

NOKIA CORP  
Form 20-F  
March 08, 2005

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As filed with the Securities and Exchange Commission on March 8, 2005.

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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, 2004

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
<hr/> <b>American Depositary Shares Shares, par value EUR 0.06</b> <hr/>	<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: **4 663 761 300**

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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," "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 1.3538 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, 2004. 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 Financial Reporting Standards, or IFRS. 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 IFRS, 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.

**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;

the outcome of pending and threatened litigation; and

statements preceded by "believe," "expect," "anticipate," "foresee," "target," 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:

the extent of the growth of the mobile communications industry and the new market segments in which we have recently invested;

price erosion;

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

competitiveness of our product portfolio;

our failure to identify key market trends and to respond timely and successfully to the needs of our customers;

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;

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

general economic conditions globally and in our most important markets;

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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;

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

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;

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

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

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;

the management of our customer financing exposure; 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."



**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, 2003 and 2004 and for each of the years in the three-year period ended December 31, 2004 have been derived from our audited consolidated financial statements included in Item 18 of this Form 20-F. Financial data at December 31, 2000, 2001 and 2002 and for each of the years in the two-year period ended December 31, 2001 have been derived from Nokia's previously published audited consolidated financial statements not included in this document.

The financial data at December 31, 2003 and 2004 and for each of the years in the three-year period ended December 31, 2004 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 IFRS, and net income and shareholders' equity have been reconciled to US GAAP, which differ in some respects from IFRS. For a discussion of the principal differences between IFRS and US GAAP, see "Item 5.A Operating Results Principal Differences Between IFRS and US GAAP" and Note 37 to our audited consolidated financial statements.

	Year ended December 31,					
	2000	2001	2002	2003	2004	2004
	(EUR)	(EUR)	(EUR)	(EUR)	(EUR)	(USD)
(in millions, except per share data)						
<b>Profit and Loss Account Data</b>						
<b>Amounts in accordance with IFRS</b>						
Net sales	30 376	31 191	30 016	29 455	29 267	39 622
Operating profit	5 776	3 362	4 780	5 011	4 330	5 862
Profit before tax and minority interests	5 862	3 475	4 917	5 345	4 709	6 375
Profit from continuing operations	3 938	2 200	3 381	3 592	3 207	4 342
Net profit	3 938	2 200	3 381	3 592	3 207	4 342
Continuing operations						
Basic earnings per share <sup>(1)</sup>	0.84	0.47	0.71	0.75	0.70	0.95
Diluted earnings per share <sup>(1)</sup>	0.82	0.46	0.71	0.75	0.70	0.95
Net profit						
Basic earnings per share <sup>(1)</sup>	0.84	0.47	0.71	0.75	0.70	0.95
Diluted earnings per share <sup>(1)</sup>	0.82	0.46	0.71	0.75	0.70	0.95
Cash dividends per share <sup>(1)(2)</sup>	0.28	0.27	0.28	0.30	0.33	0.45
Average number of shares (millions of shares)						
Basic	4 673	4 703	4 751	4 761	4 593	4 593
Diluted	4 793	4 787	4 788	4 761	4 600	4 600
<b>Amounts in accordance with US GAAP</b>						
Income from continuing operations	3 847	1 903	3 603	4 097	3 343	4 526
Net income	3 847	1 903	3 603	4 097	3 343	4 526
Continuing operations						
Basic earnings per share <sup>(1)</sup>	0.82	0.40	0.76	0.86	0.73	0.99
Diluted earnings per share <sup>(1)</sup>	0.80	0.40	0.75	0.86	0.73	0.98
Net income						
Basic earnings per share <sup>(1)</sup>	0.82	0.40	0.76	0.86	0.73	0.99
Diluted earnings per share <sup>(1)</sup>	0.80	0.40	0.75	0.86	0.73	0.98

Year ended December 31,

2000	2001	2002	2003	2004	2004
(EUR)	(EUR)	(EUR)	(EUR)	(EUR)	(USD)

(in millions, except per share data)

**Balance Sheet Data****Amounts in accordance with IFRS**

Fixed assets and other non-current assets	6 388	6 912	5 742	3 837	3 161	4 279
Cash and other liquid assets <sup>(3)</sup>	4 183	6 125	9 351	11 296	11 542	15 626
Other current assets	9 319	9 390	8 234	8 787	7 966	10 784
<b>Total assets</b>	<b>19 890</b>	<b>22 427</b>	<b>23 327</b>	<b>23 920</b>	<b>22 669</b>	<b>30 689</b>
Shareholders' equity	10 808	12 205	14 281	15 148	14 238	19 275
Minority interests	177	196	173	164	168	228
Long-term interest-bearing liabilities	173	207	187	20	19	26
Other long-term liabilities	138	253	274	308	275	372
Borrowings due within one year	1 116	831	377	471	215	291
Other current liabilities	7 478	8 735	8 035	7 809	7 754	10 497
<b>Total shareholders' equity and liabilities</b>	<b>19 890</b>	<b>22 427</b>	<b>23 327</b>	<b>23 920</b>	<b>22 669</b>	<b>30 689</b>
Net interest-bearing debt <sup>(4)</sup>	(2 894)	(5 087)	(8 787)	(10 805)	(11 308)	(15 309)
Share capital	282	284	287	288	280	379
<b>Amounts in accordance with US GAAP</b>						
Total assets	19 676	22 038	22 977	24 045	22 921	31 030
Shareholders' equity	10 871	12 021	14 150	15 437	14 576	19 733

(1) Adjusted for share splits.

(2) The cash dividend for 2004 is what the Board of Directors will propose for approval at the Annual General Meeting convening on April 7, 2005.

(3) Cash and other liquid assets consist of the following captions from our consolidated balance sheets: (1) bank and cash, (2) available-for-sale investments, cash equivalents and (3) available-for-sale investments, liquid assets. See Note 2 to the consolidated financial statements.

(4) Net interest-bearing debt consists of borrowings due within one year and long-term interest-bearing liabilities, less cash and other liquid assets.

**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 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 Finnish 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, 225 million shares in 2003 and 230 million shares in 2004. 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 since 2003 the Board of Directors has engaged in repurchases through repurchase plans to a greater extent than before.

On January 27, 2005, we announced that the Board of Directors will propose that the Annual General Meeting, convening on April 7, 2005, approve a new authorization to repurchase a maximum of 443.2 million shares corresponding to nearly 10% of Nokia's share capital and total voting rights. The proposal was made in anticipation of an amendment to the Finnish Companies Act becoming effective as of March 9, 2005 increasing the upper limit for share repurchases from 5% to 10%. The Board expects to continue engaging in share buy-backs in 2005 with up to EUR 5 billion, provided that this is within the limits of the authorization.

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

	<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
2004	214 119 700	2 661

For more information about share buy-backs during 2004, 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 April 7, 2005 a dividend of EUR 0.33 per share in respect of 2004.

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 2000-2003, the dividend per share amounts have been translated into US dollars at the noon buying rate on the respective dividend payment dates.

	<u>EUR per share</u>	<u>USD per ADS</u>	<u>EUR millions (in total)</u>
2000	0.28	0.25	1 315
2001	0.27	0.24	1 279
2002	0.28	0.30	1 341
2003	0.30	0.30	1 439
2004	0.33 <sup>(1)</sup>	<sup>(2)</sup>	1 539 <sup>(1)</sup>

(1) To be proposed by the Board of Directors for approval at the Annual General Meeting convening on April 7, 2005.

(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 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 2000 through 2004 and for each of the months in the six-month period ended February 28, 2005, 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.

For the year ended December 31:	Exchange Rates			
	Rate at period end	Average rate	Highest rate	Lowest rate
	(USD per EUR)			
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
2004	1.3538	1.2478	1.3625	1.1801
<b>For the month ended:</b>				
September 30, 2004	1.2417	1.2216	1.2417	1.2052
October 31, 2004	1.2746	1.2503	1.2789	1.2271
November 30, 2004	1.3259	1.3001	1.3288	1.2703
December 31, 2004	1.3538	1.3406	1.3625	1.3224
January 31, 2005	1.3049	1.3123	1.3476	1.2954
February 28, 2005	1.3274	1.3013	1.3230	1.2773

On February 28, 2005, the noon buying rate was USD 1.3274 per EUR 1.00.

### 3.B Capitalization and Indebtedness

Not applicable.

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

Not applicable.

### 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.

*Our sales and profitability depend on the continued growth of the mobile communications industry as well as the growth of the new market segments within that industry in which we have recently invested. If the mobile communications industry does not grow as we expect, or if the new market segments on which we have chosen to focus and in which we have recently invested grow less than expected, or if new faster-growing market segments emerge in which we have not invested, our sales and profitability may be adversely affected.*

Our business depends on continued growth in mobile communications in terms of the number of existing mobile subscribers who upgrade or simply replace their existing mobile devices, the number of new subscribers and increased usage. As well, our sales and profitability are affected by the extent to which there is increasing demand for, and development of, value-added services, leading to opportunities for us to successfully market mobile devices that feature these services. These developments in our industry are to a certain extent outside of our control. For example, we are dependent on operators in highly penetrated markets to successfully introduce services that cause a substantial increase in usage of voice and data. Further, in order to support a continued increase in mobile subscribers in certain low-penetration markets, we are dependent on operators to increase their sales volumes of lower-cost mobile devices and to offer affordable tariffs. If operators are not successful in their attempts to increase subscriber numbers, stimulate increased usage or drive replacement sales, our business and results of operations could be materially adversely affected.

Our industry continues to undergo significant changes. First, the mobile communications, information technology, media and consumer electronics industries are converging in some areas into one broader industry leading to the creation of new mobile devices, services and ways to use mobile devices. Second, while participants in the mobile communications industry once provided complete products and solutions, industry players are increasingly providing specific hardware and software layers for products and solutions. As a result of these changes, new market segments within our industry have begun to emerge and we have made significant investments in new business opportunities in certain of these market segments, such as smartphones, imaging, games, music and enterprise mobility infrastructure. However, a number of the new market segments in the mobile communications industry are still in early states of their development, and it may be difficult for us to accurately predict which new market segments are the most advantageous for us to focus on. As a result, if the segments on which we have chosen to focus grow less than expected, we may not receive a return on our investment as soon as we expect, or at all. We may also forego growth opportunities in new market segments of the mobile communications industry on which we do not focus.

***Our results of operations, particularly our profitability, may be adversely affected if we do not successfully manage price erosion related to our products.***

In order to remain competitive and regain market share that we had lost in early 2004, we reduced the selling prices of certain of our mobile devices. As the costs related to these products have not fallen at the same rate, this contributed significantly to the reduction of our margins in 2004. In the future, if, for competitive reasons, we need to lower the selling prices of certain of our products and if we cannot lower our costs at the same rate or faster, this may have a material adverse effect on our business and results of operations, particularly our profitability. To mitigate the impact of mix shifts on our profitability, we implement product segmentation with the aim of designing appropriate features with an appropriate cost basis for each customer segment. Likewise, we endeavor to mitigate the impact on our profitability of price erosion of certain features and functionalities by seeking to correctly time the introduction of new products, in order to align such introductions with declines in the prices of relevant components. We cannot predict with any certainty whether or to what extent we may need to lower prices for competitive reasons again and how successful we will be in aligning our cost basis to the pricing at any given point in time. Price erosion is a normal characteristic of the mobile devices industry, and the products and solutions offered by Networks are also subject to natural price erosion over time. If we cannot reduce our costs at the same rate, our business may be materially adversely affected. Although we may take actions to mitigate price erosion, such as strengthening the Nokia brand in order to support a price premium over certain of our competitors, there can be no assurance that we will be successful in this regard.

***We must develop or otherwise acquire complex, evolving technologies to use in our business. If we fail to develop these technologies or to successfully commercialize them as new advanced products and solutions that meet customer demand, or fail to do so on a timely basis, it may have a material adverse effect on our business, our ability to meet our targets and our results of operations.***

In order to succeed in our markets, we believe that we must develop or otherwise acquire complex, evolving technologies to use in our business. However, the development and use of 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 these technologies internally, by acquiring or investing in other companies or through collaboration with third parties.



The technologies, functionalities and features on which we choose to focus may not achieve as broad or timely 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 the companies that work with us may not be able to bring them to the market at the right time.

Furthermore, as a result of ongoing technological developments, our products and solutions are increasingly used together with components or layers that have been developed by third parties, whether or not Nokia has authorized their use with our products and solutions. However, such components, such as batteries, or layers, such as software applications, may not be compatible with our products and solutions and may not meet our and our customers' quality, safety or other standards. As well, certain components or layers that may be used with our products may enable our products and solutions to be used for objectionable purposes, such as to transfer content that might be hateful or derogatory. The use of our products and solutions with incompatible or otherwise substandard components or layers, or for purposes that are inappropriate, is largely outside of our control and could harm the Nokia brand.

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 we believe that these are currently the leading mobile communications technology platforms, they may not always be, due to operators' choices or regulators' decisions. 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.

***We need to understand the different markets in which we operate and meet the needs of our customers, which include mobile network operators, distributors, independent retailers and enterprise customers. We need to have a competitive product portfolio, and to work together with our operator customers to address their needs. Our failure to identify key market trends and to respond timely and successfully to the needs of our customers may have a material adverse impact on our market share, business and results of operations.***

We serve a diverse range of customers, ranging from mobile network operators, distributors, independent retailers to enterprise customers, across a variety of markets. In many of these markets, the mobile communications industry is at different stages of development, and many of these markets have different characteristics and dynamics, for example, in terms of mobile penetration rates and technology, feature and pricing preferences. Establishing and maintaining good relationships with our customers and understanding trends and needs in their markets require us to constantly obtain and evaluate a complex array of feedback and other data. We must do this efficiently in order to be able to identify key market trends and address our customers' needs proactively and in a timely manner. If we fail to analyze correctly and respond timely and appropriately to customer feedback and other data, our business may be materially adversely affected.

Certain mobile network operators require mobile devices to be customized to their specifications, by requesting certain preferred features, functionalities or design, together with co-branding with the network operator's brand. We believe that customization is an important element in gaining increased operator customer satisfaction and we are working together with operators on product planning as well as accelerating product hardware and software customization programs. These developments may result in new challenges as we provide customized products, such as the need for us to produce mobile devices in smaller lot sizes, which can impede our economies of scale, or

the potential for the erosion of the Nokia brand, which we consider to be one of our key competitive advantages.

In order to meet our customers' needs, we need to introduce new devices on a timely basis and maintain a competitive product portfolio. For Nokia, a competitive product portfolio means a broad and balanced offering of commercially appealing mobile devices with attractive features, functionality and design for all major user segments and price points. If we do not achieve a competitive portfolio, we believe that we will be at a competitive disadvantage, which may lead to lower revenue and lower profits.

The competitiveness of our portfolio is also influenced by the value of the Nokia brand. A number of factors, including actual or even alleged defects in our products and solutions, may have a negative effect on our reputation and erode the value of the Nokia brand.

***Competition in our industry is intense. Our failure to respond successfully to changes in the competitive landscape may have a material adverse impact on our business and 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, price, operational and manufacturing efficiency, technical performance, product features, quality, customer support and brand recognition. We are facing increased competition from both our traditional competitors in the mobile communications industry as well as a number of new competitors, particularly from countries where production costs tend to be lower. Some of these competitors have used, and we expect will continue to use, more aggressive pricing strategies, different design approaches and alternative technologies than ours. In addition, some competitors have chosen a strategy of focusing on productization based on commercially available technologies and components, which may enable them to introduce products faster and with lower levels of research and development spending than Nokia.

As a result of developments in our industry, we also expect to face new competition from companies in related industries, such as consumer electronics manufacturers and business device and solution providers, including but not limited to Dell, HP, Microsoft, Nintendo, Palm, Research in Motion and Sony. Additionally, because mobile network operators are increasingly offering mobile devices under their own brand, we face increasing competition from non-branded mobile device manufacturers. If we cannot respond successfully to these competitive developments, our business and results of operations may be materially adversely affected. See "Item 4.B Business Overview Competition," for a more detailed discussion of competition in our industry.

***Reaching our sales, profitability, volume and market share targets depends on numerous factors. These include 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 success in the business areas that we have recently entered, 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 discussed throughout these Risk 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. 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 in mobile device volumes, which is influenced by, among other factors, regional economic factors, competitive pressures, regulatory environment, 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, and operators' and distributors' financial situations. Our sales and operating results are also impacted by fluctuations in exchange rates and at the quarterly level by seasonality. In developing markets, the availability and cost, through affordable tariffs, of mobile phone service compared with the availability and cost of fixed line networks may also impact volume growth.

In our mobile networks business, we also seek to maintain healthy levels of sales and profitability and try to grow faster than the market. 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 research and development investments and the deployment progress and technical success we achieve under network contracts. Other relevant factors include operator investment behavior, which can vary significantly from quarter to quarter, 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 foresee, or they may generate more variable operating results than we currently foresee. We expect to incur short-term operating losses in certain of these new business areas given our early stage investments in research and development and marketing in particular. Also our efforts in managing prices and costs in the long-term, especially balancing prices and volumes with research and development costs, may prove to be inadequate.

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 without interruption, or fail to ensure that our products and solutions meet our and our customers' quality, safety and other 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, failures in the activities we have outsourced, and interruptions in the data communication systems that run our operations. Also, a failure or an interruption 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 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.

***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 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 supply requirements are for electronic components, mechanical components and software, which all have a wide range of applications in our products. Electronic components include integrated circuits, microprocessors, standard components, memory devices, cameras, displays, batteries and chargers while mechanical components include covers, connectors, key mats and antennas. 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 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 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.

***We are developing a number of our new products and solutions together 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 in a timely way and this could have a material adverse impact on our sales and profitability.***

We continue to 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 the target of these arrangements is a mutually beneficial outcome for each party, our ability to introduce new products and solutions that meet our and our customers' quality, safety and other standards successfully and on schedule could be hampered if, for example, any of the following risks were to materialize: the arrangements with the companies that work with us do not develop as expected, the technologies provided by the companies that work with us 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 the companies that work with us do not meet the required quality, safety and other standards or customer needs, our own quality controls fail, or the financial standing of the companies that work with us deteriorates.

***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 or disruption 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 new Nokia patented and other proprietary technologies, as well as some developed or licensed to us by certain third parties. As a consequence, evaluating the protection of the technologies we intend to use is more and more challenging, and we expect increasingly to face claims that we have infringed third parties' intellectual property rights. The use of increasingly complex technology may also result in increased licensing costs for us, restrictions on our ability to use certain technologies in our products and solution offerings, and/or costly and time-consuming litigation. Third parties may also commence actions seeking to establish the invalidity of intellectual property rights on which we depend.***

Our products and solutions include increasingly complex technology involving numerous new Nokia patented and other proprietary technologies, as well as some developed or licensed to us by certain third parties. As the amount of such proprietary technologies needed for our products and solutions continues to increase, the number of parties claiming rights continues to increase and become more fragmented within individual products, and as the complexity of the technology and the overlap of product functionalities increases, the possibility of more infringement and related intellectual property claims against us also continues to increase. The holders of patents potentially relevant to our product and solution offerings 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 technologies 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 or licenses, 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. We believe that the number of third parties declaring their intellectual property to be relevant to these standards is increasing, which may increase the likelihood that we will be subject to such claims in the future.

Any 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 rights 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.

In addition, other companies may commence actions seeking to establish the invalidity of our intellectual property, for example, patent rights. In the event that one or more of our patents are challenged, a court may invalidate the patent or determine that the patent is not enforceable, which could harm our competitive position. If any of our key patents are invalidated, or if the scope of the claims in any of these patents is limited by a court decision, we could be prevented from licensing the invalidated or limited portion of our intellectual property rights. Even if such a patent challenge is not successful, it could be expensive and time consuming, divert management attention from our business and harm our reputation. 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.

***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.

***The global networks business relies on a limited number of customers and large multi-year contracts. Unfavorable developments under such a 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.

***Our sales derived from, and assets located in, emerging market countries may be adversely affected by economic, regulatory and political developments in those countries. As sales from these countries represent an increasing 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 may also be subject to other risks and uncertainties.***

We generate sales from and have invested in various emerging market countries. As sales from these countries represent an increasing 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 may also be subject to risks and uncertainties, including unfavorable taxation treatment, exchange controls, challenges in protecting our intellectual property rights,

nationalization, inflation, incidents of terrorist activity, currency fluctuations, or the absence of, or unexpected changes in, regulation as well as other unforeseeable operational risks.

***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 Certain Other Factors United States Dollar," "Item 5.A Operating Results Exchange Rates" and "Item 11. Quantitative and Qualitative Disclosures About Market Risk."

***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. Defaults under these financings have occurred in the past and may also occur in the future.

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 arrange and facilitate financing to our customers, and provide financing and 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 8 and 35(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.

***Allegations of health risks from the electromagnetic fields generated by base stations and mobile devices, 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 are before the District of Columbia courts. 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 mobile devices 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.

***An unfavorable outcome of litigation could materially impact our business, financial condition or results of operations.***

We are a party to lawsuits in the normal course of our business. Litigation can be expensive, lengthy and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict. An unfavorable resolution of a particular lawsuit could have a material adverse effect on our business, operating results, or financial condition.

***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 regulations applicable to current or new technologies, products or services 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 device and communications network markets and the mobile communications 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 the world's largest manufacturer of mobile devices and a leader in mobile networks. Nokia connects people to each other and the information that matters to them with mobile devices and solutions for voice, data, imaging, games, multimedia and business applications. We also provide equipment, solutions and services for our operator and enterprise customers. For 2004, Nokia's net sales totaled EUR 29.3 billion (USD 39.6 billion) and net profit was EUR 3.2 billion (USD 4.3 billion). At the end of 2004, we employed 55,505 people and had production facilities in nine countries, research and development in 12 countries, sales in over 130 countries, and a global network of sales, customer service and other operational units.

During our 139-year history, Nokia has evolved from its origins in the paper industry to become a world leader in mobile communications. In 1967, we took our current corporate form as Nokia Corporation, a corporation under the laws of the Republic of Finland. This was the result of 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 telephone and power cables 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. During this time Nokia diversified into other industries as a hedge against economic cycles.

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.

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. 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. Our organizational structure also 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 substantial volume growth encouraged us to develop our business and products in an international environment and build a leading competitive position.

Regulatory and technological reforms also have played a role in our success. Deregulation of the 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 made more efficient use of frequencies and had greater capacity 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. Later, GSM technology proved to be an efficient carrier of data. The first GSM call was made with a Nokia phone over the Nokia-built network of a Finnish operator called Radiolinja, and in the same year, Nokia won contracts to supply GSM networks in 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 and earlier analogue technologies 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, mobile telecommunications penetration has grown rapidly, and the global user base at the end of 2004 was estimated at approximately 1.7 billion subscribers. We further estimate that there will be approximately 2 billion subscribers by the end of 2005 and approximately 3 billion subscribers by 2010. Our mobile devices are now used by virtually every demographic segment of the population, as devices for communications, business, a source of entertainment and even as fashion accessories. Moreover, mobile communications is continuing to evolve, creating new opportunities in mobile imaging, games, entertainment, media and enterprise use. This is taking place as the mobile communications, information technology, media and consumer electronics industries are converging in some areas into one broader industry.

