77
<b>Total, net</b>		<b>400</b>	<b>83</b>	<b>55</b>	<b>538</b>
<b>2001</b>					

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2003	Nokia Mobile Phones	Nokia Networks	Nokia Ventures Organization	Common Group Functions	Group
	EURm	EURm	EURm	EURm	EURm
Customer finance impairment charges		714			714
Impairment of goodwill		211	307		518
Impairment of available-for-sale investments			6	74	80
<b>Total</b>		<b>925</b>	<b>313</b>	<b>74</b>	<b>1,312</b>

Relating to restructuring at Nokia Networks, Nokia recorded in 2003 EUR 206 million impairment of capitalized development costs relating to the WCDMA 3G systems. In 2003 Nokia also recorded a EUR 26 million and EUR 43 million impairment of capitalized development costs relating to FlexiGateway and Metrosite systems, respectively. The impairment losses were determined as the difference between the carrying amount of the asset and its recoverable amount. In determining the recoverable amount the Group calculated the present value of estimated discounted future cash flows, using a 15% discount rate for WCDMA and FlexiGateway and 12% discount rate for Metrosite, expected to arise from the continuing use of the asset and from its disposal at the end of its useful life.

During 2002, Nokia recorded a net customer financing impairment charge of EUR 279 million. Of this amount, EUR 292 million was an impairment charge to write down the loans receivable to their estimated recoverable amount related to MobilCom and EUR 13 million was a partial recovery received relating to amounts written off in 2001 related to Dolphin.

The impairment charge recorded in 2002 relating to MobilCom was substantially reversed in 2003 by EUR 226 million as a result of the company receiving repayment of the MobilCom loans receivables in the form of subordinated convertible perpetual bonds of France Telecom.

During 2001, Nokia recorded an impairment charge of EUR 714 million to cover Nokia Networks' customer loans by EUR 669 million related to a defaulted financing to Telsim, a GSM operator in Turkey, and EUR 45 million relating to the insolvency of Dolphin in the UK. These charges resulted in a write-down of the company's total exposure to Telsim and Dolphin.

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In 2003 and 2002 Nokia has evaluated the carrying value of goodwill arising from certain acquisitions by determining if the carrying values of the net assets of the cash generating unit to which the goodwill belongs exceeds the recoverable amounts of that unit. In 2003 and 2002, in the Nokia Networks business, Nokia recorded an impairment charge of EUR 151 million and EUR 104 million, respectively, on goodwill related to the acquisition of Amber Networks. The recoverable amount for Amber Networks was derived from the value in use discounted cash flow projections, which covers the estimated life of the Amber platform technology, using a discount rate of 15%. At December 31, 2003, there is EUR 0 million of Amber goodwill. The impairment is a result of significant declines in the market outlook for products under development. In the Nokia Networks business in 2001, Nokia recognized a goodwill impairment charge of EUR 170 million related to the acquisition of Nokia DiscoveryCom, as a result of a decision to discontinue the related product development.

In 2002 and 2001, Nokia recognized impairment losses of EUR 36 million and EUR 88 million, respectively, on goodwill related to the acquisition of Ramp Networks. In 2002 and 2001, Nokia recognized impairment losses of EUR 25 and EUR 181 million, respectively, on goodwill related to the acquisition of Network Alchemy. Both of these entities are part of The Nokia Internet Communications business unit of Nokia Ventures Organization. For the impairments in 2001 the recoverable amounts were calculated based on value in use discounted cash flow projections using a discount rate of 13%. The impairments in 2001 resulted from the restructuring of these businesses. In 2002, the remaining goodwill balances were written off as a result of decisions to discontinue the related product development.

Nokia recognized various minor goodwill impairment charges totaling EUR 0 million in 2003 (EUR 17 million in 2002).

During 2003 the company's investment in certain equity securities suffered a permanent decline in fair value resulting in an impairment charge of EUR 27 million relating to non-current available-for-sale investments (EUR 77 million in 2002 and EUR 80 million in 2001).

## 8. Acquisitions

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In 2003 Nokia made three minor purchase acquisitions for a total consideration of EUR 38 million, of which EUR 20 million in cash and EUR 18 million in non-cash consideration.

In 2002, Nokia increased its voting percentage of 39.97% and holding percentage of 59.97% in Nextrom Holding S.A. to voting percentage of 86.21% and a holding percentage of 79.33%. These increases resulted from rights offering by Nextrom in June 2002 and by acquiring new registered and bearer shares in an offering by Nextrom in December 2002 both totalling EUR 13 million. The fair value of net assets acquired was EUR 4 million giving rise to goodwill of EUR 9 million.

In August 2001 Nokia acquired Amber Networks, a networking infrastructure company, for EUR 408 million, for its ability to develop fault-tolerant edge routers, to build on our strong market share established in the 3G mobile networks and as part of a broader strategy to shape future mobile network architectures. The acquisition was paid in 20,861,212 shares of Nokia stock and 2,624,434 Nokia stock options. The fair value of net assets acquired was EUR (13) million giving rise to goodwill of EUR 421 million which represented the future cash flow projections.

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In January 2001 Nokia acquired in a cash tender offer Ramp Networks, a provider of purpose built Internet security appliances, for EUR 147 million. The fair value of net assets acquired was EUR (16) million giving rise to goodwill of EUR 163 million.

### 9. Depreciation and amortization

	2003	2002	2001
	EURm	EURm	EURm
<b>Depreciation and amortization by asset category</b>			
Intangible assets			
Capitalized development costs	327	233	169
Intangible rights	51	65	65
Goodwill	159	206	302
Other intangible assets	21	28	34
Property, plant and equipment			
Buildings and constructions	34	37	31
Machinery and equipment	545	737	811
Other tangible assets	1	5	18
	1,138	1,311	1,430
<b>Depreciation and amortization by function</b>			
Cost of sales	214	314	367
R&D	537	473	427
Selling, marketing and administration	185	211	264
Other operating expenses	43	107	70
Goodwill	159	206	302
	1,138	1,311	1,430

### 10. Financial income and expenses

	2003	2002	2001
	EURm	EURm	EURm

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
Income from available-for-sale investments			
Dividend income	24	25	27
Interest income	323	230	215
Other financial income	38	27	24
Exchange gains and losses	32	(29)	(25)
Interest expense	(25)	(43)	(82)
Other financial expenses	(40)	(54)	(34)
	<u>          </u>	<u>          </u>	<u>          </u>
Total	352	156	125
	<u>          </u>	<u>          </u>	<u>          </u>

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**11. Income taxes**

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Income tax expense			
Current tax	(1,686)	(1,423)	(1,542)
Deferred tax	(13)	(61)	350
	<u>          </u>	<u>          </u>	<u>          </u>
Total	(1,699)	(1,484)	(1,192)
	<u>          </u>	<u>          </u>	<u>          </u>
Finland	(1,118)	(1,102)	(877)
Other countries	(581)	(382)	(315)
	<u>          </u>	<u>          </u>	<u>          </u>
Total	(1,699)	(1,484)	(1,192)
	<u>          </u>	<u>          </u>	<u>          </u>

The differences between income tax expense computed at statutory rates (29% in Finland in 2003, 2002 and 2001) and income tax expense provided on earnings are as follows at December 31:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Income tax expense at statutory rate	1,555	1,431	1,011
Deduction for write-down of investments in subsidiaries			(37)
Amortization of goodwill	46	59	87
Impairment of goodwill	58	70	197
Provisions without income tax benefit/expense		(10)	5
Taxes for prior years	56	8	23
Taxes on foreign subsidiaries' net income in excess of income taxes at statutory rates	(77)	(59)	(106)
Operating losses with no current tax benefit	8	6	16
Other	53	(21)	(4)
	<u>          </u>	<u>          </u>	<u>          </u>
Income tax expense	1,699	1,484	1,192
	<u>          </u>	<u>          </u>	<u>          </u>

At December 31, 2003 the Group had loss carry forwards, primarily attributable to foreign subsidiaries of EUR 186 million (EUR 425 million in 2002 and EUR 75 million in 2001), most of which will expire between 2005 and 2023.

Certain of the Group companies' income tax returns for periods ranging from 1998 through 2002 are under examination by tax authorities. The Group does not believe that any significant additional taxes in excess of those already provided for will arise as a result of the examinations.

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**12. Intangible assets**

	<u>2003</u>	<u>2002</u>
	EURm	EURm
<b>Capitalized development costs</b>		
Acquisition cost January 1	1,707	1,314
Additions	218	418
Impairment and write-offs	(455)	(25)
Accumulated amortization December 31	(933)	(635)
	<u>          </u>	<u>          </u>
Net carrying amount December 31	537	1,072
	<u>          </u>	<u>          </u>
<b>Goodwill</b>		
Acquisition cost January 1	1,429	1,601
Additions	20	10
Impairment charges (Note 7)	(151)	(182)
Accumulated amortization December 31	(1,112)	(953)
	<u>          </u>	<u>          </u>
Net carrying amount December 31	186	476
	<u>          </u>	<u>          </u>
<b>Other intangible assets</b>		
Acquisition cost January 1	524	533
Additions	87	75
Disposals	(44)	(72)
Translation differences	(13)	(12)
Accumulated amortization December 31	(369)	(332)
	<u>          </u>	<u>          </u>
Net carrying amount December 31	185	192
	<u>          </u>	<u>          </u>

The amount of capitalized development costs impairment and write-offs in 2003 include a EUR 275 million impairment charge based on IAS impairment review and EUR 180 million of other write-offs (EUR 0 million and EUR 25 million in 2002, respectively).

