As filed with the Securities and Exchange Commission on June 28, 2001.

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

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, 2000

Commission file number 1-13202

Nokia Corporation

(Exact name of Registrant as specified in its charter)

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
American Depositary Shares	**New York Stock Exchange**
Shares, par value EUR 0.06	**New York Stock Exchange**[1]

[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: 4,696,212,723

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, references to "FIM," "Finnish markka" or "markka" are to the currency of the Republic of Finland and references to "dollars," "U.S. 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 U.S. dollars at specified rates, or, if not so specified, at the rate of 0.9388 U.S. 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, 2000. No representation is made that the amounts have been, could have been or could be converted into U.S. 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 public accountants annually. These financial statements are prepared on the basis of International Accounting Standards, or IAS. Nokia's consolidated financial statements contain a reconciliation of net income and shareholders' equity to accounting principles generally accepted in the United States. Upon receipt, the Depositary generally delivers these consolidated financial statements to record holders of American Depositary Receipts, or ADRs, evidencing American Depositary Shares, or ADSs. One ADS represents one share. We also furnish the Depositary with quarterly reports containing unaudited financial information prepared on the basis of IAS, as well as all notices of shareholders' meetings and other reports and communications that are made available generally to our shareholders. The Depositary makes these notices, reports and communications available for inspection by record holders of ADSs and delivers to all record holders of ADSs notices of shareholders' meetings received by the Depositary. In addition to the reports delivered to holders of ADSs by the Depositary, holders can access our annual report to shareholders, as well as our consolidated financial statements, at *www.nokia.com*. With the distribution of our 2000 consolidated financial statements we offered our shareholders and ADS holders the option of receiving all of these documents electronically in the future.

FORWARD-LOOKING STATEMENTS

Some of the statements in this document that are not historical facts are forward-looking statements, including, without limitation those regarding:

- the timing of product deliveries;
- our ability to develop and implement new products and technologies;
- expectations regarding market growth and developments;
- expectations for growth and profitability; and
- statements preceded by ''believe,'' ''expect,'' ''anticipate,'' ''foresee'' or similar expressions.

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:

- industry conditions, such as the strength of product demand, the intensity of competition, pricing pressures, the acceptability of new product introductions such as Internet-ready phones, the introduction of new products by competitors, the impact of changes in technology, including our success in the emerging 3G market, the introduction and marketing of new products and services by operators, our ability to source components from third parties without interruption and at reasonable prices, demand for vendor financing and our ability and willingness to provide this type of financing and to mitigate the related exposure, and the success and financial condition of our strategic partners and customers;
- operating factors, such as the continued success of manufacturing activities and the achievement of manufacturing efficiencies, continued success of product development, and inventory risks due to shifts in market demand; and
- general economic conditions, such as the rate of economic growth in our principal geographic markets and the wireless telecommunications industry as a whole, or fluctuations in exchange rates, including in particular the impact of the exchange rate between the euro and the U.S. dollar;

as well as the risk factors specified in this document 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, 1999 and 2000, and for each of the years in the three year period ended December 31, 2000, have been derived from the consolidated financial statements of Nokia included in Item 18 of this document. Financial data at December 31, 1996, 1997 and 1998, and for each of the years in the two-year period ended December 31, 1997, have been derived from Nokia's previously published financial statements not included in this document.

The financial data at December 31, 1999 and 2000, and for each of the years in the three-year period ended December 31, 2000, should be read in conjunction with, and are qualified in their entirety by reference to, the consolidated financial statements and the related notes included in Item 18 of this document.

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

The financial data set forth below for the years ended December 31, 1996, 1997 and 1998, has been converted into euro at the rate of 5.94573 Finnish markka per euro, the conversion ratio announced on December 31, 1998. As of January 1, 1999, we adopted the euro as our reporting currency. See Note 1 to the consolidated financial statements.

	Year ended December 31,					
	1996	1997	1998	1999	2000	2000
	(EUR)	(EUR)	(EUR)	(EUR)	(EUR)	(USD)
	(in millions, except per share data)					
Profit and Loss Account Data						
Amounts in accordance with IAS						
Net sales	6,613	8,849	13,326	19,772	30,376	28,517
Operating profit	717	1,422	2,489	3,908	5,776	5,423
Profit before tax and minority interests	655	1,408	2,456	3,845	5,862	5,503
Profit from continuing operations	512	1,009	1,680	2,577	3,938	3,697
Discontinued operations	37	44	—	—	—	—
Cumulative prior year effect of change in accounting policies	—	—	70	—	—	—
Net profit	549	1,053	1,750	2,577	3,938	3,697
Continuing operations						
Basic earnings per share[(1)]	0.11	0.22	0.37	0.56	0.84	0.79
Diluted earnings per share[(1)]	—	0.22	0.36	0.54	0.82	0.77
Net profit						
Basic earnings per share[(1)]	0.12	0.23	0.38	0.56	0.84	0.79
Diluted earnings per share[(1)]	—	0.23	0.37	0.54	0.82	0.77
Cash dividends per share[(1)(2)]	0.04	0.08	0.12	0.20	0.28	0.25
Average number of shares (millions of shares)						
Basic	4,537	4,533	4,553	4,594	4,673	4,673
Diluted	4,554	4,613	4,693	4,743	4,793	4,793
Amounts in accordance with U.S. GAAP						
Income from continuing operations	497	1,032	1,689	2,542	3,847	3,612
Income from discontinued operations	58	44	—	—	—	—
Net income	555	1,076	1,689	2,542	3,847	3,612
Continuing operations						
Basic earnings per share[(1)]	0.11	0.23	0.37	0.55	0.82	0.77
Diluted earnings per share[(1)]	0.11	0.22	0.36	0.54	0.80	0.75
Net income						
Basic earnings per share[(1)]	0.12	0.24	0.37	0.55	0.82	0.77
Diluted earnings per share[(1)]	0.12	0.23	0.36	0.54	0.80	0.75

	Year ended December 31,					
	1996	1997	1998	1999	2000	2000
	(EUR)	(EUR)	(EUR)	(EUR) (in millions)	(EUR)	(USD)
Balance Sheet Data						
Amounts in accordance with IAS						
Fixed assets and other non-current assets	1,414	1,589	2,220	3,487	6,388	5,997
Cash and cash equivalents	1,269	2,060	2,891	4,159	4,183	3,927
Other current assets	2,913	3,371	4,923	6,633	9,319	8,749
Total assets	5,596	7,020	10,034	14,279	19,890	18,673
Shareholders' equity	2,678	3,620	5,109	7,378	10,808	10,147
Minority interests	5	33	63	122	177	166
Long-term interest-bearing liabilities	356	226	257	269	173	162
Other long-term liabilities	50	50	152	138	138	130
Borrowings due within one year	666	554	760	793	1,116	1,048
Other current liabilities	1,841	2,537	3,693	5,579	7,478	7,020
Total shareholders' equity and liabilities	5,596	7,020	10,034	14,279	19,890	18,673
Net interest-bearing debt[3]	(247)	(1,280)	(1,874)	(3,097)	(2,894)	(2,717)
Share capital	252	252	255	279	282	265
Amounts in accordance with U.S. GAAP						
Total assets	5,701	7,118	10,030	14,289	19,676	18,472
Shareholders' equity	2,664	3,633	5,102	7,384	10,871	10,206

(1) Adjusted for share splits.
(2) Translated into U.S. dollars at the Noon Buying Rate on the dividend payment date.
(3) Borrowings due within one year and long-term interest-bearing liabilities, less cash and cash equivalents.

Dividends

Dividends, if any, are paid by Nokia within the limits set by the Finnish Companies Act. The amount of dividends historically has been based upon and calculated in relation to the level of Nokia Corporation's annual profit. There is no specific formula by which the amount of dividends is determined although some limits on the amount are discussed below. The timing and amount of future dividend payments, if any, will depend on Nokia's future earnings and financial condition, as well as Nokia's retained earnings on a consolidated and individual basis.

Under the Finnish Companies Act, dividends on Nokia shares may be paid only upon a shareholder resolution, on the basis of Nokia's 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 dividend is limited to, among other things, the lower of the retained earnings of Nokia on a consolidated and individual basis, in each case available at the end of the preceding financial year. Subject to exceptions relating to the right of minority shareholders to request otherwise, the dividend may not exceed the amount proposed by the board of directors. Until March 2001, our articles of association provided for a minimum fixed annual dividend. This provision was abolished by a shareholders' resolution at the Annual General Meeting on March 21, 2001, because it had lost its original meaning. The dividend paid had always exceeded the minimum fixed annual dividend provided by our articles of association.

The table below sets forth the amounts of total dividends per share and per ADS paid in respect of each fiscal year indicated. For the purposes of showing the dollar amounts per ADS, the dividend per share amounts have been translated into U.S. dollars at the Noon Buying Rate on the respective dividend payment date.

	Euro per share	Dollars per ADS
1996	0.04	0.04
1997	0.08	0.08
1998	0.12	0.13
1999	0.20	0.19
2000	0.28	0.25

In each of 1998 and 1999, Nokia effected a two-for-one share split, effective in public trading on April 16, 1998, and April 12, 1999, respectively. In 2000, Nokia 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 for previous periods have been adjusted accordingly.

Cash dividend payments by Nokia are made in euro. As a result, exchange rate fluctuations will affect the U.S. dollar amount received by holders of ADSs on conversion of these dividends. Moreover, fluctuations in the exchange rates between the euro and the U.S. 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 net sales and costs are affected by fluctuations in the rate of exchange between the euro, which is our reporting currency, and other currencies."

Exchange Rate Data

Before January 1, 1999, the Finnish markka was a part of the European Monetary System exchange rate mechanism known as the Exchange Rate Mechanism, or ERM. Within the ERM, exchange rates fluctuated within permitted margins, fixed by central bank intervention. Under the provisions of the Treaty on European Union negotiated at Maastricht in 1991 and signed by the then 11 member states of the European Union in early 1992, the EMU superseded the EMS on January 1, 1999, and the euro was introduced as the single European currency. Since this date, the euro has been the lawful currency of the EMU states. The following 12 current member states participate in the EMU and have adopted the euro as their national currency: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Spain. The fixed legal rate of conversion between the Finnish markka and the euro was announced on December 31, 1998, at FIM 5.94573 = EUR 1.00.

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 (1) Finnish markka for the years 1996 through 1998, expressed in Finnish markka per $1.00, and (2) euro for the years 1999 and 2000 and for each of the months in the six month period ended May 31, 2001, expressed in U.S. dollars per €1.00.

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 exchange rates at the end of each day during that month.

	Exchange Rates			
	Rate at period end	Average rate	Highest rate	Lowest rate
For the year ended December 31:				
	(in Finnish markka per U.S. dollar)			
1996	4.6030	4.6008	4.8530	4.3360
1997	5.4530	5.2169	5.6000	4.6130
1998	5.0645	5.3433	5.6280	4.8995
	(in U.S. dollars per euro)			
1999[(1)]	1.0070	1.0588	1.1812	1.0016
2000	0.9388	0.9232	1.0335	0.8270
For the month ended:				
December 31, 2000	0.9388	0.8983	0.9388	0.8755
January 31, 2001	0.9308	0.9376	0.9535	0.9181
February 28, 2001	0.9212	0.9205	0.9395	0.9057
March 31, 2001	0.8794	0.9083	0.9340	0.8794
April 30, 2001	0.8874	0.8926	0.9032	0.8814
May 31, 2001	0.8455	0.8753	0.8937	0.8455

(1) The Noon Buying Rate for the markka ceased to be available after January 15, 1999.

On June 26, 2001, the Noon Buying Rate was $0.8623 per €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.

The new advanced products and services that we are developing incorporate complex, evolving technologies, including third generation technology, that require substantial expenditures and resources. However, these new products may fail to be accepted at the rates or levels we anticipate and we may fail to realize the expected benefits from our investments in these new technologies.

The markets for our products are characterized by rapidly changing and increasingly complex technologies. At any given time, we are considering and developing a number of products incorporating advanced technologies from which we will select those that we feel have the best chance for success, based on our expectations of future market demand and evolution. The development and application of new technologies involve time, substantial costs and risks, whether we develop these technologies internally or by acquiring or investing in other companies. The technologies and related products and services on which we focus, including third generation, or 3G, systems and handsets, may not be brought to market as quickly as anticipated, may not achieve broad customer acceptance, or may not prove to be sufficiently compatible with the existing technologies and products of our customers or those of other product and service providers.

Demand for mobile data communications or the supply of related services also may not develop as we anticipate. In addition, our new technology, products and services may become obsolete more quickly than in the past as telecommunications technology continues to evolve rapidly. Moreover, the revenue growth rates, operating margins and cash flow characteristics of our new businesses developed within Nokia Ventures Organization may be materially different from those of our networks and mobile phones businesses. Although we strive to be a leader in developing new technologies and solutions and emphasize open standards, research and development and successful cooperation with selected companies, the technologies, products and services that we choose to pursue may not become as commercially successful as we planned. We also may experience difficulties in consolidating acquired companies into our business or developing acquired technologies. Consequently, we may not realize the expected benefits of our investments in those technologies or businesses.

We may not be able to sustain the rapid rate of growth that we have experienced in the past several years.

In the past several years we have experienced rapid and significant growth in net sales, operating profit and mobile phone market share. However, our future rate of growth depends on a number of factors within and outside our control, including network operators' and our ability to commercialize 3G technology, the success of existing and new competitors in our markets, the development and acceptance of other new technologies that we may develop, general developments in the telecommunications and technology markets, and the economic growth rates and economic stability of the countries around the world in which we are active. Delays by operators in installing and launching 3G networks and related products and services also could affect our net sales and operating profits materially and adversely. In addition, mobile phone penetration in a number of countries has reached high levels. As a result, we are focusing on the replacement market, in addition to increased penetration, to achieve our targeted sales growth. However, the rate of growth of our net sales, operating profit and market share in the replacement market may be lower than our historical growth rates. Any of these factors may affect our ability to continue to achieve growth levels comparable to the levels achieved during recent years.

We may experience greater variability in our operating results than in the past, particularly during difficult general economic conditions.

Our quarterly and annual operating results are affected by a wide variety of factors that could affect our net sales and profitability materially and adversely from period to period. The recent economic slowdown in the United States, which has shown signs of extending to other regions and to the wireless telecommunications industry as a whole, could continue to negatively impact demand for mobile phones, the timing of network capacity build-outs, and the development and acceptance of other new technologies. Nokia Networks quarterly net sales and operating margin can be affected by general economic conditions and competitive pressures, the progress we make under network contracts, the mix of products delivered pursuant to contracts and the evolution from GSM contracts to 3G contracts. Nokia Mobile Phones quarterly net sales and operating margin can be affected by the global growth rate in mobile phone unit sales, which depends in part on regional economic factors in Nokia's major markets, competitive pressures, the timing and success of our new product introductions, the rate at which network operators launch new technologies and applications for mass consumption, as well as the commercial acceptance of these new technologies and applications. Uncertainties affecting any of these factors, particularly during difficult economic conditions, render estimates of our future operating results even more difficult to make than usual, and therefore may lead us to revise our estimates more frequently than in the past.

The average price of mobile telephones has decreased significantly during the last several years. If we are required to reduce our prices in the future, our profit margins may decline unless we are able to offset the impact of these price reductions.

The average mobile phone price has declined significantly during the last several years. We seek to offset the effect of declining mobile phone prices by, among other actions, increasing sales volume and reducing manufacturing and logistics costs. We also seek to maintain average price levels by frequently introducing new mobile phones with improved design, technological features and operating efficiencies and by leveraging the strength of our global brand. Although these actions have enabled us to maintain relatively stable average selling prices in recent years, these actions may not continue to be successful and future declines in mobile phone prices may adversely affect our results of operations. See "Item 4.B Business Overview — Industry Opportunity — The Mobile Phone Industry."

Rapid technological changes in the communications industry are expected to increase competition and change the competitive landscape and may affect our operating results negatively.

The markets for our products and services are intensely competitive. Our competitors, including many new market entrants, may implement new technologies before we do, deliver new products and solutions earlier, or provide more attractively priced, enhanced or better quality products and solutions than we provide. Moreover, as the mobile telecommunications industry moves toward 3G technology, which integrates mobile services with Internet applications, a new category of market entrants is competing for our mobile telecommunications business. The development of other complicated new technologies also may change the competitive landscape for our products in ways that we cannot predict currently.

To date, our principal competitors on a global basis have been Ericsson, Motorola and Siemens, although we also compete with a variety of other companies. With the development of new technologies, we may encounter increased competition in our handset business from manufacturers of consumer electronics products and devices that are increasing their focus on mobile communications products and in our networks business from telecommunications equipment, Internet systems and software suppliers, as well as service providers.

Our growth and profitability depend on us having optimal production capacity, as well as flexible and efficient manufacturing operations.

Our manufacturing operations are complex, require advanced and costly equipment and are continuously modified in an effort to improve manufacturing efficiency and flexibility. We expect these characteristics to become even more acute as 3G technology develops and mass production of products and services based on this technology commences. We may experience difficulties in ramping up or down production at our facilities, adopting new manufacturing processes and finding the most timely way to develop the best technical solutions for new products. Moreover, mass production of 3G products will require supporting infrastructure and substantial productive capacity within a short time frame. Difficulties in achieving optimal levels of manufacturing efficiency and in meeting delivery schedules for 3G products may result from, among other things, capacity constraints, construction delays or delays in adjusting production at our facilities, upgrading or expanding existing facilities or changing process technologies. In addition, during periods of slower growth, we may have excess capacity and may experience various costs relating to preexisting commitments to suppliers, redundancies and structural changes to our operations.

Vendor financing to network operators has become a competitive requirement and can affect our net sales, profits, balance sheet and cash flow.

Telecommunication network operators require their suppliers, including us, to arrange or provide long-term financing as a condition to obtaining or bidding on infrastructure projects, especially in connection with 3G technology contracts. In some cases, the amounts of these financings, and the associated impact on our working capital, may be significant and may be concentrated among a small number of customers. Nokia has provided, arranged or committed to provide some long-term financing for selected customers. As market conditions permit, we intend to mitigate our exposure, which may include both commitments and loans, via arrangements with financial institutions and investors.

Our ability to arrange or provide financing will depend on a number of factors, including our capital structure and level of available credit and our continued ability to mitigate exposure on acceptable terms. The size and number of vendor financings that may be required, particularly for 3G operators, as well as their terms and conditions, have yet to be determined and may subject us to different magnitudes of credit risks than in the past. In particular, some operators, including those that may purchase our networks, have incurred significant indebtedness in connection with the acquisition of 3G licenses or are early stage companies without an established customer base or revenue streams. The financial requirements for building out 3G and related networks are expected to be substantial. Defaults by these operators could occur for reasons beyond our control, and could result in the restructuring of these financing arrangements or credit losses. We cannot predict whether we will be successful in providing this type of financing to customers, in analyzing and mitigating exposure to their underlying credit risks and in otherwise managing the challenges raised by significantly increased vendor financing. See "Item 4.B Business Overview — Nokia Networks," "Item 5.B Liquidity and Capital Resources," "Item 8.A.7" and Note 32 to our financial statements for a more detailed discussion of issues relating to vendor financing and related commercial credit risk.

We are developing a number of our new products in partnership with other companies, some of which may possess proprietary technologies. If any of these companies were to fail to perform, we may not be able to bring our products to market successfully or on a timely basis.

We sometimes invite substantial providers of technology or components critical to the production of a number of our products, including those employing 3G technology, to work with us to develop these technologies and products, as well as the strategies for commercializing them. These arrangements involve expenditure by each company of various resources, including technology, research and personnel. We attempt to structure these arrangements to maximize cooperation and loyalty between the companies. However, if these arrangements do not develop as expected, especially those that involve proprietary components and supplemental technologies, or if the products produced by companies working with us do not meet the required quality standards, our ability to introduce these new products on schedule may be hampered.

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

To meet the challenges of rapid growth, changes in technology and an intensely competitive environment, especially as we continue to develop our 3G and other new technologies, we must continue to recruit and retain highly skilled employees with a comprehensive understanding of many different and evolving technologies. Although we seek to create a corporate culture that encourages creativity and continuous learning, competition for skilled personnel in our industry remains keen. We also are continuously developing our compensation and benefit policies and taking other measures to attract and retain skilled personnel. However, we may encounter shortages of sufficient numbers of appropriately skilled personnel in the future.

We depend on our suppliers' ability to deliver components on time and their failure to do so could adversely affect our ability to deliver our products successfully and on time.

Our manufacturing operations depend on obtaining adequate supplies of components on a timely basis. Our principal requirements are for electronic components, such as semiconductors, microprocessors, micro controllers and memory devices, which have a wide range of applications in our communications products. Our products also incorporate software provided by third parties. Although we have not experienced significant shortages of components to date, from time to time suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. In addition, a particular component may be available only from a limited number of suppliers. We outsource an increasing portion of our manufacturing to third parties and if one of the third parties to which we outsource fails to perform, or if a key supplier of components experiences delays or disruptions in its production, our ability to produce and deliver our products on a timely basis could be affected adversely.

Third party claims that we have infringed their intellectual property rights could result in costly and time-consuming litigation or the invalidation of intellectual property rights on which we depend.

Our products include increasingly complex technological solutions that incorporate a variety of patented and proprietary technologies. As the number of entrants in the market grows and the complexity of the technology and the overlap of product functionalities increase, the possibility of an inadvertent infringement and related intellectual property claim against us increases. There may be patents and patent owners relevant to our product lines that are unknown to us. In addition, although we endeavor to ensure that companies that work with us possess appropriate intellectual property rights, we recognize that we cannot fully avoid risks of intellectual property rights infringement created by companies with which we work in cooperative research and development activities. Similarly, we or our customers may face claims of infringement in connection with our customers' use of our products and services.

Any such claims, regardless of merit, could result in costly litigation and the payment of damages and other compensation, divert the attention of our personnel, cause product shipment delays or require 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 reasonable terms, we could be precluded from making and selling the affected products. As new features are added to our products, we may need to acquire further licenses, including from new and sometimes unidentified intellectual property owners. We cannot be sure of the cost of obtaining any necessary licenses. See "Item 4.B Business Overview — Patents and Licenses" for a more detailed discussion of our intellectual property activities.

Allegations of health risks from the electromagnetic fields generated by base stations and mobile handsets, and the lawsuits and publicity relating to them, regardless of merit, could affect our operations negatively by leading consumers to reduce their use of mobile phones 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 phones. 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 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. Our contributions to ongoing research efforts are described in "Item 4.B Business Overview — Research and Development."

Currently, Nokia and several other manufacturers or distributors of mobile phones have been named as defendants in a series of class action suits filed in various U.S. jurisdictions alleging that the use of cellular phones without a headset poses a health risk. Nokia is also a defendant in a suit filed in the state of Georgia alleging that the use of a hand-held cellular telephone caused the plaintiff physical injury. See "Item 8.A.7" for a more detailed discussion of these lawsuits.

Although Nokia products are designed to meet all relevant safety standards and recommendations globally, no more than a perceived risk of adverse health effects of mobile communications devices could adversely affect us through a reduction in sales of handsets or increased difficulty in obtaining sites for base stations.

The global networks business relies on a limited number of major customers and large multi-year contracts. Unfavorable developments under a major contract may affect our operating results and cash flow adversely.

As the telecommunications market consolidates, there is a trend worldwide towards large-scale global telecommunications customers. Reliance on a limited number of large customers or large and complex system contracts may adversely affect our business if an unfavorable development occurs under a significant contract involving one or more of these customers.

Large multi-year contracts, which are typical in our industry, usually require the dedication of substantial amounts of working capital and other resources, which impacts our cash flow negatively. With the advent of very large, multi-year, fixed price contracts for new technologies, such as 3G, there is also increased difficulty in projecting the timing of net sales and operating profit associated with these contracts. Moreover, any nonperformance by Nokia under these contracts, particularly those relating to 3G and other new technologies, may have significant adverse consequences for us because network operators, which already have made significant investments in licenses for new technologies, are demanding more stringent contract requirements and larger performance bonds and imposing higher penalties for contract violations.

Our share price has been and may continue to be volatile in response to conditions in the global securities markets generally and for telecommunications and technology companies' shares in particular.

Our share price has been subject to significant volatility, in part due to highly volatile securities markets, particularly for telecommunications and technology companies' shares, as well as developments from quarter to quarter in our sales, growth rate and operating margin. Factors other than Nokia's results of operations that may affect our share price include, among other things, market expectations of our performance and projected volume growth in the mobile communications network and handset markets, the level of business activity or perceived growth in the market for telecommunications services in general, the performance of other high-technology companies, announcements by or the results of operations of our principal competitors, announcements concerning financial difficulties of customers for whom we have provided financing or entered into material supply contracts, potential litigation involving Nokia or our industry, and announcements concerning the relative success or timetables of 3G mobile networks, 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.

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

Our business is subject to regulation directly and indirectly in each of the countries in which we or our customers do business, and changes in various types of regulation could affect our business adversely. For example, changes in regulation that impose more stringent, time-consuming or costly planning, zoning or building approval requirements 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. Expensive government licence fees can cause operators to incur substantial indebtedness and fundamentally affect operators' businesses, profitability and financial condition, as well as the demands operators make on equipment suppliers such as Nokia. Similarly, tariff regulation that adversely affects the pricing of new services could affect the sales of our networks and handsets. The indirect impact of these changes in regulation could affect our business adversely even though the specific regulations do not directly apply to us or our products. See "Item 4.B Business Overview — Government Regulation."

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

We generate net sales from and have invested in production facilities in various emerging market countries. As net sales from these countries represent a significant portion of our total net sales, economic turmoil in these countries could adversely affect our net sales. Our investments in emerging market countries also may be subject to risks and uncertainties, including unfavorable taxation treatment, exchange controls, nationalization, inflation, currency fluctuations, and increased unfavorable or adverse regulation.

Our net sales and costs are affected by fluctuations in the rate of exchange between the euro, which is our reporting currency, and other currencies.

We operate globally and are therefore exposed to foreign exchange risks. Our policy is to monitor and hedge exchange rate exposure, and we manage our operations to mitigate, but not to eliminate, the positive or negative impact of exchange rate fluctuations. Exchange rate fluctuations may affect our sales growth and operating profit materially in future periods. See "Item 5.A Operating Results — Exchange Rates" and "Item 11. Quantitative and Qualitative Disclosures About Market Risk."

In addition to the effect of exchange rate fluctuations on our results, an investor's return in U.S. dollars from an investment in ADSs or shares may be affected by any depreciation of the euro because the value of dividends and other distributions paid in euro would decline as the value of the euro, expressed in U.S. dollars, declines.

ITEM 4. INFORMATION ON THE COMPANY

4.A History and Development

During our 135-year history, Nokia has evolved from a papermaking company to a conglomerate manufacturing multiple diverse products, and more recently to one of the world's leading mobile telecommunications companies. Nokia Corporation was formed in 1967 through the merger of three Finnish companies: Nokia Company, a wood pulp mill founded in 1865 on the banks of the Nokia River, Finnish Rubber Works Ltd, a manufacturer of rubber boots, tires and other consumer and industrial rubber products founded in 1898, and Finnish Cable Works, a manufacturer of cable for power transmission and telegraph and telephone networks founded in 1912.

Nokia entered the telecommunications equipment market in 1960 when an electronics department was established at Finnish Cable Works, which concentrated on the production of radio transmission equipment. At the same time, we began to pursue several other unrelated business operations in order to diversify our manufacturing activities and protect against economic cycles.

In the 1980s, we strengthened our position in the telecommunications, consumer electronics and personal computer markets through the creation and acquisition of a number of companies.

We introduced the first fully digital local telephone exchange in Europe in 1982 and the world's first car telephone for the Nordic Mobile Telephony analogue standard in 1984. 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, we became Scandinavia's largest information technology company when we acquired Ericsson's information systems division.

In the early 1990s, we made a strategic decision to concentrate on telecommunications as our core business, with the goal of establishing a market-leading presence in every major global market. As a result, we began to divest our basic industry and non-telecommunications operations. During the period from 1989 to 1996, we sold our paper, personal computer, rubber, footwear, chemicals, power plant, cable, aluminum and television businesses.

We believe that Finland's openly 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, none of which was required or predisposed to purchase equipment from national suppliers. Finland's competitive marketplace initially permitted us to establish a market presence. Our need to export products to other markets to achieve growth, as well as our need to respond constantly to aggressive international competitors and customers, helped us to develop our business and products efficiently and build a leading competitive position.

Regulatory and technological advancements also have played a role in our success. The deregulation of the Finnish and European telecommunications industries since the late 1980s has stimulated competition and customer expectations. The technological breakthrough of GSM, which could carry data in addition to high quality voice, was followed by the European resolution, in 1987, to adopt GSM as the European digital standard by July 1, 1991. Finland met the deadline and the first GSM call was made with a Nokia phone over the Nokia-built network of Radiolinja. In the same year, we agreed to supply GSM networks to nine other European countries. During this period, GSM was also established as a standard in several Asian countries, opening important new markets for us. Our expertise in GSM technology has laid the foundation for our international success as a mobile network supplier.

Since focusing on mobile communications we have experienced extraordinary growth. We estimate that Nokia's market share in mobile handsets reached approximately 32% for the year 2000, based on Nokia's estimate of units sold into our distribution channels as a percentage of estimated aggregate retail unit sales. This market share represents approximately twice the market share of the next largest mobile phone manufacturer. During each of the past three years, Nokia's annual sales growth has averaged approximately 50%. We continue to enhance our leading mobile communications activities and currently are pursuing evolving technologies related to the mobile business, including third generation mobile Internet applications and solutions.

Today, Nokia is comprised of Nokia Networks, Nokia Mobile Phones and Nokia Ventures Organization, as well as the common group functions, which include our corporate research unit, Nokia Research Center. In addition to being the leading mobile phone supplier in the world, Nokia is one of the world's leading providers of mobile, fixed and Internet protocol, or IP, networks. We continue to pioneer mobile technologies, most recently introducing in May 2001 a unique multi-operator radio access network solution for controlled 3G network sharing, as well as the world's first IPv6 enabled end-to-end GPRS network and the world's first TETRA WAP browser for professional mobile radio networks, each in November 2000. For a detailed description of our business, see "Item 4.B Business Overview." We attribute much of our success to our unique corporate culture, which emphasizes and values product innovation, customer satisfaction and employees motivated by high levels of trust, independence and opportunities for personal and professional enrichment.

During 2000, we completed a number of small, but strategic, acquisitions designed to enhance our portfolio of businesses. The purchase of U.S.-based Network Alchemy added proprietary IP clustering technology that has allowed us to expand our portfolio of secure solutions. With the acquisition of U.S.-based DiscoveryCom, we acquired enhanced loop management capabilities for broadband DSL services. We strengthened our market presence in Brazil by increasing our ownership in Nokia do Brasil Technologia Ltda, to 100%. During 2000, we also announced an agreement to purchase Ramp Networks, a U.S.-based provider of purpose-built Internet security appliances specifically designed for small office applications. We completed this acquisition in January 2001.