On January 1, 2004, Nokia reorganized its structure to further align the company's overall structure with its strategy, to better position each business group to meet the specific needs of diverse market segments, and to increase Nokia's operational efficiency and maintain our economies of scale. As a result, we began 2004 with an organizational base from which to make progress in expanding mobile voice, driving consumer multimedia and bringing extended mobility to enterprises.

Today, Nokia has four business groups: Mobile Phones; Multimedia; Enterprise Solutions and Networks. In addition, we have two horizontal groups: Customer and Market Operations and Technology Platforms. 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 2005 to be somewhat higher than in 2004 and to be funded from our cash flow from operations. During 2004, Nokia's capital expenditures totaled EUR 548 million compared with EUR 432 million in each of 2003 and 2002. For further information regarding capital expenditures see "Item 5.A Operating Results" and for a description of capital expenditures by business segment see Note 3 to our consolidated financial statements included in Item 18 of this Form 20-F.

Nokia maintains listings on four major securities exchanges. The principal trading markets for the shares are the New York Stock Exchange, in the form of American Depositary Shares, and the Helsinki Exchanges, in the form of shares. In addition, the shares are listed on the Frankfurt and Stockholm stock 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.

## 4.B Business Overview

### *Industry Development and Trends*

The mobile communications industry continues to undergo significant changes as more users in growth markets gain access to mobile communications, end-to-end solutions increase in importance to our customers, enterprises become increasingly mobile, and technology continues to evolve. Another trend is an increased emphasis on the role of customization in mobile devices. These changes have demanded agility and flexibility from industry players to adapt to new market conditions.

The mobile communications, information technology, media and consumer electronics industries are converging in some areas into one broader industry. This is the result of advances in technologies that enable a variety of products and services from the different industries to become interconnected. We expect this convergence to lead to the creation of new mobile devices, services and ways to use mobile devices. Some of the first examples of this convergence are the camera phone and the use of mobile devices for email, web browsing and applications, and music downloading. Another example of convergence and also of the more general advancement of mobile communications is multi-radio solutions and devices. Multi-radio automatically transfers connectivity among cellular networks and complementary access technologies such as Wireless LAN, Bluetooth, Near Field Communications and the mobile Digital Video Broadcasting. Although this convergence presents new challenges, as described in the first and third 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.

We see the ability to offer tailored end-to-end solutions as being important to meet the needs of operators, enterprises and consumers to rapidly and cost effectively bring new application and service platforms to market. A solution is considered end-to-end when it provides the hardware and software elements, including infrastructure, applications or service platforms and mobile devices. We believe that a strong customer relationship is key to understanding underlying needs in order to create unique end-to-end offerings. Today, Nokia's Push to talk over Cellular offering, which enables walkie-talkie-like communication between individuals or among a group, is an example of such a solution because it includes mobile devices, application software, and network infrastructure hardware and software to support the service.

The creation and ownership of relevant intellectual property rights, or IPR, are essential to maintaining competitiveness and to creating profitable products. Thus, we believe that achieving technology leadership will depend on the ability to build a solid IPR portfolio through strong research and development capabilities.

### *Mobile Device Market*

The mobile device market continued its strong volume growth during 2004 with overall market volumes growing 31% and reaching a record of 643 million units compared with 490 million units in 2003, according to Nokia's estimates. This growth was driven by the ongoing boom in new subscriber growth in Latin America, Russia, India and China as mobile communications continued to become more affordable and widely available, in part because mobile devices, networks and services specifically designed for low total cost of ownership were brought to market. We expect growth in these markets to be a main driver for the global mobile subscriptions to reach approximately 2 billion users by the end of 2005 and approximately 3 billion users by 2010. Mobile device market growth during 2004 was also driven by attractively priced color-screen and camera phones in Western Europe and North America. In Nokia's five geographical sales areas, mobile device market volume growth was 100% in Latin America, 33% in Europe, Middle-East & Africa, 32% in China, 22% in North America, and 15% in Asia-Pacific, compared with 2003.

The mobile device market is expanding from voice-based communications towards new, data-driven areas and applications in consumer multimedia and enterprise mobility solutions. According to our estimates, the global camera phone market reached approximately 215 million units in 2004 compared with approximately 90 million units sold in 2003 and is estimated to reach approximately 340 million units in 2005. Nokia has introduced 48 camera phones since the launch of its first one, the Nokia 7650, in 2002. The global megapixel camera phone market, the high end of the camera phone market, is expected to grow from around 40 million units in 2004 to around 100 million units in 2005. A smartphone is a new category of mobile device that can run computer-like applications such as email, web browsing and enterprise software and can also have built-in music players, video recorders and other multimedia features. The global smartphone market is expected to grow from around 22 million units in 2004 to more than 50 million units in 2005 and represent approximately 25% of the total global mobile device market volume in 2008. Some of these markets overlap with each other. In the longer term, we believe that applications such as music, mobile games and mobile TV will be taken widely into use.

The ability to offer segmented, differentiated and customizable mobile devices for consumers, enterprises and operators is an increasingly competitive requirement. One way to do this is with the use of software and software platforms that enable intuitive user interfaces and valuable applications. Nokia sees Java, the Symbian operating system and the Series 60 Platform as key elements in helping to fulfill customer expectations. The Java platform enables the use of third-party consumer applications, such as mobile games, and is increasingly becoming important in the delivery of mobile enterprise services and applications. In 2004, Java made significant strides towards becoming the preferred global technology platform for mobile phones and was used by all major mobile device manufacturers. In 2004, Nokia alone shipped more than 125 million Java-enabled mobile devices. In 2004, several key mobile device manufacturers launched smartphones based on the Symbian operating system, or OS, an open OS created for mobile devices. During 2004, Nokia delivered approximately 12 million Symbian OS-based mobile devices. Nokia estimates that smartphones will be approximately 25% of the total global mobile device market volume in 2008. In 2004, Nokia increased its shareholding in Symbian from 32.2% to 47.9%. The market-leading Series 60 software platform, which is licensed by Nokia to several other handset manufacturers and designed to run on top of the Symbian OS, continued to be incorporated into Nokia products and those from the other Series 60 licensees, with volumes gaining momentum during 2004. A significant element of the Series 60 Platform is its strong foundation to allow for operator and end-user specific software customization as well as licensee differentiation. Of the mobile devices we plan to announce in 2005, approximately 90% are expected to offer a range of customizable options.

Mobility is increasingly important to the business market as enterprises assess the potential productivity gains, cost savings and competitive advantages that can result from employees being able to work outside of the office as they use secure mobile voice, data and business applications. However, the enterprise mobility market is still fragmented. We expect that as the technologies become more reliable, affordable and easier to use, mobility will be more widely used by employees. External studies currently show a very low percentage of mobile email amongst workers who spend much of their time on the move and who connect to their offices via a mobile device. We expect this to become the lead application as businesses mobilize. In the coming years, we believe that devices with multi-radio access and the addition of mobile elements to corporate applications will be key drivers for establishing and extending mobility in enterprises. We believe Nokia is well positioned to take advantage of these trends given our expertise in these areas.

*Mobile Infrastructure Market*

During 2004, the mobile infrastructure market showed year-on-year growth of approximately 14% in euro terms after three years of decline. Growth was largely the result of operator investments in the current technologies of GSM, EDGE, and GPRS and their related services, especially in low penetration markets, and in new-generation technologies, such as WCDMA 3G.

The pace of WCDMA 3G rollouts also picked up during 2004, and by the end of the year 63 operators had launched commercial WCDMA 3G services. Nokia supplied WCDMA 3G technology to 28 of these operators. The number of WCDMA 3G subscribers increased significantly during the year, reaching around 16 million by year-end. We believe this subscriber growth was largely the result of attractive pricing of services and an expanded WCDMA 3G handsets range and the further maturity of WCDMA 3G technology. We expect the number of WCDMA 3G subscribers to reach approximately 70 million by the end of 2005.

We continue to see operators becoming more interested in outsourcing network management to become more cost efficient and to better manage the increased range and complexity of mobile services and technologies. We foresee operators with both fixed and mobile assets exploring options to better use them by offering seamless access to services and applications over Internet protocol, or IP, in fixed and mobile networks in the coming years. When operators use IP technologies to provide access to the same services in fixed and mobile networks, they will be able to optimize the use of their assets while making communications services more user friendly for consumers and business users.

Competition in both the 2G and the 3G network infrastructure market remains intense. In 2G, competition is driven by price, solutions that are able to offer low total cost of ownership, and the vendor's ability to roll-out mobile networks in new growth markets. In 3G technology, vendors compete on the grounds of price, track record of network implementations, and which future technologies they plan to offer and when, such as HSDPA, or High Speed Downlink Packet Access, which provides high speed data delivery to 3G terminals to support multimedia services.

**Business Strategy**

Nokia is and will primarily continue to be a market and customer driven product company. We intend to continue to capitalize on our role as a market leader in mobile devices and infrastructure to strengthen our position in new market segments in which we have recently invested. As demand for mobile services increases, we also plan to lead the development and commercialization of high capacity networks. Historically, expanding into new segments during their initial development stage has helped Nokia to become one of the leading players in the global mobile communications market. This has also enabled Nokia to significantly influence how voice and other services have become mobile. 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 continue to believe that growth opportunities still exist in the mobile voice market where we intend to focus on four areas:

1. markets with low mobile penetration;
2. higher penetration markets, where we intend to focus on features and functionality designed to increase the use of mobile voice by consumers and enterprises;
3. markets where it is more cost-effective or advantageous to build wireless communications infrastructure than fixed-line networks, such as low penetration markets and heavily populated areas; and

4. markets where the need for network capacity is growing because operators are promoting the replacement of fixed networks with mobile ones and the migration of users to mobile devices.

As we continue to focus on the voice market, we aim to capitalize on our strengths in execution, demand-supply network management and innovation.

**Drive consumer mobile multimedia:** Our strategy is to develop connected mobile multimedia devices, applications and solutions together with our operator customers and other key industry collaborators to offer compelling multimedia experiences to consumers. In the short term, we believe the most significant opportunities are in mobile imaging and smartphones. Our long-term focus areas and business opportunities include music, mobile games and mobile TV.

**Bring extended mobility to enterprises:** Our goal is to capture profitable segments of the enterprise market by offering products and services designed to benefit companies and individual business people. We aim to offer a diverse mobile device range, mobile applications and security, as well as service and support. As we do this, we intend to capitalize on companies' needs for mobility and seamless mobile connectivity in their operations, and we also expect to collaborate with leading technology and systems integration companies.

We believe that our three main strategies will position our business favorably as different digital technologies and industries converge. In connection with this, we have three key focus areas: Customer, Execution and Product. Our approach is to create mutually beneficial solutions with our operator customers, as well as to listen to and focus on the needs of consumers and enterprise customers.

We also aim to drive open standards and interoperability for the purpose of ensuring the introduction and growth of 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. We work together with customers, suppliers and industry participants in the Open Mobile Alliance and other industry forums, and focus on end-to-end solutions in all our development activities.

In line with our strategy, we have identified five medium-term priorities for the next two to three years.

**Product Competitiveness** We intend to continue to broaden and enrich our product offering by launching more devices designed to enhance the user experience with features such as cameras, multimedia and enterprise applications and support for WCDMA 3G technology, and by offering a variety of designs including clamshells, slides and other non-monoblock models that we believe should meet customer needs and preferences.

**Customer Satisfaction** We are committed to meeting customer needs in mobile devices and mobile infrastructure and believe that customization and product quality are important elements to gaining greater operator customer satisfaction. We are collaborating with operators on product planning as well as accelerating product hardware and software customization programs.

**Research and Development, or R&D, Effectiveness** We are reviewing our R&D activities in order to get the most compelling products to market at the right time, and we are aiming to lower our R&D expenses/net sales ratio while remaining effective and focused in our efforts. This will require focused R&D spend and a re-engineered product creation process intended to reduce product development cycle times.

**Demand-supply network alignment** Our demand-supply network management has traditionally been a core competence. In order to better respond to and benefit from high-demand situations, we intend to focus on strengthening our global processes such as demand-supply planning and capacity management. We also aim to take advantage of the flexibility in our demand-supply network across all product categories, in order to enable efficient operator customization.

**End-to-end capability** We intend to systematically strengthen our capability to offer tailored solutions that combine mobile devices, applications, infrastructure and our customer interface. We believe that this capability is already an advantage for Nokia, which we have demonstrated with such solutions as the Push to talk over Cellular offering of mobile devices, application software and network solutions, which provide walkie-talkie-like communications.

### ***Organizational Structure***

As described above, during the 1990s, our organizational structure had evolved to consist of two main business groups, Nokia Mobile Phones and Nokia Networks. A venturing arm, called Nokia Ventures Organization, also existed to foster new businesses. On January 1, 2004, Nokia reorganized its structure to further align the company's overall structure with its strategy, to better position each business group to meet the specific needs of diverse market segments, and to increase Nokia's operational efficiency and maintain our economies of scale. The structure includes four business groups: Mobile Phones, Multimedia, Enterprise Solutions and Networks.

#### ***Business Groups***

*Mobile Phones* continues the development of the mobile phones based mainly on GSM, CDMA and WCDMA technologies. Mobile Phones consists of six business units: Broad Appeal, Focused Appeal, Entry, CDMA, TDMA and Vertu. 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. 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 connected mobile multimedia to consumers in the form of advanced mobile devices, including 3G WCDMA mobile devices, and solutions. There are four units in Multimedia: Imaging, Entertainment, Enhancements and Convergence Products. Multimedia combines four business units from the former Nokia Mobile Phones: Imaging, Entertainment and Media, Mobile Enhancements and Mobile Services.

*Enterprise Solutions* aims to help businesses and institutions extend their use of mobility from mobile devices for voice and basic data to secure mobile access, content and applications. Our solutions range from business-optimized mobile devices for end users to a broad portfolio of IP network perimeter security gateways and mobile connectivity offerings. 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.

*Networks* is a leading provider of network infrastructure, communications and networks service platforms and professional services to operators and service providers. Networks focuses on the GSM family of radio technologies and aims at leadership in GSM, EDGE and WCDMA networks, core networks with increasing IP and multi-access capabilities, and services. Networks carries on the business of the former Nokia Networks.



### *Horizontal Groups*

In addition to the four business groups, Nokia's organization has two horizontal groups to support the mobile device business groups, increase our operational efficiency and competitiveness, and take advantage of our economies of scale. The horizontal groups are not separate reporting entities, but their costs are carried mainly by the mobile device business groups with the balance included in Common Group Expenses. The horizontal groups were previously part of the Nokia Mobile Phones organization.

*Customer and Market Operations* includes Nokia's sales and marketing organization as well as manufacturing, logistics and sourcing for Mobile Phones, Multimedia and Enterprise Solutions mobile devices. 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 research and development process development. It delivers leading technologies and platforms to Nokia's mobile device business groups and external customers.

For a breakdown of our net sales and other operating results by category of activity and geographical location, please see Note 3 to the financial statements included in Item 18 of this annual report.

### ***Nokia in Mobile Devices 2004***

For 2004, the total mobile device sales volume achieved by the Mobile Phones, Multimedia and Enterprise Solutions business groups reached a record of 207.7 million units, representing growth of 16% compared with 2003. Based on an estimated global market volume for mobile devices of 643 million units, our global market share was 32% for 2004, according to Nokia's preliminary estimates, compared with an estimated 38% for 2003.

During 2004, Nokia announced a total of 36 new mobile devices in a wide variety of designs and technologies for all segments and at all price points as part of the ongoing renewal of our product portfolio as well to further reflect the emphasis on data in our offering. Of the products launched, 34 had color screens and 23 were camera phones, including our first mega-pixel camera phone, the Nokia 7610. Nokia has introduced 48 camera phones since the launch of its first one, the Nokia 7650, in 2002. In 2004, Nokia sold 10 million phones with integrated music players. We expect half of our new phone models in 2005 will have music functionality.

In 2004, we also introduced the first mobile device to support wireless LAN, the Nokia 9500, as well as expanding our 3G offering with shipments of two mobile devices, the Nokia 7600 and Nokia 6630. In the smartphone segment, where we are a clear market leader, by the end of 2004 Nokia alone had delivered approximately 12 million devices based on the Symbian operating system.

Mobile device design is an increasingly important consideration for mobile device buyers. At Nokia, design continues to be a fundamental part of our identity and brand. We aim to develop user interfaces and software that are easy to use. We also aim to allow users to express their personality by offering variety in the external appearance of our user interfaces and mobile devices. The products we introduced in 2004 came in a wide variety of forms ranging from clamshells, twists and slides to fold-out QWERTY keyboards and classic monoblocks.

Customization of mobile device hardware and software is a competitive requirement in the market for mobile device manufacturers. Certain operators want customized hardware and software with certain features, functionalities or designs together with co-branding to help them differentiate their services and boost the use of mobile services by integrating the necessary

technical configurations that make it easier for users to access and use their services. In response to operator needs, Nokia works closely with interested operator customers to offer customized hardware and software. Of the mobile devices we plan to announce in 2005, approximately 90% are expected to offer a range of customization options.

### ***Mobile Phones***

The Mobile Phones business group aims to make user-friendly mobile devices with many features for different segments of the global market. We seek to put consumers first in our product creation process and primarily target high-volume category sales. Mobile Phones currently offers mobile phones and devices based on the following global cellular technologies: WCDMA, GSM/EDGE, CDMA and TDMA.

In voice-centric and mainstream mobile phones, we believe that design, ease of use and price are our customers' most important considerations. Increasingly, our product portfolio includes new features and functionality designed to appeal to the mass market, such as cameras, Java, MMS and XHTML browsers. We expect that our future product portfolio will also increasingly include additional functionality, such as EDGE and Push to talk over Cellular, and be enhanced as 2G technologies evolve to 3G.

The Mobile Phones business group has six business units: Broad Appeal, Focused Appeal, Entry, CDMA, TDMA and Vertu.

The *Broad Appeal* business unit focuses on mid-range products where the balance among price, functionality and style are key. Some of the current products are the color-screen Nokia 3120, the Nokia 3220 camera phone and the Nokia 3230 Series 60 camera phone in the expression category. In the classic category, the offering includes the monoblock Nokia 6021 and Nokia 6030 phones for business users; the Nokia 6020, Nokia 6230, Nokia 6230i and Nokia 6610i camera phones; the Nokia 6170 and Nokia 6260 clamshell camera phones; and the Nokia 6101 clamshell camera phone, which is the first Nokia model introduced with an exclusive customizable design. For instance, the Nokia 6102 has the basic design of the Nokia 6101, but is customized for China Mobile Communications Company and has a different color scheme, re-designed covers, key mat and antenna design.

The *Focused Appeal* business unit concentrates on high-end products for consumers who make purchases on the basis of design or more specialized features. Highlights of the current product offering, in the fashion category, include the Nokia 7260 monoblock, the Nokia 7200 and the Nokia 7270 clamshells, and the Nokia 7280, a slide model without a traditional keypad. In the active category, we brought the Nokia 5140, our first push-to-talk phone, to market during 2004.

The *Entry* business unit addresses markets where we believe there is potential for growth and where mobile subscription rates are relatively low. Our aim is to provide affordable mobile phones while cooperating with local mobile operators in creating attractively priced service packages. Current products include the Nokia 2600 monoblock and the Nokia 2650 clamshell, both with color-screens, and the Nokia 2300 and Nokia 1100 with black and white displays.

The *CDMA* business unit and the *TDMA* business unit meet the demands of markets where these network technologies are used. The current product offering by the CDMA business unit includes the Nokia 6255, a fold-model camera phones and the Nokia 6256, Nokia 6235 and Nokia 3205 camera phones for a wider audience. The TDMA business unit 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 connected mobile multimedia to consumers in the form of advanced mobile devices and solutions. The Multimedia business group is also responsible for exploring and developing business models and systems, applications and new sales channels for the growing mobile multimedia market.

The Multimedia business group has four business units: Imaging, Entertainment Products, Convergence Products and Mobile Enhancements. During 2004, Multimedia introduced six new smartphones and numerous products in the areas of imaging, games and enhancement products. In January and February 2005, Multimedia introduced three additional smartphones.

*Imaging* develops mobile devices for capturing, sharing, storing and printing images. At the same time, our imaging devices offer smartphone functionality to consumers and business users. Smartphones are a new category of mobile devices that can run computer-like applications such as email, web browsing and enterprise software, and can also have built-in music players, video recorders and other multimedia features. In 2004, we announced the Nokia 7610, Nokia's first mega pixel camera phone, and the Nokia 6630 imaging smartphone, which is Nokia's third dual-mode 3G WCDMA/GSM phone. In January and February 2005, Multimedia introduced three additional smartphones: the Nokia 6680 3G WCDMA megapixel smartphone and the Nokia 6681 megapixel smartphone as well as its variant for the Americas, the Nokia 6682. We have also been actively developing ways to make the sharing, storing and printing of digital images easier with companies such as Kodak, HP and Fuji.

*Entertainment Products* develops devices and application platforms for music, mobile games and rich media. In mobile games, we currently offer the Nokia N-Gage and N-Gage QD game decks, both designed for mobile, multiplayer games. During 2004, there was a continuous flow of new titles from leading publishers for the Nokia N-Gage platform. Today, we have several mobile devices with integrated music players, and we are developing the next generation of music-optimized devices and service platforms. Our strategy is to bring music solutions to market with operator and music industry players. In rich media, we currently have products such as the Nokia 7710 which has full Internet browsing capability and smartphone functionality. In 2006, we expect to introduce to the market a mobile device TV using IP Datacasting technology over the DVB-H, or Digital Video Broadcast Handheld, standard.

*Convergence Products* seeks to capitalize on the digital convergence opportunity for Nokia by developing and driving technologies and products based on IP applications and multiple radio connectivity. The unit's products are still under development and have not yet been commercialized.

In *Mobile Enhancements*, Nokia offers products that are intended to make consumers' lives easier, more productive and fun. Current products include items such as the Nokia Wireless Headsets, the Nokia Wireless Keyboard and the Nokia Remote Camera as well as Nokia Automotive products.

### ***Enterprise Solutions***

Enterprise Solutions is dedicated to helping businesses and institutions improve their performance by extending their use of mobility from mobile devices for voice and basic data to secure mobile access and use of their content and applications. Our solutions range from business-optimized mobile devices for end users to a broad portfolio of IP network perimeter security gateways and mobile connectivity offerings. These solutions include mobile email and Internet, virtual private networks, or VPNs, and firewalls. Our solutions are designed to help companies mobilize their workforces while ensuring the security and reliability of their networks. Enterprise Solutions works with other technology companies to create solutions for customers.

Enterprise Solutions business group has two units: Mobile Devices and Security and Mobile Connectivity.

