

NOKIA

/insight:

Business Review 2000



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www.nokia.com/insight

inside: Business Review of Nokia's Annual Report 2000

This document is Nokia's Business Review 2000.
Together with Nokia's Financial Statements it forms
Nokia's Annual Report 2000.

Please see the information regarding certain forward
looking statements on the back cover of this review.

"In last year's Annual Report we said there were 'no limits' to future achievement. We still believe this and want to put our customers and investors firmly in the driving seat for the journey ahead. We believe we have the technological capability to change the way companies and individuals relate to one another.

Read this Report and in addition explore our new corporate reporting section at <http://www.nokia.com> for an insight into how we can fulfil the needs of all our stakeholders both today and tomorrow.

Our key objective is, quite simply, connecting people."

Nokia in brief

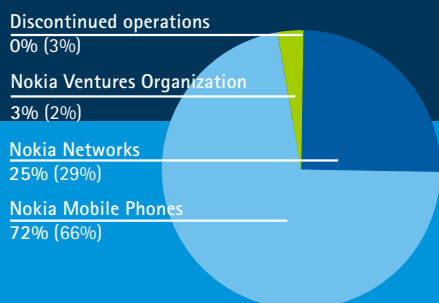
Nokia is the world leader in mobile communications. By adding mobility to the Internet, we are creating new opportunities for businesses and enriching the quality of life for individuals using our products.

Our 60 000 people operate as one team serving customers in 130 countries.

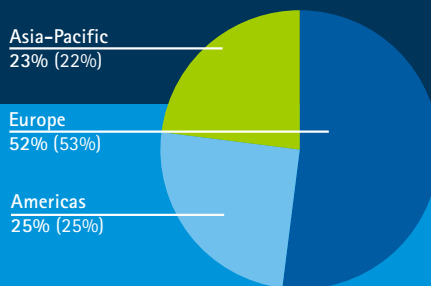
We are a broadly held company with listings on six major exchanges. We have production facilities in 10 countries and carry out research and development in 15 countries.

We have two business groups – Nokia Networks and Nokia Mobile Phones. The company also includes the Nokia Ventures Organization and the Nokia Research Center.

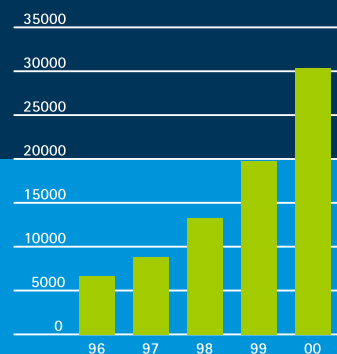
Net sales by business group
2000 (1999)



Net sales by market area
2000 (1999)



Nokia Group net sales
EURm



Nokia Networks is a leading supplier of mobile, broadband, IP network infrastructure and related services. It also develops mobile Internet applications and solutions for operators and Internet Service Providers.

Nokia Mobile Phones is the world's largest mobile phone manufacturer, with a brand identity instantly recognisable around the globe.

Nokia Ventures Organization develops innovative new ideas for the home environment and the corporate world, expanding Nokia's business scope.

Nokia Research Center drives Nokia's technological competitiveness and renewal, through cooperation with our business groups and with universities, research institutes and other corporations.

Highlights 2000

- operating profit up 48% to EUR 5.8 billion
- sales increased by 54% to EUR 30.4 billion
- dividend EUR 0.28, up 40%
- EPS, basic, split adjusted EUR 0.84

Nokia	2000, EURm	1999, EURm	Change, %
Net sales	30 376	19 772	54
Operating profit	5 776	3 908	48
Research and development	2 584	1 755	47

Personnel, Dec. 31	2000	1999	Change, %
Nokia Networks	23 965	23 718	1
Nokia Mobile Phones	28 047	23 775	18
Nokia Ventures Organization	2 570	1 879	37
Common Group Functions	5 707	5 888	-3
Nokia Group	60 289	55 260	9

Business Groups	2000, EURm	1999, EURm	Change, %
Nokia Networks			
Net sales	7 714	5 673	36
Operating profit	1 358	1 082	26
Research and development	1 013	777	30
Nokia Mobile Phones			
Net sales	21 887	13 182	66
Operating profit	4 879	3 099	57
Research and development	1 306	835	56
Nokia Ventures Organization			
Net sales	854	415	106
Operating profit	-387	-175	-121
Research and development	235	110	114

Currency rate at the end of 2000, 1 EUR = USD 0.890

Strategic intent

Nokia's business objective is to strengthen its position as a leading systems and product supplier in the rapidly evolving global communications industry. Nokia's strategic intent is to take a leading, brand-recognized role in creating the Mobile Information Society by

- Combining mobility and the Internet
- Stimulating the creation of new services.

Letter to our shareholders

Making best execution an asset

In what can only be described as a challenging environment, Nokia's financial figures for 2000 were nothing short of extraordinary. Operating profit increased by 48% to almost EUR 5.8 billion, another historical high, and the operating margin was notably above the industry average. Net sales were up 54% to about EUR 30.4 billion and earnings per share showed another healthy increase, rising 50% to EUR 0.84 on an undiluted basis.

The year 2000 was characterized by the relentless pace of change, as the whole industry fought to adapt quickly to the changing requirements of customers, emerging technologies and high expectations. We feel confident and challenged by this environment and have set ourselves the highest ambitions for success.

The numbers we were able to achieve speak very strongly for the group of people we have at Nokia. It is a special kind of team that can produce four consecutive years of stellar results with the same kind of growth, and the same kind of commitment that you find here. For us, this was not just another year of good results. It was a year when we were able to outshine the industry. And this would not have been possible without the team we have.

Not just what we do but the way we do it

So with a good team in place and another very encouraging set of results on the books, one might ask what else is there? We think execution matters. Good people and a strong balance sheet are only half our story.

Our experienced and unique way of operating is what we see as increasingly putting us ahead of the competition. As we move forward in this complex industry, winning will be less about what we do and more about the way we do it. This is what we firmly believe and this is also very much visible in our daily work.

Managing the flow of the 250 million components used daily in our mobile phone manufacturing means strict attention to logistics and scrutiny of every detail. In the networks business, it is our skill in timing parallel technology programs, from the development phase right through to manufacturing and implementation, that allows us to provide customers with a competitive edge. And in developing new businesses, the most efficient processes are imperative in identifying which new trees will make up the future forest.

Over the year, continuous increase in productivity has been a focal area in our organization. The priority has not been to grow the company in head count but rather to look inward for even better results, focusing on how we can increase the added value created by each Nokia person. If we look at the numbers, a 9% increase in personnel against a 54% surge in revenues, we clearly made progress in increasing efficiency.

Adding new people will not be a priority and certainly not something we will seek to do as a matter of course. Instead, we will work to maintain

an efficient network of top-quality people, each able to bring something extra to the table. We treasure the organization that we have now and the culture that together we have been able to create.

Strengthening leadership in a profitable way

We are in a unique position to build on our long-established success. Our strong brand value combined with the volume advantages of our leading market share position, winning technologies, and proven excellence in execution can continue to translate well into profitable future growth.

Over the last three years, Nokia's mobile phone sales volume growth has consistently exceeded market growth. In 2000, we grew faster than the market during every quarter and in every region. In the network business we advanced our leading market share position.

As part of our strategy for sustaining leadership, we will work to broaden further the gap between us and the rest of the industry, in a profitable way, not only in volumes but also in the way we handle logistics and the way we manage our capital. It is in these efforts that our experience becomes a much-valued commodity.

Getting the little things right

The ever-evolving technologies that have become the trademark of this industry continue to redefine our operating environment. Yet even as the variables change, our core competencies do not.

We have learnt to balance new ideas with the necessary experience to deliver them, and our experience counts for a great deal when it comes to timing and getting the right products to market in the right volumes to meet the right demand.

Nokia has been in this industry from the beginning. We understand the details and the importance of getting the little things right. In short, we strive to satisfy our customer needs in a cost-efficient way.

Going the e-way

Our efficiency in execution is swiftly moving to the next level with Nokia's transformation into a global e-business that will support huge volumes in a faster, more flexible and customer-centric way. Here, we are not just creating a duplicate electronic organization alongside the old, we are re-inventing and re-skilling ourselves in preparation for a totally new way.

As part of the transformation we are moving from a static value chain towards what we call a value net. This cuts out unnecessary steps, and allows for a seamless customer experience through one Nokia window. The process of corporate-wide e-enablement is well underway with visible results already, and we are expecting e-business as usual by 2003, with substantially all of our revenues generated via e-mode.



The numbers we were able to achieve speak very strongly for the group of people we have at Nokia. It is a special kind of team that can produce four consecutive years of stellar results with the same kind of growth, and the same kind of commitment that you find here. For us, this was not just another year of good results. It was a year when we were able to outshine the industry. And this would not have been possible without the team we have.

Extracts from the letter read by **Jorma Ollila** and **Pekka Ala-Pietilä** can be accessed at www.nokia.com/insight/ourobjectives

The electronic way of operating is not only changing the way we generate revenues but the way we interact internally and with our stakeholders. Now, for example, you will find this report on the Web, in a much broader and more dynamic format than we could ever provide here on paper.

The Internet has already transformed the way most businesses operate and many people live. We want to go much further by creating a blueprint for all networks and standards to cooperate seamlessly. With our new Mobile Internet Technical Architecture we are bringing a range of new mobile business possibilities to our customers as well as developing a far more user-friendly experience in electronic services for everyone – on any network with any type of access.

Finding new ways – as things change, we change with them

Our efforts to drive and shape the industry as a whole include continuous renewal of our own internal environment. In 2000, even with faster-than-market revenue growth, we stepped up our investment in R&D, employing nearly one third of the total Nokia team. This means an increasing share of resources today are being put towards the technologies that will benefit us tomorrow.

During the year we also increased our efforts in internal incubation and venture capital activities, putting in place an extensive network of business development professionals as well as a new US\$500 million fund. Both initiatives focus on areas away from Nokia's core operations.

Future growth areas include our new market leadership in security infrastructure for corporates, supplying solutions to help corporations block viruses and intruders at their network gateways. Demand from content providers for rights-enabled products is also increasing as more and more media is consumed in a mobile context.

We are intent on helping operators and providers create services with real usability and added value. During 2001, businesses and consumers will begin to enjoy a rollout of new interactive mobile services unimaginable in a fixed environment.

The Nokia way – putting values into play

Nokia's success so far has been very much a team effort with our core values at the fore. Key to maintaining a sharp, competitive edge are speed and flexibility in decision-making. We make sure that decisions are made as close to the frontline as possible and by those people most knowledgeable.

The flat, non-hierarchical working style also works for us, nurturing discussion and openness as well as encouraging entrepreneurship and risk-taking. The Nokia way is a frame of mind based on mutual respect, and a willingness to work together in a constructive and even enjoyable way towards high-quality results.

Over the past few months, general economic uncertainty, the changing competitive landscape and caution over the timing of the transition to new wireless technologies have been viewed by some as clouds on the horizon. Certainly they have caused turbulence in the market. Nevertheless, our basic ideology about how mobility changes the way people live is firmly established and we look forward to the next generation of products and services. Our aspirations are high as we build on our strengths and our excellence in execution without compromise.

As we move closer to the mobile world and a new era in people's lives, we aim for continued strong leadership. With this in mind, we intend to further excel in our work and do our utmost to merit the trust that our shareholders have shown us.

Jorma Ollila
Chairman and CEO

Pekka Ala-Pietilä
President

Heading towards an Internet world

Today's Internet and Internet Protocol (IP), the common language of all computers, are the driving forces behind the communications services people want, whether they are in the office, at home or on the move.

"To exploit it fully, mobile telephone networks need to change – and quickly – as the focus shifts from traditional voice to information services," says Vice President Petri Pöyhönen, of Nokia Networks.

Nokia is the vanguard of a global trend called 'Towards All IP' which will see mobile networks undergo dramatic change over the next couple of years.

From a user's point of view All IP networks will make the Internet more useful than ever before. It will become a natural extension of their personal communications providing the information and services they want at the right time without the need for time-consuming searching and downloading.

Other benefits will be based on streaming – a concept familiar in the data world – making real-time content streams such as voice, music, video clips and person-to-person video calls available on a range of mobile devices. Operators will gain from the All IP approach by providing such services efficiently

and cost effectively.

"Our role is to enable operators to create an end-user experience which is rewarding and inspiring enough to drive up their revenues. Those companies able to renew successfully and with sufficient speed stand to gain most in a rapidly changing marketplace," says Petri.

User-friendly

Nokia has taken the lead in defining the architecture to create a user-friendly mobile Internet experience. The change has already begun with the deployment of General Packet Radio Services (GPRS) in the mobile networks.

GPRS carries information in digital 'packets' offering a new range of high-speed mobile services and 'always on' access to the Internet without the need to log on each time.

"GPRS is the first step towards All IP and has been a big success for Nokia because we have brought the technology to market very rapidly," says Petri.

Other access technologies such as Wideband CDMA are on the way as the mobile world moves towards Third Generation (3G) services which themselves depend on Internet Protocol.

Radio access apart, the core networks also need to evolve from traditional circuit switching – the backbone of telephone networks – to IP.

Petri explains: An All IP infrastructure will bring more uniformity to an operator's networks so that voice and data can be carried in the same way."

At the moment, mobile voice calls still exceed mobile data traffic despite the phenomenal success of Short Message Service (SMS) text messages.

This is about to change, following the pattern in fixed-line networks where the vast amounts of data exchanged among corporate customers far exceeds the human race's ability to share information simply through talking.

Core networks are the service layer of the infrastructure in charge of mobility management. They also link all the various radio access technologies, which differ from operator to operator and provide common functions such as service management, charging, billing and registration.

Excellent opportunities

An All IP environment presents excellent opportunities for conver-

gence and cost saving.

Good old voice services will still be provided in the new All IP world, resembling high capacity real-time transaction processing rather than traditional telephone switches.

"Reachability is a concept we have seen and understood in the telephone service – you can dial and reach anyone carrying a handset. The same idea will now be extended to the Internet so that applications that will be working for us in the Net can reach out to people giving them the information they want without them having to ask for it," says Petri.

"An All IP environment will enable individuals, groups of friends, teams of colleagues and communities to link up in a flexible way either directly or through messaging and automatic updates.

"The new network will enable easier collaborative interaction with our preferred contacts. We will be able to use the network to share a lot more about our whereabouts and our ability or willingness to engage in interactions. It will not be intrusive or violate people's desire to control their own communications," he says.

Consumer choice – the way ahead

Mobile phones are commonplace around the world and people want to upgrade or replace them on a regular basis – once every two years is the current global average.

Today's customers want new features and functions and are looking for new models that best suit their individual needs and lifestyles.

Given Nokia's breadth of current products and innovative possibilities for the future, they are not likely to be disappointed as two of the latest models illustrate.

Choice has never been greater!



Nokia 3300 models

Designed particularly for younger users for whom the mobile phone is an important lifestyle accessory. Changeable coloured front and back covers, screen savers and downloadable ring tones make the phone more personal. The unique mobile chat function introduced with the Nokia 3310 allows users to chat with text messages whilst on the move. The phone also enables longer SMS messages to be exchanged by automatically connecting up to three messages together.



Nokia 9210 Communicator

An integrated mobile multimedia device for mobile professionals combining phone, fax, e-mail, calendar, imaging, WAP and WWW. With a high-quality colour display it offers easy navigation and input. It is a dual band EGSM 900/1800 device capable of high data speeds for messaging, imaging and video clips. It also supports the most commonly used PC office applications making it possible to create Microsoft Word and Excel documents and view PowerPoint slides.