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**13. Property, plant and equipment**

	<u>2003</u>	<u>2002</u>
	EURm	EURm
<b>Land and water areas</b>		
Acquisition cost January 1	112	145
Additions		1
Disposals		(31)
Translation differences	(4)	(3)



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	2003	2002
	<u>          </u>	<u>          </u>
Net carrying amount December 31	<u>108</u>	<u>112</u>
<b>Buildings and constructions</b>		
Acquisition cost January 1	911	918
Additions	5	9
Disposals	(1)	(7)
Translation differences	(28)	(9)
Accumulated depreciation December 31	<u>(196)</u>	<u>(171)</u>
Net carrying amount December 31	<u>691</u>	<u>740</u>
<b>Machinery and equipment</b>		
Acquisition cost January 1	3,249	3,626
Additions	336	346
Disposals	(313)	(637)
Translation differences	(49)	(86)
Accumulated depreciation December 31	<u>(2,521)</u>	<u>(2,303)</u>
Net carrying amount December 31	<u>702</u>	<u>946</u>
<b>Other tangible assets</b>		
Acquisition cost January 1	22	79
Additions	7	7
Disposals	(1)	(58)
Translation differences	(3)	(6)
Accumulated depreciation December 31	<u>(6)</u>	<u>(6)</u>
Net carrying amount December 31	<u>12</u>	<u>16</u>
<b>Advance payments and fixed assets under construction</b>		
Acquisition cost January 1	60	137
Additions	44	35
Disposals	(10)	(68)
Transfers to:		
Other intangible assets	(4)	(7)
Machinery and equipment	(35)	(34)
Translation differences	<u>(2)</u>	<u>(3)</u>
Net carrying amount December 31	<u>53</u>	<u>60</u>
<b>Total property, plant and equipment</b>	<b><u>1,566</u></b>	<b><u>1,874</u></b>

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**14. Investments in associated companies**

	2003	2002
	<u>          </u>	<u>          </u>
	EURm	EURm
Net carrying amount January 1	49	49
Additions	59	24

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	<u>2003</u>	<u>2002</u>
Share of results	(18)	(19)
Translation differences	(2)	1
Other movements	(12)	(6)
	<u>76</u>	<u>49</u>
Net carrying amount December 31	76	49

In 2003 Nokia increased its ownership in Symbian from 19.0% to 32.2% by acquiring part of the shares of Symbian owned by Motorola representing 13.2% of all the shares in Symbian, for EUR 57 million (GBP 39.6 million) in cash.

In 2001, Nextrom Holding S.A. was accounted for under the equity method. Due to the increase of Nokia's ownership in 2002 Nextrom Holding S.A. has been fully consolidated for accounting purposes from the date of increased ownership which is reflected in other movements. Shareholdings in associated companies are comprised of investments in unlisted companies in 2003 and 2002.

### 15. Available-for-sale investments

	<u>2003</u>	<u>2002</u>
	EURm	EURm
Fair value at January 1	8,093	4,670
Additions, net	2,911	3,587
Net fair value gains/(losses)	111	(87)
Impairment charges (Note 7)	(27)	(77)
	<u>11,088</u>	<u>8,093</u>
Fair value at December 31	11,088	8,093
Non-current	121	238
Current	816	
Current, cash equivalents	10,151	7,855

Available-for-sale investments, comprising marketable debt and equity securities and investments in unlisted equity shares, are fair valued, except in the case of certain unlisted equities, where the fair value cannot be measured reliably. Such unlisted equities are carried at cost, less impairment (EUR 45 million in 2003 and EUR 48 million in 2002). Fair value for equity investments traded in active markets and for unlisted equities, where the fair value can be measured reliably, is EUR 77 million in 2003 and EUR 190 million in 2002. Fair value for equity investments traded in active markets is determined by using exchange quoted bid prices. For other investments, fair value is estimated by using the current market value of similar instruments or by reference to the discounted cash flows of the underlying net assets.

Gains and losses arising from the change in the fair value of available-for-sale investments are recognized directly in fair value and other reserves.

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Available-for-sale investments are classified as non-current, except for 1) the subordinated convertible perpetual bonds of France Telecom (convertible at any time to ordinary shares of France Telecom at a price of EUR 40 and with a fixed coupon of 5.75% until the end of 2009, thereafter floating rate plus a spread of 300bp, both being subject to a maximum 50bp step down linked to France Telecom's long term credit ratings), which are regarded as current available-for-sale investments and 2) highly liquid, interest-bearing investments held as part of the Group's on going cash management activities, which are regarded as current available-for-sale investments, cash equivalents. See Note 34 for details of these investments.

### 16. Long-term loans receivable

Long-term loans receivable, consisting of loans made to customers principally to support their financing of network infrastructure and services or working capital, net of allowances and write-offs amounts (Note 7), are repayable as follows:

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	<u>2003</u>	<u>2002</u>
	EURm	EURm
Under 1 year		
Between 1 and 2 years	354	494
Between 2 and 5 years		
Over 5 years		562
	<u>354</u>	<u>1,056</u>

**17. Inventories**

	<u>2003</u>	<u>2002</u>
	EURm	EURm
Raw materials, supplies and other	346	534
Work in progress	435	432
Finished goods	388	311
	<u>1,169</u>	<u>1,277</u>

**18. Receivables**

Prepaid expenses and accrued income mainly consist of VAT and tax receivables, prepaid pension costs, accrued interest income and other accruals.

Accounts receivable include EUR 40 million (EUR 21 million in 2002) due more than 12 months after the balance sheet date.

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**19. Valuation and qualifying accounts**

Allowances on assets to which they apply:	Balance at beginning of year	Charged to cost and expenses	Charged to other accounts	Deductions <sup>(1)</sup>	Balance at end of year
	EURm	EURm	EURm	EURm	EURm
<b>2003</b>					
Doubtful accounts receivable	300	228		(161)	367
Excess and obsolete inventory	290	229		(331)	188
<b>2002</b>					
Doubtful accounts receivable	217	186		(103)	300
Long-term loans receivable	13			(13)	0
Excess and obsolete inventory	314	318		(342)	290
<b>2001</b>					
Doubtful accounts receivable	236	108		(127)	217
Long-term loans receivable	59			(46)	13
Excess and obsolete inventory	263	334		(283)	314

(1) Deductions include utilization and releases of the allowances.

## 20. Fair value and other reserves

	<b>Hedging reserve</b>	<b>Available-for-sale investments</b>	<b>Total</b>
	EURm	EURm	EURm
<b>Balance at December 31, 2001</b>	(38)	58	20
<b>Cash flow hedges:</b>			
Fair value gains/(losses) in period	60		60
<b>Available-for-sale Investments:</b>			
Net fair value gains/(losses)		(155)	(155)
Transfer to profit and loss account on impairment		67	67
Transfer to profit and loss account on disposal		1	1
<b>Balance at December 31, 2002<sup>(1)(2)</sup></b>	22	(29)	(7)
<b>Cash flow hedges:</b>			
Fair value gains/(losses) in period	2		2
<b>Available-for-sale Investments:</b>			
Net fair value gains/(losses)		98	98
Transfer to profit and loss account on impairment		27	27
Transfer to profit and loss account on disposal		(27)	(27)
<b>Balance at December 31, 2003<sup>(1)(2)</sup></b>	24	69	93

(1) The tax on the balance of the cash flow hedges was EUR (8) million in 2003 and EUR (9) million in 2002.

(2) The tax on the balance of the available-for-sale investments was EUR (14) million in 2003 and EUR (16) million in 2002.

In order to ensure that amounts deferred in the cash flow hedging reserve represent only the effective portion of gains and losses on properly designated hedges of future transactions that remain highly probable at the balance sheet date, Nokia has adopted a process under which all derivative gains and losses are initially recognized in the profit and loss account. The appropriate reserve balance is calculated at the end of each period and posted to equity.

Nokia continuously reviewed the underlying cash flows and the hedges allocated thereto, to ensure that the amounts transferred to the Hedging Reserve during the year ended December 31, 2003 and 2002 did not include gains/losses on forward exchange contracts designated to hedge forecasted sales or purchases that are no longer expected to occur. Because of the number of transactions undertaken during each period and the process used to calculate the reserve balance, separate disclosure of the transfers of gains and losses to and from the reserve would be impractical.

All of the net fair value gains or losses recorded in the Fair value and other reserve at December 31, 2003 on open forward foreign exchange contracts which hedge anticipated future foreign currency sales or purchases are transferred from the Hedging Reserve to the profit and loss

account when the forecasted foreign currency cash flows occur, at various dates up to 1 year from the balance sheet date.

## **21. The shares of the Parent Company**

### ***Nokia shares and share capital***

Nokia has one class of shares. Each Nokia share entitles the holder to one (1) vote at General Meetings of Nokia. With effect from April 10, 2000, the par value of the share is EUR 0.06.

The minimum share capital stipulated in the Articles of Association is EUR 170 million and the maximum share capital is EUR 680 million. The share capital may be increased or reduced within these limits without amending the Articles of Association. On December 31, 2003 the share capital of Nokia Corporation was EUR 287,777,547.60 and the total number of shares and votes was 4,796,292,460.

On December 31, 2003 the total number of shares included 96,024,549 shares owned by the Group companies with an aggregate par value of EUR 5,761,472.94 representing approximately 2.00% of the total number of shares and votes.

### ***Authorizations***

#### **Authorizations to increase the share capital**

The Board of Directors had been authorized by Nokia shareholders at the Annual General Meeting held on March 21, 2002 to decide on an increase of the share capital by a maximum of EUR 55,800,000 offering a maximum of 930,000,000 new shares. In 2003, the Board of Directors did not increase the share capital on the basis of this authorization. The authorization expired on March 21, 2003.

At the Annual General Meeting held on March 27, 2003 Nokia shareholders authorized the Board of Directors to decide on an increase of the share capital by a maximum of EUR 57,000,000, of which a maximum of EUR 3,000,000 may result from incentive plans. The increase of the share capital may consist of one or more issues offering a maximum of 950,000,000 new shares with a par

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value of EUR 0.06 within one year as of the resolution of the Annual General Meeting. The share capital may be increased in deviation from the shareholders' pre-emptive rights for share subscription provided that important financial grounds exist such as financing or carrying out of an acquisition or another arrangement and granting incentives to key persons. In 2003, the Board of Directors has increased the share capital on the basis of this authorization by an aggregate of EUR 73,502.82 consisting of 1,225,047 new shares, as a result of which the unused authorization amounted to EUR 56,926,497.18, corresponding to 948,774,953 shares on December 31, 2003. The authorization is effective until March 27, 2004.

At the end of 2003, the Board of Directors had no other authorizations to issue shares, convertible bonds, warrants or stock options.

#### **Other authorizations**

At the Annual General Meeting held on March 27, 2003 Nokia shareholders authorized the Board of Directors to repurchase a maximum of 225 million Nokia shares, representing less than 5% of total shares outstanding, and to resolve on the disposal of a maximum of 225 million Nokia shares. In 2003, a total of 94,478,500 shares were repurchased under the buy-back authorization, as a result of which the unused authorization amounted to 130,521,500 shares on December 31, 2003. No shares were disposed of in 2003 under the respective authorization. The authorization to dispose of the shares may be carried out pursuant to terms determined by the Board provided that important financial grounds exist such as financing or carrying out acquisitions or other arrangements, as well as granting incentives to key persons. These authorizations are effective until March 27, 2004.