The *Mobile Devices* unit produces mobile devices optimized for business use. These devices integrate mobile phone and network connectivity with a common set of features including personal information management, email access, back-up, synchronization, connectivity to IT infrastructure, device security, over-the-air settings and development tools. As the product portfolio evolves, we expect to expand the number of devices that work on both IP and mobile networks as we incorporate cellular and non-cellular technologies in the same devices.

Current devices offerings as of the end of February 2005 include the Nokia 6800, Nokia 6820 and Nokia 6822 messaging devices, which have an innovative design with flip-access to a full QWERTY keyboard for text input. Launched in 2004, the Nokia 9500 Communicator and Nokia 9300 enterprise smartphone round out the high end of Nokia's business mobile device portfolio.

The *Security and Mobile Connectivity* unit has a broad range of application and secure connectivity offerings designed to help enterprise customers ensure that their employees are granted the appropriate level of access to corporate information and they have a secure connection from their mobile devices to the enterprise network. These offerings consist primarily of gateways, which are network points that act as an entrance to another network, and software-based tools that interoperate with Nokia and non-Nokia mobile devices. They are designed to integrate seamlessly with an enterprise's existing IT infrastructure and to be easy to manage.

The comprehensive Nokia Secure Connectivity offerings include IPSec VPN and Secure Socket Layer, or SSL, VPN technologies. These technologies give customers, partners and employees flexibility in accessing enterprise applications and information and work with a variety of devices, including mobile phones, PDAs, laptops and desktop terminals. These offerings allow enterprises to make better use of their existing network infrastructure investments without diminishing the quality of service of existing systems.

The Nokia suite of network security offerings has a proven record of meeting the most demanding requirements from large enterprises to small remote offices. Nokia offers a range of firewall gateways that we believe provide the most fully featured and cost-effective IP security solutions in the industry. These gateways rely on software from Checkpoint, one of our co-developers, for the firewall application. During 2004, Nokia introduced two new network security gateways designed for mid to large enterprises, service providers and data sites: the Nokia IP 2250 and the Nokia IP 1220. The new Nokia IPSO Operating System was also launched.

### ***Networks***

Networks is a leading provider of network infrastructure, communications and networks service platforms and services to operators and service providers. Networks focuses on the GSM family of radio technologies, including GSM, EDGE and WCDMA networks, core networks with increasing IP and multi-access capabilities, and services. The Networks business group enables mobility for mobile voice, consumer multimedia and enterprise solutions.

During 2004, Nokia gained ten new network infrastructure customers for GSM, GPRS and EDGE in Argentina, Australia, Ethiopia, India, Indonesia, Iraq, Libya, Pakistan, South Africa and Ukraine. In 2004, we significantly expanded our presence in India and Russia and entered new markets in the Middle East and Africa. Nokia strengthened its position in the growing market of India by signing important network contracts with Bharti Televentures, BSNL, Idea Cellular and Hutchison India. In Russia, Nokia won major network deals with MegaFon and VimpelCom. In the US, Nokia signed significant network expansion deals with T-Mobile and Cingular.

In WCDMA 3G, Nokia announced 13 contracts in 2004 including contracts with seven new customers in Australia, Israel, Libya, Malaysia, the Netherlands, Poland and New Zealand, and gained 3G expansion deals in Austria, Bahrain, Singapore, Switzerland and Taiwan. Altogether, Nokia won more than 40 different radio networks contracts during 2004.

Nokia made clear progress with its new core network solutions, winning 20 contracts for the Nokia Intelligent Content Delivery solution and 27 contracts for Push to Talk over Cellular. Nokia was the first infrastructure vendor to start delivering 3GPP Release 4 core network architecture to operators, winning 25 deals for the Nokia MSC Server System, which considerably improves the cost-efficiency of delivering voice minutes. Altogether, Nokia won more than 150 different core networks contracts during 2004.

By the end of 2004, Nokia had delivered GSM technology to over 130 customers worldwide and had 45 publicly announced WCDMA 3G references. At year-end, Nokia was a supplier to 28 of the 63 commercially launched WCDMA 3G networks, and was rolling out WCDMA networks to a total of 33 customers in 22 countries. Nokia had over 40 public EDGE references, and was supplier to 21 of the 38 commercially launched EDGE networks. Network's remained one of the industry leaders in the mobile infrastructure market globally with the second highest market share at the end of 2004.

During 2004, Nokia also launched new products for WCDMA networks and fixed broadband networks, such as the Metrosite 50 and ADSL 2+.

The Networks business group has five units: Radio Networks, Core Networks, Services, Customer and Market Operations, and Delivery Operations.

*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. As data speeds evolve, these products are increasingly used for data traffic in addition to traditional wireless voice traffic.

*Core Networks* develops core network solutions for operators. The main products are switches and different kinds of network servers. In circuit-switched networks, Nokia's solutions are helping operators to reduce the cost of providing voice minutes to subscribers. In packet-switched networks, Nokia's new core network solutions bring new functionality to the networks enabling operators to offer advanced multimedia services more efficiently. Many of Nokia's core network products can be used in both fixed and mobile networks.

*Services* offers operators a range of services from network planning and implementation to network optimization, managed services and operations outsourcing. Operators can achieve higher quality of service with lower operating and capital expenditures by improving and automating their processes with our tools and services.

*Customer and Market Operations* is the Nokia channel to operator customers, responsible for sales and marketing as well as overall customer relationships. Networks has organized its customer business teams on a regional basis. The Networks business group works in close cooperation with other Nokia businesses in addressing operator customers.

*Delivery Operations* is responsible for the sourcing, manufacturing and distribution of network products, in addition to network delivery and services.

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

The Customer and Market Operations horizontal group is responsible for the sales of mobile devices for the Mobile Phones, Multimedia and Enterprise Solutions business groups to the operator, distributor and independent retailer channels. Our global sales force covers more than

130 countries. We can, therefore, benefit from the global framework for customer relationship management developed in 2004 while staying close to our local markets and maintaining local customer understanding. In 2004, Nokia's selling and marketing expenditure was EUR 2 552 million, representing 8.7% of net sales.

Most of our mobile device business derives from sales to operators, distributors, independent retailers and enterprise customers. However, the percentage of the total sales volume from each channel varies by region. In the Asia-Pacific area, distributors and retailers account for more than half of the total sales volume. In China, handsets are sold almost solely through the retail channel. In Europe, Middle East and Africa, the distribution is split approximately half and half between operators and the other channels. In Latin America and North America, operator sales represent the major share.

Each of our active operator and distributor customers has a dedicated Nokia account team. Additionally, we have customer executive teams with Nokia Group Executive Board members as the customer executives for the largest global operators.

In addition to our activities in Customer and Market Operations, we have established specialized sales channels for certain business groups in order to reach customers in segments where we are introducing mobility. Each of these channels is specific to, and managed by, an individual business group. For example, Enterprise Solutions manages sales of our secure mobile connectivity products to certain resellers who contribute value, such as consulting services or additional software, before distribution. Multimedia is responsible for the sales of Nokia N-Gage, N-Gage QD and N-Gage games titles via dedicated channels.

Continuous strengthening of the Nokia brand is a critical component of our overall corporate strategy. According to a survey published in July 2004 by Interbrand, the Nokia brand was recognized as the eighth most valued brand in the world. We have invested in print and broadcast advertising, 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 securing product placements in movies so that Nokia phones feature prominently alongside the lead characters.

In general, our product marketing is carried out partly through our own campaigns and sales promotions and partly through operator and distributor customer initiatives, for example, linking Nokia phones with operators' promotional campaigns. As the popularity of mobile devices increases worldwide, mobile 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 device users, such as the benefits that users hope to derive from their mobile devices, lifestyles, demographics and psychological profiles. In line with this, our global marketing team also reflects that professional and cultural diversity.

Networks' sales and marketing channels mainly comprise dedicated account management teams for operator customers. The account management teams design solutions and suggest products based on operator requirements. In addition to the marketing done within customer teams, Networks uses customer events, exhibitions, brand marketing and an established interactive electronic channel.

### ***Production***

Nokia operated 15 manufacturing facilities in nine countries around the world as of December 31, 2004, for the production of mobile devices and network infrastructure. The Customer and Market Operations horizontal group is responsible for the production of Nokia mobile devices, while the Networks business group is responsible for the production of network infrastructure.

Our principal supply requirements are for electronic components, mechanical components and software. Electronic components include integrated circuits, microprocessors, standard components, memory devices, cameras, displays, batteries and chargers. Mechanical components include covers, connectors, key mats and antennas. Our products also incorporate software provided by third parties.

*Mobile Devices*

The production and logistics for the device businesses of Mobile Phones, Multimedia and Enterprise Solutions is managed by Customer and Market Operations, including control of the mobile device factories. The organization is also responsible for the process development in the demand-supply network, including Enterprise Solutions' gateway business and network infrastructure business. We consider our mobile device manufacturing to be a core competence and competitive advantage. Our Customer and Market Operations organization currently operates ten mobile device 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. We have two plants in China and one in South Korea that primarily supply the Asian markets. In addition, we have a manufacturing plant in the United Kingdom serving Vertu.

We use outsourcing to add flexibility to our manufacturing activities. During 2004, outsourcing covered an estimated 20% - 25% of our manufacturing volume of mobile device engines.

In the past several years, we have made significant capital investments in order to automate our mobile 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 devices for most of the world's major standards. As a result, we believe we are able to respond rapidly to the needs of different geographic markets as well as to take advantage of the flexibility of a global manufacturing network. In 2004, we expanded our production capacity to meet increased demand by adding production capacity. The biggest expansion was in Komaron, Hungary, where we approximately doubled our production capacity. We also announced plans to invest in a new facility for manufacturing mobile devices in India in 2005.

In line with industry practice, we source a large proportion of components for our mobile devices from a global network of suppliers. Some of these components may experience some price volatility from time to time. Management believes that our business relationships with our suppliers are stable, and they typically involve a high degree of cooperation in research and development, product design and manufacturing. We and our contract manufacturers then assemble these components and activate the device with our own software. 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 standards. Their failure to do so could adversely affect our ability to deliver our products and solutions successfully and on time."

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*

At December 31, 2004 the Networks business group operated five production plants, three in Finland and two in China. Nokia's base station production in China was transferred from Beijing to Suzhou in 2004, while Nokia continues to manufacture network elements for core and radio networks products in Beijing. Consolidation of our base station manufacturing in China enables increased economies of scale, bringing improved operational efficiency and cost benefits. 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 product interoperability. 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 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 outside our core areas. This strategy improves our flexibility and reaction speed, and helps to increase our competitiveness in the mobile 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 and efficient research and development is vital to remaining competitive. At Nokia, research and development takes place within Technology Platforms, the business groups and Nokia Research Center.

Technology Platforms is responsible for delivering leading technologies and platforms to all Nokia mobile device business groups and for licensing certain technologies and platforms to external customers. Nokia's mobile device business groups address their unique customer segments and needs in product-focused research and development, creating and integrating technologies to build their respective devices, products and solutions. The Networks business group research and development work focuses on GSM, EDGE and WCDMA 3G radio technologies, circuit-switched and IP-based core networks, and network management. Nokia Research Center conducts research and technology exploration with a longer time horizon. Also, the Nokia Ventures unit identifies innovations, develops ideas and invests in businesses within the scope of Nokia's strategic agenda.



In all these R&D efforts, the ownership and creation of relevant intellectual property rights are essential to maintaining competitiveness and to creating profitable products. Nokia intends to continue to add to its intellectual property rights portfolio through its R&D.

Nokia's R&D efforts also aim to capitalize on the trend where a growing number of companies, from our industry and others, provide various software and hardware solutions and components for different layers of communications products. Our approach is to develop select strategic technologies and integrate them, together with leading commercial technologies and components, into our products. By focusing on and commercializing the technologies we believe are essential to long-term competitiveness in mobile devices and networks, such as multi-radio technologies that will provide users seamless connectivity from cellular technologies to complementary access technologies such as wireless LAN, Bluetooth, Near Field Communications and mobile Digital Video Broadcasting, we aim for technology leadership, improved R&D productivity, unit cost savings, and faster time to market. Nokia believes it has a competitive edge in this area because of its experience with integrating wireless access technologies into small mobile devices.

During 2004, Nokia entered into several technology development agreements with operators to jointly bring innovations to market. These included agreements with France Telecom for rich media solutions and with T-Mobile for the development of Series 60 Platform applications. A mobile service architecture initiative led by Nokia and Vodafone was launched to simplify mobile Java standards. Nokia also continued its work within numerous industry associations and initiatives to support interoperable, high-quality products and solutions.

As of December 31, 2004, we employed 20 722 people in research and development in 12 countries, representing approximately 37% of Nokia's total workforce. See "Item. 5.C Research and Development, Patents and Licenses" for more information.

#### *Technology Platforms*

Technology Platforms is responsible for delivering leading technologies to all Nokia mobile device business groups and external licensees. The concentration of select R&D activities within Technology Platforms is intended to provide Nokia with synergies and economies of scale.

Technology Platforms focuses on technologies expected to provide a competitive advantage in the market both now and in the future. Key areas are cellular access technologies, mobile software platforms such as Series 60, mobile device hardware platforms, components and modules, and mobile device architecture management. In addition to strong internal R&D capabilities, Technology Platforms works together with external developers, suppliers and collaborators to benefit from innovations in the industry.

Technology Platforms' activities in wireless access include protocol software development for GSM/WCDMA and CDMA standards as well as radio implementations. The focus on both cellular and non-cellular access enables Technology Platforms to take a role in the development of the industry and the key technologies, gain value through its intellectual property rights portfolio, and deploy solutions cost effectively.

In the area of mobile software, Technology Platforms develops Series 60, the market leading smartphone software platform, which Nokia uses in its own devices, and also licenses it to other handset manufacturers. At the moment, revenue from software licensing activities is immaterial. In addition, Technology Platforms develops the Series 40 platform, which is used in feature phones and which supports Java to enable external creation of new applications. Technology Platforms also develops software on top of the Symbian operating system, or OS. Nokia's global mobile device software developer support program, Forum Nokia, is also part of Technology Platforms.

Technology Platforms develops modules and interfaces for displays, cameras, audio components and new mechanisms and materials and also develops the product and service architecture. Furthermore, the Product Creation Process Solutions unit within Technology Platforms supports all Nokia's mobile device business groups in taking advantage of common processes and tools for product development, testing and certification. The Nokia Design unit supports the mobile device business groups with their device design needs. The User Experience team aims to bring the customer experience perspective into technology development and product conceiving.

*Research and Development in Nokia's Business Groups*

Nokia's mobile device business groups focus on their unique customer groups in their research and development. In developing products, they integrate technology components from Technology Platforms and external vendors. With their focus on, and proximity to, specific segments of the mobile communications market, we believe that our business groups are best positioned to specify, tailor or customize technologies to meet the unique needs and preferences of our customers.

Research and development activities within the mobile device business groups focus on business-specific technologies, such as product mechanics and product-specific applications. In the Mobile Phones business group, we intend to continue to support the development of mobile phones by introducing new features and improving affordability. We take a product family approach and create a number of products from a set of defined platforms. Sharing of technologies helps improve our R&D efficiency, speeds time to market and allows us to focus on developing more value adding features. For example, the Multimedia business group has developed new imaging applications to expand the uses for images taken with its mega-pixel camera phones, and the Enterprise Solutions business group continued to develop a variety of email solutions, vertical applications, enterprise mobile devices as well as security infrastructure. In 2004, the Enterprise Solutions business group also introduced the Nokia 9500, featuring a wireless LAN radio, which was the first concrete example of Nokia's R&D efforts in the area of multiradio.

The Networks business group research and development work focuses on GSM, EDGE and WCDMA 3G radio technologies, circuit-switched and IP-based core networks, and network management. The rapid introduction of new technologies in the infrastructure market requires substantial effort and investments into developing these technologies, as was evident with the emergence of 3G. Hence, part of Networks' research is focused on investigating future radio and core network technologies. With these investments we aim to support the development of existing network infrastructure solutions as well as implement new innovative solutions to support future end user services. Further, we focus on creating open hardware and software architectures, which results in the research and development costs being spread among the industry players.

*Nokia Research Center*

Looking beyond current product development, Nokia's corporate research center develops leading-edge technologies and creates competencies in technology areas that we believe will be vital to the company's future success. The Research Center works closely with Nokia's four business groups and Technology Platforms to develop new concepts, technologies and applications.

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

## ***Competition***

### *Mobile Devices*

For 2004, the total mobile device sales volume achieved by the Mobile Phones, Multimedia and Enterprise Solutions business groups reached a record of 207.7 million units, representing growth of 16% compared with 2003. Based on an estimated global market volume for mobile devices of 643 million units, our global market share was 32% for 2004, according to Nokia's estimates, compared with an estimated 38% for 2003. Nokia is the market leader with market share that is twice that of our nearest competitor.

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 in mobile devices have been other mobile communications companies such as LG, Motorola, Samsung, Siemens and Sony Ericsson. However, we face new competition, particularly in Multimedia and Enterprise Solutions where we 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. Examples of such layers include operating system and user interface software, chipsets, and application software, such as games software. As a result of these developments, we face new competitors such as, but not limited to, Dell, HP, Microsoft, Nintendo, Palm, Research in Motion and Sony, and we will also face a large number of smaller competitors and some of our traditional competitors in new areas.

It is difficult to predict how the competitive landscape of the mobile communications industry will develop in the future. In the mobile communications 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 Competition in our industry is intense. Our failure to respond successfully to changes in the competitive landscape may have a material adverse impact on our business and results of operations."

### *Infrastructure*

In the network infrastructure business, our principal competitors include Alcatel, Ericsson, Huawei, Lucent, Motorola, NEC, Nortel and Siemens. Competition in both the 2G and the 3G network infrastructure market remains intense. In 2G, competition is driven by price, solutions that are able to offer low total cost of ownership, and the vendor's ability to roll-out mobile networks in new growth markets. In 3G technology, vendors compete on the grounds of price, track record of network implementations, and which future technologies they plan to offer and when, such as HSDPA, or High Speed Downlink Packet Access, which provides high speed data delivery to 3G terminals to support multimedia services.

In the infrastructure side of the Enterprise Solutions business, our principal competitors are Cisco and Juniper Networks.

### *Seasonality*

For information on the seasonality of our business, please see "Item 5.A Operating Results Certain Other Factors Seasonality".

*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 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 2004, we filed new patent applications for more than 1 300 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 new Nokia patented and other proprietary technologies, as well as some developed or licensed to us by certain third parties. As a consequence, evaluating the protection of the technologies we intend to use is more and more challenging, and we expect increasingly to face claims that we have infringed third parties' intellectual property rights. The use of increasingly complex technology may also result in increased licensing costs for us, restrictions on our ability to use certain technologies in our products and solution offerings, and/or costly and time-consuming litigation. Third parties may also commence actions seeking to establish the invalidity of intellectual property rights on which we depend."

#### ***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 has in many areas a direct effect on the business of Nokia and our customers within the single market of the European Union. For example, in the telecommunications sector the Council of Ministers has adopted a set of directives which after their national implementation harmonize EU Member States' regulatory framework for all types of electronic communication networks and services. Also other regulatory measures have been taken in the recent years in order to open telecommunications competition in the internal markets and to address consumer protection and environmental policy issues relating to the sector. 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 the 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 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 affect 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 global 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 communications 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, protect the Nokia brand and build a reputation for citizenship. During 2004, we made progress in a number of corporate responsibility areas. Some of these are highlighted below.

Results were obtained from the Philippines pilot of Bridgeit, an innovative program that uses mobile technology to bring interactive, multimedia learning materials to teachers and students who otherwise would have no access to them. As a direct result of Bridgeit, the Education Authorities in the Philippines were able to significantly improve exam results, school attendance and teacher motivation without increasing the cost of education per pupil. Launched by Nokia, the International Youth Foundation, or IYF, the United Nations Development Programme, or UNDP, and Pearson, Bridgeit is now being expanded to double the number of schools and will be implemented in other countries.

The European Community invited Nokia, as one of two companies, to participate in a multi-stakeholder consultation pilot, called the Integrated Product Policy, that examines how environmental awareness works in practice and aims to improve knowledge of the environmental performance and the sustainable use of these products throughout their life-cycle.

Nokia launched a barring solution for the safe and controlled usage of mobile content services as part of the Nokia Intelligent Content Delivery solution. Responding to new stakeholder expectations for safe communications, our barring solution is based on subscriber and mobile service recognition and allows mobile users to control access to mobile content services. For example, parents can prevent children from accessing undesirable content or unwanted services.

In the supply chain, to further the monitoring of labor conditions and transparency we carried out more in-depth ethical assessments on suppliers and initiated similar assessments on our own manufacturing operations. A benchmarking report by ISIS Asset Management on the supply and disposal chains of information/communication/technology companies put Nokia jointly in first place.

As a result of developments in our environmental and ethical programs and increased transparency, Nokia gained first place for the second year running in the Dow Jones Sustainability Index European Technology and Global Communications Technology categories.

### ***Employee Development***

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, 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, leave and benefits.

#### 4.C Organizational Structure

The following is a list of Nokia's significant subsidiaries as of December 31, 2004:

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%
Nokia Capitel 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 India Ltd	India	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, 2004, Nokia operated 15 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	Manaus (mobile devices)	12 352
CHINA	Beijing (mobile devices)	23 095
	Dongguan (mobile devices)	12 768
	Suzhou (base stations and cellular network transmission products)	6 450
	Beijing (switching systems, base station controllers, transcoders, home location registers)	4 634
FINLAND	Salo (mobile devices)	28 440
	Oulu (base stations)	13 322
	Espoo (switching systems, base station controllers, transcoders, radio access products)	10 674
	Oulu (plug-in units for both GSM and WCDMA base station product families)	6 538
GERMANY	Bochum (mobile devices)	28 389
HUNGARY	Komárom (mobile devices)	30 062
MEXICO	Reynosa (mobile device batteries, mobile devices)	9 102
REPUBLIC OF KOREA	Masan (mobile devices)	34 768
UNITED KINGDOM	Fleet (mobile devices)	2 728
UNITED STATES	Fort Worth, Texas (mobile devices)	20 749

<sup>(1)</sup> 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

This section begins with an overview of our four business groups and the principal factors and trends affecting our results of operations. The overview is followed by a discussion of our critical accounting policies and estimates that we believe are important to understanding the assumptions and judgments reflected in our reported financial results. We then present a detailed analysis of our results of operations for the last three fiscal years and our liquidity and capital resources.

The following should be read in conjunction with our consolidated financial statements included in Item 18 of this Form 20-F and "Item 3.D Risk Factors". Our financial statements and the financial information discussed below have been prepared in accordance with IFRS. For a discussion of the principal differences between IFRS and US GAAP, see "Principal Differences between IFRS and US GAAP" below and Note 37 to our consolidated financial statements.

#### Overview

Nokia is the world's largest manufacturer of mobile devices and a leader in mobile network equipment, solutions and services. We also provide equipment, solutions and services for enterprise customers.