Unfogging the mobile horizon

Nokia Mobile Phone's Chief Technology Officer Dr Yrjö Neuvo explains how mobile phone technology is evolving and what it would mean from a user's point of view. Dr Neuvo, a 'free thinker' and a member of the Nokia Group Executive Board, answered by referring to a popular series of children's books!



Neuvo: I am a Harry Potter fan and in one of the stories the boy has to buy books for his new term at his school for wizards. The books are 'Unfogging the Future' and 'Predicting the Unpredictable'. That's exactly what I try to do!

The future is all about serving people better. The ongoing developments create good opportunities to enrich the way our products make people's lives easier.

The convergence of Internet and mobile phones is a clear direction we are following into the fog of the future. We have made great strides with WAP which enables people to start accessing the Internet from a mobile phone, and GPRS which will give faster speeds and a connection always on. Soon the third generation standards will be taken into use, enabling new attractive image and multimedia applications, along with new mobile Internet services.

Insight: What changes will users see?

Neuvo: The ability of the devices to serve users will constantly increase. For example, a phone can know where you are and can give a bus timetable for your next destination. You'll be able to pay your fare over a Bluetooth radio link without fumbling for change. All your data can be synchronised so that it's at your fingertips whether you are using a phone, lap-top, PDA, or any digital device.

Insight: How far away are we from such things?

Neuvo: Location-based services are steadily coming about. The technology is developing rapidly, and useful applications should not be too far in the future. Our first Bluetooth-based product is on its way to the markets, enabling a wireless and smooth connection between PC and phone. To develop the world's first data synchronisation protocol, Nokia helped to establish the SyncML initiative last year. All in all, there are many exciting developments going on.

Insight: If devices do more and more will they have to get bigger and heavier?

Neuvo: Not necessarily. Technology continues to shrink, as it has been doing for a long time. Segmentation of products will also increase to cater for different users. Instead of a single device that does everything, we will see different types of devices for different purposes. We can have small, speech-controlled phones for plain talking. Or communicators with more emphasis on a decent keyboard. More sophisticated multimedia content means higher data rates, larger colour screens, cameras, and more technical complexity. Such devices will not go to matchbox size.

New phone shapes will also appear, for example screens that roll out from phones like a large piece of paper – just like reading a book!

Insight: Evolution is all about adapting to needs – do users really need these things?

Neuvo: We cannot create need where none exists. But we can anticipate, identify and amplify unconscious needs, which are hidden at the moment – that's what unfogging the future is all about.

A certain basic need is connecting people. People want to eliminate distance and place and to have everything available wherever they are and whenever they want. They don't want

to worry about different technologies and want devices to cooperate so they can watch TV on a cellphone or make a phone call from a laptop. Therefore, we aim to make technology work as seamlessly as possible.

Insight: How difficult a challenge is this?

Neuvo: It takes a lot of work behind the scenes to make technology invisible to users. Nokia's Mobile Internet Technical Architecture is one key initiative, bringing all network environments, communications modes and services together to create a seamless user experience. It also goes back to segmentation. Some people might want a simple but fashionable phone that can give directions to the nearest garage if asked by speaking. Some users again might want to see two-way video or use multimedia applications. There's a lot we can do to add real value for users already with current technology. A key issue, however, is getting the timing right.

Insight: How do you do that?

Neuvo: That is exactly why I would like to get hold of those Harry Potter coursebooks!

Let me step a bit backwards. The so-called 'Metcalfe's law' states that the value of a network is the square of the number of users connected. If only you and I have a phone, it soon gets pretty boring. But the more people we can connect with, the more real value the network and its applications have to us.

Exponential growth starts only after a particular technology or application has proved its worth during the initial phases and the word starts spreading about how useful it is. The growth curves of Internet and cellular phone penetration are good examples of Metcalfe's law in action.

Obviously, not all new things make hit products. History contains many examples of brilliant technologies that were brought into products only to never take off. The tough part is to unfog the future so much that you can jump on the right brooms, so to speak. We want to avoid the mistake of introducing things at the wrong time. That is why we carry out extensive research and market studies to really understand the value of technologies to users.

Insight: New ideas are critical – how do you ensure continuous innovation?

Neuvo: The profound changes going on in the world resulting from digital convergence, the Internet and wireless communications, result in an enormous potential. Future wireless developments like 3G are just elements of a deep transition where fascinating opportunities follow one another.

It is wise to leave some open space in products, thus having a window open for new ideas that come up as the future becomes unfogged. The Short Message Service is a classic example of this. Originally a simple extra channel left open in the GSM specification, it has become one of the real killer applications of the last years. Ideas with similar potential are what we are constantly looking for.

This industry is a melting pot of many exciting things. When a positive attitude towards innovation exists, brilliant ideas just seem to pop up around the company!



Club creates customer loyalty

Games, music and imaging are among new treats in store for the ever growing band of Nokia mobile phone owners who are keeping in touch with the company through Club Nokia.

The Club, which is to become available in all Nokia regions during

2001, is open to every Nokia phone owner and, so far, several million people in over 20 countries have registered to join.

Club Nokia is all about information, support and fun. Through its customised website, the Club caters for every type of customer interaction



A changing and dynamic market

The mobile phone industry is changing and, as customers become more sophisticated and demand more from their handsets, they are looking for new value when it comes to choosing what to buy.

In global terms, the market for mobile phone manufacturers continues to show impressive growth.

In 1992 there were only about ten million people in the world with a mobile phone. Our estimate for the global mobile subscriber base at the end of year 2000 is about 715 million, continuing to rise to over one billion in the first half of year 2002 – a hundred-fold rise in a decade.

The total number of handsets sold in 2000 was about 405 million – up from 280 million in 1999. In 2001, the total is estimated between 500 and 550 million.

In percentage terms, market growth is setting into lower levels as more and more people have mobile phones. However, for an industry of this size, market growth continues to be attractive.

On the other hand, the product life cycle of a mobile phone is around two years and the upgrade or replacement market is expected to grow from 40–50 per cent today, to 70–80 per cent in the next few years.

With the Internet going mobile the number of possible peer-to-peer or consumer-to-service connections is exploding and the way in which we are using our mobile phones is expanding. This offers tremendous new market opportunities.

Since customers are now familiar with the technology, and use it every day, the trend will be towards mobile phones that provide exactly what customers want. Called market segmentation, this trend will see a growing number of handsets and services which can be personalised to an individual's precise needs.

Heikki Norta, Vice President of Business Development at Nokia Mobile Phones, likens the change to buying a car.

When you buy your first car, it is likely to be a basic model but as you become more knowledgeable as a buyer and loyal to the brand of car you prefer, you will want your second, third and fourth cars to be much, much better.

“It’s the same with mobile phones – the world’s largest consumer electronics industry. Mobiles are more akin to wristwatches than computers because a typical owner may want to have a choice of several to suit their mood and needs at the time,” he says.

In the past, operators used to concentrate on offering low-cost, basic handsets to attract new subscribers. Today, we see a wider variation in consumer prices reflecting different customer needs and product concepts.

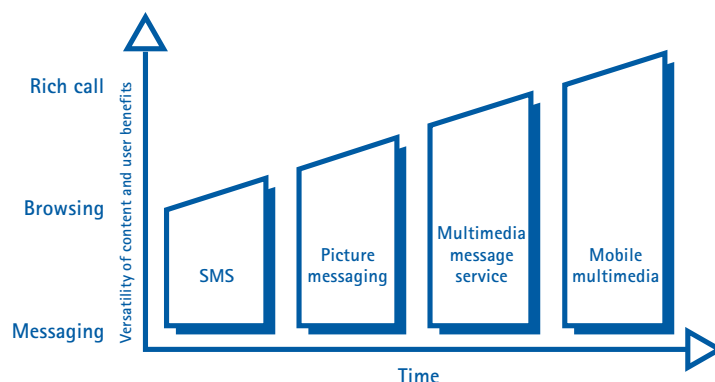
New categories of mobile phones are being developed. New features, functions and services are on the way to suit today’s more sophisticated customers. And Nokia is at the forefront in giving them what they want.

Nokia's mobile phone introductions in 2000

(model category and number)

Basic	Classic	Premium
3310 GSM 3390 GSM 1900 5165 TDMA 5185i CDMA	6185i CDMA 6210 GSM	8890 GSM
	Tough	Media
	6250 GSM	7160 TDMA 7190 GSM 1900
	Communicator	i-Mode
Fashion	9110i GSM 9210 GSM	NM502i
8260 TDMA 8290 GSM 1900 8250 GSM		

Technological evolution



and features premium call centre support and service back-up.

Club Nokia is a multichannel service including WAP, WWW, and SMS access with personalisation as a key feature. Nokia will focus on terminal enhancing and complementary services such as ringing tones. A recent feature enables members to customise and send extra pictures to their Nokia Picture Messaging-enabled mobiles. They can also compose their own ringing tone or download a choice of caller group icons.

Regular content includes information on Club Nokia events in the member's area, new product releases, news about mobile technology, special offers, downloadable software, accessories and collectibles.

During 2001, the Club's whole user interface is to be reconfigured to make it even more friendly and to simplify links between users and the information they might need from any part of Nokia.

Markus Nilsson, Senior Manager, Club Nokia, says that the aim is to

create customer loyalty by establishing an emotional bond through continuous dialogue. It also adds value to the customer's experience of both new Nokia products and the company itself by providing services, support and information.

"Within the next few years, some 70–80 per cent of new mobile phones are estimated to be bought by people who already own one. Therefore maintaining customer loyalty is of vital importance to us. Club Nokia is also a branded sales

channel and very useful when it comes to selling new digital services with our partner organisations," he says.

Club Nokia is about customer care, too. In the first year, members receive free e-mail and phone support from the Club Nokia Careline.

Careline answers specific inquiries about phones and Club Nokia itself. Should a phone need attention, it directs members to the nearest service point.

Relative values



It's a Nokia! Ever since the early 1990s it's been easy to spot a Nokia mobile phone, not because they look alike but because they share the same fundamental principles of comfort, balance and pleasure of use, which forms the genetic code of a Nokia design.

The designers at Nokia are determined to maintain this code in an array of new devices – including mobile communication devices, base station equipment and TV decoders – as the future unfolds.

UK Group Design Director Bill Sermon puts it this way: "It's a bit like spotting a distant relation across a room – you immediately know there's something familiar about them. We're not just designing individual products, we are creating a family that reflects the company's brand values in all that we do."

On the phones side of the business, this family feel was exposed in the early 1990s with the success of the Nokia 2110, which became an icon around the world with its large screen, clean design and easy to use interface.

In 2000, we launched a number of very different products from the rugged and durable Nokia 6250 which was designed to withstand being knocked about, to the sophisticated metal-cased Nokia 8890 and the colourful Nokia 3300 models for younger customers.

"They are all aimed at different consumers but, even at a distance, you just know it's a Nokia," says Bill.

The popularity of Wireless Application Protocol (WAP) phones which offer Internet access has already shown that mobile technology has moved a long way from making and receiving phone calls.

Progress towards Third Generation (3G) technology and the creation of the Mobile Internet Technical Architecture means that high

powered applications, and various information, entertainment and other wireless services, will become available whenever and wherever people want to use them.

Mobile devices will continue to be segmented into various product categories as witnessed by the evolution of Nokia products such as the Communicator, Fashion models or Premium phones. Forthcoming future models will enable multimedia messaging, various mobile transactions and services based on location, for example.

Such diverse applications will inevitably lead to devices of all shapes and sizes.

Whether it's phones or base station equipment, a consistency in design quality is essential.

Bill and his colleagues believe that good design is all about adapting to change, stretching and adapting the genetic code, but never quite breaking it!

Nokia brand earns global recognition

The Nokia brand has become one of the most valuable in the world and is one of the company's key assets in securing long-term shareholder value.

Apart from world-wide recognition as a top Information Technology company, more than 50 per cent of the population aged between 16 and 75 on three continents now have spontaneous awareness of Nokia.

The brand is seen as an important business enabler and its value is measured as a percentage of market capitalisation, revenues and other performance indicators.

The Nokia name – used since 1865 and in its present logo form since 1976 – is protected in

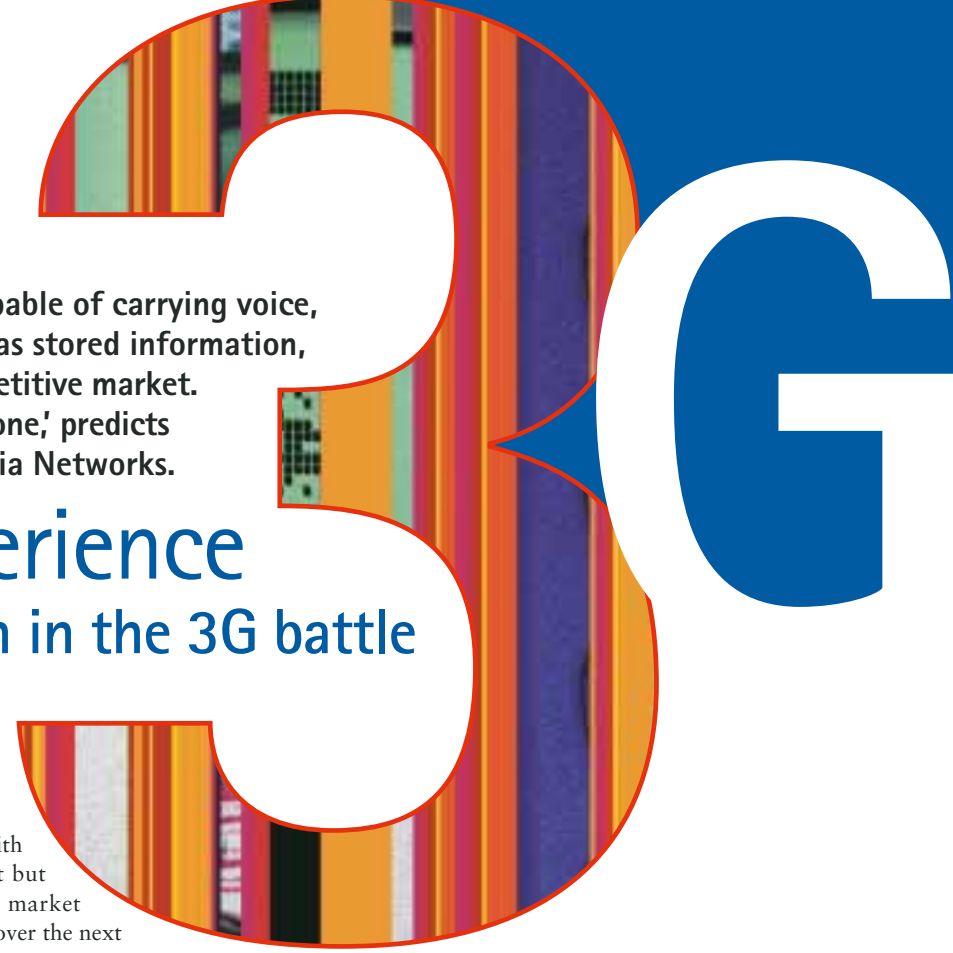
more than 140 countries. A similar number of registrations have been effected to protect Nokia as a top-level domain name.

Many registration authorities around the world have given official recognition to the company awarding it 'Well Known Trademark' status based on awareness amongst customers and the intensity, geographical extent and duration of its use.

Nokia aligning the technologies of the mobile Internet

As the world leader in mobile communications Nokia wants to contribute to the development

of the technical architecture for the mobile Internet. The aim is to hide the technical complexity from the end-users and optimize the user experience through technical innovations in the mobile Internet. Nokia has taken a global initiative, Nokia Mobile Internet Technical Architecture, which aims to provide seamless interoperability among all interaction modes, in any network environment and with any type of access. The ultimate objective is to create a user-friendly mobile Internet experience for everyone. This will be done by identifying the relevant communication modes, by defining the key technologies required to support them and by driving industry participation to develop a common wireless Internet platform.