Nokia's aggregate capital expenditures totaled EUR 1,580 million in 2000, EUR 1,302 million in 1999 and EUR 761 million in 1998. These expenditures were primarily related to the expansion of our operational facilities. For a description of capital expenditures by business segment, see Note 2 to the consolidated financial statements. We expect the amount of capital expenditures during 2001 to be at approximately the same level as in 2000.

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

4.B Business Overview

Nokia is a world leader in mobile communications. Our experience and innovation, and the user-friendliness, reliability and quality of our products and solutions have made Nokia the world's leading supplier of mobile phones and a leading provider of mobile, fixed and IP networks. By adding mobility to the Internet, we create new communications products and services that enable companies to prosper and further enrich the daily lives of individuals.

For the 2000 financial year, Nokia's net sales totaled EUR 30.38 billion (USD 28.52 billion). At the end of 2000, we employed more than 60,000 people and had production facilities in ten countries, research and development activities in 15 countries and sales in over 130 countries, together with a global network of sales, customer service, research and development and other operational units.

Nokia is comprised of Nokia Networks, Nokia Mobile Phones and Nokia Ventures Organization, as well as the common group functions, which include our corporate research unit, Nokia Research Center.

- ***Nokia Networks*** is a leading provider of mobile, broadband and IP network infrastructure and related services. Nokia Networks develops mobile Internet applications and solutions for operators and

Internet service providers, and aims to be a leader in IP mobility core, radio and broadband access for network providers and operators. Nokia Networks also seeks to enable mobile multimedia and Internet applications, to achieve sustainable high value-added business with network operators and service providers and to become a preferred partner for global operators. In 2000, Nokia Networks represented approximately 25% of Nokia's net sales.

- ***Nokia Mobile Phones*** is the world's largest mobile phone manufacturer. With our comprehensive product portfolio covering all consumer segments and cellular protocols, we believe that Nokia is in a strong position to lead the development of mobile communications, based on our vision of a world in which a continuously increasing share of all personal communication—whether voice, data, images or video, or services and transactions—occurs over personal wireless terminals such as mobile phones. We believe that the mobile phone is well suited to be the main application foundation and communication medium because it is made expressly to transmit information, it is easily personalized to meet individual needs, and it has penetrated every major global market. We seek to enable people to connect with one another and to various sources of services and information, regardless of time or place. Our technology and applications are based on solutions designed to function together seamlessly and effectively. In 2000, Nokia Mobile Phones represented approximately 72% of our net sales.
- ***Nokia Ventures Organization*** explores new business areas in order to complement our existing core businesses and sustain our product and long-term business development. The organization develops innovative new business ideas to create a balanced portfolio of substantial and sustainable businesses outside the natural growth paths of Nokia's current businesses. The Nokia Internet Communications business unit provides network security and virtual private network, or VPN, solutions, designed to ensure the security and reliability of corporate and managed service provider, or MSP, networks. Nokia Ventures Organization also invests in early stage wireless technology companies and develops new wireless Internet devices, as well as digital platforms and communications solutions for the home environment. In 2000, Nokia Ventures Organization represented approximately 3% of our net sales.

The rapid growth of our core businesses continued during 2000. Compared with the 1999 financial year, sales of Nokia Networks and Nokia Mobile Phones increased by 36% and 66%, respectively. During 2000, we made several strategic acquisitions and continued joint efforts with other industry leaders to develop solutions and services for the wireless Internet and mobile e-business markets. These efforts are discussed in more detail in "Item 4.A History and Development" and below in the relevant business group discussions.

Industry Opportunity

We compete in the global telecommunications industry in general and in the mobile industry in particular, each of which has exhibited rapid growth, change and convergence in recent years.

The Communications Networks Industry

In today's communications industry, the growth of the Internet has established a universal medium for access to all types of information. The Internet and digitalization of content bring additional traffic to communications networks and are the key enablers for the new services that we believe will drive future communications markets. IP, the technology behind the Internet, enables network operators and service providers to use cost-efficient transmission methods, such as packet data capability. This capability provides the means to deliver the enriched content that drives the development of new services. Telecommunications networks are therefore undergoing fundamental changes: they are converting from circuit switched to packet switched IP connectivity and from single purpose networks facilitating mainly voice transmissions to multi-service networks supporting various voice and non-voice interactions and applications. Internet and other IP-based applications and services have proven popular with both consumers and businesses, and we anticipate strong demand for a wide range of mobile services using third generation, or 3G, mobile networks as these services become commercially available.

The changes in communications networks and the emergence of digitized content and services in the mobile environment have created a need for a comprehensive technical architecture for the mobile Internet.

As the world leader in mobile communications, we substantially contribute to the development of this architecture. Through our global initiative, Nokia Mobile Internet Technical Architecture, we aim to provide seamless interoperability between all interaction modes, within any network environment and with any type of access. Our intention is to conceal the technical complexity from the end user and to optimize the user's experience through technical innovations in the mobile Internet.

Preparation for 3G networks has begun at a robust pace, and competition among vendors is intense as operators make new investments in parallel with 3G licensing. 3G licenses allow operators to use new portions of radio frequencies to provide a new generation of mobile services. According to Nokia estimates, over 100 3G licenses will be granted in Europe before the end of 2002, with the final total anticipated to reach over 150. We intend to become the leading supplier of WCDMA networks and 3G mobile handsets on a global basis. We expect to start delivery of 3G infrastructure in volume in the fourth quarter of 2001. We also expect to start to deliver 3G handsets in the second half of 2002, with shipment volumes reaching millions of units in the fourth quarter of 2002.

The transition from existing second generation to 3G networks is being driven primarily by two factors. First, enhanced mobile applications require the advanced technology of 3G networks to operate. Second, strong mobile and Internet subscriber growth has continued throughout the world and has required operators to upgrade their networks to support additional capacity and packet data capability. Nokia has a leading position in GSM networks with approximately a 30% market share as of the end of 2000, based on Nokia estimates. We have strengthened our position in mobile IP and packet data networks and are a market leader in providing GPRS infrastructure, which brings IP packet-based data capabilities to mobile networks. Nokia has also gained a strong position in supplying 3G network infrastructure.

Continuing consolidation in the network operator industry has created operators and service providers with a global reach. In addition, increased competition from new market entrants has required existing operators to introduce a wider range of more innovative services.

We believe new enabling technologies will enhance person-to-person communications greatly, create a new range of business-to-consumer information services and take intra-business communications to new levels. We also believe that the emergence of an instant information culture in today's society suggests that there is a ready market for personal mobile communications enhanced with visual content.

In addition to increasing demand for enhanced 3G mobile services, Internet usage is also resulting in increased demand for greater fixed-line broadband access and services. High capacity broadband is expected to overtake traditional narrowband transmission methods. Fixed IP networking will encompass voice, security, VPNs and broadband wireless ''hot spot'' access for fast Internet services. DSL continues to emerge as one of the key technologies to deliver high bandwidth applications to both business and residential customers worldwide. We believe market growth in the long term will continue as a result of the EU governments' agreement to open access to the ''last mile'' of telephone lines into residences beginning in 2001. In addition to the United States and several countries in Europe, South Korea, Taiwan and China have started to deploy DSL, and in Japan there also are plans to utilize DSL technologies.

We believe that new multipurpose networks will be more complex than traditional telecom networks, and that this will require the capability to integrate different elements in well-functioning systems and end-to-end solutions for mobile and fixed broadband networks. Today, operators or service providers can choose among a variety of ''best-in-class'' solutions from different vendors for different network elements. In addition, infrastructure vendors with strong end-to-end capabilities will have an advantage because they will be able to offer their customers the ability to deliver seamless Internet and intranet application services for all types of networks.

The Mobile Phone Industry

The global mobile phone market has been characterized by enormous growth and technological changes in recent years enabled by the deregulation of telecommunications and fundamental advances in wireless technology. The size of the mobile phone market is measured by the number of cellular subscriptions worldwide, as well as by the total annual sales volume of the industry. Nokia expects growth and rapid technological changes in the industry to continue, as a result of increased mobile phone penetration worldwide and the development of new products and services for the growing replacement market.

Nokia estimates that the global mobile phone subscriber base at the end of 2000 totaled approximately 715 million, and expects this figure to rise to over one billion within the first half of 2002. Our expectation is based on current subscriber growth rate estimates worldwide. Within this time frame, Europe is likely to remain the largest region in terms of penetration, followed by the Americas and Asia-Pacific regions. Global penetration has reached approximately 12%, with penetration having reached approximately 70% in Finland, 40% in the United States and 7% in China.

The mobile phone industry is currently estimated to be the world's largest consumer electronics industry measured by unit sales. We estimate that global mobile phone sales volume during 2000 totaled approximately 405 million units, rising from approximately 280 million units in 1999. We currently expect industry volume in 2001 to show only very modest growth.

Mobile phone replacement volumes have been spurred by the acceleration of technological developments and the broadening of consumer demand, which have contributed to shortened mobile phone lifecycles. In 2000, approximately 60% of the total handset market volume derived from users buying their first mobile phone. However, we expect the majority of market volume to shift in 2001 in favor of replacement purchases. We estimate that the share of replacement sales will rise to represent between 70% and 80% of total sales within the next few years.

In 2000, digital products accounted for over 95% of total mobile phone sales volume. GSM is the dominant cellular standard in the world, constituting over 50% of global sales volume in 2000. TDMA and CDMA digital protocols are the next most prevalent, representing approximately 13% and 15%, respectively, of global sales volume in 2000. Nokia's market forecasts indicate that GSM, including GPRS, will continue to constitute over 50% of the total market volume through 2003. We expect that the primary 3G standard, WCDMA, will start to accumulate a meaningful share of total market volume beginning in 2003.

One of the most important developments in the mobile phone industry has been the evolution of the mobile phone from a mobile voice-centric telephone to a personal data-centric communication accessory that enables access to wireless content and services, including the Internet. During 2000, we estimate that approximately 60 million Internet-enabled mobile phones were sold worldwide. Of this total, WAP is estimated to have represented about 40 million and i-mode, another mobile Internet standard, about 15 million. Nokia currently forecasts that globally there will be more mobile than fixed devices with Internet access in 2002, a year sooner than Nokia originally forecast in 2000.

The Security Infrastructure Industry

VPNs provide a relatively inexpensive means of extending a corporate network to mobile workers, replacing expensive leased lines for site-to-site connections, and connecting businesses with customers, partners and suppliers. Market trends indicate that large organizations dominated VPN deployments in 1999 and 2000. The target markets for IP security and VPN offerings are the Enterprise and MSP markets. Because almost all business computer and related information technology systems today can be managed remotely using an interactive Web page as the user interface, companies increasingly are outsourcing the management of their complex corporate networks, including the configuration and administration of these systems on a continuing basis. As a result, the providers of these management services, including MSPs, integrators, and value-added resellers, have come to play a role in the design, implementation and management of over 50% of all VPN deployments.

Business Strategy

Our business objective is to strengthen our position as a leading systems and products provider in the rapidly evolving global communications industry. Our strategic intent, as the trusted brand, is to create personalized communication technology that enables people to shape their own mobile world. We innovate technology to allow people to access Internet applications, devices and services instantly, irrespective of time and place. Achieving interoperability of network environments is a key part of our objective.

We intend to exploit our leadership role by continuing to target and enter segments of the communications market that we believe will experience rapid growth or grow faster than the industry as a whole. By expanding into these segments during the initial stages of their development, we have established Nokia as one of the world's leading players in wireless communications and significantly influenced the way in which voice and content have been migrated to a wireless, mobile environment. As demand for wireless access to an increasing range of content accelerates, we plan to lead the development and commercialization of the higher capacity networks and systems required to make wireless content more accessible and rewarding to the end user. In the process, we plan to offer our customers unprecedented choice, speed and value.

Nokia has a history of contributing to the development of new technologies, products and systems for mobile communications. Recent examples include the co-development of the new operating system for future terminals with Symbian, short-range wireless connectivity with Bluetooth, and wireless LANs for enabling local mobility in fixed LANs. In addition, we continue to be active in selected emerging areas of IP networking. Nokia has established alliances with other service providers in order to make mobile access to services easier for the end user. We continue to employ open standards in our technology in order to promote open competition and interoperability.

To achieve our business objective, our strategy focuses on:

- Creating personalized communication technology;
- Strengthening and leveraging Nokia, the trusted brand; and
- Expanding our business and market position on a global basis.

Creating personalized communication technology. We aim to position Nokia as the preferred provider of solutions for mobile communications by:

- Providing leading communications networks that enable end-to-end service delivery for both cellular and broadband networks. We develop leading high-capacity cellular networks, platforms and user applications for the mobile Internet, end-to-end broadband access solutions, and private mobile radio systems.
- Strengthening our leadership position in converging personal digital terminal solutions. We use our understanding of user needs and our ability to meet and exceed user expectations to provide user-friendly, highly functional, personalized products and solutions. We build on our core competencies in various key areas, including design, product innovation and brand development, to bring new product concepts and associated services to market. We also benefit from strong economies of scale throughout our organization.
- Taking the lead in developing a business and technical environment in which mobile Internet and peer-to-peer communications are the key drivers. This environment is based on our comprehensive technical architecture, strong partnering activities with customers, suppliers and industry participants, and our focus on end-to-end solutions in all of our development activities.

Strengthening and leveraging Nokia, the trusted brand. According to a variety of consumer surveys, the Nokia brand is associated with well-designed, high quality and technologically advanced products and customer services that are also user-friendly. We have invested considerable resources in establishing the Nokia name as the leading brand in wireless communications. We intend to sustain and enhance the Nokia brand through aggressive advertising, sponsorship and other marketing activities in all of our principal markets. We believe that our large installed base provides significant opportunities for Nokia to better understand and respond to end user usage patterns, and thus enhance the Nokia brand.

Expanding our business and market position on a global basis. For more than a decade, we have actively expanded our business globally. As a result, our network systems, equipment and wireless terminals are produced and sold throughout the world. Our strategy is to continue our focused pursuit of global business opportunities by cultivating a strong local presence in all growing markets and pursuing partnering and acquisition opportunities in order to obtain complementary technologies and market positions.

One of our top priorities is to continue to strengthen our leading market position in a profitable way. We believe that further market share gains are key to expanding our customer base and growing our future business potential. Our leading position also enhances all of the positive effects of economies of scale throughout our organization, which we believe will strengthen our competitive position in the next generation of mobile communications.

Nokia Networks

Based on industry market share estimates, Nokia Networks is a leading provider of mobile and broadband network infrastructure and related services, and develops mobile Internet applications and solutions for operators and Internet service providers. Nokia Networks intends to be a pioneering partner in the creation of the mobile Internet and mobile multimedia, currently focusing on evolving 3G and other advanced technologies. Faster Internet connectivity via mobile phone networks is enabled primarily by packet switching technology, which is currently being introduced into cellular networks. We design and build networks based on GSM, GPRS, EDGE and WCDMA technologies, and our networks have been, or will be, installed in all major global markets that have adopted these standards.

Based on the number of announced deals, Nokia has already established a strong position as a leading provider of GPRS solutions to operators. The first 3G network pilot deliveries based on WCDMA, the standard that we are co-developing, are expected to begin within the next six months, with volume deliveries commencing in the fourth quarter of 2001. We continue to prepare for the early deployment of 3G services and, in 2000, launched a complete family of 3G base stations and a common radio resources management solution. A number of countries already have awarded licenses to operate these networks, and additional countries are expected to award licenses in the near future. In addition, we are preparing for volume manufacturing and implementation of 3G networks together with companies with which we cooperate.

Nokia Networks enjoyed a number of notable successes during 2000 that reinforced its leading position, including:

- Entering into the largest infrastructure supply agreement in our history: a multi-year agreement, valued at over $1 billion, with AT&T Wireless to provide a portion of its nationwide WCDMA network in the United States. This agreement is significant because it is expected to accelerate the availability of 3G services in North America and significantly reshape the North American wireless landscape.
- Delivering and implementing new GPRS core networks for operators in Europe, the United States, and Asia. According to Nokia estimates, this resulted in an installed base of over 50 GPRS networks, the largest installed base of any GPRS supplier at the end of 2000. We believe that more than half of all commercial launches of GPRS core networks to date have been based on Nokia solutions. Approximately 20 operators worldwide now have launched commercial GPRS services based on Nokia solutions.
- Welcoming our 100th GSM customer, which was one of 13 new GSM customers from five continents during the year.
- Deploying our broadband solution, which features D50 DSLAM and Loopmaster technologies, across five continents at the end of 2000 in over 4,500 central offices, whose telecom networks reach 90 million homes and businesses.
- Entering into 13 agreements to supply 3G networks to operators in nine countries across three continents, including Telefónica, Orange/France Telecom, AT&T and Mobile One.

Our business increasingly involves complex 3G networks. Not only has the industry invested significant amounts in developing and commercializing 3G technology, the total investment in 3G has increased substantially when the cost of purchased licenses and operator consolidations are included. Some operators have incurred significant indebtedness in connection with acquisitions of 3G licenses. In addition, some operators are early stage companies without an established customer base or revenue streams. As a result, operators increasingly look for vendor financing, and we expect this type of financing to be an important means in competing in the international trade of telecommunication networks. We have provided, arranged, or committed to provide some long-term financing to selected customers in the past and we expect to continue to provide vendor financing at a greater level than historically. However, we expect to maintain prudent and conservative credit policies, to focus on high-quality customers and projects and to offer pricing, instruments and documentation that are consistent with market standards. We intend to offer this type of financing primarily at the early stages of projects, when we can influence the successful implementation and construction of the network, and as a complement to our core competencies only, rather than as a core business. We also intend to cooperate closely with banks and other financial institutions to support clients in their financing of infrastructure investments.

Nokia's three main customers in terms of committed vendor financing for 3G network systems are MobilCom AG in Germany, Hutchinson 3G UK Ltd and Orange SA, including some of its subsidiaries and affiliates in a number of European countries. The total aggregate value of vendor financing committed at May 31, 2001, for these and other 3G customers will be spread over several years and, were it to be fully drawn, would amount to an aggregate of approximately EUR 3,600 million, of which only an insignificant part is outstanding. Nokia also has undertaken to provide vendor financing to customers purchasing 2G and other telecommunications technologies. Nokia's main customers in terms of committed vendor financing for 2G network systems are TELSIM Mobil Telekomuniksyon Hiz.A.S. in Turkey, VoiceStream Wireless Corporation in the United States and Corporación Digitel C.A. in Venezuela, and, concerning other technologies, Dolphin Telecommunications Ltd. The total outstanding amount of vendor financing, including related guarantees, in respect of 2G and other technologies at the end of 2000 amounted to approximately EUR 1,200 million and is included in the year-end reporting figures for 2000. At May 31, 2001, the total amount of committed vendor financing for sales of 2G and other technologies amounted to approximately EUR 2,000 million and the total outstanding amount was unchanged from year-end 2000. See "Item 3.D Risk Factors — Vendor financing to network operators has become a competitive requirement and can affect our net sales, profits, balance sheet and cash flow," "Item 5.B Liquidity and Capital Resources" and "Item 8.A.7."

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

Nokia Networks Net Sales, Operating Profit and Average Number of Employees

	Year ended December 31,		
	2000	**1999**	**1998**
	(EUR in millions, except average number of employees)		
Net sales	7,714	5,673	4,390
Operating profit	1,358	1,082	960
Average number of employees	23,508	22,804	19,280

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

Nokia Networks Percentage of Net Sales by Region

	2000	**1999**	**1998**
Europe	60%	68%	70%
Americas	7%	6%	3%
Asia-Pacific	33%	26%	27%
Total	100%	100%	100%

Nokia Networks Business Divisions

Nokia Networks competes in four different business areas of the communications industry. Separate divisions within Nokia Networks address each of these areas.

- ***IP Mobility Networks*** develops mobile core and radio access network solutions, mobile messaging systems and service control platforms for network providers and operators. Our radio access network technologies include GSM, EDGE, TDMA/EDGE, WCDMA and wireless LAN and broadband wireless. With respect to core networks, we develop circuit switched and packet switched solutions, offering both evolutionary and revolutionary paths to all-IP networks.

- ***Broadband Systems*** focuses on fast Internet networks, developing broadband DSL solutions for cost-effective, reliable and fast Internet access. Its customers include network providers and Internet service providers that serve both business and residential markets. Our capability in this area was enhanced in 2000 through our acquisition of DiscoveryCom and its broadband DSL solutions.

- ***Mobile Internet Applications*** develops enabling platforms, intelligent middleware and applications for seamless mobile Internet services used by operators, service providers and enterprises and corporate customers. Mobile Internet Applications cooperates closely with various developer communities in order to stimulate the creation and adaptation of new services. Nokia mPlatform, an open platform to implement new mobile Internet applications and services within existing and future network infrastructure, is one of the enabling platforms recently introduced by this division.

- ***Professional Mobile Radio*** develops digital TETRA networks for radio communications. Customers include professional users, such as public safety and security organizations, as well as utility and transportation companies.

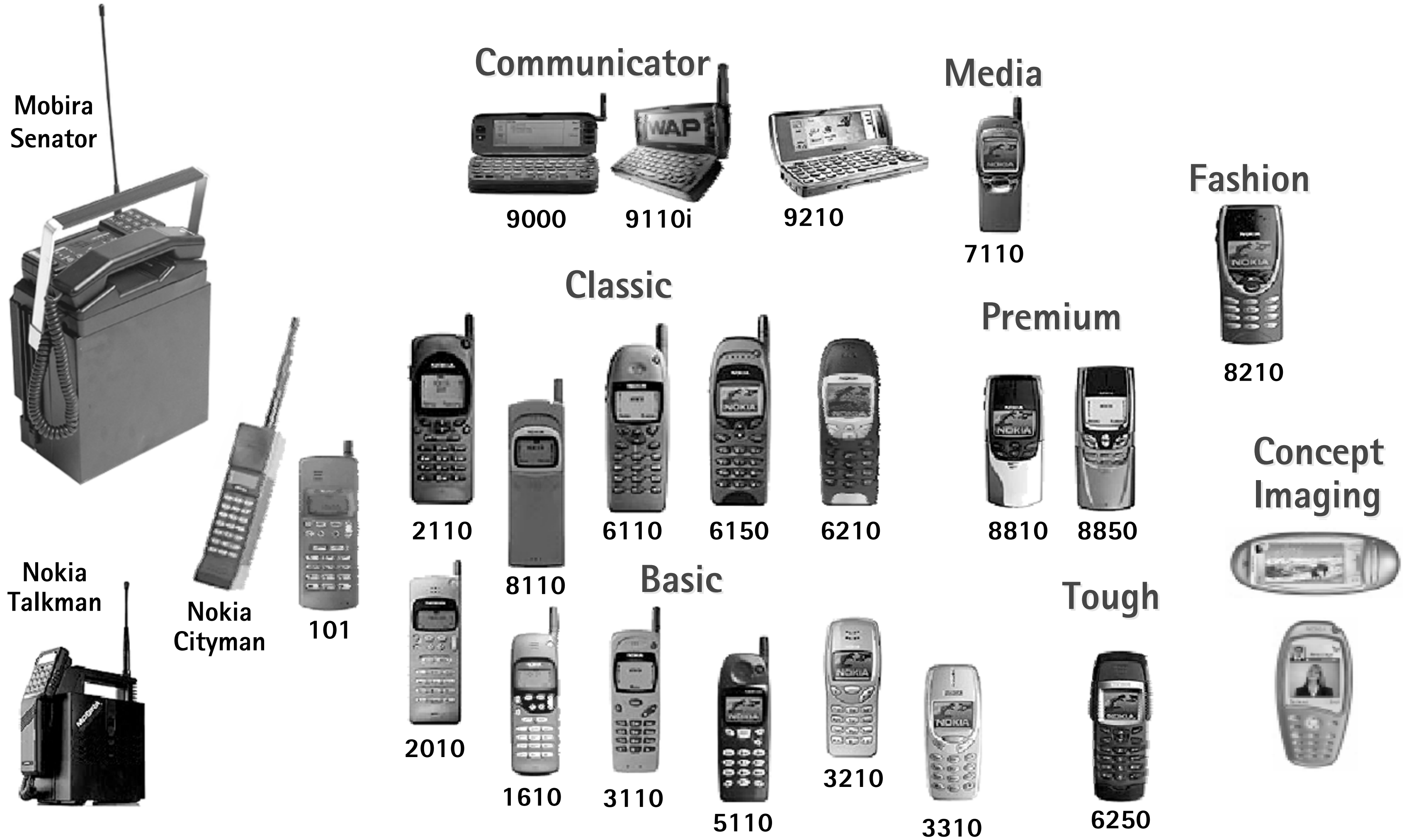
In addition to these product development divisions, Nokia Networks encompasses Product Operations and Customer Operations areas. Product Operations is responsible for the demand/supply chain of Nokia Networks products, including manufacturing, contract manufacturing and delivery of products. Customer Operations is comprised of regional organizations that have responsibility for locally or regionally operating customers, as well as a global customer unit. Customer Operations also includes Professional Services, which consists of Engineering Services and Operations Support Systems. These areas are in charge of operational support services, which include network integration, network management and network rollout, implementation and care services.

Nokia Mobile Phones

Nokia Mobile Phones designs and manufactures mobile phones for all major standards and customer segments in over 130 countries worldwide. Nokia introduced the world's first car phone for the Nordic Mobile Telephony analogue standard in 1984. It weighed approximately 10 kilograms, or 22 pounds, and was used primarily as a business tool. Today, our smallest mobile phone, the 8210, weighs a mere 79 grams, or 2.78 ounces, and our mobile phones are used daily by virtually every demographic segment of the population, not only as a business tool, but as a social staple and fashion accessory. The graphic on the facing page illustrates the evolution of our mobile phone categories.

Nokia's comprehensive product portfolio consists of several categories, covering the various needs, lifestyles, and preferences of different consumer segments. Products are often optimized for specific uses. Some are optimized for basic voice connectivity, coupled with personalization capabilities. Others are optimized for handling everyday information-processing tasks, much like today's personal digital assistants, or used for viewing visually rich content from the Internet. Our current mobile phone product portfolio consists of seven categories: basic, classic, fashion, premium, tough, media and communicator, with current consumer demand heavily weighted toward basic category models.

Evolution of Nokia Mobile Phone Categories



The comprehensiveness and competitiveness of our product portfolio is one of the key reasons that Nokia has succeeded as the world's leading mobile phone manufacturer. A mobile phone manufacturer that aspires to achieve a global leading position must be able to offer attractive, personally relevant products to multiple user segments. Nokia's extensive research on consumer trends and lifestyles has resulted in our identification of the following four generic user segments in most markets today:

- Social contact seekers — those that desire a phone that provides human connectivity, whether in the form of voice or text.
- Self-expressionists — those that desire a phone that reflects their image of their own lifestyle and place a premium on brand and exclusivity.
- High-flyers — those that desire a phone that ensures that they do not miss business opportunities and enhances work efficiency and performance.
- Trendsetters — those that desire a phone that incorporates the latest technology and enhances their busy lifestyles.

Our value-adding strategy is to add new features and functionality to our phones continuously. By introducing new models within existing product categories, while at the same time developing new categories, such as the enhanced communicators, media phones and imaging phones, we seek to continue to lead the mobile phone market. In December 2000 we opened up our specification for ring tones and mobile phone logos for free licensing, which we expect will further enhance our mobile phone sales potential and stimulate a range of new services.

Nokia Mobile Phones is organized according to global functions and geographical regions. A global network of research and development centers delivers product designs to ten regional manufacturing and distribution centers in eight countries. Customer sales are effected through local sales organizations. Nokia's mobile phones are sold primarily under the Nokia brand name, but occasionally are co-branded with an operator's brand.

Growth in our mobile phone sales in 2000 continued to exceed market growth, for the full year as well as quarterly. Overall, Nokia sold 128.4 million mobile phones into our distribution channels during 2000, representing 64% year-on-year growth. In 1999, Nokia sold 78.5 million units worldwide. Consequently, Nokia continued to strengthen its market leadership throughout 2000, resulting in a global market share of approximately 32% for the full year 2000, based on Nokia's estimate of units sold into our distribution channels as a percentage of estimated aggregate retail unit sales. In 2000, we strengthened our presence in Brazil and our ability to serve the Americas region by increasing our ownership in Nokia do Brasil Technologia Ltda., a manufacturer of digital and analogue cellular phones, to 100%.

According to our preliminary estimates, global mobile phone market volume in 2000 totaled approximately 405 million units, representing 45% growth compared to market volume in 1999 of approximately 280 million units. Replacement sales accounted for an estimated 40% of the 405 million total volume estimate for 2000. This share is expected to rise to more than half of total volume in 2001.

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

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

	Year ended December 31,		
	2000	**1999**	**1998**
	(EUR in millions, except average number of employees)		
Net sales	21,887	13,182	8,070
Operating profit	4,879	3,099	1,540
Average number of employees	27,353	20,975	16,064

The following table sets forth the regional distribution of net sales for Nokia Mobile Phones during the same period.

Nokia Mobile Phones Percentage of Net Sales by Region

	2000	1999	1998
Europe	47%	45%	48%
Americas	32%	34%	32%
Asia-Pacific	21%	21%	20%
Total	100%	100%	100%

Products

During 2000, we introduced the following 15 new mobile phone models:

Model category and number	Month of Introduction	Principal Features
Basic		
3310 GSM 900/1800	September	Mobile chat, advanced messaging, downloadable personal profiles such as screen savers, time management functions, voice dialing, new games, ring tones, profile names.
3390 GSM 1900	December	Personalized covers, downloadable ring tones and profiles, voice dialing, games, picture messaging, screen savers, ringtone composer.
5165 TDMA	September	New design, colors and keypad, on-screen help, mobile messaging, network-based prepaid capabilities, hearing aid support, downloadable ring tones, 2-way mobile messaging with predictive text input.
5185i CDMA	September	One-touch access to voice mail and text messages, speed dialing, on-screen message indicator, on-screen help, alarm clock, pager, local language support.
Classic		
6185i CDMA	December	Profile settings, calendar, alarm clock, calculator, pager, range of accessories, internal vibrating alert, browser, 2-way text messaging.
6210 GSM 900/1900	September	"World phone," classic design, high-speed data support, WAP-enabled, internal infrared link+data, extended memory and calendar functions, voice dialing.
Tough		
6250 GSM 900/1800	December	Shock-, water-, and dust-resistent, WAP-enabled voice dialing, task journal, automatic volume control, sound level meter, stopwatch, internal infrared link+data.
Fashion		
8250 GSM 900/1800	December	Fashionable design with chic blue backlight, mobile chat, downloadable personal profiles such as screen savers, ring tones, profile names, voice dialing, Chinese phone management features.
8260 TDMA	August	Stylish design, side volume key, profile settings, predictive text input, caller grouping, downloadable ring tones, 2-way mobile messaging.