On January 1, 2004, Nokia reorganized to further align the company's overall structure with its strategy, to better position each business group to meet the specific needs of diverse market segments, and to increase Nokia's operational efficiency and maintain our economies of scale. The structure includes four business groups: Mobile Phones, Multimedia, Enterprise Solutions and Networks. There are also two horizontal groups that support the mobile device business groups: Customer and Market Operations and Technology Platforms. In addition, the structure includes common group functions that consist of common research and general group functions. Prior to 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.

Mobile Phones continues the development of mobile phones based mainly on GSM, CDMA and WCDMA technologies. Multimedia focuses on bringing connected mobile multimedia to consumers in the form of advanced mobile devices, including 3G WCDMA mobile devices, and solutions. Enterprise Solutions aims to help businesses and institutions extend their use of mobility from mobile devices for voice and basic data to secure mobile access and use of their content and applications. Networks is a leading provider of network infrastructure, communications and networks service platforms and professional services to operators and service providers.

The following discussion and analysis by management of our operating and financial results for fiscal years 2004 compared with 2003 is based upon our organizational and reporting structure as of January 1, 2004. Discussion and analysis by management of our operating and financial results for fiscal years 2003 compared with 2002 is based upon our organizational and reporting structure prior to January 1, 2004, as a comparison based upon the new business groups would not be meaningful.

For purposes of the discussion under "Principal Factors Affecting our Results of Operations - Mobile Devices" and "Research and Development, Patents and Licenses" our mobile device net sales and costs include total net sales and costs of the Mobile Phones and Multimedia business groups as well as the Mobile Devices business unit of the Enterprise Solutions business group. Mobile device net sales and costs exclude the Security & Mobile Connectivity business unit of the Enterprise Solutions business group. The results of that business unit historically have been immaterial.

Business segment data in the following discussion and analysis is prior to inter-segment eliminations. See Note 3 to our consolidated financial statements.

The following table sets forth, for informational purposes only, the net sales and operating profit for our business groups for the years indicated based on our organizational structure as of January 1, 2004. The information for fiscal years 2003 and 2002 has been regrouped to reflect the new business groups as if they had been in existence during each of those years.

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

	Year ended December 31,					
	2004		2003		2002	
	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)
	(EUR millions)					
Mobile Phones	18 507	3 768	20 951	5 927	21 628	5 718
Multimedia	3 659	179	2 504	(186)	1 555	(365)
Enterprise Solutions	830	(199)	529	(141)	487	(102)
Networks	6 367	878	5 620	(219)	6 539	(49)
Common Group Expenses		(296)		(370)		(422)
Eliminations	(96)		(149)		(193)	
<b>Total</b>	<b>29 267</b>	<b>4 330</b>	<b>29 455</b>	<b>5 011</b>	<b>30 016</b>	<b>4 780</b>

For 2004, our net sales decreased 1% to EUR 29 267 million compared with EUR 29 455 million in 2003, and in 2003 net sales decreased 2% compared with 30 016 million in 2002. At constant currency, group net sales would have grown 6% between 2003 and 2004 and 7% between 2002 and 2003. Our operating profit for 2004 decreased 14% to EUR 4 330 million compared with EUR 5 011 million in 2003. In 2003, operating profit increased by 5% from 4 780 million in 2002. Our operating margin was 14.8% in 2004 compared with 17.0% in 2003 and 15.9% in 2002, respectively.

The following table sets forth the distribution by geographical area of our net sales for the years indicated.

***Percentage of Nokia Net Sales by Geographical Area***

	Year ended December 31,		
	2004	2003	2002
Europe, Middle-East & Africa	55%	56%	54%
China	10%	8%	11%
Asia-Pacific	15%	14%	13%
North America	12%	16%	16%
Latin America	8%	6%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The 10 markets in which Nokia generated the greatest net sales in 2004, in descending order of magnitude, were the US, China, UK, Germany, India, Brazil, Russia, United Arab Emirates, Italy and Spain, together representing 55% of total net sales. In comparison, the 10 markets in which Nokia generated the greatest net sales in 2003 were the US, UK, Germany, China, United Arab Emirates, India, Italy, France, Brazil and Spain, together representing 61% of total net sales.



**Principal Factors Affecting our Results of Operations****Mobile Devices**

Our mobile device sales are derived from the sale of mobile devices by our Mobile Phones and Multimedia business groups and by the Mobile Devices business unit of our Enterprise Solutions business group. Our principal customers are mobile network operators, distributors, independent retailers and enterprise customers. Our product portfolio covers all major user segments and price points from entry-level to mid-range and high-end devices offering voice, data, imaging, games, multimedia and business applications. A number of factors affect our sales and profitability, some of which are to a certain extent outside of our control.

Our sales depend on the global growth in mobile device volumes driven by growth in both the number of existing mobile subscribers who upgrade or simply replace their existing mobile devices as well as in the number of new subscribers. Industry volume growth is influenced by, among other factors, regional economic factors, competitive pressures, regulatory environment, 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, and operators' and distributors' financial situations. Industry volumes are also affected by the level of mobile device subsidies that network operators are willing to offer to end users. In highly penetrated markets, industry volumes are dependent on the ability of network operators to successfully introduce services that drive the upgrade and replacement of devices. In low penetration markets, the availability and cost, through affordable tariffs, of mobile phone service compared with the availability and cost of fixed line networks also impact volume growth.

According to Nokia's estimates, in 2004 the global device market volume grew by 31% to 643 million units compared with 490 million units in 2003, a record for the industry. This growth was driven by the ongoing boom in new subscriber growth in Latin America, Russia, India and China and robust replacement sales of color screen and camera phones in Western Europe and North America. The following chart sets forth the global mobile device market volume and year over year growth rate by geographic area for the three years ended December 31, 2004 based on Nokia's estimates.

**Global Mobile Device Market Volume by Geographic Area  
based on Nokia's Estimates**

	Year ended December 31, 2004	Change (%) 2003 to 2004	Year ended December 31, 2003	Change (%) 2002 to 2003	Year ended December 31, 2002
(units in millions, except percentage data)					
Europe, Middle-East & Africa	240	33%	181	29%	140
China	83	32%	63	3%	61
Asia-Pacific	124	15%	108	23%	88
North America	124	22%	102	15%	89
Latin America	72	100%	36	33%	27
<b>Total</b>	<b>643</b>	<b>31%</b>	<b>490</b>	<b>21%</b>	<b>405</b>

Nokia expects the overall mobile device market in 2005 to grow by approximately 10% in volume, compared with 2004, but to grow less in value. Growth is expected to continue to be driven by ongoing replacement sales in more developed markets and new subscribers in low penetration mobile markets such as India, Russia, China, most Latin American countries and several Middle Eastern and African countries. We believe that replacement sales will be driven by the availability of larger and brighter color screens and cameras, as well as the commercialization of 3G devices in

the second half of the 2005. Nokia estimates that the replacement market will represent approximately 60% of industry volumes in 2005 compared with approximately 50% in 2004 based on Nokia's estimates. We estimate that global mobile subscribers reached approximately 1.7 billion at the end of 2004. We further estimate that there will be approximately 2 billion subscribers by the end of 2005 and approximately 3 billion subscribers by 2010.

Nokia's mobile device volumes also reached a record high in 2004 at 207.7 million units, a 16% increase over 2003. Our sales in China and Asia Pacific exceeded the industry volume growth in those geographical areas. In China, our extensive distribution system, quality products and Nokia brand drove volumes. In Latin America, our volume growth largely tracked the regional industry volume growth. In 2004 our device volumes declined in Western Europe and North America in comparison to 2003. In Western Europe, our volumes were adversely affected in the first half of 2004 because our mid-range product offering was not competitive enough, particularly phones with integrated cameras. In North America our volumes were adversely affected by two primary factors: first, the increased consumer preference for "clamshell" style phones, a design that was not part of the Nokia portfolio in that region in 2004; and second, operator migration from TDMA technology, a historically strong market for us, to GSM and CDMA technology, where operators did not view certain segments of our product portfolio as sufficiently competitive. The following chart sets forth Nokia's mobile device volume and year over year growth rate by geographic area for the three years ended December 31, 2004.

*Nokia Mobile Device Volume by Geographic Area*

	Year ended December 31, 2004	Change (%) 2003 to 2004	Year ended December 31, 2003	Change (%) 2002 to 2003	Year ended December 31, 2002
(units in millions, except percentage data)					
Europe, Middle-East & Africa	98.2	7%	91.9	22%	75.1
China	18.9	51%	12.5	(21)%	15.9
Asia-Pacific	33.5	24%	27.1	38%	19.6
North America	29.0	(10)%	32.4	5%	31.0
Latin America	28.1	82%	15.4	47%	10.5
Total	207.7	16%	179.3	18%	152.1

Our ability to grow our volumes in both the replacement and low penetration markets is dependent on our ability to introduce new devices on a timely basis and maintain a competitive product portfolio. For Nokia, a competitive product portfolio means a broad and balanced offering of commercially appealing mobile devices with attractive features, functionality and design for all major user segments and price points. This requires us to understand the different markets in which we operate, identify key market trends and address our customers' needs proactively and in a timely manner. Our ability to continuously renew our product portfolio is a key to our success. Due to our product portfolio not being competitive enough as noted above, our market share declined during the first half of 2004 from an estimated 38% in the fourth quarter of 2003 to an estimated 31% in the second quarter of 2004. In order to regain market share, we reduced the prices of certain of our mobile devices. This, together with our ongoing product renewal, contributed to a sequential improvement of our market share in the second half of 2004, to an estimated 33% in the third quarter and an estimated 34% in the fourth quarter. For more information about products introduced in 2004, see "Item 4.B Business Overview Nokia in Mobile Devices 2004".

We believe that customization is an important element to gaining increased operator customer satisfaction. Certain mobile network operators require mobile devices to be customized to their

specifications by requesting certain preferred features, functionalities or designs, together with co-branding with the network operator's brand. We are working together with these operators on product planning as well as accelerating product hardware and software customization programs. Of the mobile devices we plan to announce in 2005, approximately 90% are expected to offer a range of customization options. See "Item 4.B Business Overview Industry Development and Trends" for more information on the mobile industry's development and trends.

We continue to see sales growth opportunities in the mobile voice market where we intend to focus on markets with low mobile penetration and in higher penetration markets on features and functionalities designed to increase the use of mobile voice by consumers and enterprises. In addition, the convergence in some areas of the mobile communications, information technology, media and consumer electronics industries is leading to the creation of new mobile devices, services and ways to use mobile devices. This together with the open standards and specifications and interoperability are driving expansion from voice-based communications towards new data-driven areas and applications in consumer multimedia and enterprise mobility solutions. These developments also support further opportunities in mobile voice. Our reorganization at the beginning of 2004 is designed to better position each of our three mobile device business groups to meet the specific needs of these diverse market segments.

In 2005, we expect to see continued demand for advanced products, such as camera phones, smartphones and other mobile multimedia devices and services. In the short term, we believe the most significant opportunities are in mobile imaging and smartphones. In 2004, Nokia was a clear leader in the smartphone market, a position that it intends to maintain in 2005. Our long-term focus areas, where we expect important business opportunities to develop, include music, mobile games and mobile TV.

The enterprise market is emerging as an opportunity for the mobile communications industry. Businesses are just beginning to realize the potential productivity gains, cost savings and competitive advantages enabled by secure mobile voice, data and business applications. With our Enterprise Solutions business group we intend to capture profitable segments of the enterprise market by offering products and services designed to help enterprises improve performance by extending their use of mobility with a diverse range of mobile devices, mobile applications and security, as well as service and support. See "Item 4.B Business Overview Industry Developments and Trends."

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. For instance, through our Multimedia business group we have made significant investments in the area of mobile games. As the games industry has different dynamics than the mobile device market we face some new challenges in this segment. In January 2005 we announced that we are streamlining research and development activities in our Multimedia business group and this has been leading to restructuring of the R&D activities in the games business unit. However, we believe that the games business is still in an early phase of development, and in the longer term we continue to see great potential in the games business and expect to introduce several new mobile games in 2005. 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 first and fifth risk factor in "Item 3.D Risk Factors."

As stated above, we estimate that in 2005 the mobile device industry will grow approximately 10% in volume from 643 million units in 2004. The value is expected to grow less in 2005 as we anticipate the industry average selling prices, or ASPs, to decline somewhat compared with 2004. Industry ASPs are driven primarily by three factors: mix shifts, price erosion and industry competition.

*Mix shifts:* In 2004 the share of first time buyers, new subscribers, was approximately 50% of the global mobile device industry volume and in 2005 it is expected to diminish to approximately 40%. In 2005 as in 2004, the new subscribers continue to come predominantly from lower penetration countries and those who purchase lower priced products. At the same time the replacement market, which on average is made up of more expensive products, is increasing its share. Consumers upgrading to new features and functionalities is one of the drivers for this market. For example, many of the developed markets in 2004 were driven by upgrades to camera functionality and/or to a larger and brighter color screen. In some cases the consumer benefits of the new product introductions could be perceived so high, that the new feature introduction warrants a price premium.

*Price erosion:* Price erosion is a normal characteristic of the mobile device industry. As a consequence, the pricing for any given feature and functionality tends to decline over a period of time. For example, prices of phones with simple mobile voice functionality as well as lower resolution camera phones are declining, while the high end of the imaging market is moving to one-megapixel and higher camera resolutions. Price erosion tends to be the steepest when a feature enters the volume market phase.

*Industry competition:* The overall industry competition, the balance between demand and supply, also impacts the pricing. A severe oversupply tends to create pricing pressure, while a balanced demand-supply situation supports more benign pricing.

The 2005 mobile device industry value development will ultimately depend on the customer and product mix, price erosion associated with various features and functionalities, and the overall demand-supply balance.

For Nokia, all the same industry factors mix, price erosion and competitiveness impact pricing. To mitigate the impact of mix shifts on our profitability, we implement product segmentation, with the aim of designing appropriate features with an appropriate cost basis for each customer segment. Likewise, we endeavor to mitigate the impact on our profitability of price erosion of certain features and functionalities by seeking to correctly time the introduction of new products, in order to align such introductions with declines in the prices of relevant components.

In 2004, Nokia's ASP was EUR 110, declining by 17% from EUR 132 in 2003. In 2003, Nokia's ASP declined by 14% from EUR 153 in 2002. In 2004, Nokia's ASP declined sequentially in each of the first three quarters of the year due to the price reductions explained above. Nokia's ASP declined from EUR 127 (fourth quarter 2003) to EUR 115 (first quarter 2004) to EUR 111 (second quarter 2004) to EUR 106 (third quarter 2004). With the introduction of new products and improved product mix during the latter part of 2004, our overall competitive position improved leading to a sequential increase in Nokia's ASP during the fourth quarter of 2004, to EUR 107. The introduction of new products and improved product mix also contributed to our sequential market share growth during the third and fourth quarters of 2004 to 33% and 34%, respectively. Nokia's ASPs have been calculated by dividing Nokia's total mobile device net sales by mobile device volume.

Operational efficiency and cost control have been and will continue to be important factors affecting our profitability and competitiveness. Our mobile device product costs are driven mainly by cost of components, manufacturing labor, royalties, depreciation of product machinery, logistics costs and warranty and other quality costs. In addition, we believe our annual sales volumes in excess of 200 million units, approximately twice the volume of the nearest competitor, give us sizeable scale benefits in component procurement as well as in absorbing research and development, or R&D, and selling, general and administrative, or SG&A, costs.

We also believe that effective and efficient research and development is vital to remaining competitive. For 2003 and 2004 research and development expenses represented approximately

9% and 10%, respectively, of mobile device net sales, with year over year increases (measured in euro spend) in all three mobile device business groups. Our objective is to lower the mobile device R&D expenses/net sales ratio to 8% by the end of year 2006, while simultaneously ensuring that the most compelling products are brought to market at the right time. We aim to achieve these objectives by both reducing product development cycle times and also by more focused R&D spend.

In 2004 the sales and marketing costs related to mobile devices were EUR 1.9 billion compared to EUR 2.1 billion in 2003. We believe that in the longer term, sales and marketing costs will increase. In the Mobile Phones business group we spent more in sales and marketing than in R&D in 2004. However, in 2004 the Multimedia and Enterprise Solutions business groups continued to spend more on R&D than sales and marketing. The relative importance of R&D is higher in the Multimedia and Enterprise Solutions, while Mobile Phones business group spends proportionally more on marketing than R&D.

#### *Infrastructure*

Our infrastructure net sales are derived from the net sales of our Networks business group, which provides network infrastructure, communications and networks service platforms and professional services to operators and service providers. Nokia's Enterprise Solutions business group also provides a variety of interoperable corporate infrastructure products, as discussed in the last paragraph of this section. A number of factors affect the sales and profitability of our infrastructure business, some of which are to a certain extent outside of our control, as discussed below.

Networks net sales depend on the growth of the mobile infrastructure market, which is driven by the level of investment by network operators. In low penetration markets, the principal factor influencing operator investment is the growth in mobile usage and the number of subscribers. This in turn leads to increased demand for mobile network infrastructure as operators seek to build networks and launch commercial services to meet the coverage and capacity requirements. In low penetration markets most new networks currently use 2G technology, and competition among suppliers is driven by price, the ability to provide networks and services designed for low total cost of ownership, and the ability to roll-out and support mobile networks. Investment by network operators in low penetration markets may also depend on regulatory developments such as the availability, number and cost of telecommunications licenses.

In more developed markets, operator investment is driven primarily by the decision to expand the capacity of existing networks or upgrade them in order to incorporate new technologies, such as 3G. The demand for and commercial acceptance of such new technologies is largely dependent upon the attractiveness of the related services, the availability and pricing of 3G mobile devices and the further maturity of 3G technology. In 3G technology, suppliers compete on the basis of price, track record of network implementations, end-to-end capabilities, and which future technologies they plan to offer and when.

In the past, customer financing provided or arranged by suppliers to network operators in all markets was often an important competitive requirement to bidding on or obtaining 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. As a strategic market requirement, we plan to continue to arrange and facilitate financing to our customers, and provide financing and extended payment terms to a small number of selected customers.

In 2002, the size of the mobile infrastructure market declined from 2001 by approximately 20%, and a similar decline took place between 2002 and 2003. These declines reflected significantly



reduced and/or delayed infrastructure investments by operators as they focused during those years on decreasing debt and improving their capital structure primarily due to the combined effects of the general economic slowdown and high 3G license costs. In order to improve profitability, Nokia responded to these market developments by restructuring its infrastructure business and reducing Networks headcount by almost 2000 people in 2003. Towards the end of 2003, the market started to stabilize somewhat. This stabilization continued into 2004, when following three years of decline, we estimate that the mobile infrastructure market showed year-on-year growth of approximately 14% in euro terms. This growth was largely the result of operator investments in the current technologies of GSM, EDGE, and GPRS and their related services, especially in low penetration markets, and in new-generation technologies, such as WCDMA 3G.

The following chart sets forth the global mobile infrastructure market size by geographic area, based on Nokia's estimates, for the three years ended December 31, 2004. Nokia's estimate of the value of mobile infrastructure market includes sales of mobile infrastructure equipment and related services for all cellular standards.

**Global Mobile Infrastructure Market Size by Geographic Area  
based on Nokia's Estimates**

	Year ended December 31, 2004	Change (%) 2003 to 2004	Year ended December 31, 2003	Change (%) 2002 to 2003	Year ended December 31, 2002
(EUR billions, except percentage data)					
Europe, Middle-East & Africa	17.2	17%	14.7	(15)%	17.2
China	6.2	22%	5.1	(7)%	5.5
Asia-Pacific	7.9	5%	7.5	(20)%	9.4
North America	9.9	9%	9.1	(25)%	12.2
Latin America	3.5	30%	2.7	(10)%	3.0
<b>Total</b>	<b>44.7</b>	<b>14%</b>	<b>39.1</b>	<b>(17)%</b>	<b>47.3</b>

In mobile infrastructure, Nokia expects the overall market in 2005 to be slightly up compared with 2004 in euro terms. We expect operators to continue building coverage and expanding capacity in low penetration markets as well as optimizing and expanding existing 2G networks in the more developed markets but to a lesser extent than in 2004. The continued rollout of high-speed, high-capacity 3G networks is expected to contribute to the market growth.

Networks sales and profitability are also affected by the product mix. Until the second half of 2002, all Nokia Networks infrastructure sales were related to 2G. In the second half of 2002, Nokia started to recognize revenue from its first 3G contracts. In 2003, the 3G related sales were approximately 16% of Networks total sales. As 2003 was the first year of 3G volume roll-outs, profitability of our infrastructure business was lower due to quality issues related to the new technology. In 2004, 2G accounted for a higher proportion of total net sales than expected, with 3G ultimately increasing its year-on-year share by 1% to 17%. Service related sales, such as roll-out, maintenance and professional services, grew as a proportion of total sales throughout 2004, closing the year at approximately 25%. In 2004, Networks entered several new geographical areas, with the effect that initial roll-out profitability was negatively impacted by market entry related costs as well as the highly competitive nature of these markets. However, overall profitability of 3G contracts positively impacted Networks' profitability in 2004.

The following chart sets forth Nokia's Networks net sales by geographic area for the three years ended December 31, 2004.

*Networks Net Sales by Geographic Area*

	Year ended December 31, 2004	Change (%) 2003 to 2004	Year ended December 31, 2003	Change (%) 2002 to 2003	Year ended December 31, 2002
(EUR millions, except percentage data)					
Europe, Middle-East & Africa	3 116	12%	2 790	(18)%	3 423
China	852	29%	663	(0)%	666
Asia-Pacific	906	22%	744	(30)%	1 070
North America	984	(7)%	1 055	(1)%	1 064
Latin America	509	38%	368	16%	316
<b>Total</b>	<b>6 367</b>	<b>13%</b>	<b>5 620</b>	<b>(14)%</b>	<b>6 539</b>

Networks sales are also driven by price developments. Like our mobile devices business, the products and solutions offered by our Networks business are subject to gradual price erosion over time, largely as a result of competitive pressures in the markets where we operate. We endeavor to mitigate the strong pricing pressures that result from increased competition by improving operational efficiency and developing higher margin differentiated solutions for our customers.

Additionally, Networks sales depend upon the prevalence of the specific technologies on which we have chosen to focus. Networks currently focuses on the GSM family of radio technologies, including GSM, EDGE and WCDMA 3G networks, and core networks with increasing IP and multi-access capabilities. The pace of WCDMA 3G rollouts picked up during 2004, and by the end of the year 63 operators had launched commercial WCDMA 3G services. Nokia supplied 3G technology to 28 of these operators. Demand for our products and solutions depends on the extent to which these technologies continue to enjoy popularity with operators and end-users, and on the extent to which we are able to identify correctly and respond to changes in operators' and end-users' technology preferences as different technology platforms emerge over time.