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### ***Convertible bonds and stock options***

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The following table depicts the main features of our outstanding stock option plans, which may result in the increase of our share capital. The increase in share capital resulted by these stock options is the number of shares to be issued times the nominal value of each share. The plans have been approved by the Annual General Meetings in the year of the launch of the plan.

### Outstanding stock option plans, December 31, 2003<sup>(1)</sup>

Plan (Year of launch)	Total plan size (Maximum no. of shares)	Number of participants (Approximately)	(Sub)category	Vesting schedule	Subscription periods		Exercise price/option	Exercise price/share	Split ratio
					Starting	Ending			
1999	144,000,000	16,000	A	Vested	April 1, 2001	December 31, 2004	67.55 EUR	16.89 EUR	4:1
			B	Vested	April 1, 2002	December 31, 2004	225.12 EUR	56.28 EUR	4:1
			C	Vested	April 1, 2003	December 31, 2004	116.48 EUR	29.12 EUR	4:1
2001	145,000,000	25,000	2001A+B	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	July 1, 2002	December 31, 2006	36.75 EUR	36.75 EUR	1:1
			2001C3Q/01	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	October 1, 2002	December 31, 2006	20.61 EUR	20.61 EUR	1:1
			2001C4Q/01	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	January 1, 2003	December 31, 2006	26.67 EUR	26.67 EUR	1:1
			2001C1Q/02	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	April 1, 2003	December 31, 2007	26.06 EUR	26.06 EUR	1:1
			2001C3Q/02	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	October 1, 2003	December 31, 2007	12.99 EUR	12.99 EUR	1:1
			2001C4Q/02	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	January 1, 2004	December 31, 2007	16.86 EUR	16.86 EUR	1:1
			2002A+B	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	July 1, 2003	December 31, 2007	17.89 EUR	17.89 EUR	1:1
2003	94,600,000	22,846	2003 2Q	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	July 1, 2004	December 31, 2008	14.95 EUR	14.95 EUR	1:1
			2003 3Q	25% vest 1 year after grant; 6.25% in 12 subsequent quarterly blocks	October 1, 2004	December 31, 2008	12.71 EUR	12.71 EUR	1:1

(1) Figures have been recalculated to reflect the par value of EUR 0.06 of the shares.

Note. All vested stock options are listed on the Helsinki Exchanges (HEX).

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Information relating to stock options during 2003, 2002 and 2001 are as follows:

	Number of shares	Weighted average exercise price <sup>(1)</sup>
<b>Shares under option at December 31, 2000</b>	184,531,757	19.71
Granted <sup>(2)</sup>	72,644,065	31.78
Exercised	24,790,689	3.54
Forfeited	4,385,380	31.09
<b>Shares under option at December 31, 2001</b>	227,999,753	25.71
Granted	51,127,314	17.96
Exercised	51,586,807	3.61
Forfeited	6,097,025	33.51
<b>Shares under option at December 31, 2002</b>	221,443,235	28.81
Granted	31,098,505	14.94
Exercised	7,700,791	3.97
Forfeited	5,847,332	25.23
<b>Shares under option at December 31, 2003</b>	<b>238,993,617</b>	<b>27.90</b>
Options exercisable at December 31, 2001 (shares)	106,300,988	9.53
Options exercisable at December 31, 2002 (shares)	107,721,842	27.92
<b>Options exercisable at December 31, 2003 (shares)</b>	<b>148,150,370</b>	<b>31.88</b>

(1) Weighted average exercise price, calculated for options where exercise price is known.

(2) Includes options converted in acquisitions.

The options outstanding by range of exercise price at December 31, 2003 are as follows:

Options outstanding				Vested options outstanding	
Exercise prices	Number of shares	Weighted average remaining contractual life in years	Weighted average exercise price	Number of shares	Weighted average exercise price
EUR			EUR		EUR
0.30 14.72	2,647,598	6.25	9.02	2,038,575	7.92
14.95	30,301,723	3.39	14.95		
14.97 17.29	47,143,267	1.00	16.88	47,086,191	16.88
17.89	47,257,409	2.60	17.89	14,999,068	17.89
18.18 26.67	20,379,501	2.24	26.59	9,552,830	26.53
28.87 36.15	12,950,428	1.06	29.15	12,945,688	29.15
36.75	39,574,791	2.32	36.75	22,835,620	36.75
38.09 56.28	38,738,900	1.02	56.17	38,692,398	56.14
	<b>238,993,617</b>			<b>148,150,370</b>	

**General information about our stock option plans**

Shares subscribed for pursuant to the stock options described above will entitle the holder to a dividend for the financial year in which the subscription occurs. Other shareholder rights will commence on the date on which the share subscription is entered in the Finnish Trade Register.

Pursuant to the stock options issued, an aggregate maximum number of 321,755,816 new shares may be subscribed for representing approximately 6.71% of the total number of votes on December 31, 2003. During 2003 the exercise of 447,517 options resulted in the issuance of 7,160,272 new shares and the increase of the share capital of Nokia Corporation was EUR 429,616.32.

There were no other stock options or stock option plans and no convertible bonds outstanding as of December 31, 2003, the exercise of which would result in an increase of the share capital of the Parent Company.

### Restricted Shares

In 2003, we granted a total of 452,250 restricted shares to 28 of our key management personnel who are critical to the future success of Nokia. These restricted shares will vest in October 2006, at which time the shares will be transferred and delivered to the recipients. Until the shares are transferred and delivered, the recipients will not have any voting or dividend rights associated with these shares.

### The Nokia Holding Inc. 1999 Stock Option Plan

In 1999 Nokia introduced a complementary stock option plan available for Nokia employees in the U.S. and Canada (The Nokia Holding Inc. 1999 Stock Option Plan). Each stock option granted by December 31, 2000 entitles the holder to purchase one Nokia ADS during certain periods of time after April 1, 2001 until five years from the date of grant, for a price within the range of USD 20.50 - 54.50 per ADS. On December 31, 2003 a total of 769,335 stock options were outstanding and 722,503 were exercisable under the Nokia Holding Inc. 1999 Stock Option Plan. An exercise of the stock options under the Nokia Holding Inc. 1999 Stock Option Plan does not result in increase of the share capital of Nokia Corporation. The maximum number of ADSs with a par value of EUR 0.06 that may be issued under the Nokia Holding Inc. 1999 Stock Option Plan is 2,000,000. The shares are carried at purchase cost in the balance sheet until disposed.

### 22. Distributable earnings

	<u>2003</u>
	EURm
Retained earnings	13,953
Translation differences (distributable earnings)	(363)
Treasury shares	(1,373)
Other non-distributable items	
Portion of untaxed reserves	12
	<u>12,229</u>
Distributable earnings December 31	<u>12,229</u>

Retained earnings under IAS and Finnish Accounting Standards (FAS) are substantially the same. Distributable earnings are calculated based on Finnish legislation.

### 23. Long-term liabilities

<u>Outstanding December 31, 2003</u>	<u>Repayment date beyond 5 years</u>	<u>Outstanding December 31, 2002</u>
EURm	EURm	EURm



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	Outstanding December 31, 2003	Repayment date beyond 5 years	Outstanding December 31, 2002
Long-term loans are repayable as follows:			
Bonds			62
Loans from financial institutions	1		98
Loans from pension insurance companies	18	18	15
Other long-term finance loans	1		12
Other long-term liabilities	67	67	67
	<b>87</b>	<b>85</b>	<b>254</b>
Deferred tax liabilities	241		207
<b>Total long-term liabilities</b>	<b>328</b>		<b>461</b>

The long-term liabilities excluding deferred tax liabilities as of December 31, 2003 mature as follows:

	EURm	Percent of total
2004		
2005	1	1.0%
2006	1	0.6%
2007		
2008		
Thereafter	85	98.4%
	<b>87</b>	<b>100.0%</b>

The currency mix of the Group long-term liabilities as at December 31, 2003 was as follows:

EUR	USD	BRL	Others
94.44 %	3.93%	0.97%	0.66%

At December 31, 2003 and 2002 the weighted average interest rate on loans from financial institutions was 5.81% and 8.44%, respectively.

Bonds:	Million of bonds	Currency	Interest	2003	2002
				EURm	EURm
1989 2004	40.0	GBP	11.375%		62

At December 31, 2003 the bonds are reported under short-term borrowings as the bonds mature in 2004.

**24. Deferred taxes**

2003	2002
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	<u>2003</u>	<u>2002</u>
	EURm	EURm
<b>Deferred tax assets:</b>		
Intercompany profit in inventory	40	48
Tax losses carried forward	36	109
Warranty provision	157	118
Other provisions	179	183
Other temporary differences	233	168
Untaxed reserves	98	105
	<u>743</u>	<u>731</u>
<b>Deferred tax liabilities:</b>		
Untaxed reserves	(33)	(33)
Fair value gains/losses	(22)	(25)
Other	(186)	(149)
	<u>(241)</u>	<u>(207)</u>
Total deferred tax assets	743	731
Total deferred tax liabilities	(241)	(207)
Net deferred tax asset	502	524

The tax (charged)/credited to shareholders' equity is as follows:

Fair value and other reserves, fair value gains/losses	(22)	(25)
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Deferred income tax liabilities have not been established for withholding tax and other taxes that would be payable on the unremitted earnings of certain subsidiaries, as such earnings are permanently reinvested. At December 31, 2003 the Group had loss carry forwards of EUR 75 million (EUR 91 million in 2002) for which no deferred tax asset was recognized due to uncertainty of utilization of these loss carry forwards. These loss carry forwards will expire in years 2005 through 2010.

## 25. Short-term borrowings

Short-term borrowings consist primarily of borrowings from banks denominated in different foreign currencies. The weighted average interest rate at December 31, 2003 and 2002 was 6.73% and 6.01%, respectively.

## 26. Accrued expenses

	<u>2003</u>	<u>2002</u>
	EURm	EURm
Social security, VAT and other taxes	501	385
Wages and salaries	170	212
Prepaid income	276	196
Other	1,521	1,818
	<u>2,468</u>	<u>2,611</u>
Total	2,468	2,611

Other includes various amounts which are individually insignificant.