Model category and number	Month of Introduction	Principal Features
8290 GSM 1900	August	Stylish design, profile settings, voice dialing, predictive text input, picture messaging, personalized covers, downloadable ring tones, 2-way mobile messaging, Xpress-on covers.
Premium		
8890 GSM 900/1900	June	"World phone," premium design, real time clock, internal infrared link+internal data, voice dialing, matte aluminum covers with blue-tinted illuminated display.
Media		
7160 TDMA	December	Predictive text input, voice dialing, personal alert tones, call forwarding, call waiting, own number display, calendar, WAP-enabled, PC-synchronized calendar via infrared link, directory accommodating up to 1,000 names, mobile messaging, downloadable ring tones.
7190 GSM 1900	December	Navi™ roller for easier scrolling of menus and functions, profile settings, predictive text input, short messages, voice dialing, ascending and downloadable ring tones, personal alert tones, call forwarding, call waiting, calendar, to do list, WAP-enabled, PC-synchronized calendar via infrared link, directory accommodating up to 1,000 names, mobile messaging.
Communicator		
9110i GSM	August	Multipurpose communication tool that combines a GSM 900 phone with data communication capabilities, including WAP, Internet, e-mail, telefax, quick imaging, short messages, organizer functions and a large base of third-party software.
i-Mode		
NM502i	March	Bi-lingual Japanese/English, i-mode functionality.

In addition, we introduced the Nokia 505 analogue (AETACS) phone in December 2000. We also introduced or brought to market, or expect to introduce or bring to market, the following products during the first half of 2001:

- The Nokia Connectivity Pack, introduced during the fourth quarter of 2000, became commercially available in Europe and Asia during the second quarter of 2001, and is our first Bluetooth solution, providing wireless connectivity between a mobile phone and a personal computer within a range ten meters. The connectivity pack consists of a special phone battery, a connectivity card and an adapter. The main application areas include sending and receiving faxes and e-mails and browsing the Internet.

- The Nokia 22, introduced during the second quarter of 2001, is a Private Branch Exchange (PBX) connectivity terminal for corporate customers.

- The 9210 GSM 900/1800 Communicator, the first integrated mobile multimedia device, scheduled to be commercially available by the end of June 2001, which incorporates the following features: full-color screen, high speed data support, WAP-enabled, Symbian operating platform with personal Java support, SyncML-enabled, imaging and video clips, extensive office applications support, including e-mail, word processing, spreadsheet and presentation viewer.

Nokia Ventures Organization

Nokia Ventures Organization explores new business areas in order to complement our existing core businesses and sustain our product and long-term business development. It includes Nokia Mobile Internet Technical Architecture, Nokia Internet Communications, Nokia Home Communications, Nokia Venture Partners and the Nokia Entrepreneurial Web.

Nokia Ventures Organization develops innovative new business ideas to create a balanced portfolio of substantial and sustainable businesses outside the natural growth paths of Nokia's current businesses. The Nokia Internet Communications business unit provides network security and VPN solutions designed to ensure the security and reliability of corporate and managed service provider networks. The Nokia Mobile Internet Technical Architecture unit is developing, with other industry participants, a comprehensive technical architecture for the mobile Internet to provide seamless interoperability between all network environments. Nokia Ventures Organization also invests in early stage wireless technology companies and develops new wireless Internet devices, as well as digital platforms and communications solutions for the home environment.

In 2000, we took a number of steps to develop a leadership position in several of our Nokia Ventures Organization business units. Nokia has taken the lead in developing a comprehensive technical architecture for the mobile Internet and has invited other industry leaders from around the world to participate in this global initiative, referred to as the Nokia Mobile Internet Technical Architecture. Within our network security solutions business, we strengthened our ability to offer full-service network security solutions to the small office sector by purchasing Ramp Networks, a California-based provider of purpose-built Internet security appliances specifically designed for small office applications. The acquisition of Ramp Networks was completed in January 2001. In March 2000, we acquired Network Alchemy, a leading provider of IP clustering solutions. This acquisition provides a platform for us to build high availability, highly scalable and secure solutions required to support a large number of on-line transactions.

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

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

	Year ended December 31,		
	2000	**1999**	**1998**[(1)]
	(EUR in millions, except average number of employees)		
Net sales	854	415	—
Operating profit (loss)	(387)	(175)	—
Average number of employees	2,222	1,256	—

(1) In 1998, Nokia Ventures Organization was not reported as a separate segment and its operations were not significant.

Nokia Mobile Internet Technical Architecture

The Nokia Mobile Internet Technical Architecture initiative aims to provide seamless interoperability among all interaction modes, in any network environment and with any type of access with an ultimate objective of creating a richer, user-friendly Internet experience for all. We expect to accomplish this objective by identifying the relevant communication modes, defining the key technologies required to support them and promoting industry participation to develop a common wireless Internet platform.

Nokia believes that three key elements are fundamental to the Mobile Internet Technical Architecture: identity, interaction modes and network environment. An effective addressing system is required to handle and simplify the multitude of e-mail addresses, phone numbers and Web addresses for individuals and organizations. Classification of the basic communication modes simplifies technology development because it helps define the basic requirements for applications, terminals and service provisioning technology. User interactions in the mobile Internet consist of messaging, browsing and real-time video/voice calls, referred to as rich calls. Although from a broad perspective all networks converge into a single IP network, different networks, like mobile networks and Intra/Internets, inherently have some characteristics that differ from each other. Securing the best quality interoperability between networks is needed for seamless end-to-end services. Bringing these elements of identity, interaction modes and network environment together and managing the challenges they pose are at the core of this initiative, which seeks to ensure high-quality and seamless interoperability in end-to-end services.

Nokia Internet Communications

Nokia Internet Communications provides world-class network security and VPN solutions designed to ensure the security and reliability of corporate enterprise and managed service provider networks. The power of e-business lies in the ability to enable a one-to-one connection with the customer. Nokia Internet Communications supports this relationship by bringing security and reliability to the network, enabling a personal and trusted Internet transaction each and every time.

Nokia Internet Communications partners with leading software vendors to deliver integrated IP network security solutions and also designs its own dedicated VPN offering. Developed by a team of world class engineers, including key players in the VPN industry that have been recognized for their innovations in the field of TCP/IP networking, IPSec and operating system software, the Nokia-dedicated VPN is the industry's first IP clustering networking solution. With our range of secure, reliable solutions, Nokia is able to meet an organization's need for Intranet, extranet or remote access VPN connectivity.

In 2000, Nokia Internet Communications strengthened its market leading network security solution offering by announcing a number of new relationships, including WebShield for Nokia, an anti-virus appliance developed together with McAfee Network Associates Inc. Through this relationship, we extended our portfolio of network security products by delivering an anti-virus appliance dedicated to stopping viruses at the network perimeter. Together with Internet Security Systems, or ISS, we announced RealSecure for Nokia, the first enterprise-class intrusion detection appliance. We also continued to strengthen our leading end-to-end WAP solutions through developer programs and strategic product extensions.

We introduced a new security appliance in 2000 that delivers enterprise-class security to corporate satellite offices. Complementing our existing portfolio of security platforms, the Nokia IP110 platform is specially designed for the corporate satellite business that requires a full VPN firewall solution. Our acquisition of Network Alchemy in March 2000 provides a platform for us to build high availability, highly scalable and secure IP clustering solutions required to support a large number of on-line transactions. We expect that the recent enhancements to our Nokia Internet Communications offerings will allow us to capture a greater share of the VPN design, implementation and management being outsourced by corporations to third-party suppliers, such as our MSP customers.

Nokia Home Communications

Nokia Home Communications develops digital home platforms and communications solutions based on IP technologies for the home environment, as well as digital satellite cable and terrestrial multimedia terminals for interactive applications for business and residential users. Nokia Home Communications combines digital broadcasting with ADSL and wireless LAN technologies from other Nokia units to link our future broadcasting and IP appliances to satellite, cable and digital terrestrial networks. In 2000, Nokia Home Communications launched the Media Terminal, an infotainment center for the home with a software platform based on open standards and technologies, in Europe and North America. Nokia Media Terminal combines Internet media technologies with digital broadcasting technologies and enables full Internet access and push-type Internet services over broadband networks.

Nokia Venture Partners

Nokia Venture Partners, a leader in mobile Internet investments, launched a new $500 million fund in December 2000 to invest in emerging mobile Internet businesses around the world, targeting high growth market opportunities. Unlike Nokia's original fund, which was launched in 1998, this second fund includes third party investors, including BMC Software, CDBWebTech, Goldman Sachs and others. We have invested in the fund with the intent to gain exposure to markets and technologies beyond the reach of Nokia's current business unit strategies and early insight into new developments in the Internet economy.

Nokia Venture Partners has invested in more than 25 companies to date and has a proven track record of leveraging our combined resources, experience and contacts to help build successful businesses. We expect the global focus of the fund to help maintain our position at the forefront of the mobile Internet.

Nokia Entrepreneurial Web

Nokia Entrepreneurial Web is a networking organization for business development professionals. The unit pursues innovative business ideas and aims to create a balanced portfolio of new, substantial and sustainable businesses outside the natural growth paths of Nokia's current businesses. It includes an internal incubator that is structured similarly to an external venture capital company and provides seed finance for ideas within our company. The staff involved are expected to act as entrepreneurs, with a strong personal commitment and contribution to the new business projects that they develop. The unit works on concrete business plans, as well as research and new business creation projects, to identify trends and technologies that are expected to affect future markets, particularly the Internet economy. This focus is expected to contribute to Nokia's renewal by finding and developing new emerging opportunities.

Research and Development

We invest a substantial portion of our resources in research and development activities within our principal business units, as well as in our Nokia Research Center. The research and development efforts of Nokia Networks are designed both to facilitate the timely introduction of new solutions and to enhance and upgrade existing products and solutions to meet the needs of operators and service providers. Several of Nokia Networks' products are based on Nokia-designed common platforms that are augmented with hardware and software designed to meet specific service requirements. Our use of standardized components enables us to avoid the extensive research and development costs necessary to develop proprietary hardware.

In its research and development activities, Nokia Networks is focusing on its own core competencies and in other areas is cooperating with other industry leaders and universities. We have entered into several agreements with industry leaders to develop solutions and services for the wireless Internet and mobile e-business markets. These include Cisco Systems, to enhance connectivity between mobile core and IP backbone networks, Cap Gemini, to develop and deliver mobile Internet solutions, Tellabs, the leading provider of managed base station transmission solutions, to enhance ATM and IP transmission in second and 3G mobile and data networks, and TRW, to design and develop current and 3G base station products for mobile networks.

Our mobile phone research and development strategy incorporates two aspects. First, we develop a standard platform incorporating characteristics and components that are often common across all mobile phone product lines. This platform includes industry standard components, such as microprocessors and semiconductors, which are purchased from outside suppliers. The second aspect involves the development of high value-added software and radio technology designed according to specific system standards. We believe this two-stage strategy enables Nokia Mobile Phones to offer a full product range covering all major cellular standards with the minimum amount of specialization of components. As a result of this strategy, we have been able to outsource most of our components for our mobile phones, while concentrating our efforts primarily on the development of high value-added software.

Management believes that the mobile phone industry will be characterized by increasingly diverse product lines in the future, as a result of the introduction of new product standards and the development of different product features tailored to the specific needs and lifestyles of various user groups. Future research and development challenges will include the development of mobile phones for the future 3G digital standards and the introduction of new products incorporating new data transmission platforms and applications.

An important aspect of our research and development activities relates to the safety of mobile phones. The World Health Organization has published an *EMF Research Agenda,* which recommends areas of further research that it believes must be explored in order to assess more accurately whether or not mobile phones pose a health risk. In 1998, Nokia and a number of other leading manufacturers pooled resources and created the *Mobile Manufacturers Forum,* a global association that supports research within a controlled framework in order to address the WHO's recommendations systematically.

Over the years, scientific research has been conducted with respect to the radio-frequency energy emitted by mobile phones and their base stations. Independent expert panels have reviewed the findings of this research and consistently concluded that there is no demonstrated health risk from these electromagnetic fields. We are, and will continue to be, committed to research into the use of electromagnetic fields. By contributing to high quality research programs globally, we support the development of a better scientific and public understanding of these issues.

Within Nokia Ventures Organization, research activities vary by business division. Nokia Home Communications research and development activities focus on IP networking and Internet delivery in the home environment. Product development is based on usability and open technologies, such as Linux, with a focus on browsers, entertainment home networking, broadband digital video, audio and data services, including television and interactive services. Nokia Home Communications is also investing heavily in both basic technology research and development of new breeds of products based on current and evolving market standards. Key technology areas include digital TV standards, such as the DVB standard, Multimedia Home Platform, or MHP, and Advanced Television Enhancement Forum, or ATVEF, specification.

Nokia Internet Communications focuses its research and development activities on network security. This includes TCP/IP networking, IPSec and operating system software, IP clustering and firewall technologies. Nokia Internet Communications also carries out development activities in the field of network management and secure socket layer acceleration.

Nokia Research Center interacts closely with all Nokia business units in order to enhance the company's technological competitiveness. The research center covers a full range of activities, from the exploration of new technologies and product and system concepts, to their exploitation as the various Nokia business units develop actual products. To keep up to date with and influence the latest technological developments, the research center maintains strong global contacts. It actively participates in the work of standardization bodies and various international research and development projects, in cooperation with universities, research institutes and other telecommunications companies. Nokia Research Center focuses on areas beyond current product development, and often acts as an incubator of new business projects.

Nokia believes that effective research and development is vital to remain competitive in the industry. As of December 31, 2000, we employed 19,304 people in the area of research and development, representing almost one third of Nokia's total workforce.

Production

Nokia owned and operated 22 manufacturing facilities in 10 countries around the world at December 31, 2000. Our principal supply requirements are for electronic components, such as semiconductors, microprocessors, micro controllers and memory devices, which have a wide range of applications in our communications products. Our products also incorporate software provided by third parties. Although we have not experienced significant shortages of components to date, from time to time suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors.

Nokia Networks had 12 production facilities at December 31, 2000: five in Finland, one in the United Kingdom, five in China, and one in Malaysia. In line with our strategy to invest resources in key areas in order to improve efficiency, over 60% of Nokia Networks' production is currently outsourced, as well as some support activities. In March 2001, Nokia Networks and SCI Systems, Inc. signed a contract pursuant to which SCI Systems agreed to acquire Nokia Networks' manufacturing business in Haukipudas, Finland and in Camberley, England. The transaction was closed during the second quarter 2001.

Nokia Networks sources some components for its telecommunications systems from a single or a small number of selected suppliers. Management believes that these business relationships are stable and typically involve a high degree of cooperation with respect to research and development, product design and manufacturing in order to ensure optimal interoperability of products. See "Item 3.D Risk Factors — We depend on our suppliers' ability to deliver components on time and their failure to do so could adversely affect our ability to deliver our products successfully and on time."

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

During 2000, we prepared for volume rollouts of 3G networks both in production and network implementation. This included verifying the capacity of our supplier network, signing agreements with a significant number of suppliers and subcontractors and signing cooperation agreements for turnkey implementation of 3G and GSM.

Consistent with industry practice, we manufacture our telecommunications systems on a contract-by-contract basis. In 2000, Nokia Networks' order inflow was EUR 8,799 million, an increase of 36% compared to its order inflow in 1999.

We consider our mobile phone manufacturing to be a core competency and competitive advantage. Nokia Mobile Phones currently operates 10 manufacturing plants in eight countries. Our two U.S. plants supply the Americas markets primarily, as do our manufacturing plants in Mexico and Brazil. Three European plants, located in Finland, Germany, and Hungary, supply principally the European market and non-European countries that have adopted European mobile phone standards. We have two plants in China and one in South Korea that primarily supply the Asian markets, excluding Japan, which is supplied by the factory in Finland. We intend to shift some of the production in our U.S. plants to our plants in Mexico and South Korea and, as a result, we will close one of our U.S. plants during 2001. We use outsourcing to complement our manufacturing activities. Outsourcing covers an estimated 10% of our manufacturing volume of mobile phones currently. We may consider increasing the amount of manufacturing that we outsource in the future; however, we do not expect outsourcing to represent more than 20% of our manufacturing volume of mobile phones.

In the past several years, we have made significant capital expenditures in order to automate our mobile phone manufacturing facilities further. Each of our mobile phone plants contains state-of-the-art technology and is highly automated. Although our plants generally manufacture in accordance with the technical standards of local geographic markets, each plant is capable of providing mobile phones for most of the world's major standards. As a result of this capability, we believe we are able to respond rapidly to the needs of different geographic markets. In order to increase flexibility, contract manufacturing for accessories and mobile phone assembly may be used.

Consistent with industry practice, we source a large portion of components for our mobile phones from a global network of suppliers. Although these components may experience some price volatility from time to time, we purchase the majority of our components through long-term contracts. As is the case with suppliers to Nokia Networks, management believes that these business relationships are stable and typically involve a high degree of cooperation with respect to research and development, product design and manufacturing. See "Item 3.D Risk Factors — We depend on our suppliers' ability to deliver components on time and their failure to do so could adversely affect our ability to deliver our products successfully and on time." Most raw materials that are used in Nokia mobile phone products, including supply chips, keypads, displays, covers and plastic casings, are sourced and manufactured by third party suppliers. We then assemble these components and activate the phone with our own software.

We aim to manage our inventory of components to achieve the level of production required to meet the 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.

Nokia Ventures Organization has outsourced the production of multimedia terminals and Internet security products to third party contract manufacturers with factories in Finland, Canada, Mexico, the United Kingdom, the United States and Sweden. In addition, it has a joint venture to manufacture multimedia terminals in China. The other business units of Nokia Ventures Organization do not engage in manufacturing activities as their products are still under development.

Marketing Channels

Aggressively marketing the Nokia brand is a critical component of our overall corporate strategy. According to a survey conducted in July 2000 by Interbrand, the Nokia brand was recognized by participants as the fifth most valued brand in the world. We have invested heavily in print and broadcast advertising, such as our "Connecting People" campaign, as well as sponsorship of a variety of sporting and leisure events, including the United States college football Nokia Sugar Bowl. We also promote our products by sponsoring movies, such as "Charlie's Angels," in which Nokia phones featured prominently among the lead characters. We plan to continue this investment and expect that our advertising expenses will grow slightly faster than our sales growth during 2001.

The core of Nokia Networks' marketing and sales channels comprise dedicated account management teams for operator customers. These customer-specific account management teams work with regional organizations. Product marketing is carried out primarily through our own campaigns and promotions.

Nokia Mobile Phones' consumer marketing utilizes a comprehensive mix of print and broadcast media, point-of-sale support material and the Internet. A special, and increasingly important, feature is Club Nokia, a customer relationship marketing and customer loyalty channel available over Nokia handsets and the Internet to provide service, advice, special offers and games for existing customers. Our sales and distribution channels include operators, distributors and independent retailers. As is the case with Nokia Networks, product marketing is done partly through our own campaigns and sales promotions and partly through initiatives driven by operator and distributor customers, such as the inclusion of a subsidized Nokia phone with an operator's calling program.

As the popularity of mobile phones increases worldwide, manufacturers must address an extremely varied audience with their marketing communications. Different dimensions of identified user segments, beyond geographic and cultural dimensions, must be considered. We believe that we are able to reach out to people with relevant messages because we have developed an expertise in understanding user needs and behaviors, incorporating a sound consumer segmentation methodology. This methodology evaluates a variety of factors relevant to our mobile phone users, including the benefits that users hope to derive from their mobile device, and their lifestyle, demographics and psychological profiles.

Employee Development — The "Nokia Way"

Fundamental to our success is the "Nokia Way" of doing things 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 for the individual, achievement, and continuous learning — that we believe are critical for a global organization such as Nokia to work together effectively. In addition, our management cultivates an attitude of trust, responsibility and open-mindedness, which allows them to build teams of independent entrepreneurs that are permitted to take chances and even make occasional mistakes. The result is a culture in which decisions can be, and are, made quickly, and employees are energized and driven by a desire to win. We believe that this type of corporate culture is essential for us to prevail in the rapidly changing mobile communications industry.

Competition

Our principal competitors on a global basis currently include Ericsson, Motorola and Siemens, although we also compete with a variety of other companies.

Our principal competitors in the networks business include Alcatel, Ericsson, Motorola, Nortel and Siemens. Competition among vendors is increasingly intense as operators make additional investments in GSM and select new vendors in connection with developing their 3G businesses.

The mobile phone market also is very competitive. We face challenges from other established market participants, as well as new entrants, including those that traditionally focused on different segments of the consumer electronics industry. The competitive environment is characterized by rapid changes in both technology and markets. See "Item 3.D Risk Factors — Rapid technological changes in the communications industry are expected to increase competition and change the competitive landscape and may affect our operating results negatively."

Global mobile phone manufacturers can be divided into four tiers, with Nokia alone in the top tier with a market share of approximately 32%, based on our estimate of units sold in 2000 into our distribution channels as a percentage of estimated aggregate retail unit sales. Manufacturers in the second tier each hold an estimated market share of between 7% and 14% and include Motorola, Ericsson and Siemens. Within the third tier, a number of manufacturers, including Alcatel, Samsung, Panasonic, Kyocera, Philips and Mitsubishi, each have a market share of up to a few percentage points. These ten manufacturers represent approximately 80% of the global mobile phone sales. The remaining 20% is divided among a large number of companies.

We compete in our different product markets based on a number of factors, including, among other things, price, technical performance, product features, availability, product quality, sales and technical support, and brand recognition. Our ability to compete successfully depends on factors both within and outside of our control in our most important markets. These include successful and timely development of new products, product performance and quality, manufacturing efficiency, product availability, customer service, pricing, industry trends and general, as well as country-specific, economic factors and other country-specific or market related factors, such as changing regulatory or government policies.

Seasonality

Our network business has experienced some seasonality during the last few years. Sales have been highest in the last quarter of the year compared to the first quarter of the following year, due to operators' planning and budgeting reasons. However, this pattern might change as new markets evolve.

Our mobile phone sales are also somewhat affected by seasonality. Historically, the first quarter of the year is characterized by slightly lower sales growth than the fourth quarter, due to the effect of Christmas sales. The second quarter of the year is also typically another high season, as consumers prepare for summer vacations. The third quarter is usually slower than the second and fourth quarters, as consumers postpone purchases until the Christmas season.

Patents and Licenses

The detailed designs of our products are based primarily on our own research, development, work and design and comply with all relevant public standards. We aggressively seek to safeguard our investments in technology through adequate patent protection, including design patents, trademark registrations and copyrights, which are used to protect proprietary features of our products. In 2000, we filed new patent applications for more than 1,050 new inventions.

Nokia is a holder of several essential patents for various telecommunications standards. An essential patent covers a product 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 guarantee Nokia commercial freedom of action in global markets.

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 incorporation of 3G and other evolving technologies, our products are becoming more complex. A 3G mobile handset, for example, may incorporate three times as many components, including substantially more complex software, as our GSM phones. It is therefore more likely that we will be required to obtain additional licenses or that some of the components in these handsets will be protected by intellectual property rights of which we are unaware, potentially causing us to infringe the rights of others inadvertently.

From time to time we receive 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, operating results 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, operating results and financial condition. See "Item 3.D Risk Factors — Third party claims that we have infringed their intellectual property rights could result in costly and time-consuming litigation or the invalidation of intellectual property rights on which we depend."

Government Regulation

Our products are subject to various Federal Communications Commission 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 maintain a regulatory environment that will ensure 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 U.S. government agencies, take actions to ensure that sufficient spectrum is made available to meet the demand for advanced, next generation, wireless services. In addition, a continued deregulatory and pro-competitive approach by the FCC and other agencies toward the Internet and the delivery of advanced communications services will allow us to expand our business operations by offering businesses and consumers new and innovative communications products and services. We believe that our products comply with all applicable regulations.

Deregulation and the widespread use of new technologies have facilitated the establishment of new communications networks and services. Today, the most significant impact of government regulation and deregulation is on DSL technology, which is one of the preferred methods of delivering high bandwidth applications to both business and residential customers worldwide. The EU established a regulation opening access to the "last mile" of telephone lines into people's homes as of January 1, 2001. We estimate that DSL market growth will accelerate as a result of deregulation.

EU regulation in many areas has a direct effect on the business of Nokia and our customers within the single market of the European Union. In recent years, the EU Commission has produced a number of draft directives relating to opening the communications sector for competition, consumer protection and environmental policy issues. 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 regulation directly and indirectly in each of the countries in which we or our customers do business, and changes in various types of regulation could affect our business adversely. For example, changes in regulation that impose more stringent, time-consuming or costly planning, zoning or building approval requirements 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. Expensive government licence fees can cause operators to incur substantial indebtedness and fundamentally affect operators' businesses, profitability and financial condition, as well as the demands operators make on equipment suppliers such as Nokia. Similarly, tariff regulation that adversely affects the pricing of new services could affect the sales of our networks and handsets. The indirect impact of these changes in regulation could affect our business adversely even though the specific regulations do not directly apply to us or our products.

4.C Organizational Structure

The following is a list of Nokia's significant subsidiaries:

Company	Country of Incorporation	Nokia Ownership Interest	Nokia Voting Interest
Nokia Matkapuhelimet Oy[1]	Finland	100%	100%
Nokia Mobile Phones Inc.	United States	100%	100%
Nokia Networks Oy[1]	Finland	100%	100%
Nokia GmbH	Germany	100%	100%
Nokia (H.K.) Ltd.	Hong Kong	100%	100%
Nokia UK Limited	England & Wales	100%	100%
Nokia TMC Limited	South Korea	100%	100%
Beijing Nokia Mobile Telecommunications Ltd.	China	50%	50%
Nokia Finance International B.V.	The Netherlands	100%	100%
Nokia Holding Inc.	United States	100%	100%

[1] Nokia Corporation, Nokia Matkapuhelimet Oy and Nokia Networks Oy have agreed that the two subsidiaries be merged into Nokia Corporation. These mergers are expected to become effective during the third quarter of 2001.

4.D Property, Plant and Equipment

Nokia owned 22 manufacturing facilities in ten countries around the world at December 31, 2000. None of these facilities is subject to a material encumbrance. We are not aware of any environmental issues that would affect our utilization of these facilities. Following is a list of the location, use and capacity of our facilities:

Country	Location and Product	Net Productive Capacity (square meters)
BRAZIL	**Nokia do Brasil Technologia Ltda,** Manaus (digital and analogue mobile phones)	6,600
CHINA	**Beijing Nokia Hang Xing Telecommunications Co Ltd.**, Beijing (switching systems, base station controllers, transcoders)	8,500
	Beijing Nokia Mobile Telecommunications Co Ltd., Beijing (base stations and mobile phones)	30,000
	ChongQing Nokia Telecommunications Ltd., ChongQing, (access products for fixed networks)	8,500
	Dongguan Nokia Mobile Phones Company Limited, Dongguan (mobile phones)	9,700
	Fujian Nokia Mobile Communications Technology Co., Ltd., Fujian (technical services for mobile networks)	1,100
	Nokia Citic Digital Technology Co. (Beijing) Ltd., Beijing (multimedia terminals)	1,200
	Nokia (Suzhou) Telecommunications Co., Ltd., Suzhou (base stations and mobile network transmission products)	13,000

Country	Location and Product	Net Productive Capacity (square meters)
FINLAND	**Nokia Mobile Phones,** Salo (mobile phones)	42,000
	Nokia Networks, Espoo (switching systems, base station controllers, transcoders)	12,500
	Nokia Networks, Espoo (radio access products)	6,800
	Nokia Networks, Espoo (professional mobile radio products)	3,700
	Nokia Networks[1], Haukipudas (broadband access products, fixed access products, radio access products)	27,000
	Nokia Networks, Oulu (base stations)	45,000
GERMANY	**Nokia GmbH,** Bochum (mobile phones)	13,800
HUNGARY	**Nokia Komarom Kft.,** Komárom (mobile phones)	12,600
MALAYSIA	**Sapura-Nokia Telecommunications Sdn. Bhd.**[2], Kuala Lumpur (DX 200 equipment)	1,000
MEXICO	**Nokia Reynosa S.A. de C.V.,** Tampas (mobile phone batteries, mobile phones)	4,000
SOUTH KOREA	**TMC Company Ltd,** Masan (mobile phones)	17,200
UNITED KINGDOM	**Nokia UK Ltd**[1], Camberley (base stations)	8,700
UNITED STATES	**Nokia Inc. (Alliance),** Fort Worth, Texas (mobile phones)	14,400
	Nokia Inc. (Centreport 1)[3], Fort Worth, Texas (mobile phones)	4,100

(1) In March 2001, Nokia Networks and SCI Systems, Inc. signed a contract according to which SCI Systems agreed to acquire Nokia Networks manufacturing business in Haukipudas, Finland and in Camberley, England. This transaction was closed during the second quarter of 2001.

(2) Associated company.

(3) To be closed during 2001.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

5.A Operating Results

The following discussion and analysis by management of our operating and financial results should be read in conjunction with the consolidated financial statements included in Item 18 of this Form 20-F. The consolidated financial statements, and the financial information discussed below, have been prepared in accordance with IAS. For a discussion of the principal differences between IAS and U.S. GAAP, see "— Principal Differences between IAS and U.S. GAAP" and Note 36 to our consolidated financial statements.

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

Introduction

In 1993, we adopted the strategic objective of establishing Nokia as a leading international supplier of telecommunications systems and equipment in the rapidly evolving global telecommunications industry. Our results over the last three years show continuing progress toward attaining this objective, as reflected in the rapid growth of our core businesses and the streamlining of our structure to a broad-scope communications company. From 1998 to 2000, sales of Nokia Networks and Nokia Mobile Phones increased by 76% and 171%, respectively, as a result of strong demand for Nokia's solutions and products. We have invested heavily in research and development, introducing new products and creating increased consumer recognition of the Nokia brand name. In addition, we have expanded the global reach of our operations substantially by establishing manufacturing facilities, distribution centers and sales and support services in a number of our markets. We currently have manufacturing facilities in ten countries and research and development personnel in 15 countries and supply our products in over 130 countries worldwide. In 2000, 52% of our net sales originated from Europe, 23% from the Asia-Pacific, and 25% from the Americas. Based on sales, the ten largest markets were the United States, China, the United Kingdom, Germany, Italy, France, Brazil, the Philippines, Australia and Spain, representing 64% of total sales in the aggregate.