Networks profitability is affected by the level of our R&D spending. In prior years, the level of R&D in our infrastructure business has been high due to the simultaneous development of multiple radio access technologies and new core network platforms. In 2004, our research and developments costs were 18.5% of our net sales. We are targeting our infrastructure R&D spend to be approximately 14% of net sales by the end of 2006. We aim to achieve this objective by increasing R&D efficiency and also by more focused R&D spend.

Going forward, we believe that we have the potential to grow our net sales and improve our profitability further on the infrastructure side by addressing enterprises' demand for interoperable corporate infrastructure products such as firewalls, SSL and IP VPNs, and antivirus software for both devices and the network center. The infrastructure business of Enterprise Solutions aims to capitalize on this demand.

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

***Certain Other Factors****United States Dollar*

In 2004, the US dollar continued to depreciate against the euro, falling by 7.1% in 2004 (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 somewhat more than 50% of our net sales are generated in US dollars and currencies closely following the US dollar. However, depreciation of the US dollar also contributed to a lower average product cost as more than 50%

of the components we use are sourced in US dollars. Therefore, the depreciation of US dollar did not have a significant impact on our operating profit in 2004.

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. For more information, see " Exchange Rates" below.

#### *Finnish Corporate Tax Rate*

Effective January 1, 2005 the Finnish corporate tax rate was reduced by 3% from 29% to 26%. This reduction is expected to have a favorable impact on Nokia's net profit as historically more than half of Nokia's profit before tax has been generated in Finland. See also Note 12 to our consolidated financial statements for a further discussion of our income taxes.

#### *Seasonality*

Our mobile phone and device sales are somewhat affected by seasonality. Historically, the first quarter of the year was the lowest quarter of the year, while the fourth quarter was the strongest quarter. This was mainly 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.

However, over the past three years, we have seen a trend towards less seasonality. We still continue to see the fourth quarter as our strongest quarter, while the differences between the three other quarters have begun to dilute. 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. However, as we still continue to see our strongest sales in the fourth quarter we believe that they are still supported by the year-end and holiday seasonality.

Our infrastructure 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 cycle.

#### *Accounting developments*

The International Accounting Standards Board, or IASB, has and will continue to critically examine current International Financial Reporting Standards, or IFRS, with a view toward increasing international harmonization of accounting rules. This process of amendment and convergence of worldwide accounting rules resulted in significant amendments to the existing rules from January 1, 2005 in such areas as the accounting for share-based compensation, goodwill and intangibles, marketable securities and derivative financial instruments as well as the classification of certain income statement and balance sheet positions. These are discussed in more detail under "New IFRS standards and revised IAS standards" in Note 1 to our consolidated financial statements included in Item 18 of this Form 20-F.

#### *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. We have discussed the application of these critical accounting estimates with our Board of Directors and Audit Committee.

*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.

For Mobile Phones, Multimedia and Enterprise Solutions, as well as certain of 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. When management determines that such criteria have been met, revenue is recognized. Nokia records estimated reductions to revenue for customer programs and incentive offerings, including special pricing agreements, price protection and other volume based discounts at the time of sale, mainly in the mobile device 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. An immaterial part of the revenue from products sold through distribution channels is recognized when the reseller or distributor sells the product to the end user.

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 likely and estimable. Losses on projects in progress are recognized in the period they become likely and estimable.

Revenue recognition on initial 3G network contracts started in 2002 when Networks achieved 3G functionality for its single-mode and dual-mode WCDMA 3G systems. Until the time the 3GPP specifications required by our customers were met, we deferred the application of the cost-to-cost input model. 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 continued to apply the method in 2003 and 2004.

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 a limited amount of customer financing and agreed extended payment terms with selected customers in our 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. See also Note 35(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 8 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 IFRS, 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 IFRS 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.

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 IFRS 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 IFRS 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 6 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 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

#### 2004 compared with 2003

##### Nokia Group

The following table sets forth selective line items and the percentage of net sales that they represent for Nokia for the fiscal years 2003 and 2004.

	Year ended December 31, 2004	Percentage of Net Sales	Year ended December 31, 2003	Percentage of Net Sales	Percentage Increase/ (decrease)
(EUR millions, except percentage data)					
Net sales	29 267	100.0%	29 455	100.0%	(1)%
Cost of sales	(18 133)	(62.0)%	(17 237)	(58.5)%	5%
Gross profit	11 134	38.0%	12 218	41.5%	(9)%
Research and development expenses	(3 733)	(12.7)%	(3 760)	(12.8)%	(1)%
Selling, general and administrative expenses	(2 975)	(10.2)%	(3 363)	(11.4)%	(12)%
Customer finance impairment charges, net of reversal			226	0.7%	(100)%
Impairment of goodwill			(151)	(0.5)%	(100)%
Amortization of goodwill	(96)	(0.3)%	(159)	(0.5)%	(40)%
Operating profit	4 330	14.8%	5 011	17.0%	(14)%

For 2004, Nokia net sales decreased 1% to EUR 29.3 billion compared with EUR 29.5 billion in 2003. At constant currency, group net sales would have been up 6%. Our gross margin in 2004 was 38.0% compared with 41.5% in 2003, primarily reflecting lower sales in Mobile Phones.

In 2004, research and development, or R&D, expenses were EUR 3.7 billion, down 1% from 2003. Research and development expenses represented 12.7% of net sales in 2004, materially unchanged from 2003. Research and development expenses increased in Mobile Phones, Multimedia and Enterprise Solutions and decreased in Networks. Networks R&D expenses included impairments of EUR 115 million in 2004 and personnel-related restructuring costs, impairments and write-offs totaling EUR 470 million in 2003. If these were excluded from R&D expenses, the increase would have been 10%, and R&D expenses would have represented 12.4% of Nokia net sales in 2004 compared with 11.2% of net sales in 2003.

In 2004, selling, general and administrative, or SG&A, expenses were EUR 3.0 billion, down 12% from 2003. SG&A expenses were equal to 10.2% of net sales in 2004 compared with 11.4% of net sales in 2003. SG&A expenses increased in Multimedia and Enterprise Solutions and decreased in Mobile Phones and Networks. If the return of an insurance premium of EUR 160 million and a EUR 12 million loss from the divestiture of Nextrom were excluded from the 2004 SG&A expenses, and if the EUR 56 million gain from the sale of the remaining shares of Nokian Tyres Ltd and the restructuring costs of EUR 80 million related to Networks were excluded from 2003 SG&A expenses, the decrease in SG&A expenses would have been 7% and SG&A expenses would have represented 10.7% of Nokia net sales in 2004 compared with 11.3% of net sales in 2003.



Nokia Group's operating profit for 2004 decreased 14% to EUR 4 330 million compared with EUR 5 011 million in 2003 primarily due to the lower profitability in Mobile Phones partly offset by improved operating profit in Networks and Multimedia. Our operating margin was 14.8% in 2004 compared with 17.0% in 2003.

#### Results by Segments

##### Mobile Phones

The following table sets forth selective line items and the percentage of net sales that they represent for the Mobile Phones business group for the fiscal years 2003 and 2004.

	Year ended December 31, 2004	Percentage of Net Sales	Year ended December 31, 2003	Percentage of Net Sales	Percentage Increase/ (decrease)
(EUR millions, except percentage data)					
Net sales	18 507	100.0%	20 951	100.0%	(12)%
Cost of sales	(12 057)	(65.1)%	(11 935)	(57.0)%	1%
<b>Gross profit</b>	<b>6 450</b>	<b>34.9%</b>	<b>9 016</b>	<b>43.0%</b>	<b>(28)%</b>
Research and development expenses	(1 189)	(6.4)%	(1 022)	(4.9)%	16%
Selling, general and administrative expenses	(1 416)	(7.7)%	(1 985)	(9.4)%	(29)%
Amortization of goodwill	(77)	(0.4)%	(82)	(0.4)%	(6)%
<b>Operating profit</b>	<b>3 768</b>	<b>20.4%</b>	<b>5 927</b>	<b>28.3%</b>	<b>(36)%</b>

Mobile Phones business group 2004 net sales decreased 12% to EUR 18.5 billion compared with EUR 21.0 billion in 2003. At constant currency, Mobile Phones business group net sales would have decreased by 5%. Despite an increase in volumes, sales were negatively impacted by a decline in prices. In the second quarter of 2004, we reduced the prices of certain of our products, which contributed to our stated aim of improving our market share sequentially towards the end of the year, but adversely impacted sales for the remainder of 2004. In addition, while our product mix started to improve towards the end of the year, this only partially offset the negative impact of the price reductions and our mix being more weighted towards the low end entry phones in low penetration markets during the earlier part of the year. A significantly weaker US dollar also negatively impacted Mobile Phones net sales during 2004 compared with 2003.

Mobile Phones 2004 gross profit decreased by 28% to EUR 6 450 million compared with EUR 9 016 million in 2003 primarily as a result of lower net sales while we were not able to reduce product costs at the same rate. This represented a gross margin of 34.9% in 2004 compared with a gross margin of 43.0% in 2003.

Mobile Phones 2004 R&D expenses increased by 16% to EUR 1 189 million with the target to bring more new competitive products to the market, compared with EUR 1 022 million in 2003. In 2004 R&D expenses represented 6.4% of Mobile Phones net sales compared with 4.9% of its net sales in 2003.

In 2004, Mobile Phones SG&A expenses decreased by 29% to EUR 1 416 million as a result of lower marketing and advertising expenses partially due to delays in ramp-ups of new products and postponed marketing campaigns, compared with EUR 1 985 million in 2003. In 2004, SG&A expenses represented 7.7% of Mobile Phones net sales compared with 9.4% of Mobile Phones net sales in 2003.

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In 2004, Mobile Phones operating profit decreased 36% to EUR 3 768 million compared with EUR 5 927 million in 2003, with a 20.4% operating margin, down from 28.3% in 2003. This was primarily due to lower net sales as a result of the factors noted above.

### *Multimedia*

The following table sets forth selective line items and the percentage of net sales that they represent for the Multimedia business group for the fiscal years 2003 and 2004.

	Year ended December 31, 2004	Percentage of Net Sales	Year ended December 31, 2003	Percentage of Net Sales	Percentage Increase/ (decrease)
(EUR millions, except percentage data)					
Net sales	3 659	100.0%	2 504	100.0%	46%
Cost of sales	(2 107)	(57.6)%	(1 580)	(63.1)%	33%
Gross profit	1 552	42.4%	924	36.9%	68%
Research and development expenses	(855)	(23.4)%	(725)	(29.0)%	18%
Selling, general and administrative expenses	(506)	(13.8)%	(376)	(15.0)%	35%
Amortization of goodwill	(12)	(0.3)%	(9)	(0.3)%	33%
Operating profit (loss)	179	4.9%	(186)	(7.4)%	

Multimedia business group 2004 net sales were up 46% to EUR 3.7 billion compared with EUR 2.5 billion in 2003. This increase was driven primarily by robust sales of imaging smartphones, achieved with the shipping of five new models reaching a broader range of targeted customer base.

Multimedia 2004 gross profit increased by 68% to EUR 1 552 million compared with EUR 924 million in 2003. This represented a gross margin of 42.4% in 2004 compared with a gross margin of 36.9% in 2003. The increase was a result of higher sales, due to the introduction of new models reaching a broader range of targeted customer base.

Multimedia 2004 R&D expenses increased by 18% to EUR 855 million compared with EUR 725 million in 2003, representing 23.4% of its net sales compared with 29.0% of its net sales in 2003. The increase was due to a wider range of new products.

In 2004, Multimedia's SG&A expenses increased by 35% to EUR 506 million as a result of increase in marketing and advertising expenses, due to introduction of new products compared with EUR 376 million in 2003. In 2004, SG&A expenses represented 13.8% of Multimedia's net sales compared with 15.0% of Multimedia's net sales in 2003.

Multimedia 2004 operating profit increased to EUR 179 million from an operating loss in 2003 of EUR 186 million, with an operating margin of 4.9%, up from -7.4% in 2003. This was primarily due to strong sales of imaging smartphones, partially offset by a loss in our games devices.

*Enterprise Solutions*

The following table sets forth selective line items and the percentage of net sales that they represent for the Enterprise Solutions business group for the fiscal years 2003 and 2004.

	Year ended December 31, 2004	Percentage of Net Sales	Year ended December 31, 2003	Percentage of Net Sales	Percentage Increase/ (decrease)
(EUR millions, except percentage data)					
Net sales	830	100.0%	529	100.0%	57%
Cost of sales	(464)	(55.9)%	(281)	(53.1)%	65%
Gross profit	366	44.1%	248	46.9%	48%
Research and development expenses	(298)	(35.9)%	(235)	(44.4)%	27%
Selling, general and administrative expenses	(261)	(31.5)%	(151)	(28.6)%	73%
Amortization of goodwill	(6)	(0.7)%	(3)	(0.6)%	100%
Operating (loss)	(199)	(24.0)%	(141)	(26.7)%	41%

Enterprise Solutions business group 2004 net sales grew 57% to EUR 830 million compared with EUR 529 million in 2003 primarily as a result of increased sales of business-focused mobile devices.

In Enterprise Solutions gross profit increased by 48% to EUR 366 million due to higher sales, compared with EUR 248 million in 2003. This represented a gross margin of 44.1% in 2004 compared with a gross margin of 46.9% in 2003.

In Enterprise Solutions R&D expenses increased by 27% to EUR 298 million due to wider range of new products compared with 2003 (EUR 235 million) representing 35.9% of its net sales (44.4% of its net sales compared with 2003).

In 2004, Enterprise Solutions SG&A expenses increased by 73% to EUR 261 million as a result of increase in marketing and advertising expenses due to introduction of new products, compared with EUR 151 million in 2003. In 2004 SG&A expenses represented 31.5% of Enterprise Solutions net sales (28.6% of Enterprise Solutions net sales compared with 2003).

Enterprise Solutions operating loss increased 41% to EUR 199 million in 2004 compared with a loss of EUR 141 million in 2003, with an operating margin of -24.0%, an operating margin of -26.7% in 2003. The operating loss was in line with our expectations.

Networks

The following table sets forth selective line items and the percentage of net sales that they represent for the Networks business group for the fiscal years 2003 and 2004.

	Year ended December 31, 2004	Percentage of Net Sales	Year ended December 31, 2003	Percentage of Net Sales	Percentage Increase/ (decrease)
(EUR millions, except percentage data)					
Net sales	6 367	100.0%	5 620	100.0%	13%
Cost of Sales	(3 652)	(57.4)%	(3 594)	(64.0)%	2%
Gross profit	2 715	42.6%	2 026	36.0%	34%
Research and development expenses	(1 178)	(18.5)%	(1 540)	(27.4)%	(24)%
Selling, general and administrative expenses	(659)	(10.3)%	(722)	(12.8)%	(9)%
Customer finance impairment, net of reversal			226	4.0%	(100)%
Impairment of goodwill			(151)	(2.7)%	(100)%
Amortization of goodwill			(58)	(1.0)%	(100)%
Operating profit (loss)	878	13.8%	(219)	(3.9)%	

Networks business group 2004 net sales increased 13% to EUR 6.4 billion compared with EUR 5.6 billion in 2003 due to increased sales in nearly all markets as operators increased their investments in network infrastructure. At constant currency, Networks business group net sales would have been up 21%.

In Networks gross profit increased by 34% to EUR 2 715 million primarily due to higher sales, a product mix favoring high-margin products and overall profitability of 3G contracts, compared with EUR 2 026 million in 2003. This represented a gross margin of 42.6% in 2004 compared with a gross margin of 36.0% in 2003.

In Networks R&D expenses decreased 24% to EUR 1 178 million compared with EUR 1 540 million in 2003. In 2004 the R&D expenses represented 18.5% of Networks net sales compared with 27.4% in 2003. R&D expenses in 2004 included impairments of capitalized R&D of EUR 115 million due to the discontinuation of certain products and base station horizontalization projects and an impairment related to the WCDMA radio access network project. During 2003, Networks took action to improve profitability, by ceasing some ongoing research and development projects, resulting in a reduction of the number of R&D employees. Networks did this to bring sharper focus and lower cost to research and development, and to position Networks for long-term profitability. If the impairments and write-offs of capitalized R&D costs and the restructuring costs were excluded from both 2004 (impairments of EUR 115 million) and 2003 (personnel-related restructuring costs, impairments and write-offs totaling EUR 470 million), the decrease in R&D expenses would have been 1% and would have represented 16.7% of net sales in 2004, compared with 19.0% of net sales in 2003.

In 2004, Networks SG&A expenses decreased by 9% to EUR 659 million compared with EUR 722 million in 2003. In 2004, SG&A expenses represented 10.3% of Networks' net sales compared with 12.8% of net sales in 2003. In 2003, Networks SG&A included restructuring costs of EUR 80 million. Excluding these restructuring costs the expenses would have remained unchanged from 2003.

Networks 2004 operating profit increased to EUR 878 million from an operating loss of EUR 219 million in 2003, and its operating margin improved to 13.8%, up from -3.9% in 2003. This was primarily due to higher net sales, a product mix favoring high-margin products, overall

profitability of 3G contracts, and a streamlined cost structure as a result of restructuring actions taken in 2003.

Networks 2004 operating profit included impairments of capitalized R&D costs of EUR 115 million. In 2003 Networks operating profit included a positive adjustment of EUR 226 million as a result of the customer finance impairment recorded in 2002 related to Mobilcom, and 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 related to Nokia Networks' core networks business, with a total net impact of EUR 475 million.

#### *Common Group Expenses*

Common Group expenses totaled to EUR 296 million in 2004 compared with EUR 370 million in 2003. In 2004, this included a positive item of EUR 160 million representing the premium return under our multi-line, multi-year insurance program, which expired during 2004. The return was due to our low claims experience during the policy period. It also included a EUR 12 million negative impact from the divestiture of Nextrom. In 2003, Common Group expenses included the gain of EUR 56 million on the sale of the remaining shares of Nokian Tyres Ltd.

#### *Net Financial Income*

Net financial income totaled to EUR 405 million in 2004 compared with EUR 352 million in 2003. Net financial income in 2004 resulted from a continued strong cash position reflected in the negative net debt to equity ratio of -78% at December 31, 2004 compared with a net debt to equity ratio of -71% at December 31, 2003. See " Exchange Rates" below. During 2004, Nokia sold approximately 69% of the original holdings in its subordinated convertible perpetual bonds issued by France Telecom. As a result, the company booked a total net gain of EUR 106 million. The bonds had been classified as available-for-sale investments and fair valued through shareholders' equity.

#### *Profit Before Taxes*

Profit before tax and minority interests decreased 12% to EUR 4 709 million in 2004 compared with EUR 5 345 million in 2003. Taxes amounted to EUR 1 435 million and EUR 1 699 million in 2004 and 2003, respectively. Effective tax rate changed slightly to 30.5% in 2004 compared with 31.8% in 2003. Excluding the impact of non-deductible goodwill impairments the tax rate in 2003 would have been 30.9%.

#### *Minority Interests*

Minority shareholders' interest in our subsidiaries' profits totaled EUR 67 million in 2004 compared with EUR 54 million in 2003.

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

Net profit in 2004 totaled to EUR 3 207 million compared with EUR 3 592 million in 2003, representing a year-on-year decrease in net profit of 11% in 2004. Earnings per share in 2004 decreased to EUR 0.70 (basic and diluted), compared with EUR 0.75 (basic and diluted) in 2003.

**2003 compared with 2002***Nokia Net Sales and Operating Profit***Net Sales, Operating Profit and Operating Margin**

	Year ended December 31, 2003	Year ended December 31, 2002	Percentage Increase/ (decrease)
(EUR millions, except percentage data)			
Net sales	29 455	30 016	(2)%
Operating profit	5 011	4 780	5%
Operating margin (%)	17.0%	15.9%	

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 with 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 with 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 with 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 with 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 with 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 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***Nokia Mobile Phones Net Sales, Operating Profit and Operating Margin**

	Year ended December 31, 2003	Year ended December 31, 2002	Percentage Increase/ (decrease)
(EUR millions, except percentage data)			
Net sales	23 618	23 211	2%
Operating profit	5 483	5 201	5%
Operating margin (%)	23.2%	22.4%	

Net sales of Nokia Mobile Phones reached their highest level ever at EUR 23 618 million in 2003, representing an increase of 2%, compared with 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 with 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 with 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 with 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 with 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 with 7.8% in 2002.

Nokia Mobile Phones operating profit increased by 5% to EUR 5 483 million in 2003 compared with 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 with 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*

#### **Nokia Networks Net Sales, Operating Profit and Operating Margin**

	<b>Year ended December 31, 2003</b>	<b>Year ended December 31, 2002</b>	<b>Percentage Increase/ (decrease)</b>
<b>(EUR millions, except percentage data)</b>			
Net sales	5 620	6 539	(14%)
Operating profit	(219)	(49)	(347%)
Operating margin (%)	(3.9%)	(0.7%)	

Net sales of Nokia Networks decreased by 14% to EUR 5 620 million in 2003 compared with 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 with 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 with EUR 640 million (9.8% of Nokia Networks net sales) in 2002.



Nokia Networks operating loss increased to EUR 219 million in 2003 compared with 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 8 and 16 to our consolidated financial statements."

#### *Nokia Ventures Organization*

#### **Nokia Ventures Organization Net Sales, Operating Profit and Operating Margin**

	Year ended December 31, 2003	Year ended December 31, 2002	Percentage Increase/ (decrease)
(EUR millions, except percentage data)			
Net sales	366	459	(20)%
Operating profit	(161)	(141)	(14)%
Operating margin (%)	(44.0%)	(30.7%)	

Net sales from Nokia Ventures Organization totaled EUR 366 million in 2003 compared with EUR 459 million in 2002. Nokia Ventures Organization reported operating losses of EUR 161 million in 2003 compared with 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 with 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 with 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 with 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 with 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 with 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 with 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 with EUR 52 million in 2002.

*Net Profit and Earnings per Share*

Net profit in 2003 increased to EUR 3 592 million, compared with 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 with EUR 0.71 in 2002.

***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 associates of Nokia.

See Notes 32 and 33 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 2004, 2003 and 2002, both the US dollar as well as the Japanese yen depreciated (average rate for the year compared with average rate for the previous year) against the euro. The US dollar depreciated approximately 9.0%, 16.1% and 6.1%, respectively, and the Japanese yen approximately 2.5%, 9.8% and 7.7%, respectively. The change in value of the US dollar had a slightly negative impact on Nokia's operating profit and the change in value of the Japanese yen had a slightly positive impact on Nokia's operating profit. In 2004, the UK pound sterling appreciated approximately 2.0% against the euro. During 2003 and 2002, the UK pound sterling depreciated by approximately 9.1% and 1.5% against the euro, respectively. The change in value of the UK pound sterling had a slightly positive impact on Nokia's operating profit in 2004, and slightly negative effect in 2003 and 2002.

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 35 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 IFRS and US GAAP***

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

Our net profit in 2004 under IFRS was EUR 3 207 million compared with EUR 3 592 million in 2003 and EUR 3 381 million in 2002. Under US GAAP, Nokia would have reported net income of EUR 3 343 million in 2004 compared with EUR 4 097 million in 2003 and EUR 3 603 million in 2002.