**27. Provisions**

	<b>Warranty</b>	<b>IPR infringements</b>	<b>Other</b>	<b>Total</b>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
At January 1, 2003	1,603	273	594	2,470
Exchange differences	(36)			(36)
Additional provisions	683	119	300	1,102
Change in fair value			(22)	(22)
Unused amounts reversed	(286)		(28)	(314)
Charged to profit and loss account	397	119	250	766
Utilized during year	(661)	(21)	(96)	(778)
At December 31, 2003	1,303	371	748	2,422
		<b>2003</b>	<b>2002</b>	
		<b>EURm</b>	<b>EURm</b>	

## Analysis of total provisions at December 31:

Non-current	<b>593</b>	460
Current	<b>1,829</b>	2,010

The IPR provision is based on estimated future settlements for asserted and unasserted past IPR infringements. Final resolution of IPR claims generally occurs over several periods. This results in varying usage of the provision year to year.

Other provisions mainly include provisions for non-cancelable purchase commitments, tax provisions and a provision for social security costs on stock options.

**28. Earnings per share**

	<b>2003</b>	<b>2002</b>	<b>2001</b>
<b>Numerator/EURm</b>			
Basic/Diluted:			
Net profit	<b>3,592</b>	3,381	2,200
<b>Denominator/1000 shares</b>			
Basic:			
Weighted average shares	<b>4,761,121</b>	4,751,110	4,702,852
Effect of dilutive securities:			
stock options	<b>40</b>	36,932	84,367
Diluted:			
Adjusted weighted average shares and assumed conversions	<b>4,761,161</b>	4,788,042	4,787,219

Under IAS 33, basic earnings per share is computed using the weighted average number of shares outstanding during the period. Diluted earnings per share is computed using the weighted average number of shares outstanding during the period plus the dilutive effect of stock options outstanding during the period.

**29. Commitments and contingencies**

	<u>2003</u>	<u>2002</u>
	EURm	EURm
<b>Collateral for our own commitments</b>		
Property under mortgages	18	18
Assets pledged	13	13
<b>Contingent liabilities on behalf of Group companies</b>		
Other guarantees	184	339
<b>Collateral given on behalf of other companies</b>		
Securities pledged <sup>(1)</sup>	28	34
<b>Contingent liabilities on behalf of other companies</b>		
Guarantees for loans <sup>(1)</sup>	5	57
<b>Financing commitments</b>		
Customer finance commitments <sup>(1)</sup>	490	857

<sup>(1)</sup> See also note 34(b).

The amounts above represent the maximum principal amount of commitments and contingencies.

Property under mortgages given as collateral for our own commitments include mortgages given to the Finnish National Board of Customs as a general indemnity of EUR 18 million in 2003 (EUR 18 million in 2002).

Assets pledged for the Group's own commitments include inventories and available-for-sale investments of EUR 3 million and EUR 10 million, respectively, in 2003 (EUR 3 million of inventories and EUR 10 million available-for-sale investments in 2002).

Other guarantees include guarantees of Nokia's performance of EUR 171 million in 2003 (EUR 332 million in 2002). However, EUR 139 million of these guarantees are provided to certain Nokia Networks' customers in the form of bank guarantees, standby letters of credit and other similar instruments. These instruments entitle the customer to claim payment as compensation for non-performance by Nokia of its obligations under network infrastructure supply agreements. Depending on the nature of the instrument, compensation is payable either immediately upon request, or subject to independent verification of non-performance by Nokia.

Securities pledged and guarantees for loans on behalf of other companies of EUR 33 million in 2003 (EUR 91 million in 2002) represent guarantees relating to payment by certain Nokia Networks' customers under specified loan facilities between such customers and their creditors. Nokia's obligations under such guarantees are released upon the earlier of expiration of the guarantee or early payment by the customer. The majority of the financial guarantees is expected to expire by 2004.

Financing commitments of EUR 490 million in 2003 (EUR 857 million in 2002) are available under loan facilities negotiated with customers of Nokia Networks. Availability of the amounts is dependent upon the borrower's continuing compliance with stated financial and operational covenants and compliance with other administrative terms of the facility. The loans are primarily available to fund capital expenditure relating to purchases of network infrastructure equipment and services and to fund working capital. Certain loans are partially secured through either guarantees by the borrower's direct or indirect parent or other group companies, or shares and/or other assets of the borrower, its parent or other entities under common ownership.

The Group is party to routine litigation incidental to the normal conduct of business. In the opinion of management the outcome of and liabilities in excess of what has been provided for related to these proceedings, in the aggregate, are not likely to be material to the financial condition or results of operations.

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As of December 31, 2003, the Group had purchase commitments of EUR 1,051 million (EUR 949 million in 2002) relating to inventory purchase obligations, primarily for purchases in 2004.

### 30. Leasing contracts

The Group leases office, manufacturing and warehouse space under various non-cancellable operating leases. Certain contracts contain renewal options for various periods of time.

The future costs for non-cancellable leasing contracts are as follows:

	<b>Operating leases</b>
Leasing payments, EURm	
2004	176
2005	147
2006	117
2007	102
2008	87
Thereafter	124
	753
Total	

Rental expense amounted to EUR 285 million in 2003 (EUR 384 million in 2002 and EUR 393 million in 2001).

### 31. Related party transactions

Nokia Pension Foundation is a separate legal entity that manages and holds in trust the assets for the Group's Finnish employee benefit plans; these assets include 0.03% of Nokia's shares. In 2002 Nokia Pension Foundation was the counterparty to equity swap agreements with the Group. The equity swaps were entered into to hedge part of the company's liability relating to future social security cost on stock options. During 2003, all outstanding transactions were terminated and no new ones were entered into. During 2002 new transactions were entered into and old ones terminated based on the hedging need. The transactions and terminations were executed on standard commercial terms and conditions. The notional amount of the equity swaps outstanding at December 31, 2002 was EUR 12 million and the fair value EUR 0 million.

At December 31, 2003 the Group had no contribution payment liability to Nokia Pension Foundation (EUR 14 million in 2002 included in accrued expenses).

At December 31, 2003 the Group had borrowings amounting to EUR 64 million (EUR 66 million in 2002) from Nokia Unterstützungskasse GmbH, the Group's German pension fund, which is a separate legal entity.

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The Group recorded net rental expense of EUR 2 million in 2003 (EUR 2 million in 2002 and EUR 4 million in 2001) pertaining to a sale-leaseback transaction with the Nokia Pension Foundation involving certain buildings and a lease of the underlying land.

There were no loans granted to top management at December 31, 2003 or 2002. See Note 4, Personnel expenses, for officers and directors remunerations.

### 32. Associated companies

2003	2002	2001
EURm	EURm	EURm

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
Share of results of associated companies	(18)	(19)	(12)
Dividend income	3	1	
Share of shareholders' equity of associated companies	18	30	41
Receivables from associated companies			2
Liabilities to associated companies	3	7	

**33. Notes to cash flow statement**

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Adjustments for:			
Depreciation and amortization (Note 9)	1,138	1,311	1,430
(Profit)/loss on sale of property, plant and equipment and available-for-sale investments	170	(92)	148
Income taxes (Note 11)	1,699	1,484	1,192
Share of results of associated companies (Note 32)	18	19	12
Minority interest	54	52	83
Financial income and expenses (Note 10)	(352)	(156)	(125)
Impairment charges (Note 7)	453	245	598
Customer financing impairment charges and reversals	(226)	279	714
Other	(1)	9	80
<b>Adjustments, total</b>	<b>2,953</b>	<b>3,151</b>	<b>4,132</b>
Change in net working capital			
(Increase) decrease in short-term receivables	(216)	25	(286)
(Increase) decrease in inventories	(41)	243	434
Increase in interest-free short-term liabilities	54	687	830
<b>Change in net working capital</b>	<b>(203)</b>	<b>955</b>	<b>978</b>
Non-cash investing activities			
Acquisition of:			
Current available-for-sale investments in settlement of customer loan	676		
Company acquisitions	18		
Amber Networks			408
<b>Total</b>	<b>694</b>		<b>408</b>

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**34. Risk management**

**General risk management principles**

Nokia's overall risk management concept is based on visibility of the key risks preventing Nokia from reaching its business objectives. This covers all risk areas; strategic, operational, financial and hazard risks. Risk management at Nokia is a systematic and pro-active way to analyze, review and manage all opportunities, threats and risks related to Nokia's objectives rather than to solely eliminate risks.

The principles documented in Nokia's Risk Policy and accepted by the Audit Committee of the Board of Directors require risk management and its elements to be integrated into business processes. One of the main principles is that the business or function owner is also the risk owner,

however, it is everyone's responsibility at Nokia to identify risks preventing us from reaching our objectives.

Key risks are reported to the business and Group level management to create assurance on business risks and to enable prioritization of risk management implementation at Nokia. In addition to general principles there are specific risk management policies covering, for example, treasury and customer finance risks.

#### **Financial risks**

The key financial targets for Nokia are growth, profitability, operational efficiency and a strong balance sheet. The objective for the Treasury function is twofold: to guarantee cost-efficient funding for the Group at all times, and to identify, evaluate and hedge financial risks in close co-operation with the business groups. There is a strong focus in Nokia on creating shareholder value. The Treasury function supports this aim by minimizing the adverse effects caused by fluctuations in the financial markets on the profitability of the underlying businesses and by managing the balance sheet structure of the Group.

Nokia has Treasury Centers in Geneva, Singapore/Beijing and Dallas/Sao Paolo, and a Corporate Treasury unit in Espoo. This international organization enables Nokia to provide the Group companies with financial services according to local needs and requirements.

The Treasury function is governed by policies approved by top management. Treasury Policy provides principles for overall financial risk management and determines the allocation of responsibilities for financial risk management in Nokia. Operating Policies cover specific areas such as foreign exchange risk, interest rate risk, use of derivative financial instruments, as well as liquidity and credit risk. Nokia is risk averse in its Treasury activities. Business Groups have detailed Standard Operating Procedures supplementing the Treasury Policy in financial risk management related issues.

#### **a) Market risk**

##### **Foreign exchange risk**

Nokia operates globally and is thus exposed to foreign exchange risk arising from various currency combinations. Foreign currency denominated assets and liabilities together with expected cash flows from highly probable purchases and sales give rise to foreign exchange exposures. These transaction exposures are managed against various local currencies because of Nokia's substantial production and sales outside the Eurozone.

Due to the changes in the business environment, currency combinations may also change within the financial year. The most significant non-euro sales currencies during the year were US dollar

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(USD), UK pound sterling (GBP) and Australian dollar (AUD). In general, depreciation of another currency relative to the euro has an adverse effect on Nokia's sales and operating profit, while appreciation of another currency has a positive effect, with the exception of Japanese yen, being the only significant foreign currency in which Nokia has more purchases than sales.