Third Generation (3G) mobile radio, capable of carrying voice, data, text and graphics in real-time or as stored information, will launch straight into a fiercely competitive market. In fact it will be 'battle, right from day one,' predicts Vice President Christian Kurtén, of Nokia Networks.

Speed and experience a winning combination in the 3G battle

Nokia is supplying more than 100 operator customers with GSM, or Second Generation (2G), network equipment but more operators than ever are expected to compete for market share when 3G opens up a myriad of new opportunities over the next couple of years.

Most of the 2G operators will adapt their networks but they will face stronger international competition than ever before. They will also be joined by new operators from other industries and a new breed of Mobile Virtual Network Operators who will rely on others to provide the necessary infrastructure whilst concentrating exclusively on services for end-users.

Experience in the GSM world showed that operators who had their networks up and running first remained in a strong position. The same will be especially true of 3G when customers will want and demand far more than just voice services.

Dynamic environment

“All this adds up to a very dynamic operating environment, full of opportunities but one with a new scale of challenges,” says Christian.

“With 2G it was largely a matter of ensuring that base station sites could cope with the anticipated density of users who, after all, were doing more or less the same thing – talking.”

“The 3G world will be more akin to the Internet and suddenly network planning gets a lot more complicated. However, we are simplifying this picture by creating a comprehensive technical architecture for the mobile Internet.”

“Nokia’s global Mobile Internet Technical Architecture initiative aims to provide seamless interoperability among all interaction modes, in any network environment and with any type of access.”

Nokia’s ability to produce fast turnkey solutions – all the way from initial planning, site acquisition, construction works, installation and commissioning – looks set to be in great demand. The company has already delivered GSM networks on a turnkey basis in almost 20 countries.

One of the fastest start-ups in the world looked to Nokia to help them get 700 000 customer connections in just 13 months. During one turnkey project, Nokia had 180 base stations up and running in just 12 weeks.

In anticipation of future demand, Nokia has strengthened its network implementation capabilities by selecting internationally recognised partners. The move will strengthen the role of Nokia Professional

Services which has over 5 500 staff around the world supported by an extensive network of local subcontractors and global partners as well as Nokia Online Services, providing round-the-clock support over the Internet.

Speed to market

“By combining our strengths with those of our turnkey partners, we will enable faster implementation of new 3G networks and hence faster time to market,” says Christian.

“Since 3G success is about speed, we want to make sure that Nokia’s resources, project management skills, processes and partners are ready for 3G today.”

Nokia expects a number of 2G operators, who will be busy running existing services, to opt for a turnkey solution for the first time with their 3G plans. New operators building on green field sites will also look to turnkey solutions because of the time pressures involved in starting their businesses. However, 3G is not the only option for operators.

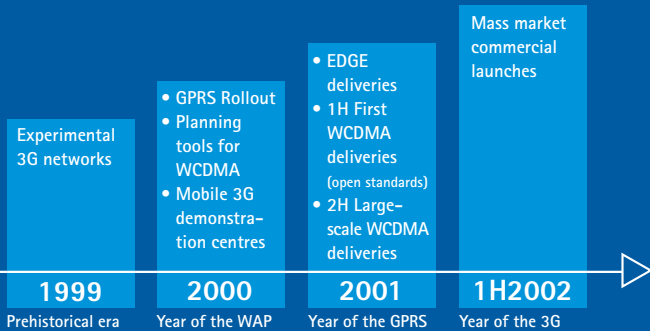
Almost all existing GSM operators have chosen to implement GPRS, a recently introduced high-speed service which switches data in packets enabling ‘always on’ access to the Internet enhancing the services launched over Wireless Application Protocol (WAP) mobile phones.

Operators may opt for EDGE – an enhanced technology which offers greater capacity for existing networks and new data services.

It is anticipated that operators will enhance their GPRS and voice performance with EDGE as their GSM networks continue to expand. EDGE can provide a cost-effective way of providing advanced service coverage and can be rolled out in conjunction with 3G on a nationwide basis.

“Operators will still invest in their GSM network since the frequency band remains a valuable resource and will continue to provide service for a number of years into the future,” says Christian.

“There are many roads ahead and operators will have to be flexible and fast whilst learning about 3G,” says Christian. “This is unexplored territory. We are all pioneers. But of course it will be a great help for operators to be able to set out into this new territory alongside an experienced partner like Nokia.”



3G System timing and availability

Personal Trusted Device:

My voice calls
messages and e-mail
pictures and images
music and video
news and services
location information
calendar and tasks
contacts and data
financials and purchases
transactions...

what I need right here, right now



Making the Internet truly mobile

Exciting developments are taking place to bring highly personalised services to mobile phones at the time and place they are most needed.

Imagine going for a walk and knowing what the weather would be like on the route or buying a movie ticket over your mobile and then being shown how to get to the cinema from the point at which you made the call. These are some of the benefits on the way for future consumers.

Nokia Mobile Internet Applications is working on ways of combining the freedom of mobility with the huge amounts of data and services available today on the Internet. Some will be visible to customers and include new enhanced messaging, mobile commerce and entertainment services as well as charging and billing.

Other solutions, however, will be invisible for consumers but will underpin the changes ahead. These are based on Nokia middleware – a layer of reusable core functions – which will deliver services that are personal, intuitive to use, time and location specific and immediate.

“Adding mobility to the Internet is much more than adding wireless access to content designed to be viewed by someone sitting in front of a PC. Our work will enable highly personalised, location-based services to be delivered to any device at exactly the right moment. This requires a comprehensive approach taking all elements from the user interfaces to the underlying technical architecture into consideration,” says Vice President Niklas Savander of Nokia Networks.

Nokia is approaching its invisible task in three ways which, according to Niklas, will create a personal relevance triangle to deliver the services people want.

Firstly, new middleware will allow the mobile network to know exactly where you are

and translate that into a meaningful street address which can be used for giving directions.

Networks can easily work out the co-ordinates of your position but that’s of little help if you’ve asked your mobile for the nearest florist only to find that you need to take a long detour over a bridge to get there. The network needs extra intelligence to suggest another florist which might be further away but much easier and faster to get to!

Such a system, called Nokia mPosition Solution, is designed to do this making existing services more useful through functions controlling time and location.

A second step involves ‘For Me’ personalisation. Imagine being able to profile your services so that messages from the office get diverted to voicemail once you are within sight on your home. Or to find a pizza parlour with a wood oven that happens to be serving your favourite special today... the possibilities are endless!

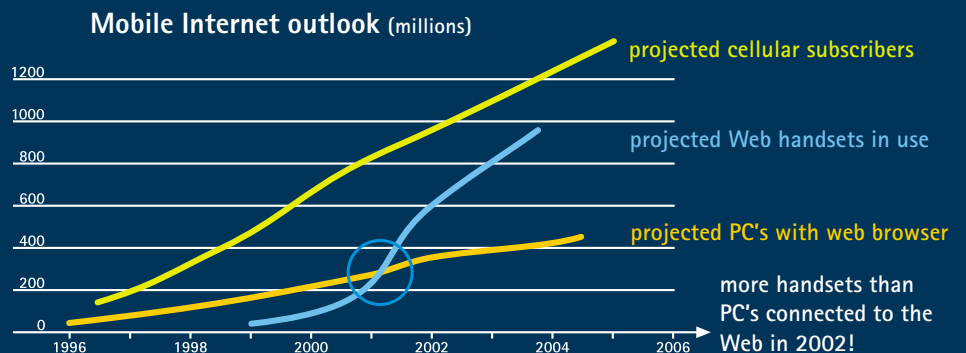
Thirdly, services need to be immediate and this will happen with GPRS networks which will give ‘always on’ access to the mobile Internet services.

Middleware will present services in a natural way – like being told how to get to the cinema you’ve just bought a ticket for – without having to log on separately to various applications and click through countless screens.

Nokia is also active in four application areas which will be highly visible to consumers:

- Messaging – an evolution of the popular SMS service to embrace multimedia in the form of pictures and video clips and the ability to read e-mail on any type of device.
- Charging and billing – new systems capable of handling the micro billing generated by an explosion of small transactions.
- Mobile commerce – ways of making transactions secure through the use of digital signatures, and multiple payment methods.
- Entertainment – games and gaming platforms to fill that five minute wait with a little bit of fun.

Says Niklas: “At Nokia we aim to be the player that combines the Internet with mobility. In Mobile Internet Applications, we are creating the well functioning engine room that will make this possible.”



Web goes into fast spin

The potential of high speed Internet access to change the way businesses of all kinds operate in the future has prompted Nokia to invest further in developing the broadband technology needed to make this happen.

Digital Subscriber Line (DSL) technology is a way of exploiting the data carrying power of traditional copper networks to give true broadband access to the Internet at speeds in excess of 100 times that of conventional 56 Kbit/s computer modems that are in use today. This evolution in technology translates into enormous benefits for all consumers of Internet based content and applications – namely, the elimination of frustrating delays when downloading large files and the ability to utilize the Internet as a way to interact with streaming media (sound and video) applications.

Building on the basic benefits of high speed access, the powerful combination of Nokia's DSL and Virtual Private Network (VPN) technologies creates the secure, high speed, connection solution that makes telecommuting a realistic solution for remotely based employees.

The installation of DSL began in 1998 with America leading the way with just over 2 mil-

lion subscribers today. However, the rest of the world is also experiencing very rapid growth with over 40 million global DSL subscribers estimated by 2003. The rollout of DSL is subject to regulatory concerns, central to which is the issue of local loop unbundling – the opening up of the last mile of traditional copper networks to competitors. Dominant operators, who own the last mile as part of their networks, are being required to allow competitors to install DSL equipment in their exchanges and to compete with them on equal terms.

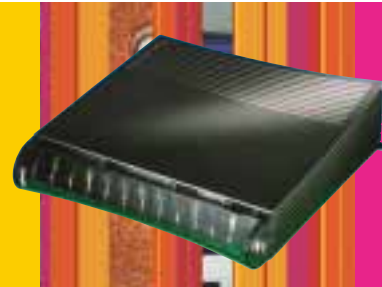
From a service provider's point of view, however, the introduction of DSL technology involves skilled manpower to install the necessary equipment at both the customers' premises and within their own networks. According to Pekka Viirola, Director of Business Development at Nokia Broadband Systems, "global DSL deployment is still in its early days, but is clearly set to become one of the fastest growth areas in the industry. "Implementing DSL requires a lot of national level agreements between the parties. It is intended to open the doors to competition and boost national economies. In the US, the regulatory network enabling this was established several years ago. In the European Union, the process only started a year ago and progress has been fast, concluding with a regulation that became effective in all EU member countries on January 1, 2001.

Additionally, the Nokia LoopMaster, an automated line provisioning, testing and loop management system, that helps service providers to rapidly install DSL lines complements

Nokia's long experience in broadband solutions and, in particular, the Nokia DSL Access Multiplexer product. The combination of the two is expected to open the floodgates for fast and profitable DSL deployment assisted by Nokia's global presence and international sales force. "DSL service providers will welcome our new portfolio and our aim is to become the world leader in broadband technology," says Pekka.

DSL also complements Nokia's existing mobility solutions. Wide Area Coverage would still depend on GSM networks which are being enhanced through GPRS packet switching and ultimately Third Generation (3G) technology. On the other hand, local area coverage can be introduced to the office or home which is connected to the network by a DSL connection. In this case the mobility is created through wireless LAN networks or Bluetooth short-range radio links, and the user can enjoy premium bandwidth. "Wide area coverage will always be at a premium but in fact most people will want both," says Pekka. DSL will not only create better business links but will prove a valuable asset in the home, too. New services as diverse as video, stock exchange information, games, books, music, sport, weather, traffic, transactions and multimedia content will become available and home shopping and e-business will also receive a tremendous boost.

Pekka concludes, "Broadband will enable many new ways of working and enjoying life. For the operators building the networks, Nokia has already delivered equipment into over 4500 central offices, which serve more than 90 million homes or offices, and the next three years will witness even stronger growth. For the users of the networks, Nokia launched in June 2000 the world's first gateway product for the home and office environment combining wireless LAN technologies to DSL. We are poised to remain at the forefront of the broadband revolution around the world."



Nokia MW series DSL/WLAN gateway

Spending an evening at home will never be quite the same again as the Internet and broadcast media converge, promises Heikki Koskinen, Vice President and General Manager for Nokia Home Communications. A revolutionary new product, the Nokia Media Terminal, is being introduced for the connected home as part of a trend to promote open platforms and greater choice in domestic markets.

Operating over broadband Digital Subscriber Lines (DSL) and broadcast technology, the Media Terminal brings fast Internet to the living room and with it a whole range of services based on open standards.

Amongst features on offer will be interactive services such as shopping and banking as well as the opportunity to pause and replay live broadcasts or split the screen between TV and the Internet.

Customers will also be able to watch digital TV and record to an integrated hard disk, play 3D network games, order video on demand,

amount of content now available over the Web and from the broadcast world.

The Nokia Media Terminal is already winning awards. At the 2001 Consumer Electronics Show in Las Vegas, Nevada, the Media Terminal received TechTV's Best of CES Award in the video – television, video recorders, personal television – product category.

It has also received several design awards including Excellence in Swedish Design and an iF Product Design Award from Industrie Forum Design Hannover.

Nokia Home Communications is also mak-

In another move, also related to promoting open standards and choice, Nokia Home Communications is joining forces with Whirlpool, the world's leading domestic appliance manufacturer, in developing Internet Protocol (IP) products for communications, entertainment and wireless networking within the home.

Nokia has a unique insight in creating user-friendly interfaces for the home environment.

“Having an interface for a living room product that looks like what's on your PC just won't work. A lot of effort is being spent on developing usability and in finding attractive ways for customers to manage the huge amount of content that open platforms and interoperability will put at their disposal,” says Heikki.

Nokia Home Communications' new products are based on broadband technologies and broadcasting providing far higher speeds than conventional telephone lines.

“We have been talking about interactive TV

Opening the door to home communication choice

send and receive e-mail with attachments, listen to and store MP3 music files and connect with printers, digital cameras and other devices.

The Media Terminal, based on open Internet technology (e.g. Linux), enables customers to unleash the full content of the Internet and enjoy greater entertainment choices.

It is part of a concerted effort by Nokia Home Communications, a unit within the Nokia Ventures Organization, to promote openness and end-to-end solutions – concepts aimed at stimulating freedom of choice amongst the vast

ing the source code – the computer language used by the Media Terminal – available to content developers in order to maximise freedom to create new applications. Developers will be offered a toolkit to enable them to reach wider audiences than ever before.

The release of source code is part of Nokia's open source strategy. The company is hoping that as many players as possible – consumers, application developers and hardware manufacturers alike – will join in and help to push the industry forward.

for years but it's never been possible before because of technological limitations and proprietary solutions. By basing our products on Internet technology they will always develop at pace with the latest offerings. The potential market is huge – it ultimately means every home in the world.”

“The responsibility of Nokia Home Communications is to offer innovative products that today's savvy consumers want and to pave the way and help to shape the industry,” concludes Heikki.



Nokia Media Terminal is based on open standards and integrates digital TV and Internet

Taking heart in Internet security

The Internet has become the heart of business. But what happens if it skips a beat or stops altogether? The power of e-business lies in the ability to enable a one-to-one connection with customers.

Nokia Internet Communications makes this relationship possible by bringing a new level of security and reliability to the network – enabling an Internet transaction that is personal and trusted. Each and every time.

Companies are rapidly shifting away from the idea of ‘e-business’ to simply ‘business’ with the Internet at the core. All businesses require technology that works. They need to expand their market, maximize customer satisfaction and retention, and increase profits while reducing expenses. Reliability and scalability are fundamental to the success of any business.