The principal differences between IFRS 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 37 to our consolidated financial statements included in Item 18 of this Form 20-F for a description of the principal differences between IFRS 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**

In 2003 and earlier, the Group maintained its excess cash in a single pool of highly liquid, low risk instruments with varying maturity dates. These pooled instruments were originally presented as cash equivalents irrespective of the instruments' maturities. During 2004, cash management practices were revised, such that this single pool was divided into two one of instruments with maturities of 90 days or less at the date of acquisition and the other of instruments with maturities of more than 90 days at the date of acquisition.

This change was made in order for the Group to better manage its excess liquidity by enabling the use of longer dated instruments where appropriate and by facilitating a wider range of benchmarks for performance measurement and interest risk management purposes. Both pools remain available to meet the Group's cash commitments, and initially, both have similar highly liquid and low risk profiles, with the pool of 90 day and under instruments treated as cash equivalents and the pool of over 90 day instruments treated as available-for-sale investments, liquid assets.

In the future the risk profile of the two pools may be different in line with the revised cash management practices.

In connection with this change in its cash management practice, the Group re-evaluated its policy for determining cash equivalents and concluded that EUR 8 512 million and EUR 5 678 million in 2003 and 2002, respectively, previously presented as cash equivalents should have been excluded from that classification and instead presented as current available-for-sale investments, liquid assets. For the purpose of this Annual Report on Form 20-F the Group has defined the change in its accounts (IFRS) for this item as a restatement of prior period balances and the related activity in

the statement of cash flows for this item. For all other purposes of the publication of its annual accounts under IFRS to shareholders, the Group concluded that the change did not constitute a fundamental error as defined in IAS 8, but has reclassified cash equivalents in prior years to be consistent with the 2004 classification. Accordingly, there are no differences in the classification of cash equivalents between the annual accounts (IFRS) contained in this Form 20-F or otherwise published by the Group. All references to cash and cash equivalent balances in 2003 and 2002 in the statement of cash flows are to the restated amounts. Further details of the Group's risk management principles in relation to its excess liquidity are provided in Item 11 of this Form 20-F and Note 35 to the financial statements.

At December 31, 2004, Nokia's cash and other liquid assets (bank and cash; available-for-sale investments, cash equivalents; and available-for-sale investments, liquid assets) increased to EUR 11 542 million, compared with EUR 11 296 million at December 31, 2003. Cash and other liquid assets remained materially unchanged in spite of an increase in the purchases of treasury shares.

Cash and cash equivalents decreased to EUR 2 457 million compared with EUR 2 784 million at December 31, 2003. We hold our cash and cash equivalents predominantly in euros. Cash and cash equivalents totaled EUR 3 673 million at December 31, 2002.

Net cash from operating activities was EUR 4 343 million in 2004 compared with EUR 5 252 million in 2003, and EUR 5 701 million in 2002. In 2004, net cash generated from operating activities decreased primarily due to lower profit partly offset by a reduction in working capital. In 2003, net cash generated from operating activities decreased primarily due to high year-end sales increasing receivables in working capital offset by a significant payment of 2001 taxes paid in 2002.

Net cash used in investing activities in 2004 was EUR 329 million compared with EUR 3 215 million in 2003, and EUR 3 870 million in 2002. Cash flow from investing activities in 2004 included purchase of current available-for-sale investments, liquid assets, of EUR 10 318 million, compared with EUR 11 695 million in 2003, and EUR 7 392 million in 2002. Additions to capitalized R&D expenses totaled EUR 101 million, representing a decrease compared with EUR 218 million in year 2003 and EUR 418 million in 2002. Long-term loans made to customers decreased to EUR 0 million in 2004, compared with EUR 97 million in 2003 and EUR 563 million in 2002. Capital expenditures for 2004 were EUR 548 million compared with EUR 432 million in 2003 and 2002. Major items of capital expenditure included production lines, test equipment and computer hardware used primarily in research and development as well as office and manufacturing facilities. Proceeds from maturities and sale of current available-for-sale investments, liquid assets, increased to EUR 9 737 million, compared with EUR 8 793 million in 2003, and EUR 4 390 million in 2002. During the year, we sold approximately 69% of the original holdings in our subordinated convertible perpetual bonds issued by France Telecom. As a result we booked proceeds from sale of current available-for-sale investments of EUR 587 million.

Net cash used in financing activities increased to EUR 4 318 million in 2004 compared with EUR 2 780 million in 2003, primarily as a result of an increase in the purchases of treasury shares with EUR 1 293 million and an increase in the repayment of short-term borrowings of EUR 233 million. Net cash used in financing activities increased to EUR 2 780 million in 2003 compared with EUR 1 580 million in 2002, primarily as a result of an increase in the purchases of treasury shares with EUR 1 338 million. Dividends paid increased to EUR 1 413 million in 2004 compared with EUR 1 378 million in 2003 and EUR 1 348 million in 2002.

At December 31, 2004, Nokia had EUR 19 million in long-term interest-bearing liabilities and EUR 215 million in short-term borrowings, offset by EUR 11 542 million in cash and other liquid assets, resulting in a liquid assets balance of EUR 11 308 million, compared with

EUR 10 805 million at the end of 2003. In addition we hold EUR 255 million, compared with EUR 816 million in 2003, of subordinated convertible perpetual bonds of France Telecom classified as available-for-sale investments and not included in cash and other liquid assets. We were 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 long-term debt less cash and other liquid assets, to equity, defined as shareholders' equity and minority interests, was 78%, 71% and 61% at December 31, 2004, 2003 and 2002, respectively. The change in 2004 resulted from both our continued good profitability and the improvements in our cash and other liquid assets position.

The total dividends per share were EUR 0.33 for the year ended December 31, 2004, subject to shareholders' approval, compared with EUR 0.30 and EUR 0.28 for the years ended December 31, 2003 and 2002, respectively. See "Item 3.A Selected Financial Data Distribution of Earnings."

Nokia has no potentially significant refinancing requirements in 2005. Nokia expects to incur additional indebtedness from time to time as required to finance working capital needs. At December 31, 2004, Nokia had a USD 500 million US Commercial Paper, or USCP, program and a USD 500 million Euro Commercial Paper, or ECP, program. In addition, at the same date, Nokia had a Finnish local commercial paper program totaling EUR 750 million. At December 31, 2004, 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 26 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 other liquid assets level of EUR 11 542 million at the end of 2004, 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 2005. The ratings of our short and long-term debt from credit rating agencies have not changed during the year. The ratings at December 31, 2004, 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.

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 2004, capital expenditures totaled EUR 548 million compared with EUR 432 million in each of 2003 and 2002. The increase in 2004 resulted from increased amount of capital expenditures in machinery and equipment. Principal capital expenditures during the three years included production lines, test equipment and computer hardware used primarily in research and development as well as office and manufacturing facilities. We expect the amount of our capital expenditures during 2005 to be somewhat higher than 2004 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,		
	2004	2003	2002
	(EUR millions)		
Financing commitments	56	490	857
Outstanding long-term loans, net of allowances and write-offs		354	1 056
Outstanding financial guarantees and securities pledged	3	33	91
Total	59	877	2 004

The term customer financing portfolio at December 31, 2004 consists of outstanding and committed customer financing. Total committed customer financing amounted to EUR 56 million, while there were EUR 3 million of financing outstanding in a form of financial guarantees and no financing outstanding in a form of long-term loans.

See Notes 8 and 35(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 2004, we reduced our total customer financing, outstanding and committed, by EUR 818 million, or 93%, compared with 2003. Our outstanding loans have decreased mainly due to the fact that the customer financing to Huchison 3G UK Ltd in the United Kingdom, which amounted to EUR 653 million, was prepaid and released. The total committed customer financing to TNL PCS S.A., or Telemar, in Brazil, which amounted to EUR 191 million, was sold off and released. In addition, the reduction was achieved through release of outstanding guarantees as well as arrangements with banks, financial institutions and Export 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 2003, our outstanding loans decreased by 1 127 million mainly due to the fact that the MobilCom loan was exchanged for subordinated convertible perpetual bonds of France Telecom. These bonds were treated as available-for-sale investments.

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 arrange and facilitate financing to our customers, and provide financing and 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**

	<u>2005</u>	<u>2006-2007</u>	<u>2008</u>	<u>Total</u>
	(EUR millions)			
Customer financing commitments	56			56

All customer financing commitments are available under loan facilities negotiated with customers of 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 Networks. Certain loans may be 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 following table sets forth the amounts of Nokia's contingent commitments for the periods indicated. The amounts represent the maximum principal amount of commitments.

**Contingent Commitments Expiration Per Period**

	<u>2005</u>	<u>2006-2007</u>	<u>2008-2009</u>	<u>Thereafter</u>	<u>Total</u>
	(EUR millions)				
Guarantees of Nokia's performance	123	49	3		175
Financial guarantees and securities pledged on behalf of customers	3				3
<b>Total</b>	<b>126</b>	<b>49</b>	<b>3</b>		<b>178</b>

Guarantees of Nokia's performance include EUR 175 million of guarantees that are provided to certain 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.

Financial guarantees and securities pledged on behalf of customers represent guarantees relating to payment by certain 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 30 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 2004 were EUR 3 733 million, a decrease of 1% from EUR 3 760 million in 2003 and an increase of 23% from EUR 3 052 million in 2002. These costs represented 12.7%, 12.8% and 10.2% of net sales in 2004, 2003 and 2002, respectively. R&D expenses increased in Mobile Phones, Multimedia and Enterprise Solutions and decreased in Networks. R&D expenses in 2004 included impairments of EUR 115 million in Networks due to the discontinuation of certain products and base station horizontalization projects and an impairment related to the WCDMA radio access network project. During 2003, 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. Networks did this to bring sharper focus and lower cost to research and development, and to position Networks for long-term profitability. If the impairments and write-offs of capitalized R&D costs and the restructuring costs in Networks were excluded from both the 2004 (impairments of EUR 115 million) and 2003 (personnel-related restructuring costs, impairments and write-offs totaling EUR 470 million), the increase in R&D expenses would have been 10% and would have represented 12.4% of Nokia net sales in 2004, compared with 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, 2004, we employed 20 722 people in research and development, representing approximately 37% of Nokia's total workforce, and had research and development in 12 countries. Research and development expenses of Mobile Phones as a percentage of its net sales were 6.4% in 2004 compared with 4.9% in 2003. In Multimedia research and development expenses as a percentage of its net sales were 23.4% in 2004 compared with 29.0% in 2003. Research and development expenses of Enterprise Solutions as a percentage of its net sales were 35.9%, compared with 44.4% in 2003. In the case of Networks, research and development costs represented 18.5%, 27.4% and 15.2% of its net sales in 2004, 2003 and 2002, respectively. If the impairments and write-offs of capitalized R&D costs and restructuring costs described in the previous paragraph were excluded, the R&D costs of Networks would have represented 16.7% and 19.0% of Networks' net sales in 2004 and 2003, respectively. See "Item 4.B Business Overview Technology, Research and Development" and " Patents and Licenses."

We are reviewing our R&D activities in order to get the most compelling products to market at the right time, and we are aiming to lower our R&D expenses/net sales ratio while remaining effective and focused in our efforts. This will require focused R&D spend and a re-engineered product creation process intended to reduce product development cycle times. As a part of this activity, we announced in January 2005 that we are streamlining our Multimedia research and development activities and this has been leading to restructuring of the R&D activities in the games business unit. Our target is to bring overall Nokia R&D expenditure down to 9%-10% of net sales by the end of 2006. In accordance with this plan, we have set as a target that by the end of 2006 the R&D expenses/net sales ratio of our mobile devices business would be 8% and 14% for our infrastructure business.



**5.D Trends**

Please see "Item 5.A Operating Results Overview" for information on material trends affecting our business and results of operations.

**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.

**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>2005</u>	<u>2006-2007</u>	<u>2008-2009</u>	<u>Thereafter</u>	<u>Total</u>
	(EUR millions)				
Long-term debt				115	115
Operating leases	175	231	78	127	611
Inventory purchases	1 225	11			1 236
	<u>1 400</u>	<u>242</u>	<u>78</u>	<u>242</u>	<u>1 962</u>
Total	1 400	242	78	242	1 962

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 25, 2004, in accordance with the proposal of the Corporate Governance and Nomination Committee of the Board. On the same date, the Chairman and Vice Chairman were elected by the Board members.

Drs Robert van Oordt served as a member of the Board of Directors until the Annual General Meeting on March 25, 2004, but did not stand for re-election as he had reached the Board of Directors' guideline retirement age of 68 years.

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, 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 Vice Chairman of the Board of Directors of UPM-Kymmene Corporation and Vice Chairman of the Board of Directors of Otava Books and Magazines Group Ltd. Chairman of the Boards of Directors and the Supervisory Boards of Finnish Business and Policy Forum EVA and The Research Institute of the Finnish Economy ETLA. Member of The European Round Table of Industrialists.

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 The Enstar Group, Inc.  
Member of the Supervisory Board of Actis Capital LLP.

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 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. Vice Chairman of the Boards of Directors of The Research Institute of the Finnish Economy ETLA and Finnish Business and Policy Forum 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.

Board member of IKANO Holdings 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.

President of the European Broadcasting Union (EBU), member of the Board of Directors of the International Academy of Television Arts & Sciences and member of the Trilateral Commission (Europe).

On January 27, 2005, the Corporate Governance and Nomination Committee announced its proposal to the Annual General Meeting convening on April 7, 2005 regarding the election of the members of the Board of Directors. The Corporate Governance and Nomination Committee will propose to the Annual General Meeting that the number of Board members be increased from eight to ten and that all of the present members be re-elected for a term of one year. In addition, the Committee will propose that Mr. Dan Hesse and Mr. Edouard Michelin be elected as new members of the Board of Directors for the same one-year term. Mr. Hesse is a member of the Board of Directors of Terabeam Wireless, a US based telecommunications technology and services company. Mr. Michelin is the CEO of Michelin Group, the French world-leading tire manufacturing company.

***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.

In late 2004 we announced certain changes to the composition of the Group Executive Board, as three members of the Group Executive Board decided to depart from Nokia at or after the end of the fiscal year 2004. Dr. Matti Alahuhta, formerly our Executive Vice President and Chief Strategy Officer, resigned from Nokia effective December 31, 2004. We appointed Dr. Tero Ojanperä as our new Chief Strategy Officer and Group Executive Board member as of January 1, 2005. Ms. Sari Baldauf, formerly our Executive Vice President and General Manager of Networks, resigned from Nokia effective January 31, 2005. She will be followed by Mr. Simon Beresford-Wylie as the new General Manager of Networks and member of the Group Executive Board as of February 1, 2005. In addition, Dr. J.T Bergqvist, Senior Vice President and General Manager of Business Units of Networks, resigned from the Company effective January 31, 2005.

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 Vice Chairman of  
the Board of Directors of UPM-Kymmene Corporation and Vice Chairman of the  
Board of Directors of Otava Books and Magazines Group Ltd. Chairman of the  
Boards of Directors and the Supervisory Boards of Finnish Business and Policy  
Forum EVA and The Research Institute of the Finnish Economy ETLA. Member of  
The European Round Table of Industrialists.

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.

Simon Beresford-Wylie, b. 1958

*Executive Vice President and General Manager of Networks.  
Group Executive Board member since February 1, 2005.  
Joined Nokia 1998.*

Bachelor of Arts (Economic Geography and History) (Australian National University).

Senior Vice President of Nokia Networks, Asia Pacific 2003-2004, Senior Vice President, Customer Operations of Nokia Networks, 2002-2003, Vice President, Customer Operations of Nokia Networks 2000-2002, Managing Director of Nokia Networks in India and Area General Manager, South Asia 1999-2000, Regional Director of Business Development, Project and Trade Finance of Nokia Networks, Asia Pacific 1998-1999, Chief Executive Officer of Modi Testra, India 1995-1998, General Manager, Banking and Finance, Corporate and Government business unit of Telstra Corporation 1993-1995, holder of executive positions in the Corporate and Government business units of Telstra Corporation 1989-1993, holder of executive, managerial and clerical positions in the Australian Commonwealth Public Service 1982-1989.

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).

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 Sampo plc and Nextrom Holding S.A., Member of the Board of Directors of EMC Corporation.

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.

Mary T. McDowell, b. 1964

*Senior Vice President and General Manager of Enterprise Solutions.  
Group Executive Board member since 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.

Hallstein Moerk, b. 1953

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

Diplomøkonom (Econ.) (Norwegian School of Management). Holder of various positions at Hewlett-Packard Corporation 1977-1999.

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.

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.

Dr. Tero Ojanperä, b. 1966

*Senior Vice President, Chief Strategy Officer.  
Group Executive Board member since January 1, 2005.  
Joined Nokia 1990.*

Master of Science (University of Oulu), Ph.D. (Delft University of Technology, The Netherlands).

Senior Vice President, Head of Nokia Research Center 2002-2004. Vice President, Research, Standardization and Technology of IP Mobility Networks, Nokia Networks 1999-2001. Vice President, Radio Access Systems Research and General Manager of Nokia Networks in Korea, 1999. Head of Radio Access Systems Research, Nokia Networks 1998-1999, Principal Engineer, Nokia Research Center, 1997-1998.

Chairman of Nokia Foundation. Vice Chairman of the Center for Wireless Communications, Oulu University. Member of the Board of Technomedicum Research Institute. Member of IST Advisory Group (ISTAG) for the European Commission. Member of the Board of the Foundation of Finnish Institute in Japan. Member of the Industrial Advisory Council of Center for TeleInFrastruktur (CTIF), Aalborg University. Member of the Institute of Electrical and Electronics Engineers, Inc. (IEEE).



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Richard A. Simonson, b.1958

*Senior Vice President, Chief Financial Officer.  
Group Executive Board member since 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.

Member of the Board of Directors of Nextrom Holding S.A.

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 Directors of Finnair Oyj. 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. Member of the Board of Directors, Confederation of Finnish Industries (EK). Vice Chairman of the Board of Directors and its committee, Technology Industries of Finland.

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).

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.

Member of the Board of Directors of Amer Group Plc.

**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, 2004, the aggregate compensation of the seven non-executive members of the Board of Directors was approximately EUR 775 000. Non-executive members of the Board of Directors do not receive stock options, bonuses or other variable compensation. 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 thousands)	Shares Received <sup>(1)</sup>	Gross Annual Retainer (EUR thousands)	Shares Received <sup>(1)</sup>	Gross Annual Retainer (EUR thousands)	Shares Received <sup>(1)</sup>
2002	130	2 650	100	2 038	75	1 529
2003	150	4 032	150	4 032	100	2 688
2004	150	4 834	150 <sup>(2)</sup>	4 834 <sup>(2)</sup>	100 <sup>(3)</sup>	3 223 <sup>(3)</sup>

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

(2) Includes a retainer of EUR 125 000 for Mr. Paul Collins's services as Vice Chairman of the Board and EUR 25 000 for services as Chairman of the Personnel Committee. Of the shares received by Mr. Collins in 2004, 4 028 shares were for services as Vice Chairman of the Board and 806 shares for services as Chairman of the Personnel Committee.

(3) The 2004 retainer of Mr. Per Karlsson 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. Karlsson amounted to a total of 4 029 shares, consisting of 3 223 shares for services as a Member of the Board and 806 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 2004:

**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 2004.*

#### *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 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, total shareholder return or other objectives of key strategic importance, which may require a discretionary assessment of performance by the Committee.*

*Equity awards comprised of stock options and performance shares 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 equity 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 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 CEO's short-term incentive bonus payments are*

*based on the performance of the company against*

*pre-established financial targets for net revenue, operating profit and net working capital efficiency measures. In addition, Mr. Ollila is eligible for a discretionary annual bonus based on his performance against strategic leadership objectives and the company's total shareholder return compared to key comparators from the high technology and telecommunications industry.*

*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. The President's short-term incentive bonus payments are mainly based on the performance of the company against pre-established financial targets for net revenue, operating profit and net working capital efficiency measures. In addition, Mr. Ala-Pietila is eligible for a discretionary annual bonus based on the company's total shareholder return compared to key comparators from the high technology and telecommunications industry.*

#### *Granting of Restricted Shares*

*In recognition of Nokia's executive retention needs, Restricted Shares were granted to Group Executive Board members and an additional 166 key executives, for a total of 1 910 680 shares in 2004. These Restricted Shares vest in 2007. The granting of Restricted Shares complements our equity programs and is subject to the approval of the Board of Directors for the Chief Executive Officer and President and the approval of the Personnel Committee for all other Group Executive Board members. The Chief Executive Officer approves grants of Restricted Shares made to all other managers and employees within a framework approved by the Personnel Committee, and reviews these with the Personnel Committee. It is the Committee's philosophy that Restricted Shares will be used only for key management positions and other critical resources.*

#### **Group Executive Board**

For the year ended December 31, 2004, Nokia had a Group Executive Board consisting of 13 members. Of the Group Executive Board members, Dr. Matti Alahuhta, Ms. Sari Baldauf and Dr. J. T. Bergqvist ceased employment with us and resigned as members of the Group Executive Board with effect from December 31, 2004 for Dr. Matti Alahuhta, and January 31, 2005 for Ms. Sari Baldauf and Dr. J. T. Bergqvist.

The aggregate compensation, excluding gains realized upon the exercise of stock options, and also excluding grants of Performance Share Units and restricted shares, of the 13 members of the Group Executive Board for 2004, including Mr. Jorma Ollila, was approximately EUR 13.6 million. Of this amount, approximately EUR 6.0 million was paid pursuant to bonus arrangements for the 2004 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."

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, pursuant to its charter.

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The compensation, excluding gains realized upon the exercise of stock options and also excluding grants of Performance Share Units and restricted shares, of our five most highly paid executive officers for 2004 is detailed in the following table.

Name and Principal Position in 2004	Year	Salary (EUR)	Bonus <sup>(1)</sup> (EUR)	Other Annual Compensation	Other Compensation (EUR)
Jorma Ollila <sup>(2)</sup> Chairman and Chief Executive Officer	2004	1 475 238	1 936 221	*	150 000
	2003	1 400 000	2 253 192	*	150 000
	2002	1 386 666	1 384 967	*	130 000
Pekka Ala-Pietilä President of Nokia Corporation and Head of Customer and Market Operations	2004	717 000	479 509	*	
	2003	711 279	520 143	*	
	2002	662 090	271 192	*	
Matti Alahuhta <sup>(3)</sup> Chief Strategy Officer	2004	632 000	472 766	*	
	2003	626 953	532 138	*	
	2002	591 719	297 265	*	
Sari Baldauf <sup>(4)</sup> President of Nokia Networks	2004	521 000	571 452	*	
	2003	514 943	387 627	*	31 535
	2002	476 705	60 875	*	
Olli-Pekka Kallasvuo <sup>(5)</sup> President of Mobile Phones	2004	584 000	454 150	*	
	2003	575 083	505 724	*	
	2002	520 788	285 072	*	42 142

(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 2004 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 4 834 Nokia shares.