The following chart shows the break-down by currency of the underlying net foreign exchange transaction exposure as of December 31, 2003 (in some of the currencies, especially the US dollar, Nokia has both substantial sales as well as cost, which have been netted in the chart).

According to the foreign exchange policy guidelines of the Group, material transaction foreign exchange exposures are hedged. Exposures are mainly hedged with derivative financial instruments such as forward foreign exchange contracts and foreign exchange options. The majority of financial instruments hedging foreign exchange risk have a duration of less than a year. The Group does not hedge forecasted foreign currency cash flows beyond two years.

Nokia uses the Value-at-Risk ("VaR") methodology to assess the foreign exchange risk related to the Treasury management of the Group exposures. The VaR figure represents the potential fair value losses for a portfolio resulting from adverse changes in market factors using a specified time period and confidence level based on historical data. To correctly take into account the non-linear price function of certain derivative instruments, Nokia uses Monte Carlo simulation. Volatilities and correlations are calculated from a one-year set of daily data.

Since Nokia has subsidiaries outside the Eurozone, the euro-denominated value of the shareholders' equity of Nokia is also exposed to fluctuations in exchange rates. Equity changes caused by movements in foreign exchange rates are shown as a translation difference in the Group consolidation. Nokia uses, from time to time, foreign exchange contracts and foreign currency denominated loans to hedge its equity exposure arising from foreign net investments.

#### **Interest rate risk**

The Group is exposed to interest rate risk either through market value fluctuations of balance sheet items (i.e. price risk) and through changes in interest income or expenses (i.e. re-investment risk). Interest rate risk mainly arises through interest-bearing liabilities and assets. Estimated future changes in cash flows and balance sheet structure also expose the Group to interest rate risk.

Treasury is responsible for monitoring and managing the interest rate exposure of the Group. Due to the current balance sheet structure of Nokia, emphasis is placed on managing the interest rate risk of investments.

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Nokia uses the VaR methodology to assess and measure the interest rate risk in the investment portfolio, which is benchmarked against a one-year investment horizon. The VaR figure represents the potential fair value losses for a portfolio resulting from adverse changes in market factors using a specified time period and confidence level based on historical data. For interest rate risk VaR, Nokia uses variance-covariance methodology. Volatilities and correlations are calculated from a one-year set of daily data.

#### **Equity price risk**

Nokia has certain strategic minority investments in publicly traded companies. These investments are classified as available-for-sale. The fair value of the equity investments at December 31, 2003 was EUR 8 million (EUR 137 million in 2002).

There are currently no outstanding derivative financial instruments designated as hedges of these equity investments.

In addition to the listed equity holdings, Nokia invests in private equity through Nokia Venture Funds. The fair value of these available-for-sale equity investments at December 31, 2003 was USD 85 million (USD 54 million in 2002). Nokia is exposed to equity price risk on social security costs relating to stock compensation plans. Nokia hedges this risk by entering into cash settled equity swap and option contracts.

#### **b) Credit risk**

##### **Customer Finance Credit Risk**

Network operators in some markets sometimes require their suppliers to arrange or provide term financing in relation to infrastructure projects. Nokia has maintained a financing policy aimed at close cooperation with banks, financial institutions and Export Credit Agencies to support selected customers in their financing of infrastructure investments. Nokia actively mitigates, market conditions permitting, this exposure by arrangements with these institutions and investors.

Credit risks related to customer financing are systematically analyzed, monitored and managed by Nokia's Customer Finance organization, reporting to the Chief Financial Officer. Credit risks are approved and monitored by Nokia's Credit Committee along principles defined in the Company's credit policy and according to the credit approval process. The Credit Committee consists of the CFO, Group Controller, Head of Group Treasury and Head of Nokia Customer Finance.



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At the end of December 31, 2003 our long-term loans to customers, net of allowances and write-offs, totaled EUR 354 million (EUR 1,056 million in 2002), while financial guarantees given on behalf of third parties totaled EUR 33 million (EUR 91 million in 2002). In addition, we had financing commitments totaling EUR 490 million (EUR 857 million in 2002). Total customer financing (outstanding and committed) stood at EUR 877 million (EUR 2,004 million in 2002).

The term customer financing portfolio at December 31, 2003 was:

	Outstanding	Financing Commitments	Totals
	EURm	EURm	EURm
<b>Total Portfolio</b>	<b>387</b>	<b>490</b>	<b>877</b>

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The term customer financing portfolio at December 31, 2003 mainly consists of outstanding and committed customer financing to wireless operators Hutchison 3G UK Ltd in the United Kingdom and to TNL PCS S.A. (Telemar) in Brazil. Total committed customer financing to Hutchison 3G UK Ltd amounted to EUR 653 million, of which outstanding financing was EUR 354 million, while total committed customer financing to Telemar amounted to EUR 191 million, of which none was outstanding.

### Financial credit risk

Financial instruments contain an element of risk of the counterparties being unable to meet their obligations. This risk is measured and monitored by the Treasury function. The Group minimizes financial credit risk by limiting its counterparties to a sufficient number of major banks and financial institutions, as well as through entering into netting arrangements, which gives the Company the right to offset in the case that the counterparty would not be able to fulfill the obligations.

Direct credit risk represents the risk of loss resulting from counterparty default in relation to on-balance sheet products. The fixed income and money market investment decisions are based on strict creditworthiness criteria. The outstanding investments are also constantly monitored by the Treasury. Nokia does not expect the counterparties to default given their high credit quality.

Current Available-for-sale investments<sup>(1)(2)(3)</sup>

	Maturity date less than 12 months			Maturity date 12 months or more			Total		
	Fair Value	Unrealized Losses	Unrealized Gains	Fair Value	Unrealized Losses	Unrealized Gains	Fair Value	Unrealized Losses	Unrealized Gains
<b>2003</b>									
Governments	1,058		1	1,109	(3)	6	2,167	(3)	7
Banks	5,206	(1)	2	264		4	5,470	(1)	6
Corporates	2,165		1	1,165		128	3,330	(1)	128
	<b>8,430</b>	<b>(2)</b>	<b>4</b>	<b>2,538</b>	<b>(3)</b>	<b>137</b>	<b>10,967</b>	<b>(5)</b>	<b>141</b>
<b>2002</b>									
Governments	284			692		18	976	0	18
Banks	4,012		4	314		5	4,326	0	8
Corporates	2,075		3	478	(1)	7	2,553	(1)	10
	<b>6,371</b>		<b>7</b>	<b>1,484</b>	<b>(1)</b>	<b>30</b>	<b>7,855</b>	<b>(1)</b>	<b>37</b>
							<b>2003</b>	<b>2002</b>	

	EURm	EURm
Fixed rate investments	10,541	7,433
Floating rate investments	426	422
<b>Total</b>	<b>10,967</b>	<b>7,855</b>

(1) Available-for-sale investments are carried at fair value in 2003 and 2002.

(2) Weighted average interest rate for current available-for-sale investments was 3.08% in 2003 and 3.54% in 2002.

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(3) Included within current Available-for-sale investments is EUR 31 million and EUR 44 million of restricted cash at December 31, 2003 and 2002, respectively.

### c) Liquidity risk

Nokia guarantees a sufficient liquidity at all times by efficient cash management and by investing in liquid interest bearing securities. Due to the dynamic nature of the underlying business Treasury also aims at maintaining flexibility in funding by keeping committed and uncommitted credit lines available. During the year Nokia refinanced all its Revolving Credit Facilities. At the end of December 31, 2003 the new committed facility totaled USD 2.0 billion. The committed credit facility is intended to be used for U.S. and Euro Commercial Paper Programs back up purposes. The commitment fee on the facility is 0.10% per annum.

The most significant existing funding programs include:

Revolving Credit Facility of USD 2,000 million, maturing in 2008

Local commercial paper program in Finland, totaling EUR 750 million

Euro Commercial Paper (ECP) program, totaling USD 500 million

US Commercial Paper (USCP) program, totaling USD 500 million

None of the above programs have been used to a significant degree in 2003.

Nokia's international creditworthiness facilitates the efficient use of international capital and loan markets. The ratings of Nokia from credit rating agencies have not changed during the year. The ratings as at December 31, 2003 were:

Short-term	Standard & Poor's	A-1
	Moody's	P-1
Long-term	Standard & Poor's	A
	Moody's	A1

### Hazard risk

Nokia strives to ensure that all financial, reputation and other losses to the Group and our customers are minimized through preventive risk management measures or purchase of insurance. Insurance is purchased for risks, which cannot be internally managed. Nokia's Insurance & Risk Finance function's objective is to ensure that Group's hazard risks, whether related to physical assets (e.g. buildings) or intellectual assets (e.g.

Nokia brand) or potential liabilities (e.g. product liability) are optimally insured.

Nokia purchases both annual insurance policies for specific risks and multi-line multi-year insurance policies, where available. Nokia has concluded a Multi-Line Multi-Year Insurance covering a variety of the above mentioned risks in order to decrease the likelihood of non-anticipated sudden losses.

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#### Notional amounts of derivative financial instruments<sup>(1)</sup>

	<b>2003</b>	<b>2002</b>
	<b>EURm</b>	<b>EURm</b>
Foreign exchange forward contracts <sup>(2)</sup>	<b>10,271</b>	11,118
Currency options bought <sup>(2)</sup>	<b>2,924</b>	1,408
Currency options sold <sup>(2)</sup>	<b>2,478</b>	1,206
Interest rate swaps	<b>1,500</b>	
Cash settled equity options <sup>(3)</sup>	<b>228</b>	209
Cash settled equity swaps <sup>(3)</sup>		12

(1) Includes the gross amount of all notional values for contracts that have not yet been settled or cancelled. The amount of notional value outstanding is not necessarily a measure or indication of market risk, as the exposure of certain contracts may be offset by that of other contracts.

(2) As at December 31, 2003 notional amounts include contracts amounting to EUR 3 billion used to hedge the shareholders' equity of foreign subsidiaries (December 31, 2002 EUR 2 billion).

(3) Cash settled equity swaps and options can be used to hedge risk relating to incentive programs and investment activities.