In such a world, lost information means lost revenue and the network downtime involved in putting matters right could run into millions and even billions of dollars.

Companies concerned about the security and reliability of their networks are turning to Nokia for help.

Trusted transactions

Whether conducting an online transaction via a mobile device or accessing a corporate network from a corporate satellite or branch office, the connection needs to be a ‘trusted’ one.

The risks involved in compromised network security and integrity are unavoidable whether you’re a large enterprise, managed service provider or small Internet company.

Increasingly, the Internet is being used for electronic transactions and in many organisations it is replacing private circuits as the communications lifeline between offices and sites.

The strain on already stretched networks can be expected to increase as a result of extra traffic from mobile access by a multitude of new mobile devices including, amongst others, Personal Digital Assistants (PDAs).

While the Internet is convenient and cost effective, there are risks attached in moving your entire business online. That’s why companies are turning to Nokia, one of the world’s most recognised global brands, delivering innovative technology and secure, reliable solutions.

Nokia has a 44 per cent market share in the high-end Virtual Private Network (VPN) hardware market and has been consistently rated among the top companies and brands in the world.

More than mobile phones

While the Nokia brand is synonymous with being the leader in mobile communications, this past year has demonstrated that Nokia is also a strong player in the Internet space.

Markets for Nokia Internet Communications’ network security and VPN solutions are growing fast and revenues are expected to exceed EUR 500 million in 2001. Targeted annual revenue growth is at least 50 per cent and Nokia Internet Communications is expected to reach the break-even point during 2002.

Nokia’s strong global brand recognition and reputation has certainly fostered much of Nokia Internet Communications’ rapid growth. The unit has also developed an impressive, award-winning portfolio of products and solutions designed to meet any organization’s most challenging security issues.

Proper security policy

A company’s security policy was once thought to be sufficiently served by installing a firewall. However, a proper security policy can be defined in many ways depending on the needs of the organization.

Firewall protection, intrusion detection, virus protection, network extension/VPN technologies and encryption/authentication techniques play a vital role in implementing the network security policy every business needs.

Protecting and extending the network has never been more important than it is today, as companies are finally realising. Secure Internet communications are a must and the appropriate security policy has to be simple to install and manage while offering flexibility, continuous availability and significant cost savings.

Nokia Internet Communications’ solutions offer all these things to put the Internet at the heart of any business and ensure that it never misses a beat!

Nokia Internet Communications

Nokia Internet Communications, headquartered in Mountain View, California, provides world class network security and virtual private network solutions that assure the security and reliability of enterprise and managed service provider networks.

Employing over 1700 people around the world at the end of the year 2000, Nokia Internet Communications invests approximately 50 percent of its talent pool in research and development.

Network protection

Our network protection portfolio makes your network safe for business with its unique line of purpose-built IP network security appliances. Through partnerships with leading security application providers such as Check Point Software Technologies, Internet Security Systems (ISS), McAfee and OpenService, Nokia enables a reassuring environment for users and customers who can be confident that their network and mobile transactions are secure and reliable.

Virtual Private Networks

Nokia solutions also offer choices in extending a company’s private Intranet out to employees, trusted partners, and mobile users. As a result, many organisations are finding it less expensive to move from a dedicated infrastructure such as private circuits towards Virtual Private Networks created over the Internet. Nokia’s dedicated VPN solutions provide a reliable, scalable and secure extension to the corporate network through patented IP Clustering technology to eliminate any single point of failure delivering bulletproof reliability.

Investing in the future

The pursuit of new ideas is an everyday activity at Nokia. But Nokia Ventures Organization looks beyond the expected, as Nokia's President Pekka Ala-Pietilä explains.

Nokia believes in the power of corporate venturing, and is looking for substantial and sustainable new business ideas outside the natural development path of current core businesses.

While the 'core' business units such as Nokia Mobile Phones and Nokia Networks invest heavily in their own new developments, Nokia Ventures Organization takes a broader view to push the frontiers past what we can do today to what we can envision for tomorrow and beyond. Although Nokia Ventures Organization is only two years old, it has achieved several successes. Notably, the Nokia Internet Communications unit has developed a leading portfolio of Internet security solutions for corporate customers – see story on page 14.

As there is no single model for innovation, Nokia Ventures Organization uses a variety of tools and approaches to create its portfolio of new businesses. Looking to the outside world, Nokia Venture Partners, established in 1998, is an independent venture capital fund which has already made investments in 25 companies in the US, the UK, Germany and Finland.

Our next targets will be Israel and the Asia Pacific region which both have tremendous potential in the mobile Internet sector.

The idea of the fund – based in Menlo Park, California, with offices in Washington, London and Helsinki – is to build partnerships with leading-edge wireless technology companies targeting high-growth market opportunities.

The fund has a portfolio of investments which goes far beyond Nokia's current efforts with the aim of supporting entrepreneurs in building successful businesses.

Nokia has already established a strong track record in leveraging the company's combined resources, experience and contacts to help these entrepreneurs build their business cases.

The first fund has invested most of its \$150 million and, in December 2000, Nokia created a second fund of \$500 million, in partnership with outside investors including Goldman Sachs, BMC Software and CDB WebTech.

The fund is looking for ideas that will generate both a return on investment and enable Nokia to learn from exposure to new technologies, markets and business models.

Unlike some corporate funds, we are not only focusing on investments in our own key technology areas. Nokia Venture Partners is not about creating markets for Nokia – it's about having an early view of developments in the Internet economy and sensing any weak signals from the market place.

Nokia's entrepreneurial Web

Nokia Ventures Organization seeks out and incubates new ideas from within the company itself as well as from outside. In addition to the external fund, Nokia Ventures Organization contains a 'greenhouse' for internal venturing. Many of the new businesses are a result of the venturing process combining Nokia's current strengths to new ideas and solutions. Examples of this process are Nokia Mobile Display Appliances and Nokia Home Communications which you can read about on page 13.

The greenhouse includes the Nokia Entrepreneurial Web – a new type of a network organization for business development professionals.

Typically, ideas do not grow from conception into a major business in a smooth progression – we identify synergies between new ideas and existing processes to speed things along.

Effective management, a strong entrepreneurial spirit and a variety of new business development tools are key. We have therefore recently divided the Nokia Entrepreneurial Web into three areas:

- **Insight and Foresight** – a unit which doesn't work on concrete business plans but rather with research and new business creation projects to identify market trends and disruptive technologies which are going to affect future markets. This way it can contribute to Nokia's renewal and find new emerging opportunities. The unit uses a multitude of approaches to benefit from the synthesis of an end-user/market perspective and a technology perspective.
- **nVentures** – an internal incubator which works along similar lines to the external venture capital world and provides seed finance for ideas within the company. The staff involved are expected to act as entrepreneurs with strong personal commitment and contribution to the new business projects.
- **New Growth Businesses** – develops and creates new substantial and sustainable businesses within Nokia. The unit is geared to ramp up and operationalize businesses and is using Nokia's strategic assets in the new business development.

At Nokia, we look upon new ideas as the 'engine' which drives us into the future.

And we believe there's much, much more to come!

Nokia Internet Communications' head office is located in Mountain View, California



Nokia in Singapore

Cultural diversity under the microscope

Diversity – a way of life

Alan Bentley, aged 45, is British and works as Vice President, Human Resources for the Asia Pacific region which puts him in an excellent position to assess the way cultural diversity affects day-to-day operations.

"We are a multi-cultural organisation doing business in a multi-cultural environment. I don't believe that we would have been able to create the relationships with customers and business partners that we enjoy today if our mix of people had not closely reflected that of our markets."

"In our office in Singapore a total of 25 languages are spoken, giving at least one indication of the level of diversity, and while you would think that this could give rise to confusion, it has not been the case. In fact my experience is a positive one with people helping each other out in both their business and private lives. Despite the fact people from different parts of the world seem to address problems in different ways and from different angles, putting our people together in teams has produced very positive and creative solutions. Diversity is a way of life for us and it has come naturally from an approach of selecting the best people available to join our team," says Alan.



Alan Nicklos, aged 41, is Australian and is General Manager, Nokia Mobile Phones, Singapore.

Singapore is the most Western country in Asia and local people and visitors are bombarded with brand names known the world over, says Alan. The Nokia brand can be seen everywhere and branded goods of all kinds are doing a roaring trade at the recently opened Nokia Care Centre in Orchard Road in the heart of the city. The Centre sells the full range of Nokia products and

offers visitors a cyber café where they can surf the Internet and download ringing tones. It also sells Nokia branded merchandize which is very popular with the brand conscious Singaporeans. "During the launch of the Nokia Care Centre we sold out of all our merchandize in the first week", says Alan. The country acts as a shop window for quality merchandize and is small enough for news and trends to spread like wildfire.

"You can drive through the city in minutes and whatever



Sharon Lee, aged 29, is Chinese Singaporean and works as a Customer Service Manager, Nokia Mobile Phones, Asia Pacific.

Sharon's office deals with 14 Asia Pacific countries and interacting with people from different backgrounds is an inescapable fact of daily life.

Her role in strategy and value added services in the after-market services department seldom puts her in direct contact with end users but her command of several languages includ-

ing Mandarin and Cantonese is very useful.

Even with Cantonese, the slang is different between Singapore and Hong Kong and she enjoys keeping in practice.

One point she stresses to colleagues is that in Hong Kong the locals prefer to be described as 'Hong Kongers.' Elsewhere in Asia Pacific countries people from Hong Kong are known as 'Honkies' which can sound like 'donkies' even though the term is not intended as an insult!



Ilkka Wijkberg, aged 34, is Finnish and works as Business Operations Manager, Nokia Networks, Asia Pacific.

Ilkka travels extensively for Nokia Networks which builds the infrastructure for operator customers in countries as culturally and economically diverse as India, Australia, Taiwan, Japan, Indonesia, Vietnam and South Korea.

Nokia Networks, recently awarded a contract to build a 3G network for Singaporean operator M1, looks to establish

long-term customer relations. "Local etiquette and customs do play a role but I think attitude is far more important. The Nokia Values – particularly Respect for the Individual – help you to manage in any culture," says Ilkka.

"If you respect people in other cultures it doesn't matter about the small things such as knowing exactly what to say and how to dress in certain situations.

"The business world has its own global customs and I always

Danesh Daryanani, aged 36, is Indian Singaporean and is Head of Marketing Communications, Nokia Mobile Phones, Asia Pacific. As an Indian Singaporean, Danesh is in a group representing only 8 per cent of the island's 3.9 million population.

"If you work in Singapore it's the norm rather than the exception to deal with different races and cultures. The country is built on the principles of racial and religious harmony. It's a very diverse and interesting place," he says.

His colleagues include Italians – who tend to be very passionate about things, he says – and Australians who appear more laid back. The majority of his own team members are Singaporean Chinese and mainly women.

"Everyone has got their own cultural traits but we all work together very well as a team." Danesh's biggest achievement has been helping to develop a brand strategy that has been differentiating, relevant and motivating to Nokia's customers across all cul-

Singapore, a cultural mosaic of different nationalities, languages and religions, has a special significance for Nokia.

Recently ranked as the most 'globalised' nation in the world, the small island at the tip of the Malaya peninsula is home for some 700 Nokia people of 30 different nationalities who serve both the local market and act as a regional hub for 14 Asia Pacific markets.

In this extended feature, we look at how Nokia's own cultural diversity and networked approach to business has found a powerful resonance with the Singaporean way of life.

Our people find that living and working there acts as a stimulus to creativity and new ideas. They also find it fun – surrounded by such cultural riches there's never a dull moment!

Their experiences have shown there to be more similarities than differences between team members from different ethnic backgrounds. The same goes for the customers they serve.

As one member of staff put it, the Nokia Values – particularly Respect for the Individual – bridges the ethnic divide and a 'smile is a smile' the world over...



happens in Singapore everyone knows about it in an hour or two. It's like having a country under a microscope which is very useful in getting quick feedback on everything we do."

Singaporeans tend to change their mobile phones every six to nine months and are extremely fashion-conscious in what they buy. Best sellers at the moment are the Nokia 3310, 3210, 8210 and 8850. Short messaging services (SMS) are extremely popular too. "If you go to the movies all you can see when the lights

go down is a sea of mobile phone screens because people would rather message one another than watch the film!" Despite their comparative wealth, Singaporeans tend to take taxis rather than run their own cars. Taxis are cheap, but there's local etiquette involved in hailing one. "Don't shout and wave your arms about like you would in London or New York because that's considered rude. Just hold out your hand, with the palm facing downwards, and wiggle your fingers around. They come!"

It's also important not to point with your index finger when showing someone directions, especially in Malaysia. The gesture is considered highly offensive and a thumb should be used instead, she recommends.

Although business is usually conducted in English, a knowledge of other languages helps her, particularly when it comes to evaluating tender proposals from potential suppliers.

"If you can speak their language people tend to be more

open with you and it makes the job of finding out whether they are really suitable much easier."

Sharon finds the culture gap between North Asia and countries like Korea and Japan particularly wide.

"We have colleagues who are posted full time to Korea and Japan and it's easier to get under the skin of a culture if you live there full time. One of the frustrations of a regional environment is that you feel you are skimming the surface," she says.



find that the differences between individuals are generally far greater than the differences between cultures."

Ilkka thinks the Singaporean approach to life has much to offer the West and is particularly impressed with the team spirit which runs through such things as transportation and education.

"The people here are prepared to work together to get a job done. They don't talk about personalities and target individuals for blame."

Sometimes, however, details of etiquette can cause misunderstandings as Ilkka found on his first trip to India.

"I was in a meeting and everyone kept shaking their heads. I thought they were disagreeing with everything I said until someone told me that to shake your head in India means 'Yes' and a nod means 'No.' It was very confusing!"

tures in the Asia Pacific region. Danesh joined the company from Coke – a brand literally on everybody's lips – in 1993 when few people in Singapore had heard of Nokia.

"We have managed to build a brand coherently and consistently across 13 different markets. That took a lot of teamwork involving all our resources in China, Hong Kong, Australia and all the other countries we deal with."

Such an effort has required a lot of meetings and constant

communications with colleagues and customers.

"One of the best aspects of my job is being able to get on with it. Nokia is an apolitical organisation and people pull together passionately to do the same thing – and working in such a team is very satisfying."

The worst part? "It's the e-mails! If I'm out of the office for a couple of days there will be 200 of them waiting for me but I have to accept it as a part of the job."



Achieving success – the Nokia Way

Nokia measures itself against, and often exceeds, the best achievements in the high technology sector.

But we can only maintain our leading position on a global stage through the skill, enthusiasm and positive attitude of Nokia people wherever in the world they may work.

The company employs 60 000 people of 70 different nationalities and our cultural diversity helps to stimulate innovation.

We aim to behave with the freshness of a start-up company. As a large but closely-knit team, we consider it vital that we share the same goals and objectives when looking after customers and stakeholders.

This can only be maintained by a shared commitment to meeting the challenges that lie ahead.

We achieve our objectives through what we call the Nokia Way – a style of working which enables our people to work together in harmony as a team whilst stretching the abilities of individuals whatever their role within the company.

The Nokia Way is built on core values of Customer Satisfaction, Respect for the Individual, Achievement and Continuous Learning.

These, together with a flat, networked operational structure and value-based leadership stimulates personal growth.

Our people are encouraged to develop speed, quality, openness, integrity, teamwork, humbleness, accountability, responsibility and empowerment in their day-to-day dealings.

Such strengths are keenly fostered and willingly given. The Nokia Way is a frame of mind based on respect, an eagerness to learn and a pride in the achievements we have made to delight our customers.

Ethical conduct

The principles by which Nokia conducts its business go far beyond the confines of the company itself.

We are strongly committed to the highest standards of ethical conduct and observe all applicable national and internal laws.

These include antitrust laws and the promotion of fair competition; preventing bribery and illicit payments; safety; the environment and the protection of intellectual property.