During 2000, our networks businesses continued to deliver GSM network expansion to existing customers, and won 13 new GSM customers, taking the total number of our GSM network customers to 100 at year-end. In addition, our focus shifted to the new products, services and technologies that will apply in the mobile Internet world. We now have delivered well over 50 GPRS networks to operators in Europe, the United States and Asia, which management believes gives Nokia the largest installed base of any GPRS supplier. Our position as a leading provider of third generation WCDMA networks was reaffirmed in November 2000 when AT&T Wireless announced that WCDMA would be its technology choice for its nationwide network in the United States and signed a multi-year letter of intent with us valued at more than $1 billion, making it the largest infrastructure supply agreement in Nokia's history. By year-end 2000, we had been chosen by a total of 13 operators to supply their 3G networks, including leading European operators and a new entity in Japan, in addition to AT&T Wireless in the United States. The majority of Nokia Networks' revenue is derived from projects involving the customization, installation, commissioning and integration of complex telecommunications equipment, such that sales and costs from these projects are recognized on the percentage of completion basis. The remaining Nokia Networks' revenue is recognized when pursuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable.

Our mobile phone sales growth again exceeded global market growth during 2000, due to strong positive development, especially in Europe. Management estimates that Nokia's market share of approximately 32% for mobile phone unit sales in the year 2000 was approximately twice the market share of the second leading mobile phone manufacturer. During the year, we introduced 16 mobile phone models, including the Nokia 6210 classic and 8890 premium tri-mode GSM models, the Nokia 7160 WAP-enabled model for TDMA and the Nokia 7190 WAP model for GSM 1900. Nokia estimates that the market for Internet-enabled handsets reached 60 million in 2000, of which WAP-enabled handsets represented approximately 40 million. Mobile phone sales are recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable.

We also have expanded our reach in Internet communications products via new initiatives within Nokia Ventures Organization. Nokia's Mobile Internet Technical Architecture unit is defining the technical architecture for the mobile Internet to provide common standards and seamless interoperability across various environments and products. Nokia Internet Communications, a leading provider of security infrastructure, offers world-class network security and VPN solutions that ensure the security and reliability of corporate and managed service provider networks. Nokia Ventures Organization is also expanding Nokia's product portfolio by developing new wireless Internet devices, as well as digital platforms and communications solutions for the home environment. Through Nokia Venture Partners, we are investing in early stage wireless Internet technology companies that offer us exposure to new markets and technologies beyond the reach of our principal business units. These initiatives illustrate our commitment to becoming the leading company in the world for an expanding variety of mobile Internet products and solutions.

See "Item 4.B Business Overview — Business Strategy."

Results of Operations

The following table sets forth the net sales and operating profit for our business groups for the periods indicated, in millions of euro.

Net Sales and Operating Profit by Business Group

	Year ended December 31,					
	2000		1999		1998	
	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)	Net Sales	Operating Profit/(Loss)
Nokia Networks	7,714	1,358	5,673	1,082	4,390	960
Nokia Mobile Phones	21,887	4,879	13,182	3,099	8,070	1,540
Nokia Ventures Organization(1)	854	(387)	415	(175)	—	—
Common Group Functions(1)	—	(74)	—	(98)	—	(11)
Discontinued Display Products(1)	—	—	580	—	1,014	—
Eliminations	(79)	—	(78)	—	(148)	—
Total	30,376	5,776	19,772	3,908	13,326	2,489

(1) Prior to January 1, 2000, the businesses of Nokia Ventures Organization and the Discontinued Display Products were reported under "Other Operations," as were Common Group Functions.

The following table sets forth the regional distribution of our net sales for the years ended December 31, 1998, 1999 and 2000.

Percentage of Net Sales by Region

	2000	1999	1998
Europe	52%	53%	58%
Americas	25%	25%	21%
Asia-Pacific	23%	22%	21%
Total	100%	100%	100%

During the past three years, we have made substantial capital expenditures in product development, additional manufacturing capacity and research and development. In 2000, capital expenditures totaled EUR 1,580 million, an increase of 16.3% compared to 1999. Principal investments during 2000 included additional office and manufacturing facilities, production lines, test equipment and computer hardware used primarily in research and development. Research and development costs, which consist primarily of costs related to developing telecommunications software and hardware, and mobile handsets and related software, totaled EUR 2,584 million in 2000, an increase of 47% from 1999 and 125% from 1998. Research and development costs represented 8.5% of net sales in 2000, compared to 8.9% of net sales in 1999 and 8.6% of net sales in 1998.

In 2000, we increased our personnel by a total of 7,864 new employees, excluding the businesses sold in 2000. The respective increase in 1999 was 12,367. At the end of 2000, we employed 60,289 people world-wide, compared to 55,260 and 44,543 at year-end 1999 and 1998, respectively. Since the beginning of 1998, Nokia Networks and Nokia Mobile Phones have increased their workforce by 6,797 and 14,676 persons, respectively. The majority of these new employees are in research and development and in sales and marketing activities. Nokia Ventures Organization has expanded to comprise 2,570 employees at year-end 2000, in part as a result of acquisitions.

Nokia Net Sales and Operating Profit

Our net sales totaled EUR 30,376 million in 2000, EUR 19,772 million in 1999 and EUR 13,326 million in 1998, representing an increase in net sales of 54% in 2000 and 48% in 1999. Our operating profit increased to EUR 5,776 million in 2000, compared to EUR 3,908 million in 1999 and EUR 2,489 million in 1998. Our operating margin was 19.0% in 2000, compared to 19.8% in 1999 and 18.7% in 1998.

Segment Results

Nokia Networks — Net sales of Nokia Networks were EUR 7,714 million in 2000, compared to EUR 5,673 million in 1999 and EUR 4,390 million in 1998. The 36% increase in net sales at Nokia Networks in 2000 was due primarily to continuing GSM expansion driven by growth in the GSM subscriber base and upgrades and the commencement of GPRS shipments. The 29% increase in net sales in Nokia Networks in 1999 was due primarily to significant GSM expansion and upgrades as many operators strengthened their wireless data services with WAP and SMS applications and prepared their networks to deliver high speed circuit switched data and GPRS.

Nokia Networks' research and development expenses were EUR 1,013 million in 2000 (13.1% of Nokia Networks' net sales), EUR 777 million in 1999 (13.7% of Nokia Networks' net sales) and EUR 564 million in 1998 (12.8% of Nokia Networks' net sales).

Nokia Networks' operating profit increased to EUR 1,358 million in 2000, compared to EUR 1,082 million in 1999 and EUR 960 million in 1998. Nokia Networks' operating margin was 17.6% in 2000, 19.1% in 1999 and 21.9% in 1998, as a result of intensified pricing pressure due to increased competition in GSM markets.

The business group's order inflow was EUR 8,799 million in 2000, EUR 6,481 million in 1999 and EUR 5,101 million in 1998, representing year-on-year increases of 36% in 2000 and 27% in 1999.

Nokia Mobile Phones — Net sales of Nokia Mobile Phones totaled EUR 21,887 million in 2000, compared to EUR 13,182 million in 1999 and EUR 8,070 million in 1998. The 66% increase in 2000 and 63% increase in 1999 were achieved as Nokia gained market share in each year and introduced a variety of new products with innovative features targeted at different consumer segments.

Nokia Mobile Phones' research and development expenses totaled EUR 1,306 million, or 6.0% of net sales, in 2000, compared to EUR 835 million, or 6.3% of net sales, in 1999, and EUR 522 million, or 6.5% of net sales, in 1998.

Nokia Mobile Phones' operating profit increased to EUR 4,879 million in 2000, compared to EUR 3,099 million in 1999 and EUR 1,540 million in 1998. Nokia Mobile Phones' operating margin was 22.3% in 2000, 23.5% in 1999 and 19.1% in 1998. The decrease in the Nokia Mobile Phones' operating margin in 2000 was due primarily to our decision to aggressively grow our market share in a more competitive market environment, as well as weaker economic conditions in a number of regions, principally the United States. The increase in the Nokia Mobile Phones' operating margin in 1999 was due primarily to further improvements in logistics processes, renewal of the product range and continuous cost improvements.

Nokia Ventures Organization — Commencing January 1, 2000, Nokia Ventures Organization has been segregated into a separate segment as a result of the increased activity in this segment. Prior to 2000, this business reported under Other Operations, which included Display Products, as well as the activities described below as common group functions. Net sales from Nokia Ventures Organization totaled EUR 854 million in 2000, compared to EUR 415 million in 1999.

Nokia Ventures Organization reported an operating loss of EUR 387 million in 2000, compared to an operating loss of EUR 175 million in 1999. The operating losses were due primarily to our continued substantial investment in Nokia Ventures Organization.

Common Group Expenses — This line item, which comprises Nokia Head Office, Nokia Research Center and other general functions, totaled EUR 74 million in 2000, compared to EUR 98 million in 1999 and EUR 11 million in 1998.

Net Financial Income

Net interest and other financial income totaled EUR 102 million in 2000, compared to net financial expenses of EUR 58 million and EUR 39 million in 1999 and 1998, respectively. The generation of net financial income in 2000 resulted from a positive net operating cash flow of EUR 3,509 million and a gearing of minus 26% at year-end, while the increase in net financial expenses from 1998 to 1999 resulted primarily from higher hedging expenses. See "— Exchange Rates." At year-end 2000, we had cash and cash equivalents of EUR 4,183 million.

Profit Before Taxes

Profit before taxes and minority interests totaled EUR 5,862 million in 2000, compared to EUR 3,845 million in 1999 and EUR 2,456 million in 1998. Taxes amounted to EUR 1,784 million, EUR 1,189 million and EUR 737 million in 2000, 1999 and 1998, respectively.

Minority Interests

Minority shareholders' interest in our subsidiaries' profits totaled EUR 140 million in 2000, EUR 79 million in 1999 and EUR 39 million in 1998.

Net Profit and Earnings per Share

Profit from continuing operations was EUR 3,938 million, EUR 2,577 million and EUR 1,680 million in 2000, 1999 and 1998, respectively.

Net profit in 2000 increased to EUR 3,938 million, compared to EUR 2,577 million in 1999 and EUR 1,750 million in 1998, representing year-on-year increases in net profit of 53% in 2000 and 47% in 1999. Results in 1998 include the cumulative positive effect from a change in accounting policy related to deferred taxes of EUR 70 million. Basic earnings per share from continuing operations, adjusted to reflect the April 2000 four-for-one share split and two-for-one share splits in 1999 and 1998, increased to EUR 0.84 in 2000, compared to EUR 0.56 in 1999 and EUR 0.37 in 1998.

Exchange Rates

Nokia's business and results of operations are from time to time affected by changes in exchange rates, particularly between the euro, which replaced the Finnish markka as our reporting currency in 1999, and other currencies such as the U.S. 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 firm and probable purchase and sale commitments, give rise to foreign exchange exposure. The introduction of the euro has decreased our transaction exposure. In general, appreciation of the euro relative to another currency has an adverse effect on Nokia's net sales and operating profit, while depreciation of the euro has a positive effect.

During 2000, the euro depreciated approximately 6.3% against the U.S. dollar and appreciated approximately 1.2% against the UK pound sterling. During 1999, the euro depreciated approximately 15.2% against the dollar and approximately 11.8% against the UK pound sterling. The positive impact of the depreciation of the euro on Nokia's results of operations was slightly positive in 2000 and 1999. In 1998, the Finnish markka appreciated approximately 6.6% against the U.S. dollar and approximately 6.0% against the UK pound sterling, having a slightly negative impact on our results of operations during the year.

In 2000 and 1999, the euro depreciated approximately 4.3% and 24.6%, respectively, against the Japanese yen, which had a slightly negative impact on our result of operations, due to the fact that Nokia had net purchases in Japanese yen. In 1998, the Finnish markka depreciated approximately 7.9% against the Japanese yen, having a slightly negative affect on our result of operations.

In addition to the impact of exchange rate fluctuations on our operating results discussed above, Nokia's balance sheet is also affected by the translation into euro for financial reporting purposes of the shareholders' equity of our foreign subsidiaries that are denominated in currencies other than the euro. In general, this translation increases our shareholders' equity when the euro depreciates, and affects shareholders' equity adversely when the euro appreciates against the relevant other currencies.

For a discussion of the instruments used by Nokia in connection with our hedging activities, see Note 32 to our consolidated financial statements. See also "Item 11. Quantitative and Qualitative Disclosure About Market Risk" and "Item 3.D Risk Factors — Our net sales and costs are affected by fluctuations in the rate of exchange between the euro, which is our reporting currency, and other currencies."

Economic and Monetary Union and the Euro

In January 1999, 11 European Union member states — Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Spain — formed the EMU. The 11 EMU member states also introduced a new common currency: the euro. The fixed, irrevocable conversion rates between the euro and national EMU currencies were announced on December 31, 1998. These countries, as well as Greece, have adopted the euro as their national currency.

We support the wide use of the euro during the transition period, which started on January 1, 1999, and will conclude on December 31, 2001. Nokia implemented use of the euro in its internal operations from the beginning of the transition period. We have also used the euro to report our results for periods beginning on or after January 1, 1999. In business transactions with our customers, suppliers and sub-contractors operating in the EMU member states, we prefer the euro as a trading currency. However, Nokia respects the "no compulsion, no prohibition" principle in the use of the euro and the use of the euro is always mutually agreed upon with the business partner. In non-EMU countries Nokia is prepared to consider using the euro in business transactions if the customer so prefers.

The comparative financial statements until and including 1998 have been converted into euro. Accordingly, the consolidated financial statements depict the same trends that would have been presented had they been presented in Finnish markka. However, because they were originally prepared using Finnish markka, they are not necessarily comparable to financial statements of other companies that originally prepared financial statements in a currency other than the Finnish markka and converted those currencies to euro. See Note 1 to the consolidated financial statements.

Principal Differences Between IAS and U.S. GAAP

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

Our net profit in 2000 under IAS was EUR 3,938 million, compared to EUR 2,577 million in 1999 and EUR 1,750 million in 1998. Under U.S. GAAP, Nokia would have reported net income of EUR 3,847 million in 2000, compared to EUR 2,542 million in 1999 and EUR 1,689 million in 1998.

The principal differences between IAS and U.S. GAAP that affect our net profit or loss, as well as our shareholders' equity, relate to the treatment of development costs, marketable securities, pension costs, and the provision for social security costs on stock options and stock compensation expense. See Note 36 to the consolidated financial statements for a description of the principal differences between IAS and U.S. GAAP and Note 1 and Note 36 for a description of the anticipated impact on the financial statements of the adoption of recently issued accounting standards.

5.B Liquidity and Capital Resources

At December 31, 2000, Nokia's cash and cash equivalents increased slightly to EUR 4,183 million, compared to EUR 4,159 million at December 31, 1999, primarily as a result of increased cash generated from operations. Cash and cash equivalents totaled EUR 2,891 million at December 31, 1998. Net cash from operating activities was EUR 3,509 million in 2000, compared to EUR 3,102 million in 1999 and EUR 1,687 million in 1998. Nokia continued to efficiently manage working capital in 2000.

Net cash used in investing activities in 2000 was EUR 2,293 million, compared to EUR 1,341 million in 1999 and EUR 780 million in 1998. Cash flow from investing activities in 2000 included EUR 300 million in proceeds from the sale of fixed assets and other investments, compared to EUR 466 million in 1999. Capital expenditures for 2000 were EUR 1,580 million, compared to EUR 1,302 million in 1999 and EUR 761 million in 1998. Major items of capital expenditure included additional office and manufacturing facilities, production lines, test equipment and computer hardware used primarily in research and development.

Net cash used in financing activities increased to EUR 1,272 million in 2000, compared to EUR 592 million in 1999, primarily as a result of increases in dividends paid and long-term receivables. Net cash used in financing activities increased to EUR 592 million in 1999 compared to EUR 63 million in 1998, primarily as a result of increases in dividends paid and long-term receivables and a decrease in short-term borrowings.

At December 31, 2000, Nokia had EUR 173 million in long-term interest-bearing liabilities and EUR 1,116 million in short-term borrowings, offset by EUR 4,183 million in cash and bank deposits and short-term investments, resulting in a net cash balance of EUR 2,894 million. Our ratio of net interest-bearing debt, defined as short-term and long-term debt less cash and cash equivalents, to equity, defined as shareholders' equity and minority interests, was -26%, -41% and -36% at December 31, 2000, 1999 and 1998, respectively. The change in 2000 resulted primarily from an increase in our short-term borrowings and a significant increase in our retained earnings.

The total dividends per share were EUR 0.28, EUR 0.20 and EUR 0.12 for the years ended December 31, 2000, 1999 and 1998, respectively, as adjusted to reflect the four-for-one share split effected in April 2000 and the two-for-one share splits effected in 1999 and 1998. See "Item 3.A Selected Financial Data — Dividends."

Nokia has no potentially significant refinancing requirements in 2001. Nokia expects to incur additional indebtedness from time to time as required to finance working capital needs. Nokia has a $500 million U.S. commercial paper program and a $500 million euro commercial paper program. In addition, Nokia has Finnish local commercial paper programs totalling EUR 270 million. We also have committed credit facilities totalling $850 million and a number of short term uncommitted facilities.

Nokia has historically maintained a high level of liquid assets. Management estimates that the cash and cash equivalents level of EUR 4,183 million at the end of 2000, 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, capital expenditure, research and development and debt service requirements at least through 2001. The ratings of our short and long-term debt from credit rating agencies at December 31, 2000, 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.

Suppliers of telecommunications systems and products, especially those involving 3G and other new technologies, are being asked to offer vendor financing as part of their bid package. We have provided, arranged or committed to provide some long-term financing for selected customers in the past and expect to continue to provide vendor financing at a greater level than we have historically. We expect to maintain prudent and conservative credit policies, to focus on high-quality customers and projects and to offer pricing, instruments and documentation that are consistent with market standards. We also expect to offer this type of financing at the early stages of projects, when we can influence the successful implementation and construction of the network, and as a complement to our core competencies only, rather than as a core business. As market conditions permit, we intend to mitigate our exposure, which may include both commitments and loans, via arrangements with financial institutions and investors.

The size and number of vendor financings that may be required, particularly for 3G operators, as well as their terms and conditions, have yet to be determined, but may increase significantly from historical levels and have a significant impact on our working capital. Vendor financing also may be concentrated among a small number of customers and may subject us to different magnitudes of credit risks than in the past. In particular, some operators, including those that may purchase our networks, have incurred significant indebtedness in connection with the acquisition of 3G licenses or are early stage companies without an established customer base or revenue streams. See "Item 3.D Risk Factors — Vendor financing to network operators has become a competitive requirement and can affect our net sales, profits, operating results, balance sheet and cash flow" and "Item 8.A.7." Our outstanding receivables in respect of vendor financing, in terms of loans, totaled EUR 907 million at December 31, 2000, compared to EUR 370 million at December 31, 1999. Guarantees given by us on behalf of third parties totaled EUR 319 million at December 31, 2000, compared to EUR 230 million at December 31, 1999. These receivables related to vendor financing provided in connection with sales of 2G and other technologies. At December 31, 2000, we had provided no committed or outstanding vendor financing for 3G network systems. See "Item 4.B Business Overview — Nokia Networks" for additional information relating to the amount of committed and outstanding vendor financing since December 31, 2000.

5.C Research and Development, Patents and Licenses

Success in the telecommunications industry requires continuous introduction of new products and applications 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. Total research and development expenses for 2000 were EUR 2,584 million, an increase of 47% over 1999 and 125% over 1998. 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 year-end 2000, we had research and development centers in 15 countries and 19,304 research and development employees, representing 32% of Nokia's total personnel. Research and development expenses of Nokia Networks as a percentage of its net sales were 13.1% in 2000, 13.7% in 1999 and 12.8% in 1998. In the case of Nokia Mobile Phones, research and development expenses represented 6.0%, 6.3% and 6.5% of its net sales in 2000, 1999 and 1998, respectively. Our consolidated research and development costs amounted to EUR 2,584, EUR 1,755 and EUR 1,150 in 2000, 1999 and 1998, respectively, representing 8.5%, 8.9% and 8.6%, respectively, of net sales.

5.D Trend Information

General

Our business and results of operations have been affected in recent years by a number of important trends. The global telecommunications market has experienced rapid growth, especially as the areas of voice and data transmission have converged and become digitized. The mobile telecommunications market in particular has grown substantially in the past three years in line with the demand for, and use of, mobile telephones. Growth in the use of the Internet also has contributed to the increase in demand for a mobile Internet and related mobile data and Internet applications. The availability of increased bandwidth, or broadband, is expected not only to add needed capacity to existing second generation voice networks, but also to enable the speed, data transmission ability and graphic quality that 3G systems and their applications will require.

As the telecommunications market moves to the third generation of mobile telecommunications technology, telecommunications operators in some European markets and elsewhere are investing heavily in purchasing licenses to use broadband spectrum and in building advanced networks. Consolidation in the telecommunications market has resulted in large telecommunications operators competing in several geographic markets and multi-year, very large network system contracts. We expect to contract with these large customers as they place long-term orders for advanced network systems. Because the operators purchasing these systems have invested considerable sums already in their licenses, they may require their equipment suppliers to bid more aggressively and include in their contracts vendor financing packages, more stringent performance criteria, higher penalties for contract violations and larger performance bonds.

These factors may have several potential effects on our network business. In order to provide vendor financing so that we can bid competitively for major 3G contracts, the amounts of which may be significant, we may have to arrange additional sources of liquidity. We also may have to augment our ability to monitor and administer the loans that we make. Vendor financing also may be concentrated among a small number of customers and may subject us to different magnitudes of credit risk relating to our customers than we have experienced historically. In particular, some operators have incurred significant indebtedness in connection with the acquisition of 3G licenses or are early stage companies without an established customer base or revenue streams. Defaults by these operators could occur for reasons beyond our control, and could result in the restructuring of these financing arrangements or credit losses. Higher contractual penalties for failure to achieve milestones, especially if those milestones are more aggressive than those for 2G networks, may cause us to incur higher expenses in connection with large system contracts than we have in the past. In addition, stringent performance terms may affect our cash flow negatively. With the advent of very large, multi-year, fixed price contracts for new technologies, such as 3G, there is also increased difficulty in projecting the timing of net sales and operating profit associated with these contracts. See ''Item 3.D Risk Factors—Vendor financing to network operators has become a competitive requirement and can affect our net sales, profits, operating results, balance sheet and cash flow'' and ''— The global networks business relies on a limited number of major customers and large multi-year contracts. Unfavorable developments under a major contract may affect our operating results and cash flow adversely.''

The mobile phone market continues to evolve rapidly. The total number of mobile phone subscribers increased by approximately 67% between 1999 and 2000, during which time we have been able to increase our market share to approximately 32% for the year 2000. As overall mobile phone market penetration increases, upgrade or replacement sales are representing a larger portion of total mobile phone sales than in the past. We expect that upgrade or replacement sales will represent more than half of total mobile phone sales in 2001. We intend to capitalize on this trend by offering new models for upgrade customers featuring higher functionality. We find that our corporate customers are often the first to purchase these higher functionality models in volumes. Capitalizing on our strong brand, we intend to introduce new, higher-functionality products to stimulate upgrade purchases and to offset, at least in part, the general trend in the market toward lower average mobile phone prices.

Because of the complexity of new advanced technologies and breadth of applications that these new technologies will support, 3G and other new mobile phones will incorporate significantly more software than second generation GSM phones. In addition, these new mobile phones may require a substantially higher investment in research and development. Volume sales of these new mobile devices will depend on the timely and successful build-out of 3G networks and the availability of related services offered by third parties. It is not clear whether consumers will want and be willing to pay for the sophisticated mobile data applications that 3G phones will offer. Conversely, if 3G and other new technology terminals were to attain rapid customer acceptance, we expect consumers and operators to demand speedy delivery of products, which may strain our manufacturing and distribution capacity.

The business models, technologies and products being developed within Nokia Ventures Organization represent important strategic initiatives designed to extend and sustain our product and long-term business development. Although the precise impact of the Nokia Ventures Organization businesses on our consolidated results cannot be predicted due to the early stages of many of these initiatives and uncertainties relating to new business development, management expects these businesses to make a material contribution to our results as they and their associated markets mature. The revenue growth rates, operating margins and cash flow characteristics of these businesses may be materially different from those of our networks and mobile phone businesses.

We will continue to take determined actions in all areas of the business to align our operations with the changing market conditions. Previously announced moves to increase the company's efficiency and competitiveness include operational changes to further enhance customer focus in Nokia Networks, a refocus of production at Nokia Mobile Phones factories in Texas in the United States and Bochum, Germany, and the re-alignment of Nokia Internet Communications. The financial impact of these actions will negatively affect our reported operating profit in the second quarter 2001 in the form of a one-time charge of approximately EUR 190 million, which will include restructuring charges, as well as goodwill write-offs at Nokia Internet Communications.

Business Environment and Forecasts

We believe that we have the opportunity not only to extend our leadership in mobile handsets but also to gain the leading position in the 3G mobile network infrastructure market. The global mobile communications market will make the transition from second to third generation technologies, with network investments in third generation commencing in late 2001, and many operators preparing for commercial launches in the second half of 2002. We estimate that the global mobile phone market will show only very modest growth in 2001 compared to 2000, when about 405 million phones were sold. During the second half of 2001 we estimate that the market will be significantly larger than during the first half. The slower growth is expected to affect capacity-driven network investments of some operators for the time being. While it will also lead to slower-than-anticipated growth in our sales, we believe that our mobile phone business will continue to grow significantly faster than the market during 2001, and that our network business will achieve an annual growth rate at least on par with overall market growth. The impact of third generation investments will become more apparent in Nokia Networks in 2002, and in Nokia Mobile phones commencing in the second half of 2002.

For more information about other factors that may affect our results of operations, see ''Item 3.D Risk Factors.''

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 21, 2001, in accordance with the proposal of the nomination committee. On the same date, the Chairman and Vice Chairman were selected by the board members. Selected information with respect to these individuals is set forth below.

Board of directors

Jorma Ollila, 50

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

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.

Member of the Board of Directors of Ford Motor Company, Otava Books and Magazines Group Ltd and UPM-Kymmene Corporation. Deputy Chairman of the Board of the Confederation of Finnish Industry and Employers and member of The European Round Table of Industrialists.

Paul J. Collins, 64	*Vice Chairman* *Board member since 1998. Vice Chairman since 2000.* Vice Chairman of Citigroup Inc. 1998-2000, Vice Chairman and member of the Board of Directors of Citicorp and Citibank N.A. 1988-2000. Member of the Board of Directors of BG Group, Genuity Corporation and Kimberly-Clark Corporation.
Georg Ehrnrooth, 60	*Board member since 2000.* President and CEO of Metra Corporation 1991-2000, President and CEO of Lohja Corporation 1979-1991, employed at Oy Wärtsilä Ab 1965-1979. Chairman of the Board of Directors of Assa Abloy Corporation, Sanitec Corporation and Varma-Sampo Mutual Pension Insurance Company, and member of the Board of Directors of Oy Karl Fazer Ab, Rautaruukki Group Sandvik AB, Sampo plc and Wärtsilä Corporation. Chairman of The Centre for Finnish Business and Policy Studies (EVA).
Dr. Bengt Holmström, 52	*Board member since 1999.* *Paul A. Samuelson Professor of Economics at MIT, joint appointment at the MIT Sloan School of Management.* 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.
Robert F.W. van Oordt, 65	*Board member since 1998.* *Chairman of the Supervisory Board of Rodamco Europe N.V.* Chairman and CEO of Rodamco Europe N.V. 2000-2001, Chairman of the Supervisory Board of NKF Holding N.V. 1986-1999, Chairman of the Executive Board of NV Koninklijke KNT BT 1993-1996, Chairman of the Executive Board of Bührmann-Tetterode N.V. 1990-1993, Executive Vice President and COO, and member of the Board of Directors of Hunter Douglas Group N.V. 1979-1989. Member of the Board of Directors of Fortis Bank N.V., Schering-Plough Corporation and N.V. Union Minière S.A. and member of the Supervisory Board of Draka Holding N.V.
Marjorie Scardino, 53	*Board member since 2001.* *Chief Executive and member of the Board of Directors of Pearson plc.* Chief Executive of The Economist Group 1993-1997, President of the North American Operations of The Economist Group 1985-1993, partner in a law firm in Georgia, United States 1976-1985, founder and publisher of The Georgia Gazette 1976-1985. Member of the Board of Directors of ConAgra, Inc.
Vesa Vainio, 58	*Board member since 1993.* *Chairman of the Board of Directors of Nordea plc.* Chairman of the Board of Management and CEO of Merita Bank Ltd and CEO of Merita Ltd 1992-1997, President of Kymmene Corporation 1991-1992. Chairman of the Board of Directors of UPM-Kymmene Corporation and Vice Chairman of the Board of Directors of Wärtsilä Corporation. Chairman of the Board of The Central Chamber of Commerce of Finland.

Arne Wessberg, 58	*Board member since 2001.* *President of Yleisradio Oy (Finnish Broadcasting Company).* President of the Board of Management of the Eurosport Consortium 1998-2000 and member 1989-1997, member of the Board of Trustees of International Institute of Communications 1996-1998 and 1993-1995. Chairman of the Board of Directors of Digita Oy. President of the European Broadcasting Union (EBU) and member of the Board of Directors of the International Council of NATAS and the Confederation of Finnish Industry and Employers.

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

Group Executive Board

Jorma Ollila, 50	*Chairman and CEO of Nokia Corporation* *Group Executive Board member since 1986, Chairman since 1992.* *Joined Nokia 1985.* 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. Member of the Board of Directors of Ford Motor Company, Otava Books and Magazines Group Ltd and UPM-Kymmene Corporation. Deputy Chairman of the Board of The Confederation of Finnish Industry and Employers, and member of The European Round Table of Industrialists.
Pekka Ala-Pietilä, 44	*President of Nokia Corporation* *Group Executive Board member since 1992.* *Joined Nokia 1984.* 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 Board of Economic Information Bureau and Finnish-Japanese Chamber of Commerce.
Dr. Matti Alahuhta, 48	*President of Nokia Mobile Phones* *Group Executive Board member since 1993.* *Joined Nokia 1975-1982 and 1984.* President of Nokia Telecommunications 1993-1998, Executive Vice President of Nokia Telecommunications 1992, Senior Vice President, Public Networks of Nokia Telecommunications 1990-1992. Member of the Board of Directors of Finnair Oyj. Chairman of the Board of Federations of Finnish Electrical and Electronics Industry, Vice Chairman of the Board of The Federation of Finnish Metal, Engineering and Electrotechnical Industries, and member of the Board of The Central Chamber of Commerce of Finland and of The International Institute for Management Development (IMD).