#### Fair values of derivatives

The net fair values of derivative financial instruments at the balance sheet date were:

	<b>2003</b>	<b>2002</b>
	<b>EURm</b>	<b>EURm</b>
Derivatives with positive fair value <sup>(1)</sup> :		
Forward foreign exchange contracts <sup>(2)</sup>	<b>358</b>	235
Currency options bought	<b>59</b>	21
Cash settled equity options	<b>13</b>	28
Interest rate swaps	<b>1</b>	
Embedded derivatives <sup>(3)</sup>	<b>25</b>	14
Derivatives with negative fair value <sup>(1)</sup> :		
Forward foreign exchange contracts <sup>(2)</sup>	<b>(108)</b>	(98)
Currency options written	<b>(35)</b>	(7)
Embedded derivatives <sup>(3)</sup>	<b>(8)</b>	

- (1) Out of the forward foreign exchange contracts and currency options, fair value EUR 90 million was designated for hedges of net investment in foreign subsidiaries as at December 31, 2003 (EUR 36 million at December 31, 2002) and reported in translation difference.
- (2) Out of the foreign exchange forward contracts, fair value EUR 33 million was designated for cash flow hedges as at December 31, 2003 (EUR 31 million at December 31, 2002) and reported in fair value and other reserves.

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- (3) Embedded derivatives are components of contracts having the characteristics of derivatives, and thus requiring fair valuing of such components. The change in the fair value is reported in other financial income and expenses.

### 35. Principal Nokia Group companies at December 31, 2003

		<b>Parent holding %</b>	<b>Group majority %</b>
		_____	_____
US	Nokia Inc.		100.0
DE	Nokia GmbH	100.0	100.0
GB	Nokia UK Limited		100.0
KR	Nokia TMC Limited	100.0	100.0
CN	Beijing Capitel Nokia Mobile Telecommunications Ltd		52.9
NL	Nokia Finance International B.V.	100.0	100.0
HU	Nokia Komárom Kft	100.0	100.0
BR	Nokia do Brazil Tecnologia Ltda	100.0	100.0
IT	Nokia Italia Spa		100.0
FR	Nokia France S.A.	100.0	100.0
CN	Dongguan Nokia Mobile Phones Company Ltd		70.0
CN	Beijing Nokia Hang Xing Telecommunications Systems Co. Ltd		69.0

#### Shares in listed companies

Group holding more than 5%

	<b>Group holding %</b>	<b>Group voting %</b>
	_____	_____
Nextrom Holding S.A.	79.33	86.21

#### Associated companies

Symbian Limited	32.19	32.19
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A complete list of subsidiaries and associated companies is included in Nokia's Statutory Accounts.

### 36. Differences between International Accounting Standards and U.S. Generally Accepted Accounting Principles

The Group's consolidated financial statements are prepared in accordance with International Accounting Standards, which differ in certain respects from accounting principles generally accepted in the United States (U.S. GAAP).

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The principal differences between IAS and U.S. GAAP are presented below together with explanations of certain adjustments that affect consolidated net income and total shareholders' equity as of and for the years ended December 31:

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
<b>Reconciliation of net income:</b>			
Net income reported under IAS	3,592	3,381	2,200
U.S. GAAP adjustments:			
Pension expense	(12)	(5)	(22)
Development costs	322	(66)	(104)
Provision for social security cost on stock options	(21)	(90)	(132)
Stock compensation expense	(9)	(35)	(85)
Cash flow hedges	9	6	(22)
Net investment in foreign companies		48	
Amortization of identifiable intangible assets acquired	(22)	(22)	(7)
Amortization of goodwill	162	206	28
Impairment of goodwill	151	104	
Deferred tax effect of U.S. GAAP adjustments	(75)	76	47
	<u>4,097</u>	<u>3,603</u>	<u>1,903</u>
Net income under U.S. GAAP	<u>4,097</u>	<u>3,603</u>	<u>1,903</u>

**Presentation of comprehensive income under U.S. GAAP:**

Other comprehensive income:			
Foreign currency translation adjustment	(273)	(465)	(21)
Additional minimum liability, net of tax	3	(3)	
Net gains (losses) on cash flow hedges, net of tax	(4)	56	96
Net unrealized (losses) gains on securities, net of tax			
Net unrealized holding (losses) gains during the year, net of tax	71	(78)	(67)
Transfer to profit and loss account on impairment, net of tax	27	67	74
Less: Reclassification adjustment on disposal, net of tax	(27)	1	(7)
	<u>(203)</u>	<u>(422)</u>	<u>75</u>
Other comprehensive income	<u>(203)</u>	<u>(422)</u>	<u>75</u>
Comprehensive income	<u>3,894</u>	<u>3,181</u>	<u>1,978</u>

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	<u>2003</u>	<u>2002</u>
	EURm	EURm
<b>Reconciliation of shareholders' equity</b>		
Total shareholders' equity reported under IAS	15,148	14,281
U.S. GAAP adjustments:		
Pension expense	(49)	(37)
Additional minimum liability		(5)
Development costs	(99)	(421)
Marketable securities and unlisted investments	49	77
Provision for social security cost on stock options	14	35
Deferred compensation	(10)	(13)
Share issue premium	186	179
Stock compensation	(176)	(166)
Acquisition purchase price	3	4

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	<u>2003</u>	<u>2002</u>
Amortization of identifiable intangible assets acquired	(51)	(29)
Amortization of goodwill	396	234
Impairment of goodwill	255	104
Translation of goodwill	(293)	(240)
Deferred tax effect of U.S. GAAP adjustments	64	147
	<u>15,437</u>	<u>14,150</u>

**Earnings per share under U.S. GAAP**

Earnings per share amounts are presented below:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EUR	EUR	EUR
Earnings per share (net income):			
Basic	0.86	0.76	0.40
Diluted	0.86	0.75	0.40

**Pension expense and additional minimum liability**

Under IAS, pension assets, defined benefit pension liabilities and expense are actuarially determined in a similar manner to U.S. GAAP. However, under IAS the prior service cost, transition adjustments and expense resulting from plan amendments are generally recognized immediately. Under U.S. GAAP, these expenses are generally recognized over a longer period. Also, under U.S. GAAP the employer should recognize an additional minimum pension liability charged to other comprehensive income when the accumulated benefit obligation (ABO) exceeds the fair value of the plan assets and this amount is not covered by the liability recognized in the balance sheet. The calculation of the ABO is based on approach two as described in EITF 88-1, Determination of Vested Benefit Obligation for a Defined Benefit Pension Plan, under which the actuarial present value is based on the date of separation from service.

The U.S. GAAP pension adjustment reflects the difference between the prepaid pension asset and related pension expense as determined by applying IAS 19, Employee Benefits, and the pension asset and pension expense determined by applying FAS 87, Employers' Accounting for Pensions.

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**Development costs**

Development costs have been capitalized under IAS after the product involved has reached a certain degree of technical feasibility. Capitalization ceases and depreciation begins when the product becomes available to customers. The depreciation period of these capitalized assets is between two and five years.

Under U.S. GAAP, software development costs would similarly be capitalized after the product has reached a certain degree of technical feasibility. However, certain non-software related development costs capitalized under IAS would not be capitalizable under U.S. GAAP and therefore would have been expensed under U.S. GAAP.

Under IAS, whenever there is an indication that capitalized development costs may be impaired the recoverable amount of the asset is estimated. An asset is impaired when the carrying amount of the asset exceeds its recoverable amount. Recoverable amount is defined as the higher of an asset's net selling price and value in use. Value in use is the present value of estimated discounted future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life.

Under US GAAP, the unamortized capitalized costs of a computer software product is compared at each balance sheet date to the net realizable value of that product with any excess written off. Net realizable value is defined as the estimated future gross revenues from that product

reduced by the estimated future costs of completing and disposing of that product, including the costs of performing maintenance and customer support required to satisfy the enterprise's responsibility set forth at the time of sale.

The amount of unamortized capitalized computer software costs, under U.S. GAAP, is EUR 438 million in 2003 (EUR 651 million in 2002).

#### **Marketable securities and unlisted investments**

Under IAS, prior to the adoption of IAS 39 on January 1, 2001, investments in marketable securities were carried at cost. Upon adoption of IAS 39, all available-for-sale investments, which includes all publicly listed and non-listed marketable securities, are measured at fair value and gains and losses are recognized within shareholders' equity until realized in the profit and loss account upon sale or disposal.

Under U.S. GAAP, the Group's listed marketable securities would be classified as available-for-sale and carried at aggregate fair value with gross unrealized holding gains and losses reported as a separate component of shareholders' equity.

Investments in equity securities that are not traded on a public market are carried at historical cost, giving rise to an adjustment between IAS and U.S. GAAP.

#### **Provision for social security cost on stock options**

Under IAS, the Group provides for social security costs on stock options on the date of grant, based on the fair value of the option. The provision is adjusted for movements in the fair value of the options.

Under U.S. GAAP, no expense is recorded until the options are exercised.

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#### **Stock compensation**

Under IAS, no compensation expense is recorded on stock options granted. Under U.S. GAAP, the Group follows the methodology in APB Opinion 25, Accounting for Stock Issued to Employees (APB 25), to measure employee stock compensation.

Certain employees have been granted stock options with an exercise price less than the quoted market value of the underlying stock on the date of grant. Also, certain employees have been granted restricted shares. This intrinsic value of the stock options and the restricted shares is recorded as deferred compensation within shareholders' equity and recognized in the profit and loss account over the vesting period of the stock options. The stock options issued are recorded as share issue premium.

#### **Cash flow hedges**

As a result of a specific difference in the rules under IAS 39 and FAS 133, Accounting for Derivative Instruments and Hedging Activities, relating to hedge accounting, certain foreign exchange gains and losses classified within equity under IAS would be included in the income statement under U.S. GAAP.

#### **Net investment in foreign companies**

Under IAS, on the disposal of a foreign entity, the cumulative amount of the exchange differences which have been deferred and which relate to that foreign entity should be recognized as income or as expenses in the same period in which the disposal is recognized. An enterprise may dispose of its interest in a foreign entity through sale, liquidation, repayment of share capital and permanent loans, or abandonment of all, or part of, that entity.

Under U.S. GAAP, the cumulative translation differences are reported in the profit and loss account only upon the sale or upon complete or substantially complete liquidation of the investment in a foreign entity.

#### **Acquisition purchase price**

Under IAS, when the consideration paid in a business combination includes shares of the acquirer, the purchase price of the acquired business is determined at the date on which the shares are exchanged.

Under U.S. GAAP, the measurement date for shares of the acquirer is the first day on which both the number of acquirer shares and the amount of other considerations become fixed. The average share price for a few days before and a few days after the measurement date is then used to value the shares.

#### **Amortization of identifiable intangible assets acquired**

Under IAS, acquired unpatented technology is not separately recognized on acquisition but is included within goodwill.