On human rights, we believe in freedom from any discrimination based on race, colour, sex, language, religion, political or other opinion and national or social origin.

As a global Corporate Citizen, we also believe in freedom from arbitrary detention, execution or torture; the freedom of peaceful assembly and the freedom of thought, expression, conscience and religion.

The Nokia Way and our ethical stance in the wider world lies behind everything we do and plays a large part in the success and recognition the company has earned.

Measuring success

The success of our aims lies in the hearts and minds of our people. Every year we ask an independent research company to conduct a 'Listening to You' survey which not only looks at how we think we are doing but compares the results with external benchmarks from the best high-performance companies around the world.

This year, the keynote rating – overall satisfaction – remained high with Nokia continuing to score above the benchmark for high-performance companies, irrespective of industry.

Our participants backed our commitment to customer satisfaction with the highest figure achieved by anyone, apart from Nokia itself in 1998/99.

Business focus remained strong with respondents stating that they had a clear understanding of their goals and objectives, again above the high-performance company norm.

Confidence in Nokia's quality culture is higher this year with management perceived as doing a better job in implementing processes and programmes, providing tools and investing in training.

Training and development itself scored well and remain ahead of the norm for comparable companies.

Rewarding performance

Nokia maintains its long track record of good relations with its people. Despite a global scarcity of IT and skilled communications people, the company continues to attract a high intake of top quality recruits and more than half of those who completed the 'Listening to You' survey had been with the company for less than three years.

During 2000, we continued to work towards performance-based compensation with emphasis on the payment of incentives for achievement of clearly specified and measured targets. The share options scheme was extended from 5 000 to over 16 000 individuals and, under the Nokia Connecting People Bonus Plan, over 88 million euros will be paid out based on 2000 performance.

Confidence and commitment to the Nokia culture have remained high during 2000. The way ahead remains the Nokia Way.

for more insight into Nokia's ethical concerns please visit our corporate website: www.nokia.com/insight



Mobile phones and health

A report by Peter Harrison

Many electrical devices around the home or office create electromagnetic fields; TV's, radios, PC's, hairdryers to name a few.

The phenomenon of electromagnetic fields has been known for more than a century, but only relatively recently has speculation about possible effects on human health been made. As a result, there are calls for more information to be made available to customers on this important subject.

Nokia is committed to bringing such information to customers and has an ongoing research sponsorship programme in this area.

The company is addressing research into mobile phone safety at a global level. The World Health Organisation (WHO) has published an 'EMF Research Agenda' listing recommendations for further research needed to enable a better health risk assessment to be made.

Nokia has joined forces with many other leading manufacturers around the world to conduct research within a global framework. The company is also pooling resources to systematically address the WHO recommendations through the Mobile Manufacturers Forum, a global association formed in 1998.

Over the years, a substantial amount of scientific research has been conducted into radiofrequency (RF) energy emitted by mobile phones and their base stations. Independent expert panels have reviewed the findings of many hundreds of studies; consistently the conclusions of these reviews are that there is no demonstrated health risk.

- During 2000, WHO updated its fact sheet with the most recent findings and determined that, **'None of the recent reviews have concluded that exposure to the RF fields from mobile phones or their base stations causes any adverse health consequence.'** [Source: WHO Fact Sheet 193, June 2000]
- The United States Food and Drug Administrations agrees and states that, **'The available scientific evidence does not demonstrate any adverse health effects associated with the use of mobile phones.'** [Source: US FDA CDRH Consumer Update on Mobile Phones, 20 Oct 1999]

Although a large amount of technical data is available there has, until now, been a lack of common, global benchmarks which might prove helpful to bringing meaningful information to customers.

Standardised test methods are now becoming available and a new

way of making relevant information accessible began at the end of 2000 with the publication of some technical data.

The aim is to give customers understandable information relating to the exposure levels of their mobile phones. The levels are calculated as the Specific Absorption Rate or SAR which is a measure of the quantity of radiowaves absorbed by the body.

These latest developments are all about presenting such information in a way that is helpful and meaningful to customers.

Through the industry trade body in the United States – the Cellular Telecommunications & Internet Association (CTIA) – Nokia has agreed to make SAR values available and to put information, expressed simply, on packaging and within user guides.

During 2001, such information will be more widely available in regions other than the USA as standardised testing methodologies are established.

By making SAR information available in a standardised way, customers will be in a position to make informed choices about their mobile phone performance.

The SAR values of individual models of mobile phones will vary, and some will be higher than others.

All Nokia mobile phones are designed to comply with science-based safety standards and recommendations. The industry is viewing the publication of this information as a means to enable informed choice.

Radio frequency energy is an inescapable fact of life. Our homes and offices contain many devices that emit electromagnetic fields. Indeed, sunlight itself is part of the electromagnetic spectrum and, as our chart shows, acts as the divide between non-ionising energy, which can cause heating and ionising energy which can cause molecular change.

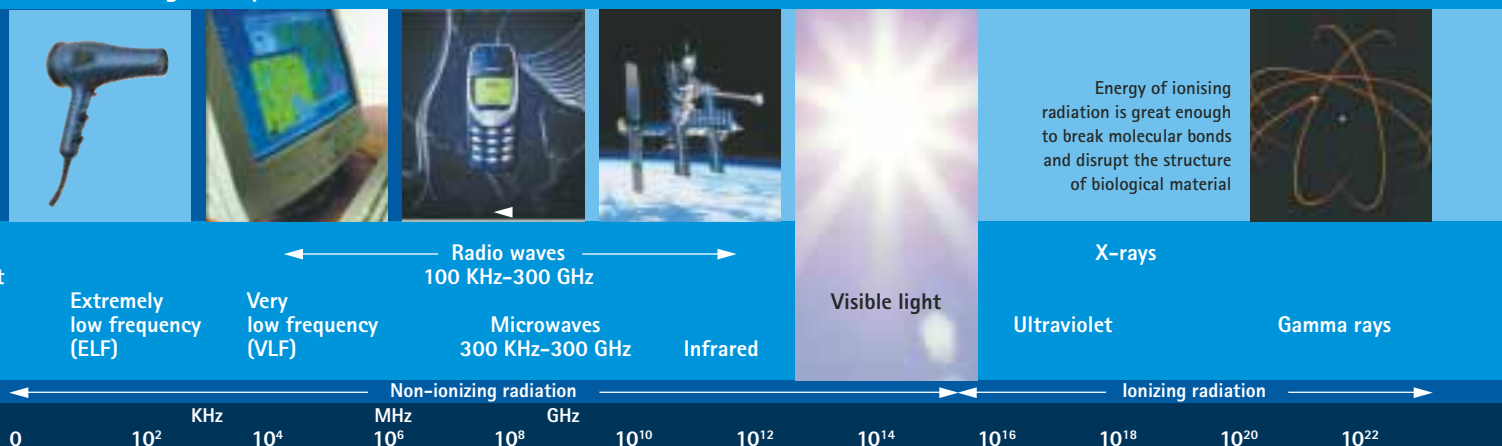
Mobile phones operate firmly within the non-ionising part of the spectrum. When radiowaves are absorbed by the body, they produce heat energy at low levels that are well understood and very significantly below any adverse heating effect.

Peter Harrison is Nokia Director of Electromagnetic Fields (EMF) issues and is current Chairman of the Mobile Manufacturers Forum, a body which co-ordinates research and policy on behalf of all the world's leading mobile phone manufacturers.

In rare instances, claims that mobile phones cause adverse health effects have been made into the subject of legal cases. All of those decided so far by any courts of law worldwide, have been dismissed for lack of evidence.

Currently, there are two cases ongoing in the USA where Nokia and other defendants have been named. Nokia believes that the allegations made in these cases are without merit and will defend these actions vigorously.

The electromagnetic spectrum





Breathing life into appliances

Intelligent meeting rooms, homes and offices which can recognise human visitors by sight and sound and 'learn' what they might need, could result from a five year research project involving some of the world's best brains.

Nokia, which has been involved with the internationally renowned Massachusetts Institute of Technology (MIT) for a number of years, is taking part in the ambitious Oxygen Project which will challenge the role of computers as we know them

Grooming talent for the future

Students find world of opportunity

In its drive to attract and retain the best talent, Nokia offers students the opportunity to work all over the world.

Nokia's Student Exchange Programme is highly unusual in that it enables students to train in most of the countries in which the company operates.

Aimed at building a future talented workforce, the Programme complements Nokia's long tradition of offering traineeships to local students within their home countries.

It plays an important part in staff recruitment because the majority of students stay on when their studies are complete.

The opportunities for students to travel, train, get post-graduate qualifications and ultimately find work have sparked enormous interest in the scheme.

Students receive a salary appropriate to local standards taking into account the cost of living

and accommodation in different countries. The Programme also takes care of visas and work permits and runs a helpdesk for students and their managers should problems arise.

There's fun too, with hiking tours, sailing, cultural visits and action weekends to promote networking between the students and permanent staff.

Campaign strengthens university ties

The IT and communications industry is booming to such an extent that highly skilled people are not only in great demand but are in short supply.

Nokia has been committed to fostering new talent for many years and has supported a great number of schemes to improve relations with universities around the world.

During 2000, Nokia invested strongly in university co-operation globally by initiating and supporting research, providing students

with interesting traineeships, thesis topics and research studies for doctoral candidates and by contributing to education through participation in curriculum boards and encouraging employees to lecture at universities.

In addition, a university campaign called 'Future Moves' was launched to strengthen co-operation between universities and the company. Events were staged at universities in nine countries to stimulate views and ideas about the future of mobile communications.

A symposium in Helsinki attracted more than 60 professors from 40 universities around the world who shared their visions of the Mobile Information Society with colleagues and the company. The 'Future Moves' campaign also included two Internet competitions, in which students were asked to write an essay about a new device or service which could benefit users in the wireless world of the future.

Next generation Internet developed in China

The Internet explosion means that the world is already running out of IP addresses but research work by Nokia in China, the company's second biggest market, could help to solve the problem.

IP or Internet addresses are used by service providers to connect customers – not to be confused with the e-mail addresses that people can register for themselves.

Allocated 20 years ago to countries or organisations, IP addresses are already scarce and vastly more are needed for conventional Internet, and especially for the emerging mobile Internet services.

China was originally one of the poorest served. Today, there are middle-sized universities in the world with more addresses than the entire People's Republic which has 1.3 billion inhabitants and an Internet population of 20 million – a group growing faster than anywhere else. But pioneering work by Nokia, in collaboration with the China Education and Research Network (CERNET), is set to lead the world and put China ahead.

The project involves the development of new technology based on a new protocol which will deliver as many addresses as there are grains of

sand on the planet.

Called IPv6, the new protocol has been developed by the Internet Engineering Task Force, the body that develops Internet technologies. IPv6 has clear technical advantages over the currently used IPv4. In addition to a huge number of addresses, it facilitates the implementation of crucial features such as quality of service, security and network configuration. All these aspects make IPv6 the ideal protocol for the networks of mobile information world.

The Nokia and CERNET research programme,

today. Nokia Research Center has a strong team located close to MIT and will second people to the project. The company not only has long experience of mobile devices but also the networks which could be used to download applications to the future appliances.

At MIT, a total of 250 researchers from the Laboratory for Computer Science and its sister the Artificial Intelligence Laboratory,

will work on Oxygen – so named because the idea is to make computers as indispensable to the needs of mankind as the air we breathe.

The project will bring an abundance of computing and communication power together through natural speech and visual interfaces.

It is believed that Oxygen and its advanced technologies could result in a profound leap in human productivity by automating routine

tasks and by ensuring that computers look after people rather than the other way round. The effect on computing could be more revolutionary than the move from mainframes to desktops 20 years ago.

Juha Ylä-Jääski, Head of Strategy Planning at Nokia Research Center, says: "The project will give researchers a free hand to think wildly. Yes, they're going to challenge what we currently believe in

but that's the whole point."

Juha says that the way we currently deal with computers is to enter their world and, as a result, they tend not to be user friendly.

A better way, he said, would be to create pervasive, human-centred computers to be at the beck and call of humans instead.

Nokia is one of six international companies backing the Oxygen Project.



Leila 'nets' dream job

Iranian-born Leila Gharavi swapped space for cyber-space when she approached Nokia for thesis work under the Student Exchange Programme.

After deciding against joining a space technology firm, she had an early introduction to high-tech communications when she applied to Nokia over the Internet.

The response to her 'cyber' CV was by e-mail. This was followed by a 45 minute test over the phone and she was finally appointed during a videoconference. The first time she met someone face-to-face was when her new boss greeted her on her first day!

Leila, who had completed her Masters course in Sweden, wanted to do thesis work in the Radio Frequency (RF) field and found about 10 opportunities at Nokia.

"After my Bachelors degree I worked in RF for a biomedical engineering company in Tehe-

ran which made heart telemetry systems for use in hospital Intensive Care Units. I believe that whatever you do for your Masters is what you'll end up doing for life and I wanted to carry on in RF."

Leila has now achieved her second degree and has been given a permanent job as a research engineer at the Nokia Research Centre in Helsinki.

Although her appointment was unusual (most students do get a face-to-face interview) she praised Nokia's web-based system.

"The pages attracted me to the company – everything was well classified and there was plenty of choice. I'm very pleased to have been a part of the Programme," she said.

She now intends to work on a PhD.

called INTERNET 6, has this year established a nationwide IPv6 network between 10 Chinese universities using Nokia's IP650 router platform and software.

In 2001, the next phase will trial IP mobility allowing terminals to roam in the same way as in today's cellular networks. Nokia China R&D in Beijing has been involved in spear-head research in this area since 1998, and co-ordinates the INTERNET 6 project from the Nokia side.

Today's Internet services borrow a temporary IP address for the duration of the session. However,

mobile Internet and especially packet-based services like GPRS are inherently 'always-on,' putting tremendous pressure on the way operators and service providers configure their networks.

In addition to mobile services, similar pressure is emerging from the fixed Internet side. Fast Internet access provided over ordinary telephone lines through Digital Subscriber Line (DSL) technology is also 'always-on' and requires a fixed IP address for optimal use.

It is this combination of existing scarcity, new technology and increasing customer demand for

the latest services that makes the INTERNET 6 project vital for the future.

Markku Ranta, Director of R&D for Nokia China, comments: "This is an intensive and exciting programme of co-operation with our Chinese partners. In terms of rapid deployment of Ipv6, China has the potential to make a global impact. Not only is Nokia bringing technology to China ahead of everybody else – we are developing it in China as well."

Global focus on youth and education

Nokia aims to be a good corporate citizen wherever the company operates and has been running programmes for many years to help people, particularly the young, improve themselves through a wide variety of learning opportunities.

The focus of Nokia's Corporate Citizenship programme is youth and education – a logical step given Nokia's leadership in future-oriented technologies.

Chairman and CEO Jorma Ollila puts it this way: "In the future that Nokia's business is shaping, people will have the technology to communicate anytime, anywhere. Helping young people improve their skills, knowledge and connections to society is a natural outgrowth of Nokia's business, vision and values."

The company is committed to having a positive impact on society that extends far beyond the advanced technology, products and services it creates.

Nokia's Corporate Citizenship programme is designed to respond to the expectations of all stakeholders – customers, employees and investors alike – and to reflect the company's core values.

The company is dedicated to the ideal of continuous learning – constantly improving life skills, creating an environment that fosters open and creative thinking, establishing a meaningful connection with society and sharing best practices across all borders.

Veli Sundbäck, Nokia's Executive Vice President, who is in charge of global Corporate Social Responsibility, explains: "It is not our intention to promote technology as such even though it is our core competence. In a fast changing world, we want young people to develop the skills they are going to need – creative thinking, the life skills needed to make quick decisions, and simply an ability to think for themselves and take responsibility for what's happening around them."