Sari Baldauf, 45	*President of Nokia Networks* *Group Executive Board member since 1994.* *Joined Nokia 1983.* Executive Vice President of Nokia APAC 1997-1998, President, Cellular Systems of Nokia Telecommunications 1988-1996, Vice President, Business Development of Nokia Telecommunications 1987-1988. Member of the Board of International Youth Foundation and Technical Research Centre of Finland, and member of The National Committee for the Information Society Issues.
Mikko Heikkonen, 51	*Executive Vice President and General Manager, Customer Operations of Nokia Networks* *Group Executive Board member since 1998.* *Joined Nokia 1975.* President, Network Systems of Nokia Telecommunications 1997-1999, President, Network and Access Systems of Nokia Telecommunications 1995-1996, Senior Vice President, Area Management of Nokia Telecommunications 1993-1995, Senior Vice President, Cellular Systems of Nokia Telecommunications 1988-1992.
Olli-Pekka Kallasvuo, 47	*Executive Vice President, CFO of Nokia Corporation* *Group Executive Board member since 1990.* *Joined Nokia 1980.* Executive Vice President of Nokia Americas and President of Nokia Inc. 1997-1998, Executive Vice President, CFO of Nokia 1992-1996, Senior Vice President, Finance of Nokia 1990-1991. Chairman of the Board of Directors of F-Secure Corporation, Nextrom Holding S.A., Nokian Tyres plc and Sampo plc and member of the Board of Directors of Fortum Corporation.
Dr. Yrjö Neuvo, 57	*Executive Vice President, CTO of Nokia Mobile Phones* *Group Executive Board member since 1993.* *Joined Nokia 1993.* 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 the 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.
Veli Sundbäck, 55	*Executive Vice President, Corporate Relations and Trade Policy of Nokia Corporation* *Group Executive Board member since 1996.* *Joined Nokia 1996.* 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. Vice Chairman of the Board of the International Chamber of Commerce, Finnish Section and Chairman of the Trade Policy Committee of The Confederation of Finnish Industry and Employers.
Anssi Vanjoki, 44	*Executive Vice President of Nokia Mobile Phones* *Group Executive Board member since 1998.* *Joined Nokia 1991.*
	Senior Vice President, Europe & Africa of Nokia Mobile Phones 1994-1999, Vice President, Sales of Nokia Mobile Phones 1991-1994, employed at Suomen 3M Oy 1980-1990.

Of Nokia's strategic countries, Matti Alahuhta is responsible for Nokia's operations in Japan, Sari Baldauf for China and Olli-Pekka Kallasvuo for the United States.

6.B Compensation

Compensation to the Members of the Board of Directors and the Group Executive Board

For the year ended December 31, 2000, the aggregate compensation of all directors and executive officers that are members of the board of directors or the Group Executive Board, which included 18 persons, was approximately EUR 6.8 million. Of this amount, approximately EUR 1.9 million was paid to the members of the Group Executive Board pursuant to bonus arrangements. Non-executive members of the board of directors do not receive bonuses. The bonuses are paid based on Nokia's executive incentive scheme, which is performance-based. The compensation in the case of executive officers that are members of the Group Executive Board was mainly in the form of salaries and in the form of salaries and/or directors' fees in the case of directors.

Of the aggregate compensation of EUR 6.8 million, Jorma Ollila received, as remuneration for his services as CEO in 2000, a fixed salary of EUR 1,070,000, as well as a bonus of EUR 357,000 for 1999 and a bonus of EUR 160,500 for the first half of 2000. Pekka Ala-Pietilä received, as remuneration for his services as President in 2000, a fixed salary of EUR 570,600, as well as a bonus of EUR 159,000 for 1999 and a bonus of EUR 80,600 for the first half of 2000.

The Annual General Meeting held on March 22, 2000, resolved that the annual retainers to board members for 2000 be EUR 109,000 for the Chairman, EUR 85,000 for the Vice Chairman and EUR 61,000 for each other member, retaining remunerations at 1999 levels. This Annual General Meeting further resolved that the retainers be partly paid in shares of our stock, to be acquired from the market in compliance with the practice adopted in 1999. In line with this resolution the Chairman received 840 shares, the Vice Chairman 640 shares, and each other member 460 shares. The remainder of the annual retainers, together with meeting fees of EUR 420 per meeting, were paid in cash.

The retainers payable to board members for 2001 were resolved by our shareholders at the Annual General Meeting held on March 21, 2001, in accordance with the proposal by the nomination committee, as follows: EUR 130,000 for the Chairman, EUR 100,000 for the Vice Chairman and EUR 75,000 for each other member, to be paid partly in shares of our stock and partly in cash. In line with this resolution, the Chairman received 1,530 shares, the Vice Chairman 1,178 shares, and each other member 882 shares. No meeting fee is payable during 2001.

6.C Board Practices

General

The board decides on matters that, in relation to Nokia's activities, are significant in nature. These types of matters include confirmation of strategic guidelines, approval of the periodic plans and decisions on major investments and divestments. The board appoints the CEO, the President, the Chairman and the members of the Group Executive Board of the company. The board also determines their remuneration. The roles of the board, its Chairman and its subcommittees are defined in the board's Rules of Procedure.

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 21, 2001, the board is composed of eight members. The board elects a Chairman and a Vice Chairman from among its members for one term at a time. On March 21, 2001 the Board resolved that Jorma Ollila will continue to act as Chairman and Paul J. Collins will continue to act as Vice Chairman.

Committees of the Board of Directors

The personnel committee monitors our personnel policy and oversees its implementation, including the development of compensation policies. The committee also prepares policy matters and principles relating to remuneration to be considered by our board. As of March 21, 2001, the personnel committee is composed of the following members: Paul J. Collins, Chairman, Bengt Holmström, Marjorie Scardino and Vesa Vainio.

The audit committee consists of a minimum of three independent and qualified non-executive members of the board. The purpose of the committee is to assist the board in fulfilling its responsibilities to oversee our financial reporting processes, including monitoring the integrity of our financial statements and the performance of our internal and external auditors. The committee assembles regularly in each quarter. As of March 21, 2001, the audit committee is composed of the following members: Robert F.W. van Oordt, Chairman, Georg Ehrnrooth and Arne Wessberg.

The nomination committee prepares proposals for the Annual General Meeting concerning the composition of the board and the remuneration of and remuneration principles applicable to board members. It further monitors issues and practices related to corporate governance and proposes necessary actions in respect of those issues and practices. As of March 21, 2001, the nomination committee is composed of the following members: Paul J. Collins, Chairman, Bengt Holmström and Vesa Vainio.

Service Contracts of the Chairman and CEO and of the President

We have service contracts with Jorma Ollila and Pekka Ala-Pietilä of indefinite duration. These contracts include various terms that provide for retention of unvested stock options and severance payments in the event of termination other than for cause.

6.D Employees

At December 31, 2000, Nokia employed 60,289 people, compared with 55,260 at December 31, 1999. The average number of personnel for 2000 and 1999 was 58,708 and 51,177, respectively, divided according to their activity and geographical location as follows:

	2000	1999
Nokia Networks	23,508	22,804
Nokia Mobile Phones	27,353	20,975
Nokia Ventures Organization	2,222	1,256
Common Group Functions	5,625	6,142
Nokia Group	**58,708**	**51,177**
Finland	24,495	23,155
Other European countries	14,365	12,997
Americas	11,491	8,818
Asia-Pacific	8,357	6,207
Nokia Group	**58,708**	**51,177**
Nokia Corporation	1,730	1,663

Less than 50% of our employees are unionized and our management believes that we have good relations with our employees and with the labor unions.

6.E Share Ownership

Share Ownership by the Members of the Board of Directors and the Group Executive Board

The following tables set forth the number of shares, ADSs, warrants and stock options, and the number of shares to which these warrants and stock options relate, held by members of the board of directors and the Group Executive Board as of May 31, 2001. The warrants and stock options were issued pursuant to the Nokia Stock Option Plans 1997 and 1999. Each warrant granted under Nokia Stock Option Plan 1997 is exercisable for sixteen shares, and each stock option granted under Nokia Stock Option Plan 1999 is exercisable for four shares, during the respective exercise periods. No warrants or stock options have been issued to non-executive members of the board of directors. No new warrants or stock options were issued to the executive members of the board of directors or the members of the Group Executive Board during 2000.

Board of Directors	Number of Nokia shares and ADSs held on May 31, 2001[1]
Jorma Ollila[2]	65,006
Paul J. Collins	83,306
Georg Ehrnrooth (held personally or through a company that he controls)	321,342
Bengt Holmström	3,470
Robert F.W. van Oordt	2,830
Marjorie Scardino	882
Vesa Vainio	14,130
Arne Wessberg	882
All members of the Board of Directors	491,848

[1] The numbers provided in the table include not only shares owned as compensation for services rendered as a member of the board of directors or the Group Executive Board, but also shares purchased with a member's own funds.

[2] Mr. Ollila also owns warrants and stock options to subscribe for 3,600,000 shares.

Group Executive Board	Shares[1]	Warrants and stock options	Shares to be received upon exercise of warrants and stock options
Jorma Ollila	65,006	750,000	3,600,000
Pekka Ala-Pietilä	9,600	385,000	1,840,000
Matti Alahuhta	13,200	270,000	1,380,000
Sari Baldauf	103,200	270,000	1,380,000
Mikko Heikkonen	12,000	173,500	976,000
Olli-Pekka Kallasvuo	—	255,000	1,320,000
Yrjö Neuvo	39,540	195,000	1,080,000
Veli Sundbäck	97,600	235,000	1,360,000
Anssi Vanjoki	16,000	193,500	1,056,000
All members of the Group Executive Board	356,146	2,727,000	13,992,000

[1] The numbers provided in the table include not only shares owned as compensation for services rendered as a member of the board of directors or the Group Executive Board, but also shares purchased with a member's own funds.

On May 31, 2001, the total of warrants and stock options exercisable for 13,992,000 shares held in the aggregate by members of the Group Executive Board represented less than 1% of the issued share capital and voting rights in Nokia Corporation. On May 31, 2001, not all of the warrants and stock options included in the table above were exercisable.

On May 31, 2001, the aggregate interest of the members of the board of directors and the Group Executive Board in our outstanding share capital was 782,988 shares, representing less than 1% of the issued share capital and voting rights in Nokia Corporation.

Nokia Stock Option Plans

In 1994, FIM 200,000 principal amount of 2% bonds with warrants attached were issued to Nokia's management under the Nokia Stock Option Plan 1994. The bonds were fully repaid by December 31, 1999. By the time that the Nokia Stock Option Plan 1994 was terminated on January 31, 2000, a total of 12.5 million shares with a par value of EUR 0.06 each had been subscribed for under the plan. The Nokia Stock Option Plan 1994 had been offered to approximately 50 persons.

In 1995, FIM 1.45 million principal amount of non-interest bearing bonds with A and B warrants attached were issued to Nokia's management under the Nokia Stock Option Plan 1995. The bonds were fully repaid by December 31, 2000. By the time that the Nokia Stock Option Plan 1995 was terminated on January 31, 2001, a total of 74.9 million shares with a par value of EUR 0.06 each were subscribed for under the plan. The Nokia Stock Option Plan 1995 had been offered to approximately 350 persons.

In 1997, FIM 2,375 million principal amount of non-interest bearing bonds with A, B and C warrants attached were issued to key personnel under the Nokia Stock Option Plan 1997. The bonds were fully repaid by December 31, 2000. After giving effect to the four-for-one share split that was effected in April 2000 and the two-for-one share splits effected in 1999 and 1998, the warrants relating to these bonds confer the right to subscribe for up to a total of 152 million shares at an aggregate exercise price of FIM 307 per sixteen shares during defined periods from December 1, 1997, through January 31, 2003. The Nokia Stock Option Plan 1997 covers approximately 2,000 persons. The A and B warrants have been listed on the Helsinki Exchanges as one security since November 1, 1999. We will apply to include the C warrants in the listing as of November 1, 2001.

In 1999, a total of 36 million stock options, consisting of 12 million A options, 12 million B options and 12 million C options, were issued to key personnel under the Nokia Stock Option Plan 1999. After giving effect to the four-for-one share split that was effected in April 2000, the stock options confer the right to subscribe for up to a total of 144 million shares. The aggregate exercise price per four shares is EUR 67.55 under an A option, EUR 225.12 under a B option and EUR 116.48 under a C option. The stock options are exercisable during defined periods from April 1, 2001, through December 31, 2004. The Nokia Stock Option Plan 1999 covers more than 16,000 persons. The A options have been listed on the Helsinki Exchanges since April 2, 2001.

As of May 31, 2001, an aggregate of 151,184,836 shares had been issued pursuant to the exercise of 8,901,763 warrants and stock options issued in connection with the Nokia Stock Option Plans 1994, 1995, 1997 and 1999. The average exercise price was FIM 13.89 per share.

The Annual General Meeting held on March 21, 2001, resolved to issue 145 million stock options to key personnel under the Nokia Stock Option Plan 2001. Of these stock options 12.5 million are designated as "2001A" options, 37.5 million as "2001B" options, 14.5 million as "2002A" options, 43.5 million as "2002B" options, and 37 million as "2001C" options. The 2001B and 2002B options are each divided into twelve sub-categories of equal size. The 2001C options will be divided into sub-categories at a later date. Each stock option confers the right to subscribe for one share. The exercise prices of the options will be determined on the basis of the trade volume weighted average price of Nokia shares on the Helsinki Exchanges during a specified period, as determined based on the sub-category of the option. The stock options are exercisable, based on the relevant sub-category, during various exercise periods, the earliest of which begins on July 1, 2002, and the latest of which ends on June 30, 2008.

Other Employee Plans Related to Equity

In 1999, we introduced a stock option plan available to Nokia employees in the United States and Canada: the Nokia Holding Inc. 1999 Stock Option Plan. Each stock option granted before December 31, 2000, entitles the holder to purchase one Nokia ADS during defined periods between April 1, 2001, and five years from the date of grant, at prices of between $20.50 and $54.50 per ADS. On May 31, 2001, a total of 916,004 stock options granted to approximately 700 employees were outstanding under this plan. The maximum number of ADSs under the plan, representing shares with a par value of EUR 0.24 per share, that may be issued is 2,000,000. The description in this paragraph does not reflect the four-for-one share split that was effected in April 2000. This plan does not result in an increase of the share capital of Nokia Corporation.

In 2000, we introduced an Employee Share Purchase Plan, which permits all full-time Nokia employees located in the United States to acquire Nokia ADSs at a 15% discount. The ADSs to be purchased are funded through monthly payroll deductions from the salary of the participants and the ADSs are purchased on a monthly basis. As of May 31, 2001, a total of approximately 194,216 ADSs had been purchased under the plan and there were a total of 1,393 participants. This plan does not result in an increase of the share capital of Nokia Corporation.

In connection with the acquisition of Ipsilon, we assumed Ipsilon's 1995 stock option plan, referred to as the "Ipsilon Plan." The former employees, officers and directors of Ipsilon are eligible to participate in the Ipsilon Plan. The maximum aggregate number of ADSs that may be issued pursuant to the Ipsilon Plan is 3,365,264. As of May 31, 2001, options to purchase 1,220,143 ADSs were outstanding at an average exercise price of $16.46 per ADS. This plan does not result in an increase of the share capital of Nokia Corporation.

In connection with some acquisitions effected in the United States, we have replaced stock options held by the employees, officers or consultants of the acquired companies 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 3,350,000. As of May 31, 2001, 1,749,159 options to purchase 1,749,159 ADSs were outstanding at an average exercise price of $20.64 per ADS. These arrangements do not result in an increase of the share capital of Nokia Corporation.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

7.A Major Shareholders

Janus Capital Corporation informed us on December 9, 1999, that its holdings in Nokia shares had exceeded the limit of 5% of the total voting rights and the share capital of Nokia Corporation. Part of its holding is in the form of ADSs and part in the form of ordinary shares. As of May 31, 2001, Janus Capital Corporation has not advised us that its ownership position has decreased below 5% nor reached 10% of our total share capital. Janus Capital Corporation does not have any different voting rights than other shareholders. Its address is 100 Fillmore Street, Denver, Colorado, 80206-4923, United States.

No other persons are known by Nokia to hold 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 the company.

American Depositary Share Program

In July 1994, we established a program for ADSs evidenced by ADRs issued by Citibank N.A., acting as the Depositary, upon deposit of shares or evidence of rights to receive shares with the Depositary.

According to information provided by the Depositary, as of May 31, 2001, there were 21,115 registered U.S. holders of ADSs. The number of ADSs outstanding on May 31, 2001, was 1,578,851,651. As of December 31, 2000, there were 430 directly registered U.S. holders of shares, not holding these shares through brokers or other nominees, whose holdings constituted less than 1% of the total outstanding shares. Since most of the shares and ADSs are held by brokers and other nominees, the numbers provided above are not representative figures of the actual number of U.S. beneficial owners or of the number of shares or ADSs beneficially owned by U.S. persons. Based on information available at ADP, the number of U.S. beneficial owners of ADSs as of December 31, 2000, exceeded 1.5 million persons and legal entities.

A Dividend Reinvestment and Direct Purchase Plan for Nokia ADSs was implemented in December 1997. This plan is designed to provide owners of ADSs and other interested investors that participate in the plan a convenient way to accumulate and increase their investments in ADSs and to reinvest all or a portion of their cash dividends or optional cash investments in additional ADSs. The plan is sponsored and administered by the Depositary and is not available to persons located outside the United States. We have consented to the establishment of the plan by the Depositary, but do not, and should not be deemed to, sponsor or administer the plan, nor do we assume any obligation or liability for the operation of the plan.

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 the company 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 Note 29 to the consolidated financial statements.

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 pages F-1 and F-2 for the audit reports of our accountants, each entitled "Report of Independent Accounts."

8.A.4 We have complied with the requirement that our audited financial statements not be older than 15 months.

8.A.5 Not applicable.

8.A.6 See Note 2 to the consolidated financial statements for the amount of our export sales.

8.A.7 Nokia is party to routine litigation incidental to the normal conduct of our business. Nokia 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.

Nokia and several other manufacturers or distributors of mobile phones have been named as defendants in a series of class action suits filed in various U.S. jurisdictions. The actions have been brought on behalf of a purported class of persons in the states of Maryland, New York, and Pennsylvania, and in Louisiana for persons in the United States as a whole consisting of all individuals that purchased cellular phones without a headset. In general, the complaints in the actions allege that the defendants should have included a headset with every hand held cellular telephone as a means of reducing any potential health risk associated with the telephone's use and asserts causes of action based on negligence, fraud and misrepresentation. The relief sought by the complaint includes unspecified amounts of compensation for phone and headset costs, and attorneys' fees.

In addition, in 2001, Nokia was named as a defendant in a case in Fulton County, Georgia in which the plaintiff alleges that the use of a hand held cellular telephone was the cause of the plaintiffs brain tumor.

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

Nokia has guaranteed financing provided to TELSIM Mobil Telekomuniksyon Hiz.A.S. in Turkey. The total amount of the financing outstanding was USD 719 million, of which approximately USD 240 million, including accrued interest, is overdue. We have arranged for a default notice to be delivered to TELSIM, which declares all amounts outstanding under the financing, including interest, to be due and payable and cancels the remaining commitments. We also have arranged for the matter to be submitted to arbitration proceedings, in accordance with the provisions contained in the financing documentation. Nokia's collateral for the vendor financing provided to TELSIM is the ability to receive and sell stock of TELSIM, in addition to other creditor remedies. A portion of the overdue loans had been provided for as of December 31, 2000. Based upon information currently available, our management expects that the arbitral award will confirm the merits of the claim.

8.A.8 See "Item 3.A Selected Financial Data — Dividends" for a discussion of Nokia's dividend policy.

8.B Significant Changes

No significant changes have occurred since the date of the annual financial statements included in this Form 20-F. See "Item 5.D Trend Information — Business Environment and Forecasts."

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, 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 each of 1998 and 1999, Nokia effected a two-for-one share split, effective in public trading on April 16, 1998, and April 12, 1999, respectively. 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 1998 and 1999 have been adjusted accordingly.

	Helsinki Exchanges				New York Stock Exchange	
	Price per K share		Price per A share		Price per ADS	
	High	Low	High	Low	High	Low
	(EUR)		(EUR)		($)	
1996	2.81	1.39	2.82	1.37	3.65	1.98
1997	5.47	2.72	5.75	2.74	6.36	3.48
1998	13.41	3.89	13.41	3.87	15.60	4.26
1999(1)						
First Quarter	—	—	18.64	13.74	19.55	15.94
Second Quarter	—	—	21.45	18.48	22.89	17.44
Third Quarter	—	—	23.85	18.25	24.53	19.69
Fourth Quarter	—	—	45.00	21.10	47.77	22.31
Full Year	—	—	45.00	13.74	47.77	15.94
2000						
First Quarter	—	—	59.81	39.50	57.50	38.25
Second Quarter	—	—	64.88	48.08	61.88	45.00
Third Quarter	—	—	60.60	42.50	56.38	38.13
Fourth Quarter	—	—	57.66	35.81	51.38	29.44
Full Year	—	—	64.88	35.81	61.88	29.44
Most recent six months						
December 2000	—	—	57.66	45.39	51.38	39.94
January 2001	—	—	46.50	37.12	44.69	34.35
February 2001	—	—	36.14	23.58	34.37	21.34
March 2001	—	—	30.90	23.40	27.34	21.45
April 2001	—	—	37.30	25.10	34.19	21.25
May 2001	—	—	39.40	34.18	35.01	28.51

(1) K and A shares were consolidated on April 9, 1999, into one class of shares.

9.B Plan of Distribution

Not applicable.

9.C Market

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 ordinary shares. In addition, the shares are listed on the London, Frankfurt, Stockholm and Paris stock exchanges.

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 registered by the Finnish Trade Register under number 2.263. Nokia's corporate purpose under Article 1 of the articles of association is to engage in the telecommunications industry and other branches 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. Powers of a director may not, according to the main rule, be borrowed. 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 — Dividends."

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.

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 register of shareholders as of the record date of the meeting. According to an amendment to Finnish law effective as of January 1, 2001, the record date is the tenth calendar day preceding the meeting. To be entered into the 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 blocking and voting deadline as defined in the proxy material issued by the Depositary, a proxy including the name, address, and social security number or another corresponding personal identification number of, and the number of shares to be voted by, the holder of the ADSs, in addition to 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.

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 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 $1/20$, $1/10$, $3/20$, $1/5$, $1/4$, $1/3$, $1/2$ or $2/3$ 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 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 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 there are, from the company's perspective, important financial grounds.

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 foreign exchange control restrictions on the payment of dividends on the shares or the conduct of Nokia's operations.

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 United States or Finnish law, and in any double taxation convention or treaty between the United States and Finland, occurring after that date.

For purposes of this summary, beneficial owners of ADSs that are considered residents of the United States for purposes of the current income tax convention between the United States and Finland, referred to as the "Treaty," and are not subject to an anti-treaty shopping provision that applies in limited circumstances, are referred to as "United States Holders." Beneficial owners that are citizens or residents of the United States, corporations organized under U.S. law, and U.S. partnerships, estates or trusts (to the extent their income is subject to U.S. tax either directly or in the hands of partners or beneficiaries) generally will be considered to be residents of the United States under the Treaty. Special rules apply to United States 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.

Because this summary is not exhaustive of all possible tax considerations — such as situations involving persons that are dealers or whose functional currency is not the U.S. dollar — holders of shares that are United States 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 tax consequences, of their ownership of ADSs and the underlying shares by consulting their own tax advisors. Holders of ADSs are also urged to consult their own tax advisors as to the overall tax consequences of their ownership of ADSs and the underlying shares. 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, United States Holders of ADSs will be treated as the owners of the underlying shares that are represented by those ADSs. The United States federal income tax consequences to United States Holders of ADSs, as discussed below, apply as well to United States Holders of shares.

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

Taxation of Cash Dividends

For United States federal income tax purposes, the gross amount of dividends paid to United States Holders of ADSs, including any related Finnish withholding tax, will be treated as gross income to the holder at the time it is received. Dividends of this type will not be eligible for the dividends received deduction allowed to corporations under Section 243 of the Code. The amount includable in income will equal the U.S.

dollar value of the payment, determined at the time such payment is received by the custodian, regardless of whether the payment is in fact converted into U.S. 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 U.S. dollars will be treated as ordinary income or loss to such holder.

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

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

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

Tax on Sale or Exchange

A United States Holder will recognize taxable gain or loss on any sale or exchange of ADSs. If the ADSs are held as a capital asset, this gain or loss will be long-term capital gain or loss if, at the time of the sale or exchange, the ADSs have been held for more than one year. Any capital gain, for foreign tax credit purposes, generally will constitute United States source income. United States Holders should consult their tax advisors regarding the source of loss recognized on the sale or other disposition of ADSs. In the case of a United States Holder that is an individual, any capital gain generally will be subject to U.S. federal income tax at preferential rates if specified minimum holding periods are met.

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

Backup Withholding and Information Reporting

The 31% "backup" withholding and information reporting requirements apply to payments of dividends with respect to ADSs and to proceeds from the sale of ADSs if the holder fails to furnish his taxpayer identification number, which can be a social security number or employer identification number, to certify that he is not subject to backup withholding, or otherwise to comply with the applicable requirements of the backup withholding rules. Any amount withheld under these backup-withholding rules will be creditable against the holder's federal income tax liability.

Some holders, including, among others, corporations, are not subject to the backup withholding and information reporting requirements. Backup withholding and information reporting will generally not apply to dividends paid to a holder that is not a United States Holder at an address outside the United States, provided that neither the company nor the Depositary has actual knowledge that the payee is a United States person.

The payments of the proceeds of the disposition of ADSs to or through the foreign office of a foreign broker will not be subject to backup withholding and will generally not be subject to information reporting. The payment of the proceeds of this type of disposition to or through the United States office of a broker or a foreign office of a United States broker will be subject to backup withholding and information reporting unless the owner certifies, among other things, its status as a holder that is not a United States Holder, or otherwise establishes an exemption. Information reporting will apply, however, to dispositions through a foreign office of a foreign broker that is either a "controlled foreign corporation" for United States federal income tax purposes or a person 50% or more of whose gross income from all sources for a selected three-year period was effectively connected with a United States trade or business, unless the broker had documentary evidence in its files that the owner is a holder that is not a United States Holder, or otherwise establishes an exemption.

Finalized Treasury regulations have generally expanded the circumstances under which information reporting and backup withholding may apply for payments made after December 31, 1999. Holders of shares and ADSs should consult their tax advisors regarding the application of the backup withholding and information reporting rules.

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, and at their regional offices located at 7 World Trade Center, 13th Floor, New York, New York 10048 and the Northwest Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511.

10.I Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Financial Risk Management

The continuously evolving financial markets, together with a rapidly changing business environment, create a challenging environment for Nokia's Treasury function. The overall objective of the Treasury function is twofold: to guarantee cost efficient funding of the group and group companies, and to identify, evaluate and hedge financial risks in close cooperation with the business groups. Nokia has Treasury centers in Geneva, Singapore, Beijing and Dallas, and a Corporate Treasury unit in Helsinki. This international organization enables Nokia to provide the group companies with financial services according to local needs and requirements. Treasury aims at minimizing the adverse effects caused by fluctuations in the financial markets on the profitability of the underlying businesses and thus on the financial performance of Nokia.

Treasury operations are controlled by policies approved by senior management. Treasury policy provides principles for overall financial risk management in Nokia. Operating policies cover specific areas such as foreign exchange risk, interest rate risk, use of derivative financial instruments and liquidity and credit risk. Basic operating policy in Treasury is risk averse. Financial transactions that are not related to the business are not entered into. Business groups have detailed standard operating procedures covering, for example, foreign exchange exposure management.

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 purchase and sale commitments, give rise to foreign exchange exposure. Foreign exchange exposures are managed against various local currencies because of our increasing production and sales outside the eurozone. Due to our rapid growth, currency combinations may also change within the financial year. The most significant sales currencies were the U.S. dollar, UK pound sterling and Australian dollar. In general, the appreciation of the euro against other currencies has an adverse effect on our sales and operating profit in the medium to long term, while depreciation of the euro has a positive effect. The only significant purchasing currency is Japanese yen.

According to our foreign exchange policy guidelines, material open 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 used to hedge foreign exchange risk have a duration of less than a year.

Nokia uses Value-at-Risk methodology, or VaR, to assess foreign exchange risk. The VaR figure represents the potential losses for a portfolio from adverse changes in market factors, for a specified time period and confidence level based on historical data. To correctly take into account the non-linear value changes of various derivative instruments, we use Monte Carlo simulation. Volatilities and correlations are calculated from a set of daily data covering a one-year period. The VaR-based net foreign exchange transaction risk figure, after hedging transactions within the Nokia group of companies, with a one-week horizon and 95% confidence level was EUR 12.9 million at December 31, 2000, compared to EUR 6.0 million at December 31, 1999. The average VaR figure in 2000 was EUR 9.1 million. The VaR figure fluctuated between EUR 1.8 million and EUR 13.7 million during 2000. The comparative VaR figures for 1999 have been recalculated using a 95% confidence level. In 1999, the average VaR figure was EUR 7.8 million, and it fluctuated between EUR 3.5 million and EUR 13.0 million.

Since Nokia has subsidiaries outside the eurozone, the euro-denominated value of our equity 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 consolidation of group companies. We use, from time to time, foreign exchange contracts and foreign currency-denominated loans to hedge our equity exposure arising from foreign net investments. Exchange gains and losses resulting from the hedging transactions are offset against the translation differences arising from consolidation and are recorded in shareholders' equity.

Interest Rate Risk

We are exposed to interest rate risk either through market value fluctuations of balance sheet items, called price risk, or changes in interest income or expenses, called 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 us to interest rate risk. Group companies are responsible for managing their short-term interest rate exposure. Our long-term interest rate exposure is monitored and managed by Corporate Treasury. Due to our current balance sheet structure, we emphasize managing the interest rate risk of investments.

We hedge our interest rate exposure by using derivative financial instruments, such as interest rate swaps, forwards and options. The maturities of interest rate swaps are usually less than five years. Investment portfolios are benchmarked and measured with VaR against a one-year investment horizon in order to facilitate internal performance measurement.

Prior to January 1, 2000, Nokia used sensitivity analysis to report interest rate risk. From January 1, 2000, we use VaR to assess interest rate risk, specifically, variance-covariance methodology. Volatilities and correlations are calculated from a set of daily data covering a minimum period of one year. The VaR-based net interest rate risk figure, after hedging transactions within the Nokia group of companies, with a one week horizon and 95% confidence level was EUR 2.9 million at December 31, 2000, compared to EUR 3.2 million at December 31, 1999. The average VaR figure in 2000 was EUR 3.1 million and the VaR figure fluctuated between EUR 1.8 million and EUR 4.7 million.

Equity Price Risk

Nokia has a number of strategic minority investments in publicly traded companies. These investments are held for purposes other than trading. The market value of the equity investments at December 31, 2000, was EUR 140 million, compared to EUR 180 million at December 31, 1999. A 10% adverse move in equity prices would have decreased the market value of the investments by EUR 14 million. The decrease in 1999 from this type of adverse move would have been EUR 18 million. There are currently no outstanding derivative financial instruments designated as hedges of these equity investments.