Under U.S. GAAP, any unpatented technology acquired in a business combination is recorded as an identifiable intangible asset with a related deferred tax liability. The intangible asset is amortized

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over its estimated useful life. The adjustment to U.S. GAAP net income and shareholders' equity relates to the amortization and accumulated amortization, respectively, of Amber Networks' intangible asset.

The gross carrying amount of unpatented technology recorded as identifiable intangible assets, under U.S. GAAP, is EUR 109 million as of December 31, 2003 (EUR 109 million as of December 31, 2002), which is being amortized over an estimated useful life of five years. Accumulated amortization as of December 31, 2003 was EUR 51 million (EUR 29 million at December 31, 2002). The amortization expense for the year ended December 31, 2003 is EUR 22 million (EUR 22 million and EUR 7 million in 2002 and 2001, respectively).

Amortization expense on intangible assets is expected to be EUR 22 million in 2004 and 2005 and EUR 14 million in 2006.

The net carrying amount of other intangible assets under U.S. GAAP is EUR 623 million in 2003 and consists of capitalized development costs of EUR 438 million and acquired patents, trademarks and licenses of EUR 185 million. The Group does not have indefinite lived intangible assets. The amortization expense under U.S. GAAP of other intangible assets subject to amortization as of December 31, 2003, is expected to be approximately EUR 167 million for each of the next five years.

#### **Amortization of goodwill**

Under IAS, goodwill is amortized over its estimated useful life. Under U.S. GAAP, prior to July 1, 2001, goodwill was amortized over its estimated useful life consistent with IAS. The Group adopted the transition provisions of FAS 141, Business Combinations (FAS 141), with effect from July 1, 2001. The Group also adopted the provisions of FAS 142, Goodwill and Other Intangible Assets (FAS 142), on January 1, 2002. As a result, goodwill relating to purchase acquisitions and acquisitions of associated companies is no longer subject to amortization subsequent to the date of adoption. As the non-amortization of goodwill provisions of FAS 142 were effective immediately for all acquisitions after June 30, 2001, goodwill arising from the Amber Networks acquisition and other minor acquisitions is not amortized.

The U.S. GAAP adjustment reverses the amortization expense recorded under IAS and also reverses the movement in accumulated amortization under IAS during the period subsequent to the adoption of FAS 141 and FAS 142.

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The following table shows the results of operations as if FAS 142 were applied to prior periods:

	<b>2001</b>
	<b>EURm</b> (except per share amounts)
Net income as reported under U.S. GAAP	1,903



	<b>2001</b>
Add back: Goodwill amortization	274
<b>Adjusted net income</b>	<b>2,177</b>
<b>Income per share - Basic</b>	
Net income as reported under U.S. GAAP	0.40
Goodwill amortization	0.06
<b>Adjusted net income</b>	<b>0.46</b>
<b>Income per share - Diluted</b>	
Net income as reported under U.S. GAAP	0.40
Goodwill amortization	0.06
<b>Adjusted net income</b>	<b>0.45</b>

**Impairment of goodwill**

The Group has evaluated its existing goodwill relating to prior business combinations and has determined that an adjustment or reclassification to intangible assets as of January 1, 2002 was not required in order to conform to the new criteria in FAS 141. The Group has also reassessed the useful lives and carrying values of other intangible assets, and will continue to amortize these assets over their remaining useful lives.

As of January 1, 2002, the Group performed the transitional impairment test under FAS 142 and compared the carrying value for each reporting unit to its fair value, which was determined based on discounted cash flows. Upon completion of the transitional impairment test, the Group determined that there was no impairment as of January 1, 2002, as the carrying value of each reporting unit did not exceed its fair value. The Group has also completed the annual impairment test required by FAS 142 during the fourth quarter of 2003 and 2002, which was also performed by comparing the carrying value of each reporting unit to its fair value based on discounted cash flows.

Under IAS, goodwill is allocated to "cash generating units", which are the smallest group of identifiable assets which includes the goodwill under review for impairment, and that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets. Under IAS, the Group recorded in 2003 and 2002 an impairment of goodwill of EUR 151 million and EUR 104 million, respectively, related to Amber Networks as the carrying amount of the cash generating unit exceeded the recoverable amount of the unit. Upon completion of the annual impairment test, the Group determined that the impairment recorded for Amber Networks should be reversed for U.S. GAAP purposes because, at the Core Networks reporting unit level in 2003 and IP Mobility Network reporting unit level in 2002, where Amber Networks resides, the fair value of the reporting unit exceeded the book value of the reporting unit.

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Below is a roll forward of U.S. GAAP goodwill during 2003 and 2002:

	<b>Nokia Mobile Phones</b>	<b>Nokia Networks</b>	<b>Nokia Ventures Organization</b>	<b>Common Group Functions</b>	<b>Group</b>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
Balance as of January 1, 2002	351	382	80		813
Goodwill acquired				9	9
Impairment losses		(17)	(61)		(78)
Translation adjustment	(202)	(42)	4		(240)
<b>Balance as of December 31, 2002</b>	<b>149</b>	<b>323</b>	<b>23</b>	<b>9</b>	<b>504</b>
Goodwill acquired			20		20
Translation adjustment	5	(52)	(6)		(53)

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	Nokia Mobile Phones	Nokia Networks	Nokia Ventures Organization	Common Group Functions	Group
Balance as of December 31, 2003	154	271	37	9	471

Of the amount of goodwill under U.S. GAAP, EUR 259 million at December 31, 2003, relates to the acquisition of Amber Networks in 2001. Goodwill is not deductible for tax purposes.

**Translation of goodwill**

Under IAS, the Group translates goodwill arising on the acquisition of foreign subsidiaries at historical rates.

Under U.S. GAAP, goodwill is translated at the closing rate on the balance sheet date with gains and losses recorded as a component of shareholders' equity.

**Disclosures required by U.S. GAAP**

*Dependence on limited sources of supply*

Nokia's manufacturing operations depend to a certain extent on obtaining adequate supplies of fully functional components on a timely basis. Our principal requirements are for electronic components, such as semiconductors, microprocessors, micro controllers, memory devices and displays, which have a wide range of applications in our products. In addition, a particular component may be available only from a limited number of suppliers. Suppliers may from time to time extend lead times, limit supplies or increase prices due to capacity constraints or other factors, which could adversely affect our ability to deliver our products and solutions on a timely basis. Moreover, even if we attempt to select our suppliers and manage our supplier relationships with scrutiny, a component supplier may fail to meet our supplier requirements, such as, most notably, our and our customers' product quality, safety and other corresponding standards, and consequently some of our products are unacceptable to us and our customers, or we may fail in our own quality controls. Moreover, a component supplier may experience delays or disruption to its manufacturing, or financial difficulties. Any of these events could delay our successful delivery of products and solutions, which meet our and our customers' quality, safety and other corresponding requirements, or otherwise adversely affect our sales and our results of operations.

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**36. Differences between International Accounting Standards and U.S. Generally Accepted Accounting Principles (Continued)**

*Segment information*

The accounting policies of the segments are the same as those described in Note 1, Accounting principles. Nokia accounts for intersegment revenues and transfers as if the revenues or transfers were to third parties, and therefore at current market prices. Nokia evaluates the performance of its segments and allocates resources to them based on operating profit.

	2003	2002	2001
	EURm	EURm	EURm
Long lived assets by location of assets <sup>(1)</sup> :			
Finland	807	932	1,161
USA	120	180	299
Great Britain	152	189	227
China	116	168	266
Germany	117	137	182
Other	254	268	379

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	<u>2003</u>	<u>2002</u>	<u>2001</u>
Group	<b>1,566</b>	1,874	2,514
	<u>2003</u>	<u>2002</u>	<u>2001</u>
	<b>EURm</b>	<b>EURm</b>	<b>EURm</b>
Capital additions to long lived assets <sup>(1)</sup> :			
Nokia Mobile Phones	<b>281</b>	212	362
Nokia Networks	<b>36</b>	82	264
Nokia Ventures Organization	<b>3</b>	4	9
Common Group Functions	<b>30</b>	67	296
Group	<b>350</b>	365	931

(1) Long-lived assets include property, plant and equipment.

**Compensation expense**

As allowed by FAS 123, Accounting for Stock-Based Compensation (FAS 123), under U.S. GAAP the Group has elected to continue to apply APB 25 and related interpretations in accounting for its stock-based compensation plans. No stock-based employee compensation cost is reflected in net income for options granted with an exercise price equal to the market value of the underlying stock at the date of grant. Generally, options vest on the date they become exercisable. Compensation expense recorded under APB 25 was EUR 7 million in 2003, net of tax (EUR 28 million in 2002 and EUR 85 million in 2001).

Had compensation cost for stock-based management incentive plans been determined based on the fair value at the grant dates for options under that plan consistent with the method prescribed

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in FAS 123, the Group's net income and earnings per share would have been reduced to the pro forma amounts indicated below:

		<u>2003</u>	<u>2002</u>	<u>2001</u>
Net income under U.S. GAAP (EURm)	As reported	<b>4,097</b>	3,603	1,903
Add: Stock-based employee compensation expense included in reported net income under U.S. GAAP, net of tax		<b>3</b>	20	81
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards, net of tax		<b>(325)</b>	(467)	(663)
Net income under U.S. GAAP (EURm)	Pro forma	<b>3,775</b>	3,156	1,321
Basic earnings per share (EUR)	As reported	<b>0.86</b>	0.76	0.40
	Pro forma	<b>0.79</b>	0.67	0.28
Diluted earnings per share (EUR)	As reported	<b>0.86</b>	0.75	0.40
	Pro forma	<b>0.79</b>	0.66	0.28

Under FAS 123, pro forma disclosures are only required in relation to awards granted after January 1, 1995. Prior to January 1, 2001, Nokia calculated the fair value of the options using the binomial option-pricing model. From January 1, 2001, the fair value of options has been calculated using the Black Scholes model. The use of the Black Scholes model rather than the binomial pricing model did not have a material effect on the compensation expense or on the pro forma net income or per share amounts disclosed. The fair value of the options is estimated on

the date of grant with the following assumptions:

Weighted average assumptions	2003	2002	2001
Dividend yield	2.05%	1.13%	0.93%
Expected volatility	35%	50%	50%
Risk-free interest rate	2.80%	4.73%	4.05%
Expected life (years)	3.6	3.8	2.8

The weighted-average fair value of options granted was EUR 3.48 in 2003, EUR 7.12 in 2002 and EUR 10.70 in 2001.