Veli points out that the company also has made local donations for specific events, such as disaster relief in Kosovo and victims of the Venezuelan floods, in addition to supporting long-term initiatives on all the continents.

"It's not a question of pure donations – we want to take an active role as a company and as individual employees," says Veli. "This is all about human values."

Nokia and the IYF Make a Connection

While Nokia has been sponsoring activities to support youth and education for many years, 2000 saw the beginning of a multi-year commitment to the International Youth Foundation (IYF) – a new and truly global partnership to promote corporate responsibility.

In the first year, Nokia invested 3.4 million Euros in the well-established IYF programme to support children and youth development activities in six countries – China, Germany, South Africa, UK, Mexico and Brazil – as well as to conduct global programs.

The IYF programme, called 'Make a Connection', will work hand-in-hand with existing Nokia projects in many parts of the world.

IYF itself is an independent, non-governmental organisation dedicated to improving the conditions and prospects for young people wherever they live, learn, work and play.

It does so by drawing on the expertise of a worldwide network of national-level children and youth development organisations, as well as corporations, such as Nokia, and governments, to ensure that the best programmes are identified, strengthened and expanded. Currently, this global network includes organisations in more than 30 countries with plans to expand to 60 by 2003.

IYF views young people's needs as an urgent global priority with all young people having the innate right to develop their full potential to become responsible and caring individuals.

Its programmes seek to build character, confidence and competence and to connect young people to their families, peers and communities.

"In just two days, I learned skills which I believe are most important to success in the Information Age. I believe this project will have a positive and significant impact on nurturing the creative thinking skills of Chinese university students."



Creative Thinking in China

This is what graduate Fu Peng had to say about Nokia's 'Creative Thinking Corner' project which helped him to prepare his thesis for his master's degree.

The programme, launched in Beijing University of Post and Telecommunications, is the first of its kind and is touching the lives of thousands of students. It includes a series of roadshows and Thinking Club activities and has travelled to 12 universities across China.

An important part of the programme in 2000 is the Nokia College Student Thinking Challenge Competition to help students from the 12 universities develop their brainpower, intelligence, innovation abilities, problem-discovery and solutions capabilities.

And, in order to share the project with as wide an audience as possible in China, the Thinking Corner now has its own website.

The Thinking Corner, for university students, has a natural synergy with an existing International Youth Foundation (IYF) project called the 'Little Master Newspaper' which is now receiving Nokia backing.

Youngsters under the age of 15 write, edit and produce the newspaper which has a circulation of more than 1 million.

Folke Ahlbäck, Chairman of Nokia (China) Investment Corporation, comments: "We feel that the newspaper encourages leadership, creativity and responsibility across activities such as culture, education, sports and the arts. We hope it will emulate the success of Nokia's Creative Thinking Corner workshops."

Life skills initiatives in the UK

For the past seven years, Nokia has sponsored Mencap – the UK's leading charity for children and adults with learning disabilities.

The company supports specific projects each year ranging from establishing a special sensory unit for learning to the construction of a recording studio to produce Mencap's newsletter in audio format.

Mencap Chairman Brian Baldock, comments: "Computer and communication technologies have the potential to revolutionise the lives of people who have a disability by offering a better quality of life unimaginable only

a few years ago." Mencap is also one of the partners helping to develop teaching materials in the new International Youth Foundation Make a Connection project in the UK, funded by Nokia and managed by the Children and Youth Partnership Foundation.

The nationwide project is aimed at young people aged between 11 and 16, including those with special educational needs, to equip them with the necessary life skills for future personal and social well-being.



Connecting schools and families in the USA

ClassLink is a well-established example of Nokia's commitment to creating a positive impact on society by providing wireless phones to hundreds of schools across the USA in order to connect students, teachers and parents more effectively.

More than 90 per cent of American classrooms do not have access to a telephone, yet a national survey of teachers showed that wireless phones are the one tool they really need.

ClassLink, a philanthropic partnership sponsored by Nokia, the CTIA's Wireless Foundation and several carriers, answers that need.

Piloted successfully in Texas, Nokia donated 1000 phones to 200 high schools in the state. Due to the success of the Texas programme, ClassLink moved into the national arena in 2000. So far, more than 6000 phones and millions of minutes of airtime have been donated to schools across the

country, bringing teachers and parents into a closer partnership in the education of their communities' students.

But ClassLink is not the only Nokia Corporate Citizenship project in the USA – others include help for sick children and support for community issues.

The Make a Wish Foundation supported by Nokia and CBS Channel 11 has given trips to Disney, puppies and computers to children suffering from life-threatening illnesses.

The United Way is a programme dedicated to making communities better places in which to live and work.

Nokia employees choose to donate to a network of agencies looking after children, families, crisis relief, health and the elderly. Their contribution went up by 116 per cent in 2000 and the combination of corporate and employee pledges rose to \$472000 in 2000 from \$173200 the year before.

Chairman Jorma Ollila, 50

**Chairman and CEO of Nokia Corporation.
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. Holdings in Nokia on January 30, 2001: 15 976 shares and stock options for 4 000 000 shares.



Pekka Ala-Pietilä, 44

**President of Nokia Corporation.
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 Directors of Alma Media Corporation. Member of the Board of Economic Information Bureau and Finnish-Japanese Chamber of Commerce. Holdings in Nokia on January 30, 2001: 9 600 shares and stock options for 1 840 000 shares.



Dr Matti Alahuhta, 48

**President of Nokia Mobile Phones.
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 member of the Board and The Executive Committee of The International Institute for Management Development (IMD). Holdings in Nokia on January 30, 2001: 13 200 shares and stock options for 1 520 000 shares.



Sari Baldauf, 45

**President of Nokia Networks.
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. Holdings in Nokia on January 30, 2001: 103 200 shares and stock options for 1 520 000 shares.



Mikko Heikkonen, 51

**Executive Vice President and General Manager, Customer Operations of Nokia Networks.
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. Holdings in Nokia on January 30, 2001: 12 000 shares and stock options for 1 176 000 shares.

Olli-Pekka Kallasvuo, 47
Executive Vice President, CFO of Nokia Corporation.

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. and Nokian Tyres plc, and member of the Board of Directors of Fortum Corporation and Yleisradio Oy (Finnish Broadcasting Company).

Holdings in Nokia on January 30, 2001: stock options for 1 520 000 shares.



Dr Yrjö Neuvo, 57

Executive Vice President, CTO of Nokia Mobile Phones.

Member since 1993.

Joined Nokia 1993.

Senior Vice President, Product Creation of Nokia Mobile Phones 1994–1999, Senior Vice President, Technology of Nokia 1993–1994, National Research Professor of The Academy of Finland 1984–1992, Professor of Tampere University of Technology 1976–1992, Visiting Professor of University of California, Santa Barbara 1981–1982. Vice Chairman of the Board of Directors of Vaisala Corporation, Member of Finnish Academy of Technical Sciences, The Finnish Academy of Science and Letters, and Academiae Europae, Foreign member of Royal Swedish Academy of Engineering Sciences, and Fellow of the Institute of Electrical and Electronics Engineers.

Holdings in Nokia on January 30, 2001: 20 640 shares and stock options for 1 200 000 shares.



Veli Sundbäck, 54

Executive Vice President, Corporate Relations and Trade Policy of Nokia Corporation.

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 Van Leer 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. Holdings in Nokia on January 30, 2001: 97 600 shares and stock options for 1 360 000 shares.



Anssi Vanjoki, 44

Executive Vice President, Nokia Mobile Phones.

Member since 1998.

Joined Nokia 1991.

Senior Vice President, Europe Et Africa of Nokia Mobile Phones 1994–1999, Vice President, Sales of Nokia Mobile Phones 1991–1994, Suomen 3M Oy 1980–1990.

Holdings in Nokia on January 30, 2001:

16 000 shares and stock options for 1 176 000 shares.

Management January 30, 2001 Group Executive Board

for more detail go to: www.nokia.com/insight/whoweare/management

Auditor

PricewaterhouseCoopers Oy
Authorized Public Accountant
(auditor in charge: Lars Blomquist)

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

As of January 30, 2001, only some of the stock options mentioned above were exercisable. In addition, the subscription price had not been determined to all of them.

Board of Directors

January 30, 2001

Chairman

Jorma Ollila, 50

Chairman and CEO and Chairman of the Group Executive Board of Nokia Corporation.

Member since 1995. Chairman since 1999.

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. Holdings in Nokia on January 30, 2001: 15 976 shares and stock options for 4 000 000 shares.

Vice Chairman

Paul J. Collins, 64

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. Holdings in Nokia on January 30, 2001: 82 128 shares.

Georg Ehrnrooth, 60

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, Sandvik AB, Sampo-Leonia Insurance Company plc and Wärtsilä Corporation. Chairman of The Centre for Finnish Business and Policy Studies (EVA).

Holdings in Nokia on January 30, 2001 (held personally or by company): 320 460 shares.

Dr Bengt Holmström, 51

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

Member since 1999.

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.

Holdings in Nokia on January 30, 2001: 2 588 shares.

Jouko K. Leskinen, 57

Member since 1994.

President and CEO of Sampo Group 1993–2000, Vice Chairman of the Board of Directors of Neste Oy 1989–1992, member of the Board of Directors of Neste Oy 1987–1989 and Senior Executive Director of Neste Oy 1987–1992.

Vice Chairman of the Board of Directors of UPM-Kymmene Corporation and member of the Board of Directors of Finnlines Plc. Member of the Board of Employers' Confederation of Service Industries. Holdings in Nokia on January 30, 2001: 1 948 shares.

Robert F. W. van Oordt, 64

Chairman and CEO of Rodamco Continental Europe N.V.

Member since 1998.

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 Schering-Plough Corporation and N.V. Union Minière S.A. and member of the Supervisory Board of Draka Holding N.V. Holdings in Nokia on January 30, 2001: 1 948 shares.

Vesa Vainio, 58

Chairman of the Board of Directors of Nordea Plc. **Member since 1993.**

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.

Vice Chairman of the Board of Directors of Wärtsilä Corporation and member of the Board of Directors of UPM-Kymmene Corporation. Chairman of the Board of The Central Chamber of Commerce of Finland. Holdings in Nokia on January 30, 2001: 13 248 shares.

Iiro Viinanen, 56

Member and Vice Chairman 1996–2000.

Member since 2000.

President and CEO of Pohjola Group Insurance Corporation 1996–2000, Finland's Minister of Finance 1991–1996, member of the Finnish Parliament 1983–1996. Member of the Board of Directors of Kone Corporation. Holdings in Nokia on January 30, 2001: 2 732 shares.

Secretary

Ursula Ranin

Corporate Governance

The Board of Directors

The Board decides on matters which in relation to the Group's activities are of significant nature. Such matters include confirmation of the 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.

Election and term of members of the Board of Directors

According to the Articles of Association the Company has a Board of Directors composed of a minimum of seven and a maximum of ten members. The members are elected at the Annual General meeting for a term of one year at a time. Since the General meeting on March 22, 2000 the Board was composed of eight members.

The Board elects the Chairman and the Vice Chairman from among its members for one term at a time. In 2000, Jorma Ollila acted as the Chairman of the Board throughout the year. Paul J. Collins acted as Vice Chairman of the Board as of the General meeting.

Committees of the Board of Directors in 2000

The Personnel Committee monitors the personnel policy of the Group and oversees its implementation including the development of compensation policies applied in the Group. The Committee also prepares policy matters and principles for remuneration to be presented for the Board of Directors. As of March 22, 2000, the Personnel Committee was composed of the following members of the Board: Paul J. Collins (Chairman), Bengt Holmström, Vesa Vainio and Iiro Viinanen. The Committee convened three times in 2000.

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 of Directors in fulfilling its responsibilities to oversee the Group's financial reporting processes including monitoring the integrity of the company's financial statements and the performance of its internal and external auditors. The Committee assembles regularly in each quarter. As of March 22, 2000, the Audit Committee was composed of the following members of the Board: Jouko K. Leskinen (Chairman), Georg Ehrnrooth and Robert F.W. van Oordt. The Committee held four meetings during the year.

The Nomination Committee prepares proposals for the General meeting concerning the composition of the Board and the remunerations and remuneration principles of the members of the Board. It further monitors issues and practises related to Corporate Governance and proposes necessary actions in respect thereof. As of March 22, 2000, the Nomination Committee was composed of the following members of the Board: Paul J. Collins (Chairman), Jouko K. Leskinen and Iiro Viinanen. The Committee held one meeting in 2000.

Meetings of the Board of Directors

The Board met eleven times in 2000. Four of the meetings were held in a form of conference call.

The CEO and the President

The Chairman of the Board, Jorma Ollila acts as the Chief Executive Officer of the Group. The President of the Company is Pekka Ala-Pietilä.

The Board Composition in 2001

Nomination Committee proposes to the Annual General meeting on March 21, 2001 that the number of Board members remain eight and that the following board members be re-elected for a term of one year: Paul J. Collins, Georg Ehrnrooth, Bengt Holmström, Jorma Ollila, Robert F.W. van Oordt and Vesa Vainio. Moreover, the Committee proposes that Marjorie Scardino and Arne Wessberg be elected as new members of the Board for the same term. Ms Scardino is the Chief Executive of Pearson plc and Mr. Wessberg the President of Yleisradio Oy (Finnish Broadcasting Company).

Remuneration

The Annual General Meeting on March 22, 2000 resolved that the annual retainers to the Board members be 109 000 euros for the Chairman, 85 000 euros for the Vice Chairman and 61 000 euros for each of the members, retaining the remunerations at the level of 1999. The Annual General Meeting further resolved that the retainers be partly paid in company's stock to be acquired from the market. In line with this the Chairman received 840 shares, the Vice Chairman 640 shares and the members 460 shares each. The remainders of the annual retainers along with the meeting fees 420 euros per meeting were paid in cash.

In 2000, Jorma Ollila received as remuneration for his services as CEO a fixed salary of 1 070 000 euros and a bonus of 357 000 euros for 1999 and a bonus of 160 500 euros for the first half of 2000. Pekka Ala-Pietilä received as remuneration for his services as President a fixed salary of 570 600 euros and a bonus of 159 000 euros for 1999 and a bonus of 80 600 euros for the first half of 2000.

Insiders' Trading with Securities

The Board has established a Policy in respect of trading with securities. The Policy is in line with the Guidelines for Insiders issued by the Helsinki Exchanges.

Nokia shares

General

Nokia has one class of shares. Each Nokia share entitles to one (1) vote at General Meetings of Nokia, and to a fixed annual dividend amounting to 10 per cent of the par value of the share.¹ Nokia shareholders resolved at the Annual General Meeting 2000 to split the par value of the share on a four-for-one basis. With effect from April 10, 2000, the par value of the share is EUR 0.06.

The minimum share capital stipulated in the Articles of Association is EUR 170 million and the maximum share capital 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 and votes 4 696 212 723. 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 per cent of the total number of shares and voting rights at the Parent Company.

Authorizations

The Board of Directors had been authorized by Nokia shareholders at the Annual General Meeting 1999 to increase the share capital, which authorization extended to March 17, 2000. At the Annual General Meeting 2000 Nokia shareholders again authorized the Board of Directors to decide on an increase of the share capital, which authorization is effective until March 22, 2001. The share capital may be increased to finance possible business acquisitions or corresponding arrangements. In 2000, the share capital was increased on the basis of these authorizations by a total of EUR 601 261.10, consisting of 10 021 035 shares in total.

At the Annual General Meeting 2000, Nokia shareholders also authorized the Board of Directors to repurchase a maximum of 224 million Nokia shares and to resolve on transfer of such shares. No shares were repurchased or transferred in 2000 under the authorizations. These authorizations are effective until March 22, 2001.