In addition to the listed equity holdings, we invest in private equity through Nokia Venture Partners funds. The value of these equity investments at December 31, 2000, was USD 121 million, compared to USD 42 million at December 31, 1999.

Nokia is exposed to equity price risk on social security costs relating to stock option plans. We hedge this risk by entering into cash-settled equity swaps.

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. [RESERVED]

ITEM 16. [RESERVED]

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:

ITEM 19. EXHIBITS

1. Articles of Association of Nokia Corporation

8. List of significant subsidiaries

10.1 Consent of PricewaterhouseCoopers, Helsinki, Finland, authorized public accountants

10.2 Consent of KPMG, Helsinki, Finland, authorized public accountants

GLOSSARY OF TERMS

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.

ATM (Asynchronous Transfer Mode). Switching technology for high-speed transport (up to 622 megabytes per second) and switching of various types of data, voice and video signals.

Base station. Fixed transceiver (transmitter and receiver) equipment used for communicating with mobile phones in a mobile network. A base station may cover one or more cells or a part of a cell.

Bluetooth. Short range radio technology that expands wireless connectivity to personal and business mobile devices by enabling users to connect their mobile phones, computers, printers, digital cameras, network access points and other electronic devices to one another without cables.

Broadband Network. A network that delivers higher bandwidth by using transmission channels capable of supporting data rates greater than the primary rate of 9.6 Kbit/s.

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

CDMA (Code Division Multiple Access). A continuous digital transmission technology that uses a coding system to mix discrete voice signals together during transmission and then separates the signals at the end of transmission.

Cellular network. A mobile telephone network consisting of switching centers (digital exchanges), radio base stations and transmission equipment. A cellular telephone network services an area that is divided into a number of smaller regions, called cells. This facilitates a continuous connection between the base stations and the mobile phones. The connection is maintained even if the mobile phone user moves from the area covered by one base station to the area of another base station.

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

DSL (Digital Subscriber Line). A method of transmission utilized to transmit high-speed data on any existing copper line or local loop to a subscriber's telephone or other end user device.

Digital. A signaling technique in which a signal is encoded into digits for transmission.

DVB (Digital Video Broadcasting). A standard for digital satellite, cable and terrestrial video broadcasting.

EDGE (Enhanced Data Rates for Global Evolution). A technology to boost cellular network capacity and increase data rates up to 384 kbits/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 Communication). A digital cellular network that operates in the 900 MHz frequency band, the frequency adopted for use in most European and Asian countries, as well as the 1800 MHz band.

GSM 1900 System. A GSM-based cellular system that operates in the 1900 MHz frequency band (also referred to as PCS 1900 or DCS 1900).

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

ISP (Internet Service Provider). A company that provides access to the Internet and World Wide Web via a fixed or mobile network.

Iu Interface. An interface standardized by the Third Generation Partnership Program. It enables multi-vendor interconnection between a core network and a radio network.

LAN (Local Area Network). A computer network that spans a small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN).

MSP (Managed Service Provider). A company that manages information technology services for other companies by delivering outsourced IT management and problem resolution for e-business and mission-critical systems. MSPs ordinarily provide and manage their services remotely using an interactive Web page as the user interface.

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.

Platform, platform concept. A basic system on which different applications can be developed.

TCP/IP (Transmission Control Protocol/Internet Protocol). A public transmission protocol, originally defined by the U.S. 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.

3G. Third generation communications technology.

VPN (Virtual Private Network). A private network built using a public network as a base.

WAP (Wireless Application Protocol). A global, license-free and platform-independent protocol designed for Internet content and advanced telephony services on digital cellular phones and other wireless terminals.

WCDMA (Wideband Code Division Multiple Access). A digital transmission technology based on CDMA and planned to be used as the air interface access method in the future third generation mobile systems.

xDSL. Various forms of Digital Subscriber Line technologies.

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REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Shareholders of
NOKIA CORPORATION

We have audited the accompanying consolidated balance sheet of Nokia Corporation and Subsidiaries as of December 31, 2000, and the related consolidated statements of profit and loss and cash flow for the year ended December 31, 2000, all expressed in euro. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. 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 financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nokia Corporation and Subsidiaries as of December 31, 2000 and the consolidated results of their operations and cash flows for the year ended December 31, 2000, in conformity with International Accounting Standards.

International Accounting Standards vary in certain respects from accounting principles generally accepted in the United States. The application of the latter would have affected the determination of consolidated net profit for the year ended December 31, 2000, and the determination of consolidated shareholders' equity at December 31, 2000, to the extent summarized in Note 36 to the consolidated financial statements.

Espoo, Finland
January 30, 2001

Pricewaterhouse Coopers Oy
Authorized Public Accountants

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Shareholders of
NOKIA CORPORATION

We have audited the accompanying consolidated balance sheet of Nokia Corporation and Subsidiaries as of December 31, 1999, and the related consolidated statements of profit and loss and cash flow for each of the two years in the period ended December 31, 1999, all expressed in euro. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Finland, which are substantially the same as those followed in the 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 financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nokia Corporation and Subsidiaries as of December 31, 1999, and the consolidated results of their operations and cash flows for each of the two years in the period ended December 31, 1999, in conformity with International Accounting Standards.

International Accounting Standards vary in certain respects from accounting principles generally accepted in the United States. The application of the latter would have affected the determination of consolidated net profit for each of the two years in the period ended December 31, 1999, and the determination of consolidated shareholders' equity at December 31, 1999, to the extent summarized in Note 36 to the consolidated financial statements.

Espoo, Finland
February 1, 2000

Lars Blomquist
Authorized Public Accountant
PricewaterhouseCoopers

Eric Haglund
Authorized Public Accountant
KPMG

NOKIA CORPORATION AND SUBSIDIARIES

Consolidated Profit and Loss Accounts
Financial year ended December 31

	Note	2000	1999	1998
		EURm	EURm	EURm
Net sales		30,376	19,772	13,326
Cost of sales		(19,072)	(12,227)	(8,299)
Research and development expenses		(2,584)	(1,755)	(1,150)
Selling, general and administrative expenses	6	(2,804)	(1,811)	(1,368)
Amortization of goodwill		(140)	(71)	(20)
Operating profit	2, 4, 5, 6, 7 and 8	5,776	3,908	2,489
Share of results of associated companies	30	(16)	(5)	6
Financial income and expenses	9	102	(58)	(39)
Profit before tax and minority interests		5,862	3,845	2,456
Tax	10	(1,784)	(1,189)	(737)
Minority interests		(140)	(79)	(39)
Profit before cumulative effect of change in accounting policies		3,938	2,577	1,680
Cumulative prior year net effect of change in accounting policies		—	—	70
Net profit		3,938	2,577	1,750

	Note	2000	1999	1998
		EUR	EUR	EUR
Earnings per share[1]	26			
Profit before cumulative effect of change in accounting policies				
Basic		0.84	0.56	0.37
Diluted		0.82	0.54	0.36
Cumulative effect of change in accounting policy				
Basic		—	—	0.01
Diluted		—	—	0.01
Net Profit				
Basic		0.84	0.56	0.38
Diluted		0.82	0.54	0.37

	Note	2000	1999	1998
Average number of shares (000's shares)[1]	26			
Basic		4,673,162	4,593,761	4,553,364
Diluted		4,792,980	4,743,184	4,693,204

The 1998 Consolidated Profit and Loss Account was converted from FIM to EUR using the conversion ratio announced on December 31, 1998.

(1) Restated to reflect share splits.

See Notes to Consolidated Financial Statements

NOKIA CORPORATION AND SUBSIDIARIES

Consolidated Balance Sheets
December 31

	Note	2000 EURm	1999 EURm
ASSETS			
Fixed assets and other non-current assets			
Intangible assets	11	1,994	838
Property, plant and equipment	12	2,732	2,031
Investments in associated companies	13	61	76
Investments in other companies	13	150	68
Deferred tax assets	21	401	257
Other assets	14	1,050	217
		6,388	3,487
Current assets			
Inventories	15	2,263	1,772
Receivables, less allowances for doubtful accounts (2000: EUR 295 million, 1999: EUR 87 million)	16	7,056	4,861
Short-term investments	17	2,774	3,136
Bank and cash		1,409	1,023
		13,502	10,792
Total assets		19,890	14,279
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity			
Share capital		282	279
Share issue premium		1,695	1,079
Treasury shares, at cost		(157)	(24)
Translation differences		347	243
Retained earnings	19	8,641	5,801
		10,808	7,378
Minority interests		177	122
Long-term liabilities	20		
Long-term interest-bearing liabilities		173	269
Deferred tax liabilities	21	69	80
Other long-term liabilities		69	58
		311	407
Current liabilities			
Short-term borrowings	22	1,069	792
Current portion of long-term debt	20	47	1
Accounts payable		2,814	2,202
Accrued expenses	23	2,860	2,026
Provisions	24	1,804	1,351
		8,594	6,372
Commitments and contingencies	27		
Total shareholders' equity and liabilities		19,890	14,279

See Notes to Consolidated Financial Statements

NOKIA CORPORATION AND SUBSIDIARIES

Consolidated Cash Flow Statements
Financial year ended December 31

	Note	2000 EURm	1999 EURm	1998 EURm
Cash flow from/(used in) operating activities				
Operating profit		5,776	3,908	2,489
Adjustments, total	31	967	597	501
Operating profit before change in net working capital		6,743	4,505	2,990
Change in net working capital	31	(1,377)	(21)	(451)
Cash generated from operations		5,366	4,484	2,539
Interest received		255	189	134
Interest paid		(115)	(212)	(210)
Other financial income and expenses		(454)	(113)	(3)
Income taxes paid		(1,543)	(1,246)	(773)
Net cash from operating activities		3,509	3,102	1,687
Cash flow from investing activities				
Acquisition of Group companies, net of acquired cash		(400)	(178)	(76)
Treasury shares acquired		(160)	(25)	—
Investments in other shares		(111)	(37)	(51)
Additions in capitalized development costs		(393)	(271)	(182)
Capital expenditures		(1,580)	(1,302)	(761)
Proceeds from disposal of shares in Group companies, net of disposed cash		4	27	85
Proceeds from sale of other shares		75	121	16
Proceeds from sale of fixed assets		221	318	182
Dividends received		51	6	7
Net cash used in investing activities		(2,293)	(1,341)	(780)
Cash flow from financing activities				
Proceeds from issuance of share capital		72	152	108
Capital investment by minority shareholders		7	28	16
Proceeds from (payments of) long-term liabilities		(82)	(6)	66
Proceeds from (payments of) short-term borrowings		133	(126)	275
Proceeds from (payments of) long-term receivables		(776)	(171)	(8)
Proceeds from (payments of) short-term receivables		378	128	(146)
Dividends paid		(1,004)	(597)	(374)
Net cash used in financing activities		(1,272)	(592)	(63)
Net (decrease)/increase in cash and cash equivalents		(56)	1,169	844
Cash and cash equivalents at beginning of period		4,239	2,990	2,047
Cash and cash equivalents at end of period		4,183	4,159	2,891

The above figures cannot be directly traced from the balance sheet without additional information as a result of acquisitions and disposals of subsidiaries and net foreign exchange differences arising on consolidation.

See Notes to Consolidated Financial Statements

The schedule shown below reconciles cash and cash equivalents at the end of the previously reported period to cash and cash equivalents reported for the beginning of the current period.

	2000	1999	1998
	EURm	EURm	EURm
Reconciliation:			
As previously reported for 1999, 1998 and 1997, respectively	4,159	2,891	2,060
Foreign exchange adjustment	80	99	(13)
	4,239	2,990	2,047
Net (decrease)/increase in cash and cash equivalents	(56)	1,169	844
As reported for 2000, 1999 and 1998, respectively	4,183	4,159	2,891

The 1998 Consolidated Cash Flow Statement was converted from FIM to EUR using the conversion ratio announced on December 31, 1998.

NOKIA CORPORATION AND SUBSIDIARIES

Consolidated Statements of Changes in Shareholders' Equity

	Number of shares	Share capital	Share issue premium	Treasury shares	Translation[1] differences	Retained earnings	Total
	(000's)	EURm	EURm	EURm	EURm	EURm	EURm
Balance at December 31, 1997	4,540,346	252	803	(110)	182	2,493	3,620
Share issue	47,139	3	106				109
Dividend						(358)	(358)
Translation differences							—
Other increase/decrease, net						(12)	(12)
Net profit						1,750	1,750
Balance at December 31, 1998	4,587,485	255	909	(110)	182	3,873	5,109
Share issue	66,414	3	191				194
Bonus issue		36	(36)				—
Cancellation of treasury shares		(15)	15	110		(110)	—
Acquisition of treasury shares	(1,220)			(24)		24	—
Dividend						(555)	(555)
Translation differences					61		61
Other increase/decrease, net						(8)	(8)
Net profit						2,577	2,577
Balance at December 31, 1999	4,652,679	279	1,079	(24)	243	5,801	7,378
Share issue	42,149	3	554				557
Acquisition of treasury shares	(3,252)			(160)			(160)
Stock options issued on acquisitions			75				75
Stock options exercised related to acquisitions	557		(13)	27			14
Dividend						(931)	(931)
Translation differences					104		104
Change in accounting policy						(206)	(206)
Other increase/decrease, net						39	39
Net profit						3,938	3,938
Balance at December 31, 2000	4,692,133	282	1,695	(157)	347	8,641	10,808

(1) Accumulated other comprehensive income comprises translation differences only.

Dividends declared per share were EUR 0.28 for 2000 (1999: EUR 0.20 and 1998: EUR 0.12, split adjusted).

The 1998 Statement of Changes in Shareholders' Equity was converted from FIM to EUR using the conversion ratio announced on December 31, 1998.

See Notes to Consolidated Financial Statements

Notes to the Consolidated Financial Statements

1. Accounting principles

Basis of presentation

On January 30, 2001, the Group's Board of Directors authorized these financial statements for issue. The consolidated financial statements of Nokia Corporation (''Nokia'' or ''the Group''), a Finnish limited liability company with domicile in Helsinki, are prepared in accordance with International Accounting Standards (IAS). The financial statements are presented in millions of euro (EURm) and are prepared under the historical cost convention. The notes to the financial statements also conform with Finnish Accounting legislation.

The euro

Prior to 1999, Nokia prepared and reported its consolidated financial statements in Finnish markka.

Beginning January 1, 1999 Nokia has adopted the euro as its reporting currency. The 1998 consolidated financial statements have been converted into euro (EUR) at the rate of 5.94573 Finnish markka (FIM) per euro, the conversion ratio announced on December 31, 1998. Accordingly, the consolidated financial statements depict the same trends that would have been presented had they been presented in Finnish markka. However, because they were originally prepared using Finnish markka, they are not necessarily comparable to financial statements of a company which originally prepared its financial statements in a currency other than the Finnish markka and converted them to euro.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Principles of consolidation

The consolidated financial statements include the accounts of Nokia's parent company (''Parent Company''), and each of those companies in which it owns, directly or indirectly through subsidiaries, over 50% of the voting rights. The accounts of companies in which Nokia has control are also consolidated. The Group's share of profits and losses of associated companies (20% to 50% voting rights) is included in the consolidated profit and loss account in accordance with the equity method of accounting. The Group's interest in the associated companies is carried in the consolidated balance sheet at an amount that reflects its share of the net assets of the associate and includes goodwill on the acquisition. Investments in other companies (voting rights less than 20%) are stated at cost; provision is made when there has been an other than temporary decline in value.

All inter-company transactions are eliminated as part of the consolidation process. Minority interests are presented separately in arriving at the profit from continuing operations. They are also shown separately from shareholders' equity and liabilities in the consolidated balance sheet.

Profits realized in connection with the sale of fixed assets between the Group and associated companies are eliminated in proportion to share ownership. Such profits are deducted from the Group's equity and fixed assets and released in the Group accounts over the same period as depreciation is charged.

The companies acquired during the financial period have been consolidated from the date on which control of the net assets and operations was transferred to the Group. Similarly the result of a Group company divested during an accounting period is included in the Group accounts only to the date of disposal.

Acquisitions of companies are accounted for using the purchase method of accounting. Goodwill represents the excess of the purchase cost over the fair value of assets less liabilities of acquired companies. Goodwill is amortized on a straight-line basis over its expected useful life. Useful lives vary between two and five years depending upon the nature of the acquisition. Expected useful lives are reviewed at each balance sheet date and where these differ significantly from previous estimates, amortization periods are changed accordingly.

Transactions in foreign currencies

Transactions in foreign currencies are recorded at the rates of exchange prevailing at the dates of the transactions. For practical reasons, a rate that approximates the actual rate at the date of the transaction is often used. At the end of the accounting period the unsettled balances on foreign currency receivables and liabilities are valued at the rates of exchange prevailing at year-end. Foreign exchange gains and losses related to normal business operations are treated as adjustments to cost of sales. Foreign exchange gains and losses associated with financing are entered as a net amount under financial income and expenses.

Foreign Group companies

In the consolidated accounts all items in the profit and loss accounts of foreign subsidiaries are translated into euro at the average exchange rates for the accounting period. The balance sheets of foreign Group companies are translated into euro at the rates of exchange prevailing at year-end. Goodwill and any fair value adjustments arising from the acquisition of a foreign entity are reported using the exchange rate at the date of acquisition and cumulative translation adjustments are included in consolidated shareholders' equity. Differences resulting from the translation of profit and loss account items at the average rate and the balance sheet items at the closing rate are also treated as an adjustment affecting consolidated shareholders' equity. On the disposal of a foreign group company, the cumulative amount of the translation difference is recognized as income or as expense in the same period in which the gain or loss on disposal is recognized.

The Group's policy is to hedge a portion of foreign subsidiaries' shareholders' equity to reduce the effects of exchange rate fluctuations on the Group's net investments in foreign Group companies. Exchange gains and losses resulting from the hedging transactions are offset against the translation differences arising from consolidation and recorded in shareholders' equity.

Derivative financial instruments

The Group enters into derivative financial instruments such as forward foreign exchange and option contracts to hedge its exposure against foreign currency fluctuations on certain assets, liabilities and transactions denominated in foreign currencies. Any deferred gains and losses arising from hedging transactions are shown as a part of the cost of sales when the underlying sale or purchase transactions are recognized. Derivative contracts used for hedging foreign exchange exposure have high correlation with the items being hedged, both at inception and throughout the hedge period, and are designated to the underlying exposure. The majority of derivative financial instruments hedging foreign exchange exposures have a duration of less than a year. Written options are only used as part of combination strategies.

Foreign exchange gains and losses on forward contracts are calculated by valuing the forward contract with the forward exchange rate prevailing on the year-end date and comparing that with the original amount calculated by using the forward rate prevailing at the beginning of the contract.

Premiums paid for purchased foreign exchange options are included in other current receivables and premiums received for written options are included in other current payables in the balance sheet. Option contracts are valued at the balance sheet date by using the Garman & Kohlhagen option valuation model. Foreign exchange gains or losses on the option contracts, i.e., the difference between the premium paid or received and the market value of the options at the reporting date, are shown as part of cost of sales when the sale or purchase transaction is recognized.

The Group enters into derivative financial instruments such as interest rate swaps, forwards, futures and options to hedge its exposure to interest rate risk. Interest payable and receivable under interest rate swaps is accrued and recorded as an adjustment to the interest income or expense related to the designated asset or liability. Amounts received or paid on cash settlement, representing the gain or loss, of interest rate forward contracts are deferred and recognized over the life of the underlying financial instrument as an adjustment to interest income or expense. Premiums paid for purchased interest rate options are included in other current receivables and premiums received for written options are included in other current payables in the balance sheet. Premiums are amortized to interest income or expense over the life of the agreements. Amounts receivable and payable under the agreements are recognized as yield adjustments over the life of the contract.

The Group uses cash-settled equity swaps to hedge risks relating to incentive programs and investment activities. The change in the market value of the contract is calculated by revaluing the contract at the year-end quoted market rate and comparing it with the value calculated based on the prevailing market rate at the inception of the contract. The interest relating to the contract is accrued over the life of the contract.

Revenue recognition

Sales from the majority of the Group are recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable and collectibility is probable.

Sales and cost of sales from contracts involving solutions achieved through modification of telecommunications equipment are recognized on the percentage of completion method when the outcome of the contract can be estimated reliably. Completion is measured using either the cost-to-cost input method or the milestone output method, depending upon the nature of the individual project and the most applicable measure of progress. Losses on projects in progress are recognized immediately when known and estimable. The cumulative impact of a revision in estimates is recorded in the period such revisions become known and estimable. Billings or costs incurred in excess of a project's progress to completion are recorded as unearned revenue or work-in-progress, respectively.

Shipping and handling costs

The costs of shipping and distributing products are included in cost of sales.

Advertising and promotional costs

The Group expenses advertising and promotion costs as incurred. Advertising and promotional expenses were EUR 853 million, EUR 537 million, and EUR 366 million for the years ended December 31, 2000, 1999, and 1998, respectively.

Research and development

Research and development costs are expensed in the financial period during which they are incurred, except for certain development costs which are capitalized when it is probable that a development project will be a success, and certain criteria, including commercial and technological feasibility, have been met. Capitalized development costs are amortized on a systematic basis over the expected useful life. The amortization period is between 2 and 5 years.

Other intangible assets

Expenditure on acquired patents, trademarks, and licenses is capitalized and amortized using the straight-line method over their useful lives, but not exceeding 20 years. Intangible assets are not revalued. Where an indication of impairment exists, the carrying amount of any intangible asset including goodwill is assessed and written down to its recoverable amount.

Software capitalization

Costs of software licenses associated with internal-use software are capitalized. These costs are included within other assets and are amortized over a period not to exceed three years. All development costs, as well as maintenance and training costs, are expensed as incurred.

Pensions and coverage of pension liabilities

The Group companies have various pension schemes in accordance with the local conditions and practices in the countries in which they operate. The schemes are generally funded through payments to insurance companies or to trustee-administered funds as determined by periodic actuarial calculations.

The Group's contributions to defined contribution plans and to multi-employer and insured plans are charged to the profit and loss account in the period to which the contributions relate.

For defined benefit plans, principally the reserved portion of the Finnish TEL system, pension costs are assessed using the projected unit credit method: the cost of providing pensions is charged to the profit and loss account so as to spread the regular cost over the service lives of employees. The pension obligation is measured as the present value of the estimated future cash outflows using interest rates on government securities that have terms to maturity approximating the terms of the related liabilities. Actuarial gains and losses outside the corridor are recognized over the average remaining service lives of employees. This represents a change in accounting method as explained in Note 5.

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation. Depreciation is recorded on a straight-line basis over the expected useful lives of the assets as follows:

Buildings and construction	20-33 years
Machinery and equipment	3-10 years

Land and water areas are not depreciated.

Maintenance, repairs and renewals are generally charged to expense during the financial period in which they are incurred. However, major renovations are capitalized and depreciated over their expected useful lives.

Gains and losses on the disposal of fixed assets are included in operating profit/loss.

Leasing

Operating lease payments are treated as rentals. Assets acquired under finance leases are treated as fixed assets, and the present value of the related lease payments is recorded as a liability.

Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined on a first in first out (FIFO) basis. Net realizable value is the amount that can be realized from the sale of the inventory in the normal course of business after allowing for the costs of realization.

In addition to the cost of materials and direct labor, an appropriate proportion of production overhead is included in the inventory values.

Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances with banks and short-term investments.

Income taxes

Current taxes are based on the results of the Group companies and are calculated according to local tax rules.

Deferred tax assets and liabilities are determined, using the liability method, for all temporary differences arising between the tax basis of assets and liabilities and their carrying values for financial reporting purposes. Currently enacted tax rates are used in the determination of deferred income tax.

Under this method the Group is required, in relation to an acquisition, to make provision for deferred taxes on the difference between the fair values of the net assets acquired and their tax base.

The principal temporary differences arise from intercompany profit in inventory, depreciation on property, plant and equipment, untaxed reserves and tax losses carried forward. Deferred tax assets relating to the carryforward of unused tax losses are recognized to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilized.

Stock options

Stock options are granted to employees. The options are granted with a fixed exercise price set on a date outlined in the plan. When the options are exercised, the proceeds received, net of any transaction costs, are credited to share capital (nominal value) and share premium. When treasury shares are sold on exercise of stock options any gain or loss is recognized in share issue premium.

Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, the reimbursement would be recognized as an asset but only when the reimbursement is virtually certain.

The Group recognizes the estimated liability to repair or replace products still under warranty at the balance sheet date. The provision is calculated based on historical experience of the level of repairs and replacements.

Provision for social security costs on stock options

In 2000, the Group adopted IAS 37, Provisions, contingent liabilities and contingent assets, and recognized a provision for social security costs on unexercised stock options granted to employees. In accordance with the transitional rule of IAS 37, the cumulative prior year net of tax effect has been recorded as an adjustment to the 2000 opening balance of retained earnings. Nokia previously recognized the social security obligation when the options were exercised.

Under IAS 37, the provision is recognized at the date options are granted. The provision is measured based on the intrinsic value of the options, and the amount of the provision is adjusted to reflect the changes in the Nokia share price. These changes are recorded through the profit and loss account. Nokia hedges the exposure arising from the provision through the use of cash-settled equity swaps.

Dividends

Dividends proposed by the Board of Directors are not recorded in the financial statements until they have been approved by the shareholders at the Annual General Meeting.

Earnings per share

The Group calculates both basic and diluted earnings per share in accordance with IAS 33, Earnings per share. Under IAS 33, basic earnings per share is computed using the weighted average number of shares outstanding during the period. Diluted earnings per share is computed using the weighted average number of shares outstanding during the period plus the dilutive effect of warrants and stock options outstanding during the period. Share and per share data presented reflect the four-for-one share split effective on April 10, 2000 and the share splits in prior years.

Changes in accounting standards

The Group adopted IAS 10 (revised), Events after the balance sheet date, IAS 22 (revised), Business combinations, IAS 36, Impairment of assets, IAS 37, Provisions, contingent liabilities and contingent assets, and IAS 38, Intangible assets, during the year ended December 31, 2000. Other than the provision for social security costs on stock options discussed above, these adoptions did not have a material effect on the consolidated financial statements.

The Group will adopt, beginning January 1, 2001, IAS 39, Financial instruments: recognition and measurement. The transfer to the new standard will not result in a material adjustment to the profit and loss account. In accordance with IAS 39 the Group will reclassify EUR (114) million of gains and losses on qualifying cash flow hedging derivatives from deferred income and deferred expenses into equity adjustments.

Nokia will also record its investment in debt and equity securities at fair value. In accordance with the transition provisions of IAS 39, the Group has elected to record the unrealized gains and losses on investments in debt and equity securities carried at fair value as an adjustment to equity. The transition adjustment recorded on January 1, 2001 resulted in an increase of EUR 58 million in total assets and total equity.

2. Segment information

Nokia is organized on a worldwide basis into three primary business segments: Nokia Networks, Nokia Mobile Phones and Nokia Ventures Organization. As of January 1, 2000, the Nokia Ventures Organization has been segregated into a separate segment as a result of the increased activity in this segment. Nokia's reportable segments are strategic business units that offer different products and services for which monthly financial information is provided to the Board.

Nokia Networks develops, manufactures and supplies cellular network, mobile Internet and broadband solutions for mobile operators, corporate customers, ASPs and ISPs.

Nokia Mobile Phones develops, manufactures and supplies mobile phones and wireless data products, including a complete range of cellular phones for all major digital and analog standards worldwide.

Nokia Ventures Organization comprises new business areas, the largest of which is Nokia Internet Communications, which offers enterprises and managed ISPs strategic IP-oriented products and solutions.

Common Group Functions consists of common research and general Group functions.

The accounting policies of the segments are the same as those described in Note 1. Nokia accounts for intersegment revenues and transfers as if the revenues or transfers were to third parties, that is, at current market prices. Management uses operating profit as a measurement in assessing performance and resource allocation.

	Nokia Networks	Nokia Mobile Phones	Nokia Ventures Organization	Common Group Functions	Total reportable segments	Eliminations	Group
	EURm	EURm	EURm	EURm	EURm	EURm	EURm
2000							
Income Statement Information							
Net sales to external customers	7,708	21,844	824	—	30,376		30,376
Net sales to other segments	6	43	30	—	79	(79)	—
Depreciation and amortization	354	467	102	86	1,009		1,009
Operating profit/(loss)	1,358	4,879	(387)	(74)	5,776		5,776
Share of result of associated companies	—	—	—	(16)	(16)		(16)
Balance Sheet Information							
Capital expenditure(5)	304	902	38	336	1,580		1,580
Segment assets(1)	5,076	7,108	709	1,577	14,470	(688)	13,782
of which:							
Investments in associated companies	—	—	—	61	61		61
Unallocated assets							5,543
Reconciling assets(2)							565
Total assets(2)							19,890
Segment liabilities(3)	1,936	4,602	256	686	7,480	(685)	6,795
Unallocated liabilities							1,771
Reconciling liabilities(4)							339
Total liabilities							8,905
1999							
Income Statement Information							
Net sales to external customers	5,670	13,168	409	525	19,772		19,772
Net sales to other segments	3	14	6	55	78	(78)	—
Depreciation and amortization	286	300	44	35	665		665
Operating profit/(loss)	1,082	3,099	(175)	(98)	3,908		3,908
Share of result of associated companies	—	(3)	—	(2)	(5)		(5)
Balance Sheet Information							
Capital expenditure(6)	395	682	45	236	1,358		1,358
Segment assets(1)	3,822	4,486	434	1,403	10,145	(962)	9,183
of which:							
Investments in associated companies	1	41	—	34	76		76
Unallocated assets							4,667
Reconciling assets(2)							429
Total assets							14,279
Segment liabilities(3)	1,588	3,722	168	929	6,407	(1,156)	5,251
Unallocated liabilities							1,318
Reconciling liabilities(4)							210
Total liabilities							6,779

	Nokia Networks	Nokia Mobile Phones	Nokia Ventures Organization	Common Group Functions	Total reportable segments	Eliminations	Group
	EURm	EURm	EURm	EURm	EURm	EURm	EURm
1998							
Income Statement Information							
Net sales to external customers	4,384	8,050	—	892	13,326		13,326
Net sales to other segments	6	20	—	122	148	(148)	—
Depreciation and amortization	207	263	—	39	509		509
Operating profit/(loss)	960	1,540	—	(11)	2,489		2,489
Share of result of associated companies	—	(1)	—	7	6		6

(1) Comprises intangible assets, property, plant and equipment, investments, inventories and accounts receivable, as well as prepaid expenses and accrued income except those related to interest and taxes.