#### Deferred taxes

Under IAS, the presentation of deferred taxes differs from the methodology set forth in U.S. GAAP. For purposes of U.S. GAAP, deferred tax assets and liabilities must either be classified as current or non-current based on the classification of the related non-tax asset or liability for financial

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reporting. This table presents the IAS deferred tax assets and liabilities according to the presentation prescribed by FAS 109, Accounting for Income Taxes under U.S. GAAP.

	2003	2002
	EURm	EURm
<b>Current assets:</b>		
Intercompany profit in inventory	40	48
Warranty provision	57	58
Other provisions	35	62
Tax losses carried forward	5	13
Other	130	128
	267	309
<b>Non-current assets:</b>		
Tax losses carried forward	53	125
Warranty provision	100	60
Other provisions	144	121
Untaxed reserves	98	105
Other temporary differences	103	40
	498	451
Deferred tax assets	765	760
Less: valuation allowance	(22)	(29)
Total deferred tax assets	743	731
<b>Current deferred tax liabilities</b>	(16)	(20)
<b>Non-current deferred tax liabilities:</b>		
Untaxed reserves	(33)	(33)

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	<u>2003</u>	<u>2002</u>
Fair value gains/losses	(22)	(25)
Other	(170)	(129)
	<u>(225)</u>	<u>(187)</u>
Total deferred tax liabilities	(241)	(207)
Net deferred tax asset	<u>502</u>	<u>524</u>

*Pension expense*

Under IAS, the determination of pension expense for defined benefit plans differs from the methodology set forth in U.S. GAAP. For purposes of U.S. GAAP, the Group has estimated the effect on net income and shareholders' equity assuming the application of SFAS No. 87 in calculating pension expense as of January 1, 1992.

The Group uses December 31 measurement date for its pension plans.

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For its single-employer defined benefit pension schemes, net periodic pension cost included in the Group's U.S. GAAP net income for the years ended December 31, 2003, 2002 and 2001, includes the following components:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
	EURm	EURm	EURm
Service cost benefits earned during the year <sup>(1)</sup>	54	58	49
Interest on projected benefit obligation	46	47	40
Expected return on assets	(55)	(60)	(74)
Amortization of prior service cost	2	12	2
Recognized net actuarial loss	1		(21)
Amortization of transition asset	1	1	2
Curtailment	1	4	(1)
	<u>50</u>	<u>62</u>	<u>(3)</u>
Net periodic pension cost (income)			

(1) Excludes premiums associated with pooled benefits.

The following table sets forth the changes in the benefit obligation and fair value of plan assets during the year and the funded status of the significant defined benefit pension plans showing the amounts that would be recognized in the Group's consolidated balance sheet in accordance with U.S. GAAP at December 31:

<u>2003</u>		<u>2002</u>	
Domestic plans	Foreign plans	Domestic plans	Foreign plans

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	2003		2002	
	EURm		EURm	
Projected benefit obligation at beginning of year	(539)	(261)	(531)	(236)
Remeasurement		(52)		
Foreign exchange		6		2
Service cost	(37)	(17)	(47)	(11)
Interest on projected benefit obligation	(31)	(14)	(33)	(14)
Plan participants' contributions		(3)		(3)
Amendments				(11)
Actuarial gain (loss)	(76)	(9)	65	4
Curtailment	10			
Benefits paid	7	7	7	8
Projected benefit obligation at end of year	(666)	(343)	(539)	(261)

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Plan assets at fair value at beginning of year	636	126	664	123
Remeasurement		52		
Foreign exchange		(3)		(2)
Actual return on plan assets	27	13	(53)	(12)
Employer contribution	27	20	32	22
Plan participants' contributions		3		3
Benefits paid	(7)	(7)	(7)	(8)
Plan assets at fair value at end of year	683	204	636	126
Excess (deficit) of plan assets over projected benefit obligation	17	(139)	97	(135)
Unrecognized transition obligation	2	2	2	3
Unrecognized net (gain)/loss from experience differences	95	21	11	21
Unamortized prior service cost	32		34	
Net amount recognized	146	(116)	144	(111)
Amounts recognized in the statement of financial positions consist of:				
Prepaid benefit cost	146	1	144	
Accrued benefit liability		(117)		(116)
Intangible asset				
Accumulated other comprehensive income				5
Net amount recognized	146	(116)	144	(111)

In both 2003 and 2002 the foreign plans had projected benefit obligations higher than assets. The total Accumulated Benefit Obligation and Fair value of plan assets in respect of these plans were EUR 281 million (EUR 229 million in 2002) and EUR 204 million (EUR 126 million in 2002) respectively.

Weighted average assumptions used in calculation of pension obligations are as follows:

2003	2002
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	Domestic	Foreign	Domestic	Foreign
	%	%	%	%
Discount rate for determining present values	5.25	5.30	5.50	5.58
Expected long term rate of return on plan assets	6.00	6.87	7.25	6.56
Annual rate of increase in future compensation levels	3.50	3.49	3.50	3.09
Pension increases	2.30	2.27	2.30	2.29

The Group also contributes to multiemployer plans, insured plans and defined contribution plans. Such contributions were approximately EUR 146 million, EUR 167 million and EUR 195 million in 2003, 2002 and 2001, respectively, including premiums associated with pooled benefits.

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At December 31, approximately 3% (20% in 2002) or EUR 19 million (EUR 125 million in 2002) of domestic plan assets consist of Nokia equity securities. The foreign pension plan assets include a self investment through a loan provided to Nokia by the plan of EUR 64 million (EUR 66 million in 2002).

The following additional information as required in accordance with SFAS 132R, Employers Disclosure about Pensions and Other Postretirement Benefits Revised, which was issued in December 2003, relates to domestic plans only. The additional information disclosed regarding the assets, obligations, cash flows and net periodic benefit costs of the Group's domestic pension plans will be disclosed for the Group's foreign plans in 2004 in accordance with the provisions of SFAS 132R.

The accumulated benefit obligation for the domestic plans at December 31, 2003 was EUR 554 million (2002 EUR 479 million).

The Group expects to make contributions of EUR 27 million to its domestic pension plans in 2004.

#### Domestic Plan Assets

The Groups's pension plan weighted average asset allocation at December 31, 2002, and 2003, by asset category are as follows:

Asset Category:	Percentage of Plan Assets at December 31,	
	2003	2002
Equity securities	39%	53%
Debt securities	33%	38%
Real estate	2%	4%
Short-term investments	26%	5%
Total	100%	100%

The objective of the investment activities is to maximize investment return within an accepted risk level. The relatively high average benefit liability duration is taken into consideration when assessing investment strategies. As of December 31, 2003 the target asset allocation was: 40% equity securities, 55% debt securities and 5% real estate. The Pension Foundation board of trustees approves the target asset allocation as well as deviation limits. Derivative instruments can be used to change the portfolio asset allocation and risk characteristics.

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Weighted average assumptions used in calculation of the Domestic plans' net periodic benefit cost for years ending December 31 are as follows:

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	2003 Domestic	2002 Domestic
	%	%
Discount rate for determining present values	5.50	5.80
Expected long term rate of return on plan assets	7.25	7.50
Annual rate of increase in future compensation levels	3.50	4.00
Pension increases	2.30	2.80

The assumption for weighted average expected return on plan assets is based on the target asset allocation at the beginning of the year. The expected returns for the various asset classes are based on 1) a general inflation expectation and 2) asset class specific long-term historical real returns, which are assumed to be indicative of future expectations without requiring further adjustments.

### Foreign currency translation

Net foreign exchange gains/(losses) of EUR 182 million, EUR (63) million and EUR (256) million were included in the determination of net income of which EUR (717) million, EUR (476) million and EUR (309) million were included in cost of sales for the year ended December 31, 2003, 2002, and 2001, respectively. EUR 867 million, EUR 442 million and EUR 78 million of the net foreign exchange gains/(losses) were included in the determination of net sales in 2003, 2002 and 2001, respectively.

### Cash and cash equivalents

Under U.S. GAAP bank overdrafts of EUR 119 million and EUR 78 million in 2003 and 2002, respectively, for which there is a legal right of offset would be included within cash and cash equivalents and would be excluded from short-term borrowings, which has been reflected in total U.S. GAAP assets in Item 3 of the Form 20-F.

### Consolidation

In 2002 Nokia had an investment in a subsidiary in which it owned 50% of the voting shares, and was consolidated under IAS as Nokia has control of its operating and financial policies. In 2002 under US GAAP this entity would have been accounted for as a joint venture using the equity method. The impact of deconsolidation would have increased net sales by approximately 4% and would have had an immaterial effect on operating profit after adjusting for the impact of sales from Nokia to the subsidiary and the subsidiary's sales to Nokia. In addition, there would have been no impact on net profit as a result of the deconsolidation. In 2003 the ownership of the subsidiary was increased to 52.9% and the subsidiary is consolidated under both IAS and U.S. GAAP. The application of FASB Interpretation No. 46, Consolidation of Variable Interest Entities, (FIN 46), would have had a similar effect on the consolidation as the increase in ownership.

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Under U.S. GAAP, related party transactions in 2002 with the subsidiary included sales by Nokia to the subsidiary of EUR 1,462 million (EUR 2,090 million in 2001) and purchases by Nokia from the subsidiary of EUR 2,090 million (EUR 1,536 million in 2001).

### New US Accounting Standards

In May 2003, the FASB issued SFAS 150, Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity (FAS 150). The statement establishes standards on how to classify and measure certain financial instruments with characteristics of both liabilities and equity and requires additional disclosures regarding alternative ways of settling instruments and the capital structure of entities all of whose shares are mandatory redeemable. The provisions of FAS 150 were effective for all financial instruments entered into or modified after May 31, 2003, and otherwise was effective the first interim period beginning after June 15, 2003. However, the guidance applying to mandatorily redeemable noncontrolling interests has been deferred. The Company does not expect this statement to have a material impact on the financial statements.

In April 2003, the FASB issued SFAS 149, Amendment of Statement 133 on Derivative Instruments and Hedging Activities (FAS 149). FAS 149 generally improves financial reporting for derivative instruments by requiring that contracts with comparable characteristics be accounted for similarly and by clarifying when a derivative contains a financing component that warrants special reporting in the statement of cash flows. The guidance in SFAS 149 was effective prospectively for contracts entered into or modified and for hedging relationships designated after June 30, 2003. The Company has evaluated the impact of this statement and does not expect it to have a material impact on the financial statements.





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