(3) Dr. Matti Alahuhta ceased employment with us and resigned as member of the Group Executive Board effective December 31, 2004.

(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. Ms. Sari Baldauf ceased employment with us and resigned as member of the Group Executive Board effective January 31, 2005. In connection with the cease of employment of Ms. Sari Baldauf, Nokia established a fixed term consultancy relationship with her as of February 1, 2005 to capture the needs for her services for smooth transfer of duties to her successor. The term of the consultancy agreement will end by June 30, 2005. The compensation related to the consultancy will be based on Ms. Baldauf's base salary for 2004 with a potential addition of a normal management incentive for the first half of 2005.

(5) "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.

\*

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

Our executives forming the Group Executive Board in 2004 participate in the local retirement programs applicable to all employees in the country where they reside. Executives in Finland 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.

Executives in the United States participate in Nokia's Retirement Savings and Investment Plan. Under this 401(k) plan, participants elect to make voluntary pre-tax contributions that are 100% matched by the company up to 6% of eligible earnings. The Company makes an additional annual discretionary contribution of up to 2% of eligible earnings. In addition for participants earning in excess of the eligible earning limit, the Company offers an additional Restoration and Deferral Plan. This plan allows employees to defer income into a non-qualified plan. The Company also makes an annual discretionary contribution of up to 2% of the earnings above 401(k) eligibility limits.

For Mr. Jorma Ollila, Mr. Pekka Ala-Pietilä, and Mr. Olli-Pekka Kallasvuo, Nokia offers a full retirement benefit at age 60. The full retirement benefit is calculated as if the executive had continued his service with Nokia through age 65.

Mr. Hallstein Moerk, following his arrangement from a previous employer, has a retirement benefit of 65% of his pensionable salary beginning at age 62. Early retirement is possible at age 55 with reductions in benefits.

Nokia does not offer any similar benefits to any other members of the 2004 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 25, 2004, the Board has consisted of eight 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 2005, the Board determined that six members of the Board are independent, as defined in the New York Stock Exchange's corporate governance listing standards, as amended in November 2004. 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 2004, three of the meetings were held in the form of a conference call, and the average ratio of attendance at the meetings was 100%. The non-executive directors meet without executive directors twice a year, or more often as they deem appropriate. Such sessions are presided over by the Vice Chairman of the Board or, in his absence, the most senior non-executive member of the Board. In addition, the independent directors meet separately at least annually. 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 25, 2004 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.

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."



*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 the rules of the stock exchanges where Nokia shares are listed, including the Helsinki Exchanges and the New York Stock Exchange. Since March 25, 2004, the Committee has consisted of the following three members of the Board: Messrs. Per Karlsson (Chairman), Georg Ehrnrooth 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 assurance 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 Committee makes a 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 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 convened three regular meetings and one extended regular meeting in 2004.

**The Personnel Committee** consists of a minimum of three members of the Board, who meet all applicable independence requirements of Finnish law and the rules of the stock exchanges where Nokia shares are listed, including the Helsinki Exchanges and the New York Stock Exchange. Since March 25, 2004, the Personnel Committee has consisted of the following three members of the Board: Mr. Paul J. Collins (Chairman), 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 2004.

**The Corporate Governance and Nomination Committee** consists of three to five members of the Board, who meet all applicable independence requirements of Finnish law and the rules of the stock exchanges where Nokia shares are listed, including the Helsinki Exchanges and the New York Stock Exchange. Since March 25, 2004, the Corporate Governance and Nomination Committee has consisted of the following three members of the Board: Dame Marjorie Scardino (Chairman), Mr. Paul J. Collins 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 convened five meetings in 2004.

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.

#### ***Home Country Practices***

Under the New York Stock Exchange's corporate governance listing standards, 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. In addition to that, Finnish laws and regulations do not mandatorily require companies to have an internal audit function which in Nokia is covered by comprehensive risk management and internal control processes. 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 effective as of July 1, 2004.

**6.D Employees**

At December 31, 2004, Nokia employed 55 505 people, compared with 51 359 at December 31, 2003 and 51 748 at December 31, 2002. The average number of personnel for 2004, 2003 and 2002 was 53 511, 51 605 and 52 714, respectively, divided according to their activity and geographical location as follows:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
Mobile Phones <sup>(1)</sup>	2 853	27 196	26 090
Multimedia <sup>(2)</sup>	2 851		
Enterprise Solutions <sup>(2)</sup>	2 167		
Networks	15 463	16 115	18 463
Customer and Market Operations <sup>(3)</sup>	17 095		
Technology Platforms <sup>(3)</sup>	6 351		
Nokia Ventures Organization <sup>(4)</sup>		1 536	1 566
Common Group Functions	6 731	6 758	6 595
<b>Nokia Group</b>	<b>53 511</b>	<b>51 605</b>	<b>52 714</b>
Finland	22 922	22 626	22 615
Other European countries	12 345	11 479	12 057
Americas	10 641	9 947	10 093
Asia-Pacific	7 603	7 553	7 949
<b>Nokia Group</b>	<b>53 511</b>	<b>51 605</b>	<b>52 714</b>

(1) The "Mobile Phones" business group came into existence pursuant to our reorganization on January 1, 2004. The employee figures shown for 2003 and 2002 are for Nokia Mobile Phones, the segment that existed until December 31, 2003.

(2) The "Multimedia" and "Enterprise Solutions" business groups did not exist prior to our reorganization on January 1, 2004. Therefore, average number of employees for these business groups are not available for 2003 or 2002.

(3) The "Customer and Market Operations" and "Technology Platforms" horizontal groups did not exist prior to our reorganization on January 1, 2004. Therefore, average number of employees for these horizontal groups are not available for 2003 or 2002.

(4) Nokia Ventures Organization has not existed as a reportable segment since our reorganization on January 1, 2004.

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, 2004 (not including the new Group Executive Board members whose service began on or after January 1, 2005). Of the Group Executive Board members, Dr. Matti Alahuhta, Ms. Sari Baldauf and Dr. J.T. Bergqvist ceased employment with us and resigned as members of the Group Executive Board with effect from December 31, 2004 for Dr. Matti Alahuhta, and January 31, 2005 for Ms. Sari Baldauf and Dr. J.T. Bergqvist.

*Board of Directors*

	Shares <sup>(1)</sup>	ADSs
Jorma Ollila <sup>(2)</sup>	194 222	
Paul J. Collins		114 210
Georg Ehrnrooth <sup>(3)</sup>	308 782	
Bengt Holmström	10 910	
Per Karlsson <sup>(3)</sup>	12 546	
Marjorie Scardino		8 322
Vesa Vainio	21 570	
Arne Wessberg	8 322	
<b>Total</b>	<b>556 352</b>	<b>122 532</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.

(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*

	Shares	ADSs
Pekka Ala-Pietilä	49 600	
Matti Alahuhta	144 200	
Sari Baldauf	183 200	
J.T. Bergqvist	60 000	
Olli-Pekka Kallasvuo	54 000	
Pertti Korhonen	15 300	
Mary McDowell		
Hallstein Moerk	14 100	
Yrjö Neuvo	74 540	
Richard Simonson		20 000
Veli Sundbäck	125 000	
Anssi Vanjoki	106 000	
<b>Total</b>	<b>825 940</b>	<b>20 000</b>

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On December 31, 2004, 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 or after January 1, 2005) in our outstanding share capital was 1 524 824 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, 2004 (not including the new Group Executive Board members whose service began on or after January 1, 2005). These stock options were issued pursuant to our Nokia Stock Option Plans 1999, 2001 and 2003. For a description of our stock option plans, please see Note 22 to our consolidated financial statements and " Nokia's Equity Based Compensation Program 2004" and " Other Employee Stock Option Plans."

#### Number of shares represented by exercisable options as of December 31, 2004<sup>(1)</sup>

	1999 A,B and C <sup>(2)</sup>	2001 A and B	2001 C 3Q/01	2001 C 4Q/01	2002 A and B	2003 2Q
<b>Exercise price per share (EUR)</b>		<b>EUR 36.75</b>	<b>EUR 20.61</b>	<b>EUR 26.67</b>	<b>EUR 17.89</b>	<b>EUR 14.95</b>
Jorma Ollila	1 600 000	812 500		343 750	562 500	250 000
Pekka Ala-Pietilä	720 000	203 125		85 934	140 625	53 125
Matti Alahuhta	900 000	81 250		34 375	98 435	37 500
Sari Baldauf	560 000	81 250		34 375	98 435	37 500
J.T. Bergqvist	140 000	32 500		13 750	39 375	15 625
Olli-Pekka Kallasvuo	560 000	81 250		34 375	98 435	37 500
Pertti Korhonen	140 000	24 375		10 309	39 375	15 625
Mary McDowell						
Hallstein Moerk	144 000	24 375		10 309	16 875	6 250
Yrjö Neuvo	400 000	56 875		24 059	39 375	12 500
Richard Simonson			27 000		8 435	3 593
Veli Sundbäck	400 000	32 500		13 750	22 500	15 625
Anssi Vanjoki		56 875		24 059	56 250	31 250

(1) For information regarding the vesting and expiry of the stock option plans presented in this table, see Note 22 to our consolidated financial statements.

(2) All of the 1999 stock options expired as of December 31, 2004. The column depicts the total number of allocated stock options 1999 A, B and C, the exercise prices of which were EUR 16.89 (A), EUR 56.28 (B) and EUR 29.12 (C) per share, respectively.

## Number of shares represented by unexercisable options as of December 31, 2004

	2001 B	2001 C 3Q/01	2001 C 4Q/01	2002 B	2003 2Q	2003 4Q	2004 2Q
<b>Exercise price per share (EUR)</b>	<b>EUR 36.75</b>	<b>EUR 20.61</b>	<b>EUR 26.67</b>	<b>EUR 17.89</b>	<b>EUR 14.95</b>	<b>EUR 15.05</b>	<b>EUR 11.79</b>
Jorma Ollila	187 500		156 250	437 500	550 000		400 000
Pekka Ala-Pietilä	46 875		39 066	109 375	116 875		80 000
Matti Alahuhta	18 750		15 625	76 565	82 500		60 000
Sari Baldauf	18 750		15 625	76 565	82 500		60 000
J.T. Bergqvist	7 500		6 250	30 625	34 375		30 000
Olli-Pekka Kallasvuo	18 750		15 625	76 565	82 500		60 000
Pertti Korhonen	5 625		4 691	30 625	34 375		50 000
Mary McDowell						70 000	50 000
Hallstein Moerk	5 625		4 691	13 125	13 750		30 000
Yrjö Neuvo	13 125		10 941	30 625	27 500		20 000
Richard Simonson		9 000		6 565	7 907		50 000
Veli Sundbäck	7 500		6 250	17 500	34 375		30 000
Anssi Vanjoki	13 125		10 941	43 750	68 750		60 000

On December 31, 2004, 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 or after January 1, 2005) called for approximately 3.9 million shares, representing less than 1% of the issued share capital and voting rights in Nokia Corporation.

	Options sold or exercised in 2004		Number of shares represented by outstanding options as of December 31, 2004		Total potential realizable value of "In the Money" shares represented by outstanding options as of December 31, 2004 <sup>(2)</sup>	
	Number of Underlying Shares	Value Realized <sup>(1)</sup> (EUR thousands)	Exercisable	Unexercisable	Exercisable	Unexercisable
Jorma Ollila	1 020 000	5	1 968 750	1 731 250		
Pekka Ala-Pietilä			482 809	392 191		
Matti Alahuhta			251 560	253 440		
Sari Baldauf	420 000	2	251 560	253 440		
J. T. Bergqvist	100 000	164	101 250	108 750		
Olli-Pekka Kallasvuo			251 560	253 440		
Pertti Korhonen	16 000	28	89 684	125 316		
Mary McDowell				120 000		
Hallstein Moerk			57 809	67 191		
Yrjö Neuvo	280 000	206	132 809	102 191		
Richard Simonson			39 028	73 472		
Veli Sundbäck	400 000	660	84 375	95 625		
Anssi Vanjoki	680 000	503	168 434	196 566		
<b>Total</b>	<b>2 916 000</b>	<b>1 568</b>	<b>3 879 628</b>	<b>3 772 872</b>		

(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, 2004 of EUR 11.62.

On December 31, 2004, the total outstanding exercisable stock options held by all participants in the Nokia stock option plans, including the Group Executive Board, called for 81.1 million shares, with no potential realizable value (as defined below) on December 31, 2004. On December 31, 2004, there were outstanding unexercisable stock options for a total of 59.3 million shares, with a potential realizable value of EUR 0.13 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, 2004 of EUR 11.62.

***Performance Share Unit and Restricted Share Ownership***

*Performance Share Units*

The following table provides certain information relating to Performance Share Units held by members of the Group Executive Board as of December 31, 2004 (not including the new Group Executive Board members whose service began on or after January 1, 2005). These Performance Share Units were issued under the 2004 Nokia Equity Program. For a description of our performance share plan, please see " Nokia's Equity Based Compensation Program 2004."

	<b>Granted Amounts of Performance Share Units<sup>(1)(3)</sup></b>	<b>Maximum number of shares<sup>(2)(3)</sup></b>
Jorma Ollila	100 000	400 000
Pekka Ala-Pietilä	20 000	80 000
Matti Alahuhta	15 000	60 000
Sari Baldauf	15 000	60 000
J. T. Bergqvist	7 500	30 000
Olli-Pekka Kallasvuo	15 000	60 000
Pertti Korhonen	12 500	50 000
Mary McDowell	12 500	50 000
Hallstein Moerk	7 500	30 000
Yrjö Neuvo	5 000	20 000
Richard Simonson	12 500	50 000
Veli Sundbäck	7 500	30 000
Anssi Vanjoki	15 000	60 000
<b>Total</b>	<b>245 000</b>	<b>980 000</b>

(1)

The Grant Amount vests as Nokia shares, if threshold level performance is met for both the EPS growth and Average Annual Net Sales growth criteria. No Performance Share Units shall vest as Nokia shares, if the threshold level performance is not met for any of the EPS or Average Annual Net Sales criterion.

(2)

The maximum number of Performance Share Units shall vest as Nokia shares provided that the maximum performance level is achieved for both of the EPS and Average Annual Net Sales growth criteria.

(3)

The closing market price of the Nokia share on the Helsinki Exchanges as of December 31, 2004 was EUR 11.62.

*Restricted Share Units*

The following table provides certain information relating to restricted share units held by members of the Group Executive Board as of December 31, 2004 (not including the new Group Executive Board member whose service began after January 1, 2005). For a description of our restricted share plans, please see "Nokia's Equity Based Compensation Program 2004."

	<b>Number of Restricted Shares 2003<sup>(1)(3)</sup></b>	<b>Number of Restricted Shares 2004<sup>(2)(3)</sup></b>
Jorma Ollila		100 000
Pekka Ala-Pietilä		35 000
Matti Alahuhta		35 000
Sari Baldauf		35 000
J. T. Bergqvist		10 000
Olli-Pekka Kallasvuo		35 000
Pertti Korhonen	35 000	25 000
Mary McDowell		20 000
Hallstein Moerk	26 000	20 000
Richard Simonson	33 250	25 000
Veli Sundbäck		20 000
Anssi Vanjoki		35 000
<b>Total</b>	<b>94 250</b>	<b>395 000</b>

(1) Restriction period end date (Vesting Date) October 1, 2006.

(2) Restriction period end date (Vesting Date) April 1, 2007.

(3) The closing market price of Nokia share on the Helsinki Exchanges as of December 31, 2004 was EUR 11.62.

*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. In the case of the new Group Executive Board members whose service began after the original 2001 guidelines were established, this requirement is replaced by the requirement to retain after-tax equity gains in shares until the same minimum investment level applicable to the other Group Executive Board members is met.

*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. In addition, company may set trading restrictions based on project participation. 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 and also sets requirements beyond these guidelines.

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

In 2004, we introduced performance shares as the main element to our broad-based equity compensation program, as approved by the Board of Directors, to further emphasize the performance element in employees' long-term incentives. As part of this change, the number of stock options granted were significantly reduced compared to 2003.

The target group for the new share-based incentive program 2004 continued to be broad and included a wide number of employees on many levels of the organization. However, the number of actual participants is less than in 2003. The program increased the focus on rewarding achievement and on retaining high potential and critical employees. The rationale for using both performance shares and stock options was to build a more optimal and well-balanced combination of share-based compensation elements for our reward model. The 2004 program aligns the potential value received by participants directly with the performance of the company.

#### ***Performance Share Units***

A total number of 3.9 million Performance Share Units were granted to a wide number of selected employees on many levels of the organization. This number includes 0.25 million units granted to the Group Executive Board. Performance Share Units 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. No Performance Share Units will vest unless the company performance reaches at least one of the threshold levels measured by two independent, pre-defined performance criteria: the company's Average Annual Net Sales Growth and Earnings Per Share ("EPS") Growth (basic) for 2004 to 2007. If the required performance level is achieved, the first payout will take place in 2006. The second and final payout, if any, will be in 2008.

Under the Program, both the EPS and Average Annual Net Sales Growth criteria have an equal weight of 50%. The initial performance threshold for the Average Annual Net Sales Growth criteria is 4% resulting in the vesting of up to 1.95 million performance shares. Similarly, the first threshold for the annual EPS Growth criteria is EUR 0.84 in 2007 resulting in the vesting of up to 1.95 million performance shares. The maximum performance for Average Annual Net Sales Growth criteria is 16% resulting in the vesting of up to 7.8 million performance shares. Similarly, the maximum performance threshold for the annual EPS Growth criteria is EUR 1.18 in 2007 resulting in the vesting of up to 7.8 million performance shares.

Under the 2004 Program, the maximum performance level for both criteria will result in the vesting of the maximum of 15.6 million performance shares. For performance between the threshold and maximum performance levels the payout follows a linear scale. Performance exceeding the maximum criteria does not increase the number of performance shares vesting.

The company will determine later the method by which the shares are obtained for delivery after vesting in 2006 and/or in 2008, if applicable, which may also include cash settlement. Until the shares are transferred and delivered, the recipients will not have any shareholder rights, such as voting or dividend rights associated with these Performance Share Units.

*Stock Options*

A total number of 6.8 million stock options were issued to selected employees in the organization under the 2004 program, which was significantly fewer than in 2003. This number includes 1 million stock options granted to the Group Executive Board.

For a summary of the existing Nokia stock option plans, in some of which the Group Executive Board members participate, please see Note 22 to our consolidated financial statements included in Item 18 of this Form 20-F. The plans under Note 22 have been approved by the Annual General Meetings in the year of the launch of the plan.

*Restricted Shares*

In 2004, we granted a total of 1.9 million restricted shares to recruit, retain, reward and motivate selected high potential employees, who are critical to the future success of Nokia. The restricted shares granted during 2004 will vest in October 2007, after 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 shareholder rights, such as voting or dividend rights associated with these restricted shares.

*Nokia's Equity Based Compensation Program 2005*

The Board of Directors announced its proposed design for the 2005 Equity Program on January 27, 2005. The Equity Program 2005 follows the design of the 2004 Equity Program. The primary equity elements in 2005 will be: performance shares for the wide number of employees, stock options to a more limited population, and a continued, very limited usage of restricted shares for high potential and critical employees. The key elements of the proposed Equity Program 2005 are:

The performance criteria for the 2005 Performance Share Plan, running for a performance period of 4 years, are:

- (1) *Average Annual Net Sales Growth: 3% (threshold) and 12% (maximum), and*
- 2) *Annual EPS Growth: EUR 0.82 (threshold) and EUR 1.33 in 2008 (maximum).*

EPS growth is calculated based on the compounded annual growth rate over the full performance period (2005-2008) compared to 2004 EPS of 0.70.

The maximum performance level for both criteria will result in the vesting of the maximum of 18.8 million Nokia shares. If the threshold levels of performance are not achieved, none of the Performance Share Units will vest. For performance between the threshold and maximum performance levels the payout follows a linear scale.

We intend to grant Performance Share Units in 2005 resulting in a maximum payout of 18.8 million Nokia shares, in the event that the maximum performance levels be met. It is our intent to grant Performance Share Units to a similar target group and amounting to a similar number also in 2006. We have also reserved a pool of units, to be used for grants within the anticipated annual grant cycle in 2006 as well as for recruiting and special retention needs for 2005 and 2006 combined. This amount may result in a maximum payout of 31.2 million Nokia shares.

We intend to grant 8.5 million stock options in 2005, each entitling to a subscription of one Nokia share. Our intent is to grant a similar amount also in 2006. We have reserved an additional pool of stock options to be used for grants within the anticipated annual grant cycle in 2006 as well as for recruiting and special retention needs, for 2005 and 2006 combined. The Equity Program 2005 includes a proposal by the Board of Directors to Nokia's

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Annual General Meeting 2005 for the approval of a new two-year stock option plan amounting to a maximum of 25 million stock options, permitting these plans.

The maximum number of restricted shares that we intend to grant during 2005 is 3.5 million. Our intent is to grant a similar amount in 2006. We have also reserved a pool of restricted shares to be used for special needs in 2005 and 2006. This amount may result in a maximum payout of 9 million Nokia shares.

### *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, as awards under these plans are settled out of treasury shares.

We have 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 22 to our consolidated financial statements included in Item 18 of this Form 20-F.

We have an Employee Share Purchase Plan in the United States, 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, 2004, a total of 1.4 million ADSs had been purchased under the plan since its inception, and there were a total of approximately 1 000 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, 2004, options to purchase 0.5 million ADSs were outstanding at an average exercise price of USD 27.24 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 million. As of December 31, 2004 options to purchase 1.9 million ADSs were outstanding from all other acquisitions (excluding Ipsilon) at an average exercise price of USD 19.80 per ADS.

As of December 31, 2004, 2.6 million stock options to purchase ADSs were outstanding from all plans described in this " Other Employee Stock Option Plans" section, at an average exercise price of USD 22.95 per ADS.

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

**7.A Major Shareholders**

No persons are known by Nokia to hold currently, or to have held during the past three years, 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.

As at December 31, 2004, 1 143 024 452 ADSs (equivalent to the same number of shares or approximately 24.51% of the total outstanding shares) were outstanding and held of record by 21 456 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., or ADP, the number of beneficial owners of ADSs as at December 31, 2004 was approximately 1.3 million.

As at December 31, 2004, there were approximately 142 095 holders of record of our shares. Of these holders, around 619 had registered addresses in the United States and held a total of some 3 511 062 of our shares, approximately 0.08% 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 associates of Nokia.

See Notes 32 and 33 to our consolidated financial statements included in Item 18 of this Form 20-F.

**7.C Interests of Experts and Counsel**

Not applicable.

**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 3 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 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 on March 5, 2003, on the theory that the issues raised are primarily within the jurisdiction of the Federal Communications Commission, not the courts. 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 are now before the courts in the District of Columbia. The cases are in the initial stages and motions to dismiss are being filed.