Stock option plans

During 2000, Nokia had four global stock option plans as part of the incentive program of Nokia. Of these plans, Nokia Stock Option Plan 1994 came to an end on January 31, 2000. By termination, a total of

12 506 112 shares had been exercised and the share capital had been increased by a total of EUR 750 366.72, representing less than one per cent of the outstanding share capital of Nokia. Nokia Stock Option 1994 had been offered to approximately 50 persons.

Nokia Stock Option Plan 1995 includes A warrants and B warrants, each of which entitle to subscribe for sixteen shares with a par value of EUR 0.06 at an aggregate subscription price of FIM 168. The A warrants are exercisable since December 1, 1997, and the B warrants since December 1, 1999. If exercised in full, the share capital of Nokia would increase under Nokia Stock Option Plan 1995 with a total of EUR 5 568 000, consisting of 92 800 000 shares and representing approximately 2.0 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1995, covering approximately 350 persons, came to an end on January 31, 2001.

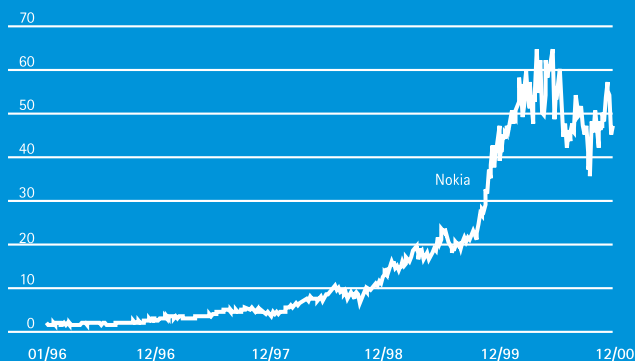
Nokia Stock Option Plan 1997 includes A, B and C warrants, each of which entitle to subscribe for sixteen shares with a par value of EUR 0.06 at an aggregate subscription price of FIM 307. The A warrants are exercisable since December 1, 1997, the B warrants since November 1, 1999 and the C warrants since November 1, 2001. The exercise periods of all the warrants terminate on January 31, 2003. If exercised in full, the share capital of Nokia would increase under Nokia Stock Option Plan 1997 with a total of EUR 9 120 000, consisting of 152 000 000 shares and representing approximately 3.2 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1997 covers approximately 2 000 persons.

Nokia Stock Option Plan 1999 includes A, B and C stock options, each of which entitle to subscribe for four shares with a par value of EUR 0.06. The A stock options may be exercised from April 1, 2001 at a subscription price of EUR 67.55, the B stock options may be exercised from April 1, 2002 at a subscription price of EUR 225.12, and the C stock options may be exercised from April 1, 2001 at a subscription price determined upon the trade volume weighted average price of the share on the

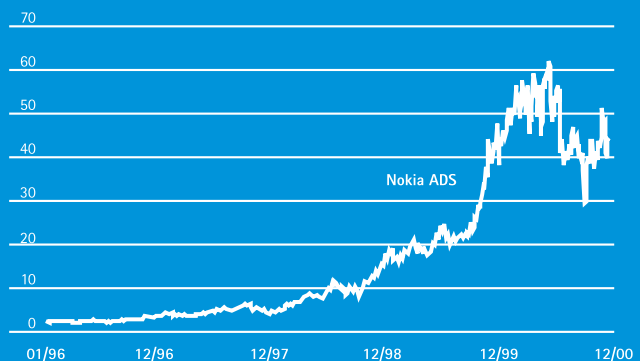
Continues on page 31

¹ Nokia used to have two classes of shares, A shares and K shares. Nokia shareholders resolved at the Annual General Meeting 1999 to consolidate the two classes of shares. The rights presently related to all Nokia shares correspond to the rights of the previous class A shares. The rights of the previous class K shares entitled to ten (10) votes at General Meetings, but to no fixed annual dividend. The consolidation of the two classes of shares is effective since April 9, 1999.

Nokia share price on the Helsinki Exchanges, EUR



Nokia ADS price on the New York Stock Exchange, USD



Share capital and shares, Dec. 31²

	2000	1999	1998	1997	1996
Share capital, EURm					
K (common)	*)	*)	54	66	84
A (preferred)			201	186	168
Total	282	279	255	252	252
Shares (1 000, par value EUR 0.06)					
K (common)	*)	*)	1 016 246	1 259 000	1 595 403
A (preferred)			3 828 527	3 538 634	3 197 397
Total	4 696 213	4 654 064	4 844 773	4 797 634	4 792 800
Shares owned by the Group at year-end (1 000)	4 080	1 385	257 288	257 288	260 488
Number of shares excl. shares owned by the Group at year-end (1 000)	4 692 133	4 652 679	4 587 485	4 540 346	4 532 312
Average number of shares excl. shares owned by the Group during the year (1 000)	4 673 162	4 593 761	4 553 364	4 532 512	4 536 976
Number of registered shareholders ³	94 500	48 771	30 339	28 596	26 160

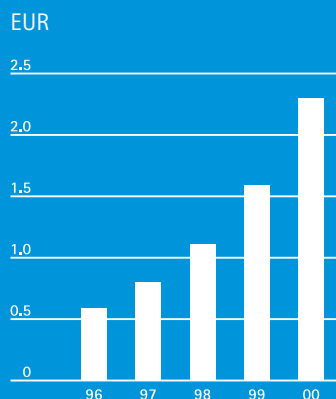
*) Since April 9, 1999 one class of shares only.

Key Ratios, Dec. 31, IAS (calculation see page 39 on Financial Statements)

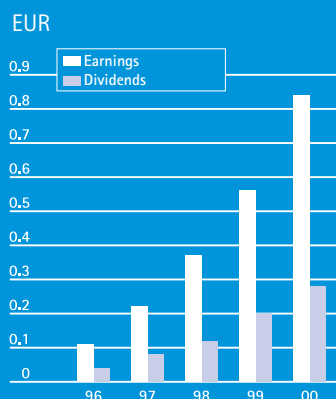
	2000	1999	1998	1997	1996
Earnings per share from continuing operations, basic					
Earnings per share, EUR	0.84	0.56	0.37	0.22	0.11
P/E Ratio					
K (common)	*)	*)	35.3	18.4	24.8
A (preferred)	56.5	80.4	35.3	18.3	24.9
(Nominal) dividend per share, EUR					
Total dividends paid, EURm	1 315	931	586	378	176
Payout ratio	0.33	0.36	0.33	0.35	0.33
Dividend yield, %					
K (common)	*)	*)	0.9	1.9	1.3
A (preferred)	0.6	0.4	0.9	1.9	1.3
Shareholders' equity per share, EUR	2.30	1.59	1.11	0.80	0.59
Market capitalization, EURm ⁴	222 876	209 371	59 796	18 503	12 706

*) Since April 9, 1999 one class of shares only.

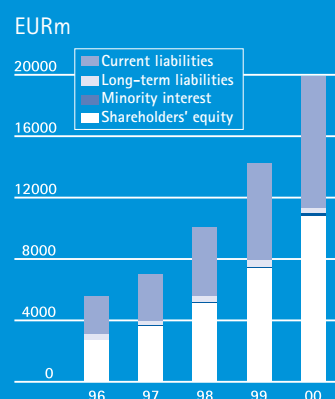
Shareholders' equity per share



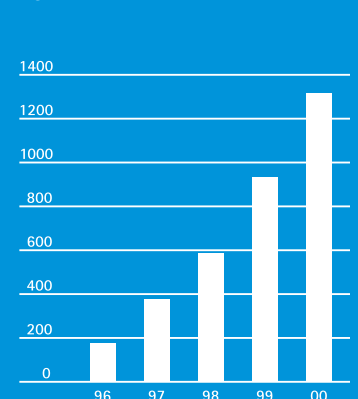
Earnings and dividend per share



Shareholders' equity and liabilities



Total dividends EURm



Share issues and bonus issues 1996-2000⁵

Type of issue	Subscription date	Subscription price or amount of bonus issue EUR	Number of new shares (1 000)	Date of payment	Net proceeds EURm	New share capital EURm
Nokia Stock Option Plan 1994	1998	0.98	268	1998	0.26	0.01
	1999	0.98	12 238	1999	12.03	0.73
Nokia Stock Option Plan 1995	1997	1.77	2 326	1997	4.11	0.12
	1998	1.77	30 304	1998	53.52	1.59
	1999	1.77	18 602	1999	32.85	1.12
	2000	1.77	22 011	2000	38.87	1.32
Nokia Stock Option Plan 1997	1997	3.23	2 508	1997	8.09	0.13
	1998	3.23	16 566	1998	53.46	0.87
	1999	3.23	33 456	1999	107.97	2.01
	2000	3.23	10 117	2000	32.65	0.61
Bonus issue	1999	0.0075	-	1999	-	36.05
Share issue to stockholders of Rooftop Communications Corporation	1999	20.04	2 118	1999	42.45	0.13
Share issue to stockholders of Network Alchemy, Inc.	2000	49.91	6 112	2000	305.06	0.37
Share issue to stockholders of DiscoveryCom, Inc.	2000	45.98	3 909	2000	179.75	0.23

Reductions of share capital

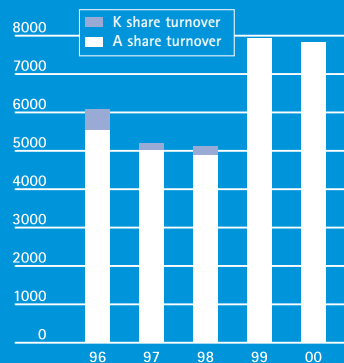
Type of reduction	Year	Number of shares affected (1 000, par value EUR 0.06)	Amount of reduction of the share capital EURm	Amount of reduction of the restricted capital EURm	Amount of reduction of the retained earnings EURm
Cancellation of shares	1999	257 123	15.43	-	3 435.27

Splits of the par value of the Nokia share

	Par value before	Split ratio	Par value after	Effective date
1986	FIM 100 (EUR 16.82)	5:1	FIM 20 (EUR 3.36)	December 31, 1986
1995	FIM 20 (EUR 3.36)	4:1	FIM 5 (EUR 0.84)	April 24, 1995
1998	FIM 5 (EUR 0.84)	2:1	FIM 2.5 (EUR 0.42)	April 16, 1998
1999	FIM 2.5 (EUR 0.42)	2:1	EUR 0.24 ⁶	April 12, 1999
2000	EUR 0.24	4:1	EUR 0.06	April 10, 2000

Share turnover (all stock exchanges)

(Million shares)



² Figures have been recalculated to reflect the par value of EUR 0.06 of the share.

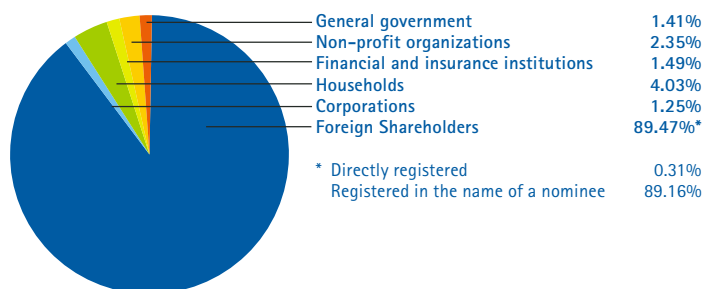
³ Each account operator is included in the figure as only one registered shareholder.

⁴ Shares owned by the Group companies are not included.

⁵ Prices and numbers of shares have been recalculated to reflect the par value of EUR 0.06 of the share.

⁶ A bonus issue of EUR 0.03 per each share of a par value of EUR 0.24 in the same connection.

Shares by shareholder category



Continues from page 28

Helsinki Exchanges during the last five trading days in March 2001. The exercise periods of all the stock options terminate on December 31, 2004. If exercised in full, the share capital of Nokia would increase under Nokia Stock Option Plan 1999 with a total of EUR 8 640 000, consisting of 144 000 000 shares representing approximately 3.1 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1999 covers more than 16 000 persons.

In addition to the global stock option plans, Nokia has a complementary stock option plan covering approximately 700 Nokia employees in the U.S. and Canada. An exercise of stock options under this Plan does not result in an increase of the share capital of Nokia Corporation.

Listing on stock exchanges

Nokia shares are listed on the Helsinki Exchanges since 1915. The shares are also listed in Stockholm (since 1983), London (since 1987), Paris (since 1988), Frankfurt am Main (since 1988) and New York (since 1994). Nokia shares are traded on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs) and evidenced by American Depositary Receipts (ADRs). The ADRs are issued by Citibank, N.A., acting as the Depositary Bank, upon deposit of shares or evidence of rights to receive shares with the Depositary. Each ADS represents one share.

The A and B warrants of Nokia Stock Option Plan 1997 are listed on the Helsinki Exchanges as one security, and Nokia will apply for including C warrants into the listing as of November 1, 2001. Nokia will also apply for listing of the A stock options of Nokia Stock Option Plan 1999 on the Helsinki Exchanges as of April 2, 2001.

Proposals to Annual General Meeting 2001

The Board of Directors will propose to the Annual General Meeting on March 21, 2001 a dividend of EUR 0.28 per share. Furthermore, the Board will propose that the Articles of Association be amended to abolish the fixed annual dividend of 10 per cent of the par value of the share, and to adopt some amendments relating to General Meetings of the Parent Company. The Board will also propose issuance of 145 million stock options to key personnel of Nokia. In addition, the Board will propose that it will have an authorization to resolve to increase the share capital by a maximum of 900 million new shares as well as an authorization to repurchase a maximum of 225 million Nokia shares and to transfer them. It will also propose that a share capital be reduced through cancellation of a number of shares held by the Parent Company.

Attending and voting at General Meetings

To attend and vote at a General Meeting, a shareholder must be registered in the register of shareholders. Voting rights at a General Meeting may not be exercised by a shareholder if his shares are registered in the name of a nominee. A beneficial owner of shares registered in the name of a nominee, including also all the holders of Nokia ADSs, must arrange to have his name entered in the register of shareholders of Nokia. According to a recent amendment of Finnish law, a beneficial owner may be registered for solely the purpose of voting at the General Meeting, without opening a Finnish book-entry account, and such a registration must be effective on a record date of the Meeting, which is ten (10) days prior to the Meeting.

On December 31, 2000, Nokia shares registered in the name of a nominee accounted for 89.16 per cent of the total number of shares and voting rights.

Distribution of profits

Profits are distributed by Nokia within the limits set by the Finnish Companies Act. The amount of dividend is based upon and calculated in relation to the level of Nokia's annual profit. There is, however, no formula according to which the amount of dividend is determined.

The intention of Nokia is that distribution of profits should, over the long term, reflect the development of the Group's earnings per share.

Effect of imputation system

The imputation system (avoir fiscal) will apply to the 2000 dividends payable by Nokia. Any Finnish company, when paying dividends to its shareholders, is required to pay tax amounting to a minimum of 29/71 of the dividend. A resident of Finland, receiving dividends from a Finnish company, is entitled to tax credit amounting to 29/71 of the dividend. As the dividend for 2000 is proposed by the Board of Directors to be EUR 0.28 per share, the tax credit thus amounts to EUR 0.11 per share thereby increasing the shareholder's profit to EUR 0.39 per share taxable at 29 per cent.

The credit is granted to non-resident shareholders only when an existing tax treaty between Finland and the shareholder's resident country specifically includes a provision of the credit. According to a tax treaty, a resident of the Republic of Ireland is entitled to a partial tax credit.

Nokia Dividend Reinvestment and Direct Purchase Plan

A Dividend Reinvestment and Direct Purchase Plan for Nokia ADSs was implemented in December 1997. The Plan is designed to provide owners of ADSs and other interested investors who participate in the Plan a convenient way to accumulate and increase their investment in ADSs and to reinvest all or a portion of their cash dividends or optional cash investments in additional ADSs. The Plan is not available to persons located outside the United States.