(2) Reconciling assets including prepaid expenses and accrued income related to taxes and deferred tax assets (EUR 565 million in 2000 and EUR 429 million in 1999).

(3) Comprises accounts payable, deferred income, accrued expenses and provisions except those related to interest and taxes.

(4) Reconciling liabilities including prepaid income and accrued expenses related to taxes and deferred tax liabilities (EUR 339 million in 2000 and EUR 210 million in 1999).

(5) Including goodwill, capital expenditures amount to EUR 2,596 million. The goodwill consists of EUR 229 million for Nokia Networks, EUR 449 million for Nokia Mobile Phones, and EUR 338 million for Nokia Ventures Organization.

(6) Including goodwill, capital expenditures amount to EUR 1,568 million. The goodwill consists of EUR 150 million for Nokia Networks and EUR 60 million for Nokia Ventures Organization.

Net sales to external customers by geographic area

	2000	1999	1998
	EURm	EURm	EURm
Finland	494	479	465
USA	5,312	3,360	1,996
China	3,065	2,332	1,753
Great Britain	2,828	1,855	1,205
Germany	2,579	1,679	1,135
Other	16,098	10,067	6,772
Total	30,376	19,772	13,326

Segment assets by geographic area

	2000 EURm	1999 EURm
Finland	4,688	3,144
USA	2,774	1,894
China	2,030	1,312
Great Britain	654	476
Germany	909	748
Other	2,727	1,609
Total	13,782	9,183

Capital expenditures by geographic area

	2000 EURm	1999 EURm	1998 EURm
Finland[(1)]	587	487	295
USA[(1)]	279	313	97
China	157	121	49
Great Britain	75	54	41
Germany	133	124	123
Other[(1)]	349	259	156
Total	1,580	1,358	761

(1) Including goodwill, capital expenditures amount to EUR 2,596 million in 2000 (EUR 1,568 million in 1999 and EUR 841 million in 1998). The goodwill consists of EUR 567 million in USA in 2000 (EUR 200 million in 1999), EUR 449 million in Other areas in 2000 (EUR 10 million in 1999 and EUR 79 million in 1998) and EUR 1 million in Finland in 1998.

3. Percentage of completion

Contract sales recognized under the percentage of completion method in the years ended December 31, 2000 and 1999 were approximately EUR 6.7 billion and EUR 5.1 billion, respectively. At December 31, 2000 and 1999, payments received in advance of contract revenues were EUR 97 million and EUR 133 million respectively. Contract revenues recorded prior to billings were not significant.

4. Personnel expenses

	2000 EURm	1999 EURm	1998 EURm
Wages and salaries	2,378	1,946	1,607
Pension expenses, net	54	127	139
Other social expenses	456	310	212
Personnel expenses as per profit and loss account	2,888	2,383	1,958

Pension expenses comprise EUR 93 million (EUR 127 million in 1999 and EUR 139 million in 1998) in respect of multi-employer, insured and defined contribution plans.

	2000	1999	1998
	EURm	EURm	EURm
Remuneration of the Chairman and the other members of the Board of Directors, the Group Executive Board and the Presidents and the Managing Directors	17	15	11
Incentives included in remuneration above	4	3	3

Pension commitments for the management:

The retirement age of the management of the Group companies is between 60 - 65 years.

For the Chief Executive Officer of the Parent Company the retirement age is 60 years.

5. Pensions

The most significant pension plans are in Finland and are comprised of the Finnish state TEL system with benefits directly linked to employee earnings. These benefits are financed in two distinct portions. The majority of benefits are financed by contributions to a central pool with the majority of the contributions being used to pay current benefits. The other part comprises reserved benefits which are pre-funded through the trustee-administered Nokia Pension Foundation. The pooled portion of the TEL system is accounted for as a defined contribution plan and the reserved portion as a defined benefit plan. The foreign plans include both defined contribution and defined benefit plans.

Prior to the year ended December 31, 2000, the reserved portion of the TEL system was accounted for as a defined contribution plan. The cumulative difference between the accounting for this plan as a defined contribution plan versus a defined benefit plan from January 1, 1998, upon the adoption of IAS 19, to December 31, 1999 is EUR 13 million which has been recorded as a reduction in total pension expense for 2000.

Had the Group accounted for this plan as a defined benefit plan since January 1, 1998, retained earnings on January 1, 1998 and pension expense for 1998, 1999 and 2000 would have (increased)/decreased as follows:

	EURm
1998 opening retained earnings	85[1]
Pension expense:	
1998	12
1999	(84)
2000	42
Cumulative adjustment (pension credit)	55

The following tables are prepared as if the above adjustments were recorded in the respective periods.

Balances relating to single employer defined benefit schemes are determined as follows:

	2000		1999	
	Domestic Plans	Foreign Plans	Domestic Plans	Foreign Plans
	EURm	EURm	EURm	EURm
Fair value of plan assets	921	116	1,000	107
Present value of funded obligations	(453)	(194)	(400)	(199)
Surplus/(Deficit)	468	(78)	600	(92)
Unrecognized net actuarial (gains)/losses	(347)	12	(525)	30
Prepaid/(Accrued) pension cost in balance sheet	121	(66)	75	(62)

Net periodic pension cost includes the following:

	2000 EURm	1999 EURm
Current service cost	40	22
Interest cost	36	25
Expected return on plan assets	(78)	(40)
Net actuarial (gains) recognized in year	(24)	(3)
Past service cost	—	87
Total (income)/expense	(26)	91

Changes in prepaid pension costs were as follows:

	2000 EURm	1999 EURm
At beginning of year	13	97
Less net periodic pension expense	26	(91)
Contributions paid	16	7
At end of year	55[2]	13

(1) EUR 70 million net of tax

(2) included within other non-current assets

The principal actuarial assumptions used were as follows:

	2000		1999	
	Domestic %	Foreign %	Domestic %	Foreign %
Discount rate for determining present values	5.80	6.10	5.80	5.70
Expected long term rate of return on plan assets	7.25	6.60	7.00	6.60
Annual rate of increase in future compensation levels	4.00	3.10	4.00	2.90

Under IAS, the domestic pension plan assets include Nokia securities with fair values of EUR 577 million in 2000 (EUR 605 million in 1999).

The actual return (loss) on plan assets was EUR (76) million (EUR 469 million in 1999).

6. Selling, general and administration expenses

	2000 EURm	1999 EURm	1998 EURm
Selling and marketing expenses	(2,103)	(1,220)	(905)
Administration expenses	(754)	(759)	(462)
Other operating expenses	(225)	(163)	(74)
Other operating income	278	331	73
Total	(2,804)	(1,811)	(1,368)

Other operating income and expenses for 2000 are composed of various items which are individually insignificant. Other operating income for 1999 includes gains from the divestments of Salcomp Oy and the SDH/DWDM transport equipment business (EUR 80 million and EUR 56 million, respectively), and for 1998 a gain of EUR 30 million from the sale of LK-Products Oy. Other operating expenses for 1999 include a charge of EUR 70 million related to Nokia's exit from the display business.

7. Acquisitions

In October 2000, Nokia increased its ownership of the Brazilian handset manufacturing joint venture NG Industrial (NGI) from 51% to 100% by acquiring all the shares of NGI held by Gradiente Telecom S.A. for EUR 492 million in cash. The fair value of net assets acquired was EUR 43 million giving rise to a goodwill of EUR 449 million.

In August 2000, Nokia acquired DiscoveryCom, a company which provides solutions that enable communications service providers to rapidly install and maintain Broadband Digital Subscriber Line (DSL) services for fast Internet access. The acquisition price was EUR 223 million, which was paid in Nokia stock and Nokia stock options. The fair value of net assets acquired was EUR (4) million giving rise to a goodwill of EUR 227 million.

In March 2000, Nokia acquired Network Alchemy, a provider of IP clustering solutions for EUR 336 million, which was paid in Nokia stock and Nokia stock options. The fair value of net assets acquired was EUR (2) million giving rise to a goodwill of EUR 338 million.

In October 1999, Nokia acquired Telekol Corporation, a company specializing in intelligent corporate communications solutions, for EUR 45 million in cash. The fair value of net assets acquired was EUR 2 million giving rise to a goodwill of EUR 43 million.

In September 1999, Nokia strengthened its capabilities in IP wireless bypass technology with an agreement to acquire Rooftop Communications Corporation for EUR 48 million, of which EUR 42 million was paid in Nokia stock and EUR 6 million in cash. The fair value of net assets acquired was EUR 0.2 million giving rise to a goodwill of EUR 47.8 million.

In February 1999, Nokia acquired Diamond Lane Communications for EUR 112 million in cash. The company has developed the market-leading multi-service digital subscriber line access multiplexer (DSLAM), a device that enables Internet access speeds up to 125 times faster than current modems over existing telecommunications networks. The fair value of net assets acquired was EUR 5 million giving rise to a goodwill of EUR 107 million.

In December 1998, Nokia acquired Vienna Systems Corporation, an Internet Protocol telephony company based in Canada. The purchase price was EUR 72 million paid in cash. The fair value of net assets acquired was EUR 2 million giving rise to a goodwill of EUR 70 million.

8. Depreciation and amortization

Depreciation and amortization charged against operations pertains to the following assets:

	2000 EURm	1999 EURm	1998 EURm
Capitalized development costs	118	110	119
Buildings and constructions	27	18	19
Machinery and equipment	645	413	320
Goodwill and other assets	219	124	51
Total	1,009	665	509
Depreciation by function			
Cost of sales	298	201	158
Research and development	244	241	223
Selling, general and administrative expenses:			
Selling, marketing and administration	230	101	80
Other operating expenses	97	51	28
Goodwill	140	71	20
Total	1,009	665	509

9. Financial income and expenses

	2000 EURm	1999 EURm	1998 EURm
Income from long-term investments			
Dividend income	70	6	7
Interest income	2	2	1
Other interest and financial income			
Interest income from short-term investments	210	194	163
Other financial income	17	5	1
Exchange gains and losses	(1)	(5)	(7)
Interest expenses and other financial expenses			
Interest expenses	(115)	(254)	(198)
Other financial expenses	(81)	(6)	(6)
Total	102	(58)	(39)

10. Income taxes

	2000 EURm	1999 EURm	1998 EURm
Current tax	(1,852)	(1,250)	(753)
Deferred tax	68	61	16
Total	(1,784)	(1,189)	(737)
Finland	(1,173)	(740)	(500)
Other countries	(611)	(449)	(237)
Total	(1,784)	(1,189)	(737)

Notes to the Consolidated Financial Statements (Continued)

At December 31, 2000, the Group had loss carryforwards, primarily attributable to foreign subsidiaries, of EUR 109 million (EUR 140 million in 1999 and EUR 167 million in 1998), most of which will expire between 2002 and 2005.

The differences between income tax expense computed at statutory rates (29% in Finland in 2000 and 28% in 1999 and 1998) and income tax expense provided on earnings are as follows at December 31:

	2000	1999	1998
	EURm	EURm	EURm
Income tax expense at statutory rate	1,689	1,078	706
Deduction for write-down of investments in subsidiaries	(28)	—	(12)
Amortization of goodwill	40	17	6
Provisions without income tax benefit/expense	53	35	48
Taxes for prior years	53	8	7
Taxes on foreign subsidiaries' net income greater/(less) than income taxes at statutory rates	(29)	32	46
Operating losses with no current tax benefit	25	22	16
Group adjustments	—	(4)	15
Adjustment to opening balance accruals	—	—	(72)
Cumulative adjustments; Change in accounting principle	—	—	(20)
Other	(19)	1	(3)
Income tax expense	1,784	1,189	737

Certain of the Group companies' income tax returns for periods ranging from 1995 through 1999 are under examination by tax authorities. The Group does not believe that any significant additional taxes in excess of those already provided for will arise as a result of the examinations.

The enacted tax rate for Finland changed effective January 1, 2000 to 29%. Deferred taxes have been provided based on the newly enacted rate.

11. Intangible assets

	2000	1999
	EURm	EURm
Capitalized development costs		
Acquisition cost January 1	811	650
Additions	394	271
Disposals	(108)	(110)
Accumulated amortization December 31	(457)	(398)
Net carrying amount December 31	640	413
Goodwill		
Acquisition cost January 1	554	347
Additions	1,016	210
Disposals	—	(3)
Accumulated amortization December 31	(458)	(318)
Net carrying amount December 31	1,112	236
Other intangible assets		
Acquisition cost January 1	351	203
Additions	132	166
Disposals	(31)	(20)
Translation differences	7	2
Accumulated amortization December 31	(217)	(162)
Net carrying amount December 31	242	189

12. Property, plant and equipment

	2000	1999
	EURm	EURm
Land and water areas		
Acquisition cost January 1	111	67
Additions	33	48
Disposals	(3)	(9)
Translation differences	2	5
Net carrying amount December 31	143	111
Buildings and constructions		
Acquisition cost January 1	540	460
Additions	224	145
Disposals	(39)	(85)
Translation differences	14	20
Accumulated depreciation December 31	(117)	(104)
Net carrying amount December 31	622	436
Machinery and equipment		
Acquisition cost January 1	2,382	1,685
Additions	1,089	863
Disposals	(178)	(207)
Translation differences	50	41
Accumulated depreciation December 31	(1,718)	(1,208)
Net carrying amount December 31	1,625	1,174
Other tangible assets		
Acquisition cost January 1	53	86
Additions	34	12
Disposals	(15)	(52)
Translation differences	2	7
Accumulated depreciation December 31	(46)	(44)
Net carrying amount December 31	28	9
Advance payments and fixed assets under construction		
Acquisition cost January 1	301	151
Additions	230	352
Disposals	(62)	(32)
Transfers		
Land and water areas	(4)	(1)
Buildings and constructions	(76)	(13)
Machinery and equipment	(91)	(162)
Translation differences	16	6
Net carrying amount December 31	314	301

13. Investments

	2000 EURm	1999 EURm
Investments in associated companies	61	76
Investments in unlisted companies	30	24
Investments in listed companies	120	44
Total	211	144

Shareholdings in associated companies include listed investments of EUR 7 million (EUR 11 million in 1999). At the balance sheet date, the fair value of these investments, based on quoted market prices, was EUR 45 million (EUR 15 million in 1999). Shareholdings in other companies include listed investments of EUR 120 million (EUR 44 million in 1999). At the balance sheet date, the fair value of these investments was EUR 140 million (EUR 180 million in 1999).

14. Other assets

	2000 EURm	1999 EURm
Long-term loans receivable from customers	808	20
Other non-current assets	242	197
Total	1,050	217

15. Inventories

	2000 EURm	1999 EURm
Raw materials, supplies and other	1,057	1,020
Work in progress	685	446
Finished goods	521	306
Total	2,263	1,772

16. Receivables

	2000 EURm	1999 EURm
Accounts receivable	5,594	3,827
Short-term loan receivables	44	145
Prepaid expenses and accrued income	1,418	889
Total	7,056	4,861

Prepaid expenses and accrued income mainly consist of VAT receivables and other accruals.

17. Short-term investments

	2000 EURm	1999 EURm
Government, long-term (bonds)	615	703
Government, short-term (bills)	—	383
Corporate, long-term (bonds)	384	131
Corporate, short-term (CP)	1,775	1,919
Total	2,774	3,136

Short-term investments are carried at amortized cost unless provision is made for a permanent diminution in value.

18. Valuation and qualifying accounts

	Balance at beginning of year EURm	Charged to cost and expenses EURm	Charged to other accounts EURm	Deductions EURm	Balance at end of year EURm
2000					
Allowance for doubtful notes and accounts receivable	87	262	—	(54)	295
Obsolescence provision	168	457	—	(362)	263
Valuation allowance	37	—	(21)	—	16
1999					
Allowance for doubtful notes and accounts receivable	66	43	—	(22)	87
Obsolescence provision	144	186	—	(162)	168
Valuation allowance	47	—	(10)	—	37
1998					
Allowance for doubtful notes and accounts receivable	23	56	—	(13)	66
Obsolescence provision	150	120	—	(126)	144
Valuation allowance	20	—	27	—	47

19. Distributable earnings

	2000 EURm
Retained earnings	8,641
Translation differences (distributable earnings)	207
Treasury shares	(157)
Other non-distributable items	(94)
Distributable earnings December 31	8,597

Retained earnings under IAS and Finnish Accounting Standards (FAS) are substantially the same. Distributable earnings are calculated based on Finnish legislation.

20. Long-term liabilities

Long-term loans are repayable as follows:

	Outstanding December 31, 2000	Repayment date beyond 5 years	Outstanding December 31, 1999
	EURm	EURm	EURm
Bonds	138	—	151
Convertible bonds	—	—	1
Loans from financial institutions	62	—	101
Loans from pension insurance companies	12	12	6
Other long-term finance loans	8	—	11
Other long-term liabilities	69	58	58
	289	70	328
Deferred tax liabilities	69		80
Less current portion of long-term liabilities	(47)		(1)
Total long-term liabilities	311		407

The long-term liabilities as of December 31, 2000 mature as follows:

	EURm	
2001	47	16.3%
2002	64	22.1%
2003	31	10.7%
2004	66	22.8%
2005	—	—
Thereafter	81	28.1%
	289	100.0%

The currency mix of the Group long-term liabilities as at December 31, 2000:

EUR	GBP	USD	Others
63.44%	21.05%	2.93%	12.58%

The long-term loan portfolio includes an 11.375% fixed-rate loan with a face amount of 40 million British pounds sterling due in 2004. The loan is callable by the creditor with three-months' notice. The Group does not anticipate a request for prepayment prior to the final maturity. Accordingly the loan has not been classified as a current liability at December 31, 2000.

The Group has committed credit facilities totaling USD 850 million and short-term uncommitted facilities. Committed credit facilities are intended for working capital requirements and general corporate purposes, as well as for a back up of U.S. and Euro Commercial Paper Programs. Commitment fees of the facilities vary from 0.06% to 0.09% per annum.

At December 31, 2000, no Group borrowings were collateralized by assets pledged or by mortgages.

At December 31, 2000 and 1999 the weighted average interest rate of loans from financial institutions was 7.8% and 4.3%, respectively.

	Million	Interest	2000 EURm	1999 EURm
Bonds				
1989-2004	40.0 GBP	11.375%	66	79
1993-2003	150.0 FIM	Euribor	25	25
1996-2001	280.0 FIM	7.000%	—	47
			91	151

The bond 1996-2001, EUR 47 million, expires in 2001 and is included in current liabilities as the current portion of long-term debt.

21. Deferred taxes

	2000 EURm	1999 EURm
Current assets:		
Intercompany profit in inventory	87	88
Other	57	41
	144	129
Non-current assets:		
Tax losses carried forward	89	77
Other	184	88
	273	165
Total deferred tax asset	417	294
Valuation allowance	(16)	(37)
Net deferred tax asset	401	257
Current liabilities:	(22)	(16)
Non-current liabilities:		
Untaxed reserves	(47)	(57)
Other	—	(7)
	(47)	(64)
Total deferred tax liability	(69)	(80)

Beginning January 1, 1998 the Group adopted revised IAS 12, Income taxes. The cumulative prior year net effect (EUR 70 million) has been included in the cumulative prior year net effect of change in accounting policies in the consolidated profit and loss account for 1998.

Deferred income tax liabilities have not been established for withholding tax and other taxes that would be payable on the unremitted earnings of certain subsidiaries, as such earnings are permanently reinvested. At December 31, 2000 the Group had loss carryforwards of EUR 28 million (EUR 84 million in 1999) for which no deferred tax asset was recognized due to uncertainty of utilization of these losses. These losses will expire in the years 2003 to 2005.

22. Short-term borrowings

Short-term borrowings consist primarily of borrowings from banks. The weighted average interest rate at December 31, 2000 and 1999 was 5.9% and 5.2%, respectively. The weighted average interest rate of short-term borrowings was derived from different foreign currency denominated loan amounts.

23. Accrued expenses

Accrued expenses and prepaid income mainly consist of VAT liabilities, personnel expenses, discounts and other accruals.

24. Provisions

	Warranty EURm	Other EURm	Total EURm
At December 31, 1999	656	695	1,351
Exchange differences	21	—	21
Additional provisions	1,015	486	1,501
Unused amounts reversed	(63)	(103)	(166)
Charged to income statement	952	383	1,335
Utilized during year	(726)	(177)	(903)
At December 31, 2000	903	901	1,804

	2000 EURm	1999 EURm
Analysis of total provisions at December 31,:		
Non-current	557	207
Current	1,247	1,144

The effect on provisions of adopting IAS 37 as of January 1, 2000 was a cumulative adjustment of EUR 291 million, which was recorded net of tax to retained earnings.

25. The shares of the Parent Company

Nokia shares

At the Annual General Meeting held on March 17, 1999 Nokia shareholders resolved to consolidate the two classes of shares, A shares and K shares, into one class of shares effective as of April 9, 1999. Nokia shareholders also resolved at the Annual General Meeting held on March 17, 1999 to convert the share capital and the par value of the share into euro, to split the par value of the share on a two-for-one basis, and to increase the share capital through a bonus issue by rounding up the par value of each share to an appropriate two decimal number as a result of which the par value of the share was EUR 0.24 commencing April 12, 1999. At the Annual General Meeting held on March 22, 2000 Nokia shareholders resolved to split the par value of the shares on a four-for-one basis. With effect from April 10, 2000, the par value of the share is EUR 0.06.

As of December 31, 2000, each Nokia share entitles the holder to one vote at General Meetings of Nokia. Each Nokia share also entitled the holder to a fixed minimum annual dividend amounting to 10% of the par value of the share pursuant to the Articles of Association of the Parent Company.

The minimum share capital stipulated in the Articles of Association is EUR 170 million and the maximum share capital EUR 680 million. The share capital may be increased or reduced within these limits without amending the Articles of Association. On December 31, 2000 the share capital of the Parent Company was EUR 281,772,763.38 and the total number of shares was 4,696,212,723.

On December 31, 2000 the total number of shares included 4,079,425 shares owned by the Group companies with an aggregate nominal value of EUR 244,765.50 representing approximately 0.09% of the total number of shares and voting rights.

Authorizations of the Board of Directors

At the Annual General Meeting held on March 17, 1999 Nokia shareholders resolved to authorize the Board of Directors to increase share capital by an aggregate maximum of EUR 28,800,000 in one or more issues offering an aggregate maximum of 480,000,000 new shares (split adjusted) within one year of the resolution at the Annual General Meeting. The shares to be issued under the authorization were to be used to finance possible business acquisitions or corresponding arrangements in deviation from the shareholders' pre-emptive rights for share subscription. In 1999 the Board of Directors increased the share capital on the basis of the authorization by an aggregate EUR 127,087.20, consisting of 2,118,120 shares (split adjusted), as a result of which the unused authorization amounted to EUR 28,672,912.80, corresponding to 477,881,880 shares (split adjusted) on December 31, 1999. In 2000, the Board of Directors increased the share capital on the basis of this authorization by an aggregate EUR 366,704.40 consisting of 6,111,740 shares (split adjusted). The authorization expired on March 17, 2000.

At the Annual General Meeting held on March 22, 2000 Nokia shareholders authorized the Board of Directors to increase share capital by an aggregate maximum of EUR 28,800,000 in one or more issues offering an aggregate maximum of 480,000,000 new shares with a par value of EUR 0.06 within one year of the resolution of the Annual General Meeting. The share capital may be increased to finance possible business acquisitions or corresponding arrangements in deviation from the shareholders' pre-emptive rights for share subscription. In 2000 the Board of Directors increased the share capital on the basis of the authorization by an aggregate EUR 234,557.70 consisting of 3,909,295 shares, as a result of which the unused authorization amounted to EUR 28,565,442.30 corresponding to 476,090,705 shares on December 31, 2000. The authorization expires on March 22, 2001. At the end of 2000, the Board of Directors had no other unused authorizations to issue shares, convertible bonds, warrants or stock options.

At the Extraordinary General Meeting held on December 13, 1999 Nokia shareholders authorized the Board of Directors to repurchase a maximum of 224,000,000 Nokia shares (split adjusted) and to resolve on the transfer of such shares. An aggregate of 2,532,000 Nokia shares (split adjusted) were repurchased under the authorization, but no shares were transferred. At the Annual General Meeting held on March 22, 2000 Nokia shareholders replaced the authorizations granted on December 13, 1999 by a new authorization to the Board of Directors to repurchase a maximum of 224,000,000 Nokia shares and to resolve on the transfer of such shares. No shares were repurchased or transferred under the authorizations during 2000. These authorizations expire on March 22, 2001.

Nokia stock option plans

The Annual General Meeting held on April 7, 1994 approved the issue of up to 200 2% bonds with warrants for up to an aggregate principal amount of FIM 200,000 to certain members of Nokia's management (Nokia Stock Option Plan 1994). Each bond had a principal amount of FIM 1,000 and carried 1,000 warrants. The bonds had been fully repaid by December 31, 1999. By the time that the Nokia Stock Option Plan 1994 was terminated on January 31, 2000, a total of 12,506,112 shares (split adjusted) had been subscribed for and the share capital had been increased by a total of EUR 750,366.72 representing less than 1% of the outstanding share capital of the Parent Company.

The Annual General Meeting held on March 30, 1995 approved the issue of up to 1,450 non-interest bearing bonds with warrants for up to an aggregate principal amount of FIM 1,450,000 to certain members of the management of the Nokia Group (Nokia Stock Option Plan 1995). Each bond had a principal amount of FIM 1,000 and carried 2,000 A warrants and 2,000 B warrants. The bonds were fully repaid by December 31, 2000. The B warrants were listed on the Helsinki Exchanges from December 1, 1999 until January 24, 2001.

The Annual General Meeting held on March 25, 1997 approved the issue of up to 4,750 non-interest bearing bonds with warrants for up to an aggregate principal amount of FIM 2,375,000 to key personnel of the Nokia Group (Nokia Stock Option Plan 1997). Each bond had a principal amount of FIM 500 and carried

500 A warrants, 500 B warrants and 1,000 C warrants. The bonds were fully repaid by December 31, 2000. Each warrant confers the right to subscribe for sixteen shares with a par value of EUR 0.06 at an aggregate subscription price of FIM 307. The A warrants may be exercised from December 1, 1997 to January 31, 2003, the B warrants from November 1, 1999 to January 31, 2003 and the C warrants from November 1, 2001 to January 31, 2003. If exercised in full, the warrants would be exercisable for a total of 152,000,000 shares whereby the share capital would be increased by a maximum amount of EUR 9,120,000 representing approximately 3.2% of the outstanding share capital of the Parent Company. The A and B warrants have been listed on the Helsinki Exchanges as one security as of November 1, 1999 and Nokia will apply for including the C warrants into the listing as of November 1, 2001.

The Annual General Meeting held on March 17, 1999 approved the issue of up to 36,000,000 stock options to key personnel of the Nokia Group (Nokia Stock Option Plan 1999). Of these stock options 12,000,000 have been designated A, 12,000,000 designated B, and 12,000,000 designated C stock options. Each stock option confers the right to subscribe for four shares with a par value of EUR 0.06. The aggregate subscription price for four shares for the A stock option is EUR 67.55, for the B stock option EUR 225.12, and for the C stock option EUR 116.48. The A stock options may be exercised from April 1, 2001 to December 31, 2004, the B stock options from April 1, 2002 to December 31, 2004, and the C stock options from April 1, 2003 to December 31, 2004. If exercised in full, the stock options would be exercisable for a total of 144,000,000 shares whereby the share capital would be increased by a maximum amount of EUR 8,640,000 representing approximately 3.1% of the outstanding share capital of the Parent Company.

Pursuant to the warrants and stock options issued, an aggregate maximum number of 252,909,488 new shares may be subscribed for representing approximately 5.1% of the total number of votes on December 31, 2000. During 2000 the exercise of 2,007,989 warrants attached to the bonds resulted in the issue of 32,127,824 new shares and the increase of the share capital of the Parent Company of EUR 1,927,669.44.

There were no other bonds with warrants or stock options and no convertible bonds outstanding during the year 2000 or 1999, the exercise of which would result to an increase of the share capital of the Parent Company.

In 1999 Nokia introduced a complementary stock option plan available for Nokia employees in the U.S. and Canada (The Nokia Holding Inc. 1999 Stock Option Plan). Each stock option granted by December 31, 2000 entitles the holder to purchase one Nokia ADS during certain periods of time after April 1, 2001 until five years from the date of grant for a price within the range of USD 20.50 – 54.50 per ADS. On December 31, 2000 a total of 958,300 stock options were outstanding under the Plan. An exercise of the stock options under this Plan does not result in an increase of the share capital of Nokia Corporation. The maximum number of ADSs with a par value of EUR 0.24 that may be issued under the Plan is 2,000,000. The shares of the Parent Company are purchased primarily in conjunction with satisfying the obligations of the stock option plans. These shares are carried at purchase cost in the balance sheet until disposed. The description in this paragraph does not reflect the four-for-one share split that was effected in April 2000.

Shares subscribed for pursuant to warrants and stock options will be entitled to be paid a dividend for the financial year in which the subscription occurs. Other shareholder rights will commence on the date on which the share subscription is entered in the Finnish Trade Register.

Notes to the Consolidated Financial Statements (Continued)

Information relating to stock warrants and options during 2000, 1999 and 1998 is as follows:

	Number of shares	Weighted average exercise price[1]
Shares under option at December 31, 1997	223,955,408	2.59
Granted	4,954,800	4.00
Exercised	47,511,912	2.27
Forfeited/expired	3,767,184	2.74
Shares under option at December 31, 1998	177,631,112	2.72
Granted	92,319,408	15.80
Exercised	64,825,748	2.38
Forfeited/expired	2,171,444	3.42
Shares under option at December 31, 1999	202,953,328	6.89
Granted[2]	18,339,647	44.86
Exercised	33,490,088	2.22
Forfeited/expired	2,953,294	24.66
Shares under option at December 31, 2000	184,849,593	19.80
Warrants exercisable at December 31, 1998 (shares)	63,305,256	2.19
Warrants exercisable at December 31, 1999 (shares)	43,046,716	2.50
Warrants exercisable at December 31, 2000 (shares)	12,199,932	3.83

The options outstanding by range of exercise prices at December 31, 2000 are as follows:

Options outstanding				Vested options outstanding	
Exercise prices EUR	Number of shares	Weighted average remaining contractual life in years	Weighted average exercise price EUR	Number of shares	Weighted average exercise price EUR
0.21-2.25	3,676,854	2.80	1.88	2,774,029	1.78
3.23	78,817,872	2.10	3.23	9,140,512	3.23
8.88-14.16	279,512	7.56	10.69	175,958	10.73
16.89	44,902,328	4.00	16.89	—	—
16.92-56.02	1,443,627	8.73	30.39	109,433	27.11
56.28	40,701,288	4.00	56.28	—	—
56.59-63.39	256,540	8.98	59.53	—	—
N/A[3]	14,771,572	4.00	N/A[3]	—	—
	184,849,593			12,199,932	

(1) Weighted average exercise price calculated for options where exercise price is known.