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 February 2004 the Arbitral Tribunal in Zürich rendered an award fully approving the claim against Telsim, which was owned and controlled by the Uzan family and their affiliates. In June 2004, the Swiss Federal Supreme Court dismissed Telsim's appeal which rendered the award final and enforceable. 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 fraudulently induced us and Motorola, through a pattern of misleading and illegal conduct, to provide financing to Telsim. In July 2003, the trial judge held that Nokia was entitled to a USD 1.7 billion judgment. That judgment has been affirmed by the appeals court, and should be entered against the Uzans once their request to have the appeals court reconsider its decision has been ruled upon. On the basis of the award and judgment we continue vigorously the pursuit to recover all amounts due to us. We wrote off our total financing exposure to Telsim by the end of 2002.

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 IDT. IDT has responded with a counterclaim seeking to apply the Ericsson and Sony-Ericsson royalty rates to Nokia. An arbitration hearing was completed in January 2005 and an opinion of the arbitrators is expected in the next few months. Nokia does not believe that IDT's position has merit.

On April 6, 2004, Irving Greenfeld filed suit against Nokia, Jorma Ollila, Pekka Ala-Pietilä, Matti Alahuhta and Richard Simonson in the United States District Court for the Southern District of New York on behalf of all purchasers of the Nokia's stock between January 8, 2004 and April 6, 2004. Subsequently, six individuals, Marc Abrams, Emery Chu, Zoe Myerson, Thomas Pflugbeil, Michael Devine, and Donald L. Siefert, filed related actions, each alleging that the Nokia's January 8, 2004 earnings guidance was materially misleading as allegedly revealed in the Nokia's April 6, 2004 press release. In addition, the complaints alleged that the Nokia's senior executives possessed material adverse information about the success of Nokia's reorganization and fraudulently failed to disclose this information.

In September 2004, the Court appointed Generic Trading, Martin Bergljung and Gerald Hoberman as Lead Plaintiffs and Milberg Weiss and Entwistle & Capucci as Lead Counsel.

On January 7, 2005, Lead Plaintiffs filed a Consolidated Class Action Complaint (the "Consolidated Complaint"), on behalf of all purchasers "worldwide" of Nokia securities during the class period. The Consolidated Complaint expanded the original class period (January 8, 2004 through April 6, 2004) to October 16, 2003 through April 15, 2004. The Consolidated Complaint added two new defendants, Olli-Pekka Kallasvuo and Anssi Vanjoki in addition to the four individual defendants named in the initial complaint.

The Consolidated Complaint alleges principally that Nokia's positive statements about its product portfolio and the projections based thereon were false and misleading because Nokia knew that there were substantial weaknesses in the product portfolio. The Consolidated Complaint also alleges that Nokia employed accounting and inventory techniques that were allegedly used to improperly manipulate sales figures.

While the matters alleged are under review, Nokia does not believe that the Lead Plaintiff's claims have merit and intends to vigorously defend itself.

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.

We are also party to routine litigation incidental to the normal conduct of our business. Based upon the information currently available, 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.

**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 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 2000 has been adjusted accordingly.

	Helsinki Exchanges		New York Stock Exchange	
	Price per share		Price per ADS	
	High	Low	High	Low
	(EUR)		(USD)	
<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>	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>2004</b>				
First Quarter	18.79	13.78	23.22	17.17
Second Quarter	17.40	10.83	21.15	13.08
Third Quarter	12.05	8.97	14.67	11.03
Fourth Quarter	12.89	11.11	16.85	13.80
Full Year	18.79	8.97	23.22	11.03
<b>Most recent six months</b>				
September 2004	11.54	9.68	14.14	11.82
October 2004	12.10	11.11	15.42	13.80
November 2004	12.89	12.23	16.85	15.54
December 2004	12.65	11.25	16.72	15.15
January 2005	11.91	10.75	15.59	13.92
February 2005	12.36	11.89	16.38	15.47

**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 and Stockholm stock exchanges. The shares were also listed on the Paris stock exchange until their de-listing upon the company's application, effective October 13, 2004.

### **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 Depositary, 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 Depositary, a holder of ADSs authorizes the Depositary 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, possibly with retroactive effect.

For purposes of this summary, beneficial owners of ADSs that hold the ADSs as capital assets and that are considered residents of the United States for purposes of the current income tax

convention between the United States and Finland, signed September 21, 1989, 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 (including for this purpose any entity treated as a partnership for US federal income tax purposes), 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 financial institutions, banks, tax-exempt entities, US expatriates, real estate investment trusts, persons that are dealers in securities, persons who own (directly, indirectly or by attribution) 10% or more of the share capital or voting stock of Nokia, persons who acquired their ADSs pursuant to the exercise of employee stock options or otherwise as compensation, 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. Accordingly, the following discussion, except where otherwise expressly noted, applies equally to US Holders of ADSs on the one hand and of shares on the other.

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.

#### ***US Taxation of Cash Dividends***

For US federal income tax purposes, the gross amount of dividends paid to US Holders of shares or ADSs, including any related Finnish withholding tax, generally will be included in gross income as foreign source dividend income. 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 Depositary (in the case of ADSs) or by the US Holder (in the case of shares), 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 a US 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 28% payable on dividends paid by a company. However, pursuant to the Treaty, dividends paid to US Holders generally will be subject to Finnish withholding tax at a reduced rate of 15% of the gross amount of the 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 generally will constitute foreign source passive income for foreign tax credit purposes. In lieu of a credit, a US Holder may elect to deduct all of its foreign taxes provided the deduction is claimed for all of the foreign taxes paid by the US Holder in a particular year. A deduction does not reduce US tax on a dollar-for-dollar basis like a tax credit. The deduction, however, is not subject to the limitations applicable to foreign tax credits.

The US Treasury has expressed concern that parties to whom ADSs are released may be taking actions inconsistent with the claiming of foreign tax credits for US Holders of ADSs. Accordingly, the analysis above of the creditability of Finnish withholding taxes could be affected by future actions that may be taken by the US Treasury.

If a US Holder is a non-corporate US holder, the US dollar amount of any dividends paid to it prior to January 1, 2009 that constitute qualified dividend income generally will be taxable at a maximum rate of 15%, provided that the US Holder meets certain holding period requirements. Dividends that Nokia pays with respect to its shares and ADSs generally will be qualified dividend income if Nokia was not, in the year prior to the year in which the dividend was paid, and is not, in the year in which the dividend is paid, a passive foreign investment company. Nokia currently believes that dividends paid with respect to its 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. The US Treasury and the US Internal Revenue Service have announced their intention to promulgate rules pursuant to which US Holders of shares and ADSs, among others, will be permitted to rely on certifications from issuers to establish that dividends are treated as qualified dividends. US Holders of shares or ADSs are urged to consult their own tax advisors regarding the availability to them of the reduced dividend tax rate in light of their own particular situation and the computations of their foreign tax credit limitation with respect to any qualified dividends paid to them, as applicable.

#### ***US Tax on Sale or Other Disposition***

A US Holder generally will recognize taxable capital gain or loss on the sale or other disposition 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, 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 in effect until December 31, 2008 if specified minimum holding periods are met. The deductibility of capital losses is subject to significant limitations.

The deposit or withdrawal of shares in exchange for ADSs by a US Holder under the deposit agreement generally will not be subject to US federal income tax.

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 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 other 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 shares or 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 a Holder, however, if the Holder furnishes a correct taxpayer identification number or certificate of foreign status and makes any other required certification or if it is a recipient otherwise exempt from backup withholding (such as a corporation). Any US person required to establish its exempt status generally must furnish a duly completed Internal Revenue Service Form W-9 (Request for Taxpayer Identification Number and Certification). Non-US Holders generally are not subject to US information reporting or backup withholding. However, such Holders may be required to provide certification of non-US status (generally on IRS Form W-8BEN) in connection with payments received in the United States or through certain US-related financial intermediaries. Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a Holder's US federal income tax liability, and the Holder 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.

**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**

#### **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.

## 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, 2004 (in some of the currencies, especially the US dollar, Nokia has both substantial sales as well as costs, 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	2004	2003
	(EUR millions)	
At December 31	12.7	16.7
Average for the year	14	9.3
Range for the year	1.6-26.9	5.8-16.7

Since Nokia has subsidiaries outside the Euro zone, 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) or 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	2004	2003
	(EUR millions)	
At December 31	10.4	9.8
Average for the year	6.3	6.73
Range for the year	3.6-10.8	4.7-11.9

#### **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, 2004 was EUR 7 million (EUR 8 million in 2003).

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	2004	2003
	(EUR millions)	
At December 31	0.1	0.2
Average for the year	0.2	3.5
Range for the year	0.1-0.3	0.2-9.4

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, 2004 was USD 142 million (USD 85 million in 2003). 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 Rule 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, 2004 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**

## Edgar Filing: NOKIA CORP - Form 20-F

PricewaterhouseCoopers Oy has served as Nokia's independent public auditor for each of the fiscal years in the three-year period ended December 31, 2004, 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 April 7, 2005 that PricewaterhouseCoopers Oy be elected as the auditor for 2005.

## Edgar Filing: NOKIA CORP - Form 20-F

The following table presents the aggregate fees for professional services and other services rendered by PricewaterhouseCoopers to Nokia in 2004 and 2003.

	2004	2003
	(EUR millions)	
Audit Fees <sup>(1)</sup>	4.2	4.8
Audit-related Fees <sup>(2)</sup>	1.0	0.9
Tax Fees <sup>(3)</sup>	5.0	6.0
All Other Fees <sup>(4)</sup>	0.3	0.7
	10.5	12.4

(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 and the review of documents filed with the SEC and other capital markets or local financial reporting regulatory bodies. The fees for 2004 include EUR 0.8 million of accrued audit fees for the 2004 year-end audit that were not billed until 2005; the fees for 2003 include EUR 0.2 million of accrued audit fees for the 2003 year-end audit that were not billed until 2004. The audit fees for 2003 have been increased by EUR 0.2 million to include fees paid to PricewaterhouseCoopers by our subsidiary, Nextrom, which fees were omitted from our prior year's disclosure.

(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; advice and assistance in connection with local statutory accounting requirements; due diligence related to acquisitions; and employee benefit plan audits and reviews; and miscellaneous reports in connection with grant applications.

(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 and, in 2004 only, for advisory services in connection with the outsourcing of an operational process. Forensic accounting in 2004 mainly related to internal investigations; in 2003 it related entirely 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, which services are subject to annual review by the Audit Committee. All other audit, audit-related, tax and other services, including all internal control related services, must receive a specific pre-approval from the Audit Committee.

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. During 2004, no services were provided to Nokia by PricewaterhouseCoopers that were approved pursuant to the *de minimis* exception.

**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 2004.

<b>Period</b>	<b>(a) Total Number of Shares Purchased<sup>(1)</sup></b>	<b>(b) Average Price Paid per Share (EUR)</b>	<b>(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs<sup>(1)</sup></b>	<b>(d) Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs</b>
January 1/1/04 1/31/04	13 062 000 <sup>(1)</sup>	16.76	13 000 000 <sup>(1)</sup>	117 521 500 <sup>(2)</sup>
February 2/1/04 2/28/04	25 057 700	17.14	25 057 700	92 463 800 <sup>(2)</sup>
March 3/1/04 3/31/04	0	0.00	0	230 000 000 <sup>(3)</sup>
April 4/1/04 4/30/04	52 000 000	12.53	52 000 000	178 000 000 <sup>(3)</sup>
May 5/1/04 5/31/04	9 000 000	11.84	9 000 000	169 000 000 <sup>(3)</sup>
June 6/1/04 6/30/04	0	0.00	0	169 000 000 <sup>(3)</sup>
July 7/1/04 7/31/04	36 500 000	9.71	36 500 000	132 500 000 <sup>(3)</sup>
August 8/1/04 8/31/04	18 500 000	9.30	18 500 000	114 000 000 <sup>(3)</sup>
September 9/1/04 9/30/04	0	0.00	0	114 000 000 <sup>(3)</sup>
October 10/1/04 10/31/04	38 100 000	11.85	38 100 000	75 900 000 <sup>(3)</sup>
November 11/1/04 11/30/04	21 900 000	12.60	21 900 000	54 000 000 <sup>(3)</sup>
December 12/1/04 12/31/04	0	0.00	0	54 000 000 <sup>(3)</sup>
<b>Total</b>	<b>214 119 700</b>	<b>12.42</b>	<b>214 057 700</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 62 000 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 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 was effective for a period of one year and expired on March 27, 2004.

(3) On March 25, 2004, the Annual General Meeting approved the Board's proposal to authorize the Board to resolve to repurchase a maximum of 230 million Nokia shares by using funds available for distribution of profits. The authorization is effective as of March 28, 2004 until March 25, 2005.

**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:

<b>Consolidated Financial Statements</b>	
Report of Independent Registered Public Accounting Firm	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 29 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 Auditors.

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\*  
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.

**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.

**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.

**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.

**Circuit switching:** Electronic communications via a dedicated channel, or circuit, for the duration of the communication.

**Core network:** A combination of exchanges and the basic transmission equipment that together form the basis for network services.

**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.

**DVB-H (Digital Video Broadcast Handheld):** A standard to enable service reception in handheld devices using IP-data and devices.

**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.

**HSDPA (High Speed Downlink Packet Access):** A wideband code division multiple access (WCDMA) key feature which provides high data rate transmission in a CDMA downlink to support multimedia services. HSDPA brings high speed data delivery to 3G terminals, ensuring that users requiring effective multimedia capabilities benefit from data rates previously unavailable because of limitations in the radio access network.

**IP (Internet Protocol):** A network layer protocol that offers a connectionless Internet network service and forms part of the TCP/IP protocol.

**IP Network (Internet Protocol Network):** A data communications network based on the Internet protocol.

**IPSec (Internet Protocol Security):** A protocol that provides Internet security architecture for data confidentiality, data integrity, and data authentication to support secure exchange of packets at the IP layer.

**IPSec VPN:** A technology of establishing a VPN connection by using the IPSec protocol.

**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.

**MSC (Mobile Services Switching Centre):** A mobile network element which performs the switching functions in its area of operation and controls the interworking with other networks.

**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.

**Push to talk over Cellular (PoC):** A new Voice over IP service over GPRS and WCDMA networks, which enables real-time one-to-one and one-to-many (group) voice communication in a cellular network. The connection is established with a push of a button, and is one-way at a time.

**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.

**SSL (Secure Socket Layer):** A transport-level protocol that adds authentication and data encryption to TCP connections and as such is the standard protocol for securing web browsing.

**SSL VPN:** A technology of establishing a VPN connection by using the SSL protocol.

**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.

**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.

**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.

**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 REGISTERED PUBLIC ACCOUNTING FIRM**

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, 2004 and 2003, 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, 2004. 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 the standards of the Public Company Accounting Oversight Board (United States). 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, 2004 and 2003, and the consolidated results of their operations and their consolidated cash flows for each of the three years in the period ended December 31, 2004 in conformity with International Financial Reporting Standards.

As discussed in Note 2, Restatement of Previously Issued Financial Statements, the Company has restated its previously issued financial statements.

International Financial Reporting Standards vary in certain significant respects from accounting principles generally accepted in the United States of America. Information relating to the nature and effect of such differences is presented in Note 37 to the consolidated financial statements.

Espoo, Finland  
March 7, 2005

/s/ PRICEWATERHOUSECOOPERS OY

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PricewaterhouseCoopers Oy  
Authorized Public Accountants

## Nokia Corporation and Subsidiaries

## Consolidated Profit and Loss Accounts

Notes	Financial year ended December 31		
	2004	2003	2002
	EURm	EURm	EURm
<b>Net sales</b>	<b>29,267</b>	29,455	30,016
Cost of sales	(18,133)	(17,237)	(18,278)
Research and development expenses	(3,733)	(3,760)	(3,052)
Selling, general and administrative expenses	7, 8 (2,975)	(3,363)	(3,239)
Customer finance impairment charges, net of reversals	8	226	(279)
Impairment of goodwill	8	(151)	(182)
Amortization of goodwill	10 (96)	(159)	(206)
<b>Operating profit</b>	<b>3, 4, 5, 6, 7, 8, 10 4,330</b>	5,011	4,780
Share of results of associated companies	33 (26)	(18)	(19)
Financial income and expenses	11 405	352	156
<b>Profit before tax and minority interests</b>	<b>4,709</b>	5,345	4,917
Tax	12 (1,435)	(1,699)	(1,484)
Minority interests	(67)	(54)	(52)
<b>Net profit</b>	<b>3,207</b>	3,592	3,381
	<b>2004</b>	<b>2003</b>	<b>2002</b>
	<b>EUR</b>	<b>EUR</b>	<b>EUR</b>
<b>Earnings per share</b>	<b>29</b>		
Basic	0.70	0.75	0.71
Diluted	0.70	0.75	0.71
	<b>2004</b>	<b>2003</b>	<b>2002</b>
<b>Average number of shares (000's shares)</b>	<b>29</b>		
Basic	4,593,196	4,761,121	4,751,110
Diluted	4,600,337	4,761,160	4,788,042

See Notes to Consolidated Financial Statements.

## Nokia Corporation and Subsidiaries

## Consolidated Balance Sheets

	Notes	December 31	
		2004	2003
		EURm	As restated EURm
<b>ASSETS</b>			
<b>Fixed assets and other non-current assets</b>			
Capitalized development costs	13	278	537
Goodwill	13	90	186
Other intangible assets	13	209	185
Property, plant and equipment	14	1,534	1,566
Investments in associated companies	15	200	76
Available-for-sale investments	16	169	121
Deferred tax assets	25	623	743
Long-term loans receivable	17		354
Other non-current assets		58	69
		<b>3,161</b>	<b>3,837</b>
<b>Current assets</b>			
Inventories	18, 20	1,305	1,169
Accounts receivable, net of allowances for doubtful accounts (2004: EUR 361 million, 2003: EUR 367 million)	19, 20	4,382	5,231
Prepaid expenses and accrued income	19	1,429	1,106
Other financial assets		595	465
Available-for-sale investments	16	255	816
Available-for-sale investments, liquid assets	16	9,085	8,512*
Available-for-sale investments, cash equivalents	16, 35	1,367	1,639*
Bank and cash	35	1,090	1,145
		<b>19,508</b>	<b>20,083</b>
<b>Total assets</b>		<b>22,669</b>	<b>23,920</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
<b>Shareholders' equity</b>			
Share capital	22	280	288
Share issue premium		2,272	2,272
Treasury shares, at cost		(2,022)	(1,373)
Translation differences		(126)	(85)
Fair value and other reserves	21	69	93
Retained earnings	23	13,765	13,953
		<b>14,238</b>	<b>15,148</b>
<b>Minority interests</b>		<b>168</b>	<b>164</b>
<b>Long-term liabilities</b>	<b>24</b>		
Long-term interest-bearing liabilities		19	20

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		December 31	
Deferred tax liabilities	25	179	241
Other long-term liabilities		96	67
		294	328
<b>Current liabilities</b>			
Short-term borrowings	26	215	387
Current portion of long-term debt			84
Accounts payable		2,669	2,919
Accrued expenses	27	2,606	2,468
Provisions	28	2,479	2,422
		7,969	8,280
Commitments and contingencies	30		
<b>Total shareholders' equity and liabilities</b>		22,669	23,920

\*

For items restated see Note 2.

See Notes to Consolidated Financial Statements.

## Nokia Corporation and Subsidiaries

## Consolidated Cash Flow Statements

	Financial year ended December 31			
	Notes	2003	2002	
		As restated	As restated	
	EURm	EURm	EURm	
<b>Cash flow from operating activities</b>				
Net profit		3,207	3,592	3,381
Adjustments, total	34	1,986	2,953	3,151
Net profit before change in net working capital		5,193	6,545	6,532
Change in net working capital	34	299	(194)*	914*
Cash generated from operations		5,492	6,351	7,446
Interest received		204	256	229
Interest paid		(26)	(33)	(94)
Other financial income and expenses, net received		41	118*	67*
Income taxes paid		(1,368)	(1,440)	(1,947)
<b>Net cash from operating activities</b>		<b>4,343</b>	<b>5,252</b>	<b>5,701</b>
<b>Cash flow from investing activities</b>				
Acquisition of Group companies, net of acquired cash (2004: EUR 0 million, 2003: EUR 0 million, 2002: EUR 6 million)			(7)	(10)
Purchase of current available-for-sale investments, liquid assets		(10,318)	(11,695)*	(7,392)*
Purchase of non-current available-for-sale investments		(388)	(282)	(99)
Purchase of shares in associated companies		(109)	(61)	
Additions to capitalized development costs		(101)	(218)	(418)
Long-term loans made to customers			(97)	(563)
Proceeds from repayment and sale of long-term loans receivable		368	315	314
Proceeds from (+) / payment of ( ) other long-term receivables		2	(18)	(32)
Proceeds from (+) / payment of ( ) short-term loans receivable		66	63	(85)
Capital expenditures		(548)	(432)	(432)
Proceeds from disposal of shares in Group companies, net of disposed cash		1		93
Proceeds from maturities and sale of current available-for-sale investments, liquid assets		9,737	8,793*	4,390*
Proceeds from sale of current available-for-sale investments		587		
Proceeds from sale of non-current available-for-sale investments		346	381	162
Proceeds from sale of fixed assets		6	19	177
Dividends received		22	24	25
<b>Net cash used in investing activities</b>		<b>(329)</b>	<b>(3,215)</b>	<b>(3,870)</b>

<b>Cash flow from financing activities</b>			
Proceeds from stock option exercises		23	163
Purchase of treasury shares	(2,648)	(1,355)	(17)
Capital investment by minority shareholders			26
Proceeds from long-term borrowings	1	8	100
Repayment of long-term borrowings	(3)	(56)	(98)
Repayment of short-term borrowings	(255)	(22)	(406)
Dividends paid	(1,413)	(1,378)	(1,348)
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Net cash used in financing activities</b>	<b>(4,318)</b>	<b>(2,780)</b>	<b>(1,580)</b>
<b>Foreign exchange adjustment</b>	<b>(23)</b>	<b>(146)*</b>	<b>(135)*</b>
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Net increase (+) / decrease ( ) in cash and cash equivalents</b>	<b>(327)</b>	<b>(889)</b>	<b>116</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>2,784</b>	<b>3,673*</b>	<b>3,557*</b>
	<u>          </u>	<u>          </u>	<u>          </u>
<b>Cash and cash equivalents at end of period</b>	<b>2,457</b>	<b>2,784*</b>	<b>3,673*</b>
	<u>          </u>	<u>          </u>	<u>          </u>
Cash and cash equivalents comprise of:			
Bank and cash	1,090	1,145	1,496
Current available-for-sale investments, cash equivalents	16, 35	1,367	2,177*
	<u>          </u>	<u>          </u>	<u>          </u>
	<b>2,457</b>	<b>2,784*</b>	<b>3,673*</b>
	<u>          </u>	<u>          </u>	<u>          </u>

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.

\*

For items restated see Note 2.

See Notes to Consolidated Financial Statements.



## 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, 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						