(2) Includes options converted in acquisitions.

(3) The exercise price of these options had not been set by December 31, 2000. The price will be based on the future price of Nokia shares.

26. Earnings per share

		2000	1999	1998
Numerator/EURm				
Basic/Diluted:	Net profit	3,938	2,577	1,750
Denominator/1,000 shares				
Basic:	Weighted average shares	4,673,162	4,593,761	4,553,364
	Effect of dilutive securities: warrants	119,818	149,423	139,840
Diluted:	Adjusted weighted average shares and assumed conversions	4,792,980	4,743,184	4,693,204

27. Commitments and contingencies

	2000 EURm	1999 EURm
Collateral for own commitments		
Mortgages	12	6
Assets pledged[1]	4	3
Contingent liabilities on behalf of Group companies		
Other guarantees	656	427
Collateral given on behalf of other companies		
Securities pledged	23	—
Contingent liabilities on behalf of other companies		
Guarantees for loans	298	234

(1) Assets pledged include inventories.

There is no market for the guarantees listed above and they were issued without explicit cost; therefore, it is not practicable to establish fair value of such instruments.

28. Leasing contracts

The Group leases office, manufacturing and warehouse space under various non-cancellable operating leases. Certain contracts contain renewal options for various periods of time.

The future costs for finance lease contracts exceeding one year and for non-cancellable leasing contracts are as follows:

	Finance lease EURm	Operating lease EURm
Leasing payments		
2001	3	179
2002	2	156
2003	1	137
2004	—	128
2005	—	127
and thereafter	—	161
Total	6	888

Rental expense amounted to EUR 370 million, EUR 216 million and EUR 106 million in 2000, 1999 and 1998, respectively.

29. Related parties

Nokia Pension Foundation is a separate legal entity that manages and holds in trust the assets for the Group's Finnish employee benefit plans, which include 0.3% of Nokia's shares. Nokia Pension Foundation is also the counterparty to an equity swap agreement with the Group. This transaction was executed on standard commercial terms and conditions. The notional amount of this swap is EUR 336 million and the fair value at December 31, 2000 was EUR (19) million.

The Group recorded net rental expense of EUR 3 million in 2000, EUR 1 million in 1999 and EUR 3 million in 1998 pertaining to a sale-leaseback transaction with the Nokia Pension Foundation involving certain buildings and a lease of the underlying land.

There were no loans granted to top management at December 31, 2000 or 1999. Loans granted to senior management amounted to EUR 1 million at December 31, 1998. The loan period is generally between 5 and 10 years. The interest rates vary between 3% and 8% depending on the level of interest rate in the respective country.

See Note 4 for officers and directors remuneration.

30. Associated companies

	2000	1999	1998
	EURm	EURm	EURm
Income statement information			
Share of results of associated companies	(16)	(5)	6
Dividend income	1	2	2
Share of shareholders' equity of associated companies	45	68	91
Balance sheet information			
Receivables from associated companies			
Accounts receivable	4	1	—
Short-term loans receivable	1	—	—
Long-term loans receivable	31	—	—
Liabilities to associated companies			
Current liabilities	—	6	—

31. Notes to cash flow statement

	2000 EURm	1999 EURm	1998 EURm
Adjustments for:			
Depreciation and amortization	1,009	665	509
Other operating income and expenses	(42)	(68)	(8)
Adjustments, total	967	597	501
Change in net working capital			
Increase in short-term trade receivables	(2,304)	(982)	(1,573)
Increase in inventories	(422)	(362)	(103)
Increase in interest-free short-term liabilities	1,349	1,323	1,225
Change in net working capital	(1,377)	(21)	(451)
Non-cash investing activities			
Acquisition of:			
Network Alchemy	336	—	—
DiscoveryCom	223	—	—
Rooftop	—	42	—
	559	42	—

32. Financial risk management

The continuously evolving financial markets, together with a rapidly changing business environment, create a challenging environment for Nokia's Treasury function. The overall objective of the Treasury function is twofold: to guarantee cost efficient funding of the group and group companies, and to identify, evaluate and hedge financial risks in close cooperation with the business groups. Nokia has Treasury centers in Geneva, Singapore/Beijing and Dallas, and a Corporate Treasury unit in Helsinki. This international organization enables Nokia to provide the Group companies with financial services according to local needs and requirements. Treasury aims at minimizing the adverse effects caused by fluctuations in the financial markets on the profitability of the underlying businesses and thus on the financial performance of Nokia.

Treasury operations are controlled by policies approved by senior management. Treasury Policy provides principles for overall financial risk management in Nokia. Operating Policies cover specific areas such as foreign exchange risk, interest rate risk, use of derivative financial instruments and liquidity and credit risk. Basic operating policy in Treasury is risk averse. Financial transactions that are not related to the business are not entered into. Business Groups have detailed standard operating procedures covering, for example, foreign exchange exposure management.

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 purchase and sale commitments, give rise to foreign exchange exposure. Foreign exchange exposures are managed against various local currencies because of Nokia's increasing production and sales outside the Eurozone. Due to the rapid growth in the Group, currency combinations may also change within the financial year. The most significant sales currencies were the U.S. dollar, UK pound sterling and Australian dollar. In general, the appreciation of the euro against other currencies has an adverse effect on Nokia's sales and operating profit in the medium to long term, while depreciation of the euro has a positive effect. The only significant purchasing currency is Japanese yen.

According to the foreign exchange policy guidelines of the Group, material open 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 used to hedge foreign exchange risk have a duration of less than a year.

Nokia uses Value-at-Risk methodology (''VaR'') to assess the foreign exchange risk. The VaR figure represents the potential losses for a portfolio from adverse changes in market factors, for a specified time period and confidence level based on historical data. To correctly take into account the non-linear value changes of various derivative instruments, Nokia uses Monte Carlo simulation. Volatilities and correlations are calculated from a one-year set of daily data.

Since Nokia has subsidiaries outside the Eurozone, the euro-denominated value of the 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. Exchange gains and losses resulting from the hedging transactions are offset against the translation differences arising from consolidation and are recorded in shareholders' equity.

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 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. Group companies are responsible for managing their short-term interest rate exposure. Long-term interest rate exposure of the Group is monitored and managed by Corporate Treasury. Due to the current balance sheet structure of Nokia, emphasis is placed on managing the interest rate risk of investments.

The Group hedges its interest rate exposure by using derivative financial instruments, such as interest rate swaps, forwards and options. The maturities of interest rate swaps are usually less than five years. Investment portfolios are benchmarked and measured with Value-at-Risk against a one-year investment horizon in order to facilitate internal performance measurement. Prior to January 1, 2000, Nokia used sensitivity analysis to report interest rate risk. From January 1, 2000, Nokia uses Value-at-Risk methodology (''VaR'') to assess the interest rate risk. The VaR figure represents the potential losses for a portfolio from adverse changes in market factors, for a specified time period and confidence level based on historical data. For interest rate risk Nokia uses variance-covariance methodology. Volatilities and correlations are calculated from a set of daily data covering a minimum period of one year.

Equity price risk

Nokia has a number of strategic minority investments in publicly traded companies. These investments are held for purposes other than trading. The market value of the equity investments on December 31, 2000 was EUR 140 million (EUR 180 million in 1999). At December 31, 2000, there were no outstanding derivative financial instruments designated as hedges of these equity investments.

In addition to the listed equity holdings, Nokia invests in private equity through Nokia Venture Partners funds. The value of these equity investments at December 31, 2000, was USD 121 million (USD 42 million in 1999).

Nokia is exposed to equity price risk on social security costs relating to stock option plans. Nokia hedges this risk by entering into cash-settled equity swaps.

Credit risk

Financial credit risk

Financial instruments contain an element of risk that the counterparties may be unable to meet their obligations. This risk is measured and monitored by treasury management. The Group minimizes this risk by limiting its counterparties to a sufficient number of major banks and financial institutions.

Direct credit risk represents the risk of loss resulting from counterparty default in relation to on-balance sheet products. The fixed income and money market investment decisions are based on high quality credit criteria. The outstanding investments are also constantly monitored by treasury management. Treasury management does not expect the counterparties to default given their high credit ratings.

Commercial credit risk

Vendor financing is often involved in the international trade of telecommunication networks. Nokia has maintained a conservative financing policy in this area and aimed at close cooperation with banks and financial institutions to support clients in their financing of infrastructure investments. Credit risks related to vendor financing are systematically analysed and monitored by the Group's credit committee in accordance with the principles defined in the Group's credit policy and according to an internal credit approval process. The outstanding exposures on long-term customer financing on December 31, 2000 were EUR 1,226 million (EUR 600 million in 1999) out of which EUR 907 million were long-term receivables (EUR 370 million in 1999) and EUR 319 million contingent liabilities (EUR 230 million in 1999).

Liquidity risk

Nokia maintains sufficient liquidity at all times by efficient cash management and by investing in liquid fixed income instruments. Due to the dynamic nature of the underlying business Treasury aims to maintain flexibility in funding by keeping committed and uncommitted credit lines available. Nokia's international creditworthiness facilitates the efficient use of international capital and loan markets. Moody's credit rating agency gave Nokia a long-term credit rating of A1 in 2000. The ratings of Nokia's debt from credit rating agencies as at December 31, 2000 were:

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

The most significant existing funding programs include:

Local commercial paper programs in Finland, totalling EUR 270 million
Euro Commercial Paper (ECP) program, totalling USD 500 million
U.S. Commercial Paper (USCP) program, totalling USD 500 million
Revolving Credit Facility of USD 350 million, matures in 2004
Revolving Credit Facility of USD 500 million, matures in 2003

None of the above programs have been used to a significant degree in 2000.

Notional amounts of derivative financial instruments[1]

	2000	1999
	EURm	EURm
Foreign exchange forward contracts[2][3][5]	10,497	9,473
Currency options bought[3]	2,165	1,184
Currency options sold[3]	2,029	978
Interest rate forward and futures contracts[2]	—	598
Interest rate swaps	250	250
Cash settled equity swaps[4]	336	—

(1) The notional amounts of derivatives summarized here do not represent amounts exchanged by the parties and thus are not a measure of Nokia's exposure caused by its use of derivatives.

(2) Notional amounts outstanding include positions that have been closed off.

(3) As at December 31, 2000 notional amounts include contracts amounting to EUR 0.7 billion used to hedge the shareholders' equity of foreign subsidiaries (EUR 0.6 billion at December 31, 1999).

(4) Cash-settled equity swaps can be used to hedge risk relating to incentive programs and investment activities.

(5) Includes EUR 416 million forward foreign exchange contracts that do not meet hedge accounting criteria. A gain of EUR 24 million has been realized in the profit and loss account in 2000.

33. Fair value of financial instruments

The following table presents the carrying amounts and fair values of the Group's financial instruments outstanding at December 31, 2000 and 1999. The carrying amounts in the table are included in the balance sheet under the indicated captions, except for derivatives, which are included in accounts receivable and accounts payable and accrued expenses. The fair value of a financial instrument is defined as the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

	2000		1999	
	Carrying amount	Fair value	Carrying amount	Fair value
	EURm		EURm	
Financial assets				
Cash and cash equivalents	4,183	4,226	4,159	4,166
Receivables	6,437	6,437	3,985	3,985
Investments in other shares	150	185	68	212
Other non-current assets	242	242	197	197
Financial liabilities				
Accounts payable	3,004	3,004	2,404	2,404
Short-term borrowings	1,069	1,069	792	792
Long-term interest-bearing liabilities	173	185	269	285
Off-balance-sheet instruments				
Currency options purchased(1)(2)	44	44	25	25
Currency options written(1)(2)	(36)	(36)	(28)	(28)
Forward foreign exchange contracts(1)(2)	(81)	(81)	(54)	(54)
Interest rate swaps(3)	—	—	(2)	(1)
Cash settled equity swaps(3)	(19)	(19)	—	—

(1) The carrying amount and fair value of forward foreign exchange contracts and currency options include unrealized gains and losses relating to hedges of firm and anticipated commitments, which have been deferred.

(2) Forward foreign exchange contracts and currency options used to hedge the shareholders' equity of foreign subsidiaries are not included.

(3) The carrying amount of the swaps includes accrued interest.

Estimation of fair values

Receivables, accounts payable, short-term borrowings

The carrying amounts are a reasonable estimate of the fair values because of the short maturity of such instruments.

Cash and cash equivalents, investments and other non-current assets

The carrying amounts of cash and certain other financial assets approximate fair values. The fair value of publicly traded instruments is based on quoted market values. All other instruments have been valued using discounted cash flow analyses.

Long-term interest-bearing liabilities

The fair value of fixed rate and market-based floating rate long-term debt is estimated using the expected future payments discounted at market interest rates. The carrying amount of non-market based floating rate long-term loans, including pension loans, approximates fair value.

Currency option and forward foreign exchange contracts

The carrying amounts of currency option contracts and forward foreign exchange contracts are based on quoted market rates at year-end balance sheet dates. Therefore, the carrying amounts approximate fair value.

Interest rate and currency swaps, cash settled equity swaps

Fair values of swap instruments have been estimated by using discounted cash flow analyses and quoted market rates at year-end balance sheet dates.

Forward rate agreements, interest rate option and futures contracts

Fair values of FRA's, interest rate options and futures contracts have been estimated based on quoted market rates at year-end balance sheet dates.

34. Principal Nokia Group companies on December 31, 2000

		Net sales	Number of shares	Group majority	Total nominal value in 1,000 units	Book value
		EURm		%		EURm
FI	Nokia Matkapuhelimet Oy	13,763	665	100.0	33,250 FIM	18
US	Nokia Mobile Phones Inc.	6,102	1,300	100.0	1 USD	934
FI	Nokia Networks Oy	5,382	226,000	100.0	226,000 FIM	63
DE	Nokia GmbH	5,319		100.0		10
HK	Nokia (H.K.) Ltd	4,052	5,000,000	100.0	5,000 HKD	2
GB	Nokia UK Limited	3,184	20,000,000	100.0	20,000 GBP	33
KR	Nokia TMC Limited	2,629	232,080	100.0	2,320,800 KRW	28
CN	Beijing Nokia Mobile Telecommunications Ltd.	2,277	2	50.0	10,000 USD	11
US	Nokia Holding Inc.		10,000	100.0	10 USD	809
NL	Nokia Finance International B.V.		231	100.0	229 NLG	348

	Group holding	Group voting
	%	%
Group holding more than 5% (listed)		
Nextrom Holding S.A.	59.97	39.97[1]
Nokian Tyres plc	19.2	19.2

(1) Nokia has agreed to abstain from exercising the voting rights relating to the shares subscribed for during 2000.

A complete list of all shareholdings is included in Nokia's Statutory Accounts.

35. Subsequent events

In January 2001 Nokia acquired Ramp Networks, Inc. for USD 127 million paid in cash. Ramp Networks, Inc., based in Santa Clara, California, is a leading provider of Internet security and broadband access solutions for the small office and enterprise remote office.

The Board of Directors of Nokia Corporation, Nokia Matkapuhelimet Oy and Nokia Networks Oy resolved on January 30, 2001 to merge the subsidiaries into the parent company. The mergers are expected to become effective during the third quarter of 2001.

Notes to the Consolidated Financial Statements (Continued)

36. Differences between International Accounting Standards and U.S. Generally Accepted Accounting Principles

The Group's consolidated financial statements are prepared in accordance with International Accounting Standards, which differ in certain respects from accounting principles generally accepted in the United States (U.S. GAAP).

The principal differences between IAS and U.S. GAAP are presented below together with explanations of certain adjustments that affect consolidated net income and total shareholders' equity as of and for the years ended December 31:

	2000	1999	1998
	EURm	EURm	EURm
Reconciliation of net income:			
Net income reported under IAS	3,938	2,577	1,750
U.S. GAAP adjustments:			
Deferred income taxes	—	—	(70)
Pension expense	(13)	9	16
Development costs	(65)	(47)	(18)
Marketable securities	(10)	(15)	29
Sale-leaseback transactions	—	4	1
Provision for social security cost on stock options	34	—	—
Stock compensation expense	(46)	—	—
Deferred tax effect of U.S. GAAP adjustments	9	14	(19)
Net income under U.S. GAAP	3,847	2,542	1,689
Presentation of comprehensive income under U.S. GAAP:			
Other comprehensive income net of tax:			
Foreign currency translation adjustment	104	61	(1)
Unrealized gains on securities:			
Unrealized holding gains during the year	(30)	91	42
Less: Reclassification adjustment for gains included in income	(44)	(23)	—
Other comprehensive income	30	129	41
Comprehensive income	3,877	2,671	1,730

	2000	1999
	EURm	EURm
Reconciliation of shareholders' equity:		
Total shareholders' equity reported under IAS	10,808	7,378
U.S. GAAP adjustments:		
Pension expense	41	54
Development costs	(251)	(186)
Marketable securities	58	142
Provision for social security cost on stock options	257	—
Deferred compensation	(24)	—
Shares under option	70	—
Stock compensation expense	(46)	—
Deferred tax effect of U.S. GAAP adjustments	(42)	(4)
Total shareholders' equity under U.S. GAAP	10,871	7,384

Earnings per share under U.S. GAAP

Earnings per share amounts after giving retroactive effect to the 4-for-1 share split in 2000 and share splits in prior years, are presented below:

	2000 EUR	1999 EUR	1998 EUR
Earnings per share (net income):			
Basic	0.82	0.55	0.37
Diluted	0.80	0.54	0.36

Deferred income taxes

Beginning January 1, 1998 the Group has accounted for deferred income taxes under IAS using the liability method. The differences between the application of IAS and U.S. GAAP are insignificant in relation to Nokia's deferred tax balance.

The 1998 U.S. GAAP net income amount has been revised to appropriately reflect the fact that there is no difference in accounting for income taxes under U.S. GAAP and IAS as a result of the adoption of IAS 12 revised. The effect of this revision was to decrease net income by EUR 70 million and basic and diluted earnings per share by 0.08 EUR and 0.06 EUR, respectively.

Prior to January 1, 1998, under IAS, deferred income taxes were not provided for differences between taxable income and accounting income that were not expected to reverse for some considerable period of time. U.S. GAAP requires recognition of deferred income taxes on a comprehensive basis for all temporary differences. Under this method, deferred tax liabilities and assets are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect at year-end. Deferred tax assets are also recognized on net operating loss carryforwards, reduced by a valuation allowance where it is more likely than not that the asset will not be realized.

Development costs

Development costs have been capitalized after the product involved has reached a certain degree of technical feasibility. Capitalization ceases and depreciation begins when the product becomes available to customers. The depreciation period of these capitalized assets is between two and five years.

Under U.S. GAAP software development costs would similarly be capitalized after the product has reached a certain degree of technical feasibility. However, certain non-software related development costs capitalized under IAS would not be capitalizable under U.S. GAAP and therefore would have been expensed.

Marketable securities

Under IAS, marketable securities for which it is management's intent to sell within the current operating cycle are marked to market value; otherwise such securities are carried at cost. The unrealized gain or loss recognized in connection with these securities that have been marked to market is charged to the profit and loss statement.

Under U.S. GAAP, the Group's marketable securities would be classified as available for sale and carried at aggregate fair value with gross unrealized holding gains and losses reported as a separate component of shareholders' equity.

Total proceeds from the sale of available for sale securities were EUR 94 million in 2000 (EUR 106 million in 1999 and EUR 9 million in 1998).

Sale-leaseback transactions

Under IAS, the Group recorded a gain from a transaction involving the sale of property and equipment and has recorded rental expense associated with the subsequent leaseback of such property and equipment.

Under U.S. GAAP, the sale-leaseback transaction would be treated as financing. Accordingly, until the gain is realized through sale of the property and equipment, the gain would be reversed and the proceeds from the sale would be treated as an obligation. Rental payment would be applied to interest expense on the obligation, as well as to reducing the principal amount of the obligation. At December 31, 1998, the obligation for such financing would increase long-term debt by EUR 10 million and the current portion of long-term debt would increase by EUR 1 million. Depreciation would continue to be expensed as if the assets had never been sold. At December 31, 1998, the impact of reversing the sale of fixed assets would increase property, plant and equipment by EUR 6 million.

Provision for social security cost on stock options

Under IAS, the Group provides for social security costs on stock options on the date of grant, based on intrinsic value. The provision is adjusted for movements in the Nokia share price. Under U.S. GAAP, no expense is recorded until the options are exercised.

Stock compensation

Under IAS, no compensation expense is recorded on stock options granted. Under U.S. GAAP, the Group follows the methodology in APB 25 to measure employee stock compensation. For the year ended December 31, 2000, certain employees were granted stock options with an exercise price less than the quoted market value of the underlying stock on the date of grant. This intrinsic value is recorded as deferred compensation within shareholders' equity and recognized in the profit and loss account over the vesting period of the stock options.

Disclosures required by U.S. GAAP

Dependence on limited sources of supply

Nokia's manufacturing operations depend on obtaining adequate supplies of components on a timely basis. Nokia's principal requirements are for electronic components, such as semiconductors, microprocessors, micro controllers and memory devices, which have a wide range of applications in the Group's communications products. Nokia's products also incorporate software provided by third parties. Although Nokia has not experienced significant shortages of components to date, from time to time suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. In addition, a particular component may be available only from a limited number of suppliers. Nokia outsources an increasing portion of its manufacturing to third parties and if one of the third parties to which Nokia outsources fails to perform, or if a key supplier of components experiences delays or disruptions in its production, the Group's ability to produce and deliver its products on a timely basis could be affected adversely.

Segment information

The accounting policies of the segments are the same as those described in Note 1. Nokia accounts for intersegment revenues and transfers as if the revenues or transfers were to third parties, that is, at current market prices. Nokia evaluates the performance of its segments and allocates resources to them based on operating profit.

No single customer represents 10% or more of the Group net sales.

Capital additions to long lived assets as of and for the years ended December 31:

	Nokia Networks	Mobile Phones	Nokia Ventures Organization[1]	Common Group Functions	Group
	EURm	EURm	EURm	EURm	EURm
2000	277	855	33	269	1,434
1999	315	667	42	220	1,244
1998	197	440	—	50	687

(1) In 1998, Nokia Ventures Organization was not reported as a separate segment and its operations were not significant.

Long-lived asset information, which includes property, plant and equipment, by geographic area for the years ended December 31:

	Finland	USA	China	UK	Germany	Other	Group
	EURm	EURm	EURm	EURm	EURm	EURm	EURm
2000	1,105	427	269	230	250	451	2,732
1999	858	350	169	165	203	286	2,031
1998	643	156	84	135	153	160	1,331

Compensation expense

As allowed by FAS 123, under U.S. GAAP the Group has elected to continue to apply APB Opinion 25 and related interpretations in accounting for its stock-based compensation schemes. The exercise price of each option generally equals the market price of Nokia's shares on the date of grant. Generally, options vest on the date they become exercisable. Compensation cost recorded under APB Opinion 25 was EUR 46 million in 2000. Had compensation cost for management incentive schemes been determined based on the fair value at the grant dates for options under those schemes consistent with the method prescribed in FAS 123, the Group's net income and earnings per share would have been reduced to the pro forma amounts indicated below:

	2000	1999	1998
Net income under U.S. GAAP (EURm)			
As reported	3,847	2,542	1,689
Pro forma	3,447	2,395	1,656
Basic earnings per share (EUR)			
As reported	0.82	0.55	0.37
Pro forma	0.74	0.52	0.36
Diluted earnings per share (EUR)			
As reported	0.80	0.54	0.36
Pro forma	0.72	0.50	0.35

Under FAS 123, pro forma disclosures are only required in relation to awards granted after January 1, 1995. The fair value of the options is estimated on the date of grant using the binomial option-pricing model with the following assumptions:

	2000	1999	1998
Weighted average assumptions			
Dividend yield	0.37%	0.72%	1.16%
Expected volatility	45%	40%	35%
Risk-free interest rate	4.69%	3.13%	5.83%
Expected life (years)	2.3	3.0	4.3

The weighted-average fair value of options granted was EUR 4.67 in 1998, EUR 5.83 in 1999 and EUR 16.89 in 2000.

Pension expense

Under IAS, the determination of pension expense for defined benefit plans differs from the methodology set forth in U.S. GAAP. For purposes of U.S. GAAP, the Group has estimated the effect on net income and shareholders' equity assuming the application of SFAS No. 87 in calculating pension expense as of January 1, 1992.

For its single-employer defined benefit pension schemes, net periodic pension cost included in the Group's U.S. GAAP net income for the years ended December 31, 2000, 1999 and 1998, includes the following components.

	2000	1999	1998
	EURm	EURm	EURm
Service cost — benefits earned during the year[1]	182	126	99
Interest on projected benefit obligation	35	25	21
Expected return on assets	(78)	(40)	(26)
Amortization of prior service cost/(benefit)	7	(1)	(4)
Recognized net actuarial loss	(32)	(10)	(2)
Amortization of transition asset	2	2	2
Net periodic pension cost	116	102	90

[1] Includes premiums associated with pooled benefits.

The following table sets forth the changes in the benefit obligation and fair value of plan assets during the year and the funded status of the significant defined benefit pension plans showing the amounts that would be recognized in the Group's consolidated balance sheet in accordance with U.S. GAAP at December 31:

	2000		1999	
	Domestic plans	Foreign plans	Domestic plans	Foreign plans
	EURm		EURm	
Projected benefit obligation at beginning of year	(400)	(200)	(247)	(131)
Foreign exchange	—	(1)	—	(1)
Service cost	(31)	(8)	(17)	(4)
Interest on projected benefit obligation	(25)	(11)	(14)	(8)
Plan participants' contributions	—	(3)	—	(5)
Amendments[1]	—	—	(87)	—
Actuarial gain (loss)	(4)	22	(42)	(18)
Acquisitions	—	—	—	4
Benefits paid	7	7	7	6
New pension plan	—	—	—	(43)
Projected benefit obligation at end of year	(453)	(194)	(400)	(200)
Plan assets at fair value at beginning of year	1,000	107	547	86
Foreign exchange	—	—	—	4
Actual return on plan assets	(73)	3	459	9
Employer contribution	1	10	1	9
Plan participants' contributions	—	3	—	5
Benefits paid	(7)	(6)	(7)	(6)
Plan assets at fair value at end of year	921	117	1,000	107
Excess (deficit) of plan assets over projected benefit obligation[2]	468	(77)	600	(93)
Unrecognized transition obligation	3	9	4	11
Unrecognized net gain from experience differences	(386)	(33)	(566)	(15)
Unamortized prior service cost	38	—	40	—
Prepaid (accrued) pension cost	123	(101)	78	(97)

(1) Effective January 1, 2000 the financing terms of the Finnish statutory employment pension scheme (TEL) were amended. The amendments resulted in an increase in the employer funded portion of TEL benefits and a decrease in the pay-as-you-go portion of TEL benefits pertaining to the old age pensions which was partly offset by a decrease in the employer funded portion of TEL benefits and an increase in the pay-as-you-go portion of TEL benefits as a result of the amendment to disability pensions. The effect of these amendments was EUR 87 million on the projected benefit obligation at December 31, 1999.

(2) The foreign plans consist of two plans, one of which is overfunded and the other which is underfunded. The details of these plans are as follows:

	2000		1999	
	Overfunded	Underfunded	Overfunded	Underfunded
	EURm		EURm	
Aggregate benefit obligation	(41)	(153)	(25)	(175)
Fair value of plan assets	43	74	33	74
Funded status	2	(79)	8	(101)

Weighted average assumptions used in calculation of pension obligations are as follows:

	2000		1999	
	Domestic	Foreign	Domestic	Foreign
Discount rate used in determining present values	5.8%	6.1%	5.8%	5.7%
Annual rate of increase in future compensation levels	4.0%	3.1%	4.0%	2.9%
Expected long-term rate of return on plan assets	7.25%	6.6%	7.0%	6.6%

The Group also contributes to multiemployer plans, insured plans and defined contribution plans. Such contributions were approximately EUR 58 million, EUR 43 million and EUR 44 million during 2000, 1999 and 1998, respectively.

At December 31, 2000 approximately 63% of domestic plan assets consist of Nokia securities. The remaining plan assets consist primarily of real estate, cash and other short-term investments.

Foreign currency translation

Net foreign exchange gains/(losses) of EUR (81) million, EUR (15) million and EUR (10) million were included in the determination of net income of which EUR (82) million, EUR (10) million and EUR (3) million were included in cost of sales for the year ended December 31, 2000, 1999, and 1998, respectively.

Cash and cash equivalents

Included within bank and cash in the balance sheet is EUR 23 million of restricted cash. Under U.S. GAAP bank overdrafts of EUR 243 million for which there is a legal right of offset would be included within cash and cash equivalents.

Consolidation

Nokia has an investment in a subsidiary in which it owns 50% of the voting shares which under IAS has been consolidated as Nokia has control of its operating and financial policies. Under U.S. GAAP, this entity would be accounted for as a joint venture using the equity method. The impact of deconsolidation has an immaterial effect on the consolidated financial statements when adjusted for the impact of sales from Nokia to the subsidiary and the subsidiary's sales to Nokia.

Under U.S. GAAP, related party transactions with the subsidiary include sales by Nokia to the subsidiary of EUR 1,558 million (EUR 817 million in 1999 and EUR 449 million in 1998) and purchases by Nokia from the subsidiary of EUR 916 million (EUR 210 million in 1999 and EUR 79 million in 1998).

New U.S. accounting standards

For U.S. GAAP reconciliation purposes, the Group will adopt SFAS No. 133 Accounting for Derivative Instruments and Hedging Activities (“SFAS 133”), as amended by SFAS No. 137 and SFAS No. 138, on January 1, 2001. SFAS 133 requires the Group to record all derivatives on the balance sheet at fair value. Changes in derivative fair values will either be recognized in earnings as offsets to the earnings recognition of changes in fair values of related hedged assets, liabilities and firm commitments or, for derivatives that hedge forecasted transactions, deferred and recorded as a component of other stockholders' equity until the hedged transactions occur and are recognized in earnings. The ineffective portion of a hedging derivative's change in fair value will be immediately recognized in earnings.

The transition to the new standard will not result in a material adjustment to the profit and loss account. The Group will record a one-time after-tax charge for the initial adoption of SFAS 133 with a total reclassification of EUR (114) million of gains and losses on qualifying cash flow hedging derivatives from deferred assets and liabilities into equity adjustments under IAS 39 and into accumulated other comprehensive income under U.S. GAAP.

SIGNATURES

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

NOKIA CORPORATION

By: /s/ URSULA RANIN

Name: Ursula Ranin
Title: Vice President, General Counsel

By: /s/ KAARINA STÅHLBERG

Name: Kaarina Ståhlberg
Title: Senior Legal Counsel

June 28, 2001