The Plan is sponsored and administrated by the Depositary Bank, Citibank, N.A. Nokia has consented to the establishment of the Plan by the Depositary Bank, but does not, and should not be deemed to, sponsor or administer the Plan. Nokia assumes no obligation or liability for the operation of the Plan.

Further information

Please see section Nokia shares and shareholders in Nokia's Financial Statement on pages 31–35 for further details.

Investor information

Annual general meeting

Date: Wednesday, March 21, 2001, at 3 p.m.

Place: Hartwall Arena, Veturitie 13, Helsinki, Finland.

Dividend

Dividend proposed by the Board of Directors for 2000 is EUR 0.28.

The dividend record date is proposed to be March 26, 2001 and the dividend is proposed to be paid on or about April 3, 2001.

Financial reporting

Nokia's quarterly interim reports in 2001 are due on April 20, July 19 and October 19. The 2001 results will be published in January 2002 and the Annual Report for 2001, in March 2002.

The reports are published in English, Finnish and Swedish.

Stock exchanges

The shares of Nokia Corporation are quoted on the following stock exchanges:

	Symbol	Trading currency
Helsingin Pörssi (quoted since 1915)	NOK1V	EUR
Stockholms Fondbörs (1983)	NOKI	SEK
London Stock Exchange (1987)	NOKA	EUR
Frankfurter Wertpapierbörse (1988)	NOA3	EUR
Bourse de Paris (1988)	NOK	EUR
New York Stock Exchange (1994)	NOK	USD

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Information via the Internet

Internet World Wide Web users can access Nokia's financial reports and other information on financial, environmental and social reporting as well as press releases on Nokia through www.nokia.com/insight

List of indices

NOK1V

HEX HEX General Index
HEXTELE HEX Telecommunications Index
HEX20 HEX 20 Index
BE500 Bloomberg Europe
BETECH BBG Europe Technology
SX5E DJ Euro STOCXX 50
SX5P DJ Europe STOXX
SX__ Various Other DJ Indices
E300 FTSE Eurotop 300

NOKI

OMX Stockholm
GENX Swedish General
GENX04 Swedish Engineer
GENX16 Swedish SX 16 Index

NOK

NYA NYSE Composite
NNA NYSE Utilities
NN NYSE Utilities
CTN GSFO Technology
MLO Merrill Lynch 10

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It should be noted that certain statements herein which are not historical facts, including, without limitation those regarding 1) the timing of product deliveries; 2) the Company's ability to develop new products and technologies; 3) expectations regarding market growth and developments; 4) expectations for growth and profitability; and 5) statements preceded by "believes", "expects", "anticipates", "foresees", or similar expressions, are forward-looking statements. Because such statements involve risks and uncertainties, actual results may differ materially from the results currently expected by the Company. Factors that could cause such differences include, but are not limited to 1) general economic conditions, such as the rate of economic growth in the Company's principal geographic markets or fluctuations in exchange rates, including the impact of the weakening Euro; 2) 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 the Company's success in the emerging 3G market, the ability of the Company to source components from third parties without interruption and at reasonable prices, demand for vendor financing and the Company's ability and willingness to provide such financing, and the success and financial condition of the Company's strategic partners and customers; 3) operating factors, such as continued success of manufacturing activities and the achievement of efficiencies therein, continued success of product development or inventory risks due to shifts in market demand; as well as 4) the risk factors specified on pages 21 to 23 of the Company's Form 20-F for the year ended December 31, 1999

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NOKIA
CONNECTING PEOPLE

NOKIA

/insight:

Financial Statements 2000

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Key data

Based on financial statements according to International Accounting Standards, IAS.

Nokia	2000, EURm	1999, EURm	Change, %
Net sales	30 376	19 772	54
Operating profit	5 776	3 908	48
Profit before taxes	5 862	3 845	52
Net profit	3 938	2 577	53
Research and development	2 584	1 755	47
Capital expenditure	1 580	1 358	16
Market capitalization	222 876	209 371	6

	2000, %	1999, %
Return on capital employed	58.0	55.7
Net debt to equity (gearing)	-26	-41

	2000, EUR	1999, EUR	Change, %
Earnings per share, basic, split adjusted	0.84	0.56	50
Dividend per share, split adjusted	0.28 *)	0.20	40
Average number of shares (1 000 shares), split adjusted	4 673 162	4 593 761	

*) Board's proposal

Business Groups	2000, EURm	1999, EURm	Change, %
Nokia Networks			
Net sales	7 714	5 673	36
Operating profit	1 358	1 082	26
Research and development	1 013	777	30
Nokia Mobile Phones			
Net sales	21 887	13 182	66
Operating profit	4 879	3 099	57
Research and development	1 306	835	56
Nokia Ventures Organization			
Net sales	854	415	106
Operating profit	-387	-175	-121
Research and development	235	110	114

Personnel, Dec. 31	2000	1999	Change, %
Nokia Networks	23 965	23 718	1
Nokia Mobile Phones	28 047	23 775	18
Nokia Ventures Organization	2 570	1 879	37
Common Group Functions	5 707	5 888	-3
Nokia Group	60 289	55 260	9

10 major countries, personnel, Dec. 31	2000	1999
Finland	24 379	23 267
United States	8 765	7 441
China	5 675	4 375
Germany	4 747	4 660
UK	2 777	2 822
Hungary	1 972	2 034
Denmark	1 266	1 110
Brazil	1 260	1 233
Mexico	1 122	1 392
South Korea	937	694

10 major markets, net sales	2000, EURm	1999, EURm
USA	5 312	3 360
China	3 065	2 332
UK	2 828	1 855
Germany	2 579	1 679
Italy	1 243	968
France	1 085	951
Brazil	1 056	600
Philippines	780	203
Australia	723	437
Spain	678	420

1 EUR	Main currencies, rates at the end of 2000
USD	0.890
GBP	0.607
SEK	8.698
JPY	99.960

Review by the Board of Directors

Nokia's net sales in 2000 increased by 54% compared to 1999 and totaled EUR 30 376 million (EUR 19 772 million in 1999). Sales in Nokia Networks grew by 36% to EUR 7 714 million (EUR 5 673 million) and in Nokia Mobile Phones by 66% to EUR 21 887 million (EUR 13 182 million). Sales increased in Nokia Ventures Organization by 106% to EUR 854 million (EUR 415 million).

Operating profit (IAS, International Accounting Standards) grew by 48% and totaled EUR 5 776 million (EUR 3 908 million in 1999). Operating margin was 19.0% (19.8% in 1999). Operating profit in Nokia Networks increased to EUR 1 358 million (EUR 1 082 million) and in Nokia Mobile Phones to EUR 4 879 million (EUR 3 099 million). Operating margin in Nokia Networks was 17.6% (19.1% in 1999) while the operating margin in Nokia Mobile Phones was 22.3% (23.5% in 1999). Nokia Ventures Organization showed an operating loss of EUR 387 million (loss of EUR 175 million). Common Group Expenses, which comprises Nokia Head Office and Nokia Research Center, totaled EUR 74 million (EUR 98 million).

Financial income totaled EUR 102 million (financial expenses of EUR 58 million 1999). Profit before tax and minority interests totaled EUR 5 862 million (EUR 3 845 million). Taxes amounted to EUR 1 784 million (EUR 1 189 million). Net profit was EUR 3 938 million (EUR 2 577 million).

Earnings per share was EUR 0.84 (basic) and EUR 0.82 (diluted) compared to EUR 0.56 (basic) and EUR 0.54 (diluted) in 1999.

At December 31, 2000, net debt to equity ratio (gearing) was -26% (-41% at the end of 1999). Total capital expenditures in 2000 amounted to EUR 1 580 million (EUR 1 358 million).

Global Reach

In 2000, Europe accounted for 52% of Nokia's net sales (53% in 1999), the Americas 25% (25% in 1999) and Asia-Pacific 23% (22% in 1999). The 10 largest markets were the US, China, the UK, Germany, Italy, France, Brazil, the Philippines, Australia and Spain, together representing 64% of total sales.

Research and development

In 2000, Nokia continued to invest in its worldwide research and development network and cooperation. At year-end, Nokia had 19 304 R&D employees, approximately 30% of Nokia's total personnel. Investments in research and development increased by 47% (by 53% in 1999) and totaled EUR 2 584 million (EUR 1 755 million in 1999), representing 8.5% of net sales (8.9% of net sales in 1999).

People

In 2000, Nokia increased its personnel by a total of 7 864 new employees (12 367 in 1999), excluding the businesses sold in 2000. The average number of personnel

for 2000 was 58 708 (51 177 for 1999). At the end of 2000, Nokia employed 60 289 people worldwide (55 260 at year-end 1999).

Nokia continued to develop motivating and performance-based compensation and benefit programs for its employees. In 2000, the 50% rise in earnings per share resulted in the maximum 5% bonus under the global Nokia Connecting People Bonus plan. During the year, the number of personnel participating in the Nokia global stock-option plans increased significantly to more than 16 000.

Average personnel	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

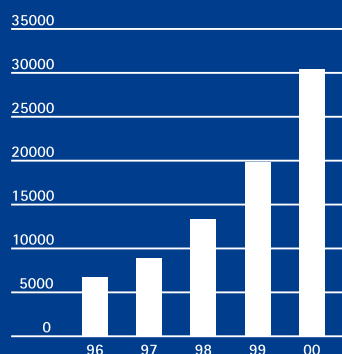
Finland	24 495	23 155
Other European countries	14 365	12 997
Americas	11 491	8 818
Asia-Pacific	8 357	6 207
Nokia Group	58 708	51 177

Parent Company	1 730	1 663
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Research and development, EURm	2000	1999
Nokia Networks	1 013	777
Nokia Mobile Phones	1 306	835
Nokia Ventures Organization	235	110
Common Group Expenses	30	33
Nokia Group	2 584	1 755

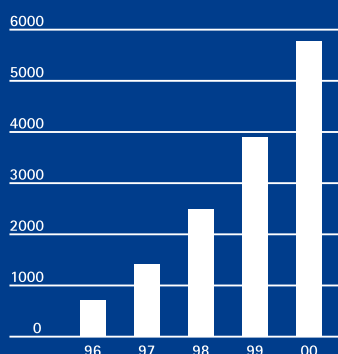
Net sales

EURm



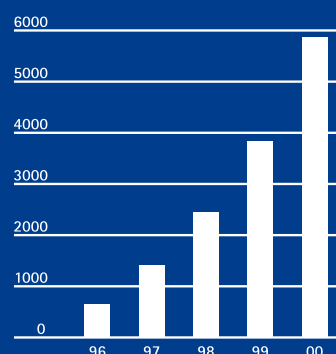
Operating profit, IAS

EURm



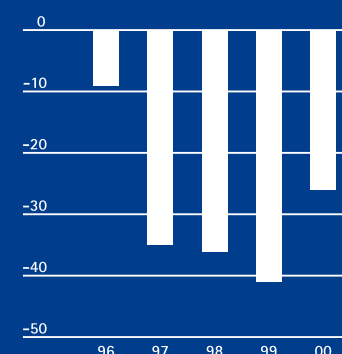
Profit before tax and minority interests, IAS

EURm



Net debt to equity

(gearing), %



Acquisitions and divestments

In accordance with its strategy, Nokia continued to focus on its core competence areas and increased its use of contract manufacturing. In January, Nokia divested its display manufacturing operations and sold Nokia Display Products' branded business. Nokia Network's cabling and electromechanical manufacturing units were sold to one of our contract manufacturers.

In February, Nokia acquired Network Alchemy, the California-based leading provider of IP clustering solutions. This acquisition provides a platform from which Nokia will build highly scalable and secure solutions required for the large number of on-line transactions envisioned in a mobile world.

In August, Nokia expanded its broadband solutions portfolio by acquiring DiscoveryCom, a leading US provider of loop management solutions for broadband DSL services. The acquisition will strengthen Nokia's loop management and related DSL competencies.

In October, 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 USD 415 million. Obtaining full ownership of NGI was an important step for Nokia to increase its presence in Brazil.

In December, Nokia strengthened its ability to offer world-class network security solutions to the small office sector by agreeing to commence a tender offer to buy all outstanding shares of Ramp Networks, a California-based provider of purpose built Internet security appliances specifically designed for small office applications. The tender offer closed on January 19, 2001, with over 90% of the shares purchased.

Joint initiatives

The Location Interoperability Forum (LIF) has reached the milestone of 100 support members. The aim of LIF is to produce a common industry view on positioning technologies and system solutions to meet emerging service requirements such as information retrieval and mobile commerce applications. Nokia is a founding member of the LIF initiative.

Symbian announced in November the release of its first fully integrated software platform for next generation mobile phones. The Nokia 9210 is the world's first product based on the Symbian Platform v6.0. Symbian also announced that it has licensed the Nokia WAP browser technology to be incorporated in its platform.

In December, the SyncML initiative released its 1.0 specification for universal data synchronization of both mobile and local data. SyncML is an initiative sponsored by Nokia and other leading companies and supported by over 500 industry parties.

In November, Nokia and Hewlett-Packard agreed to develop Internet-based platform solutions for the proliferation of mobile e-services. An initial applica-

tion, available in 2001, would enable a person using a Nokia mobile phone to command an HP printer to print from the Web. These solutions are based on open industry standards such as Infrared, vCard and Bluetooth.

Nokia Networks

The year 2000 was characterized by continuing GSM expansion, as operators responded to growth in the GSM subscriber base by investing in network capacity. In addition to delivering GSM network expansion to its existing customers, Nokia won 13 new customers in 2000, and its total number of GSM customers rose to 100.

Operators invested in wireless data capabilities, such as GPRS, a forerunner for 3G. GPRS shipments accelerated during the year, and Nokia has now delivered well over 50 GPRS networks to leading operators in Europe, the US and Asia. By the end of the year, 15 operators had launched GPRS services based on Nokia solutions, accounting for more than half of all commercial GPRS launches worldwide.

Nokia signed its first contracts for 3G networks and had by the end of the year been chosen as a 3G supplier by a total of 13 operators in Asia, the US and Europe.

Nokia combined its mobile Internet infrastructure solutions into one division to increase focus on critical points in the mobile Internet value system. Product launches included Nokia mPlatform, an open platform to implement mobile Internet services, and Nokia mPosition Solution, an end-to-end solution for location-based services in mobile networks. Nokia also entered into cooperation with several companies operating in the mobile Internet area.

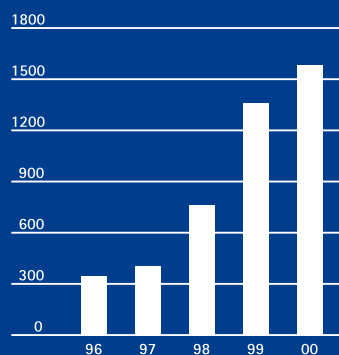
Underscoring the company's commitment to being one of the first to deliver fully 3GPP-compliant WCDMA networks in 2001, Nokia continued to introduce industry-first radio access solutions that dramatically reduce costs and improve capacity. Launches included a new family of WCDMA base stations and the Nokia Common Radio Resource Management solution, which will increase radio network capacity and simplify the operation of future multi-standard mobile networks. Nokia also introduced the Nokia 3G All-IP Core, an IPv6 based concept for 3G core networks, and 3G functionality for mobile switches.

Nokia expects its first 3G deliveries in the first half of 2001, with volume deliveries commencing in the second half. During 2000, Nokia prepared for volume rollouts of 3G networks both in production and network implementation. This included verifying the capacity of the Nokia supplier network, signing agreements with a significant number of suppliers and subcontractors, and signing cooperation agreements for turnkey implementation of 3G and GSM with four major companies; ABB, Bovis Lend Lease, MKI and Wireless Facilities Inc.

The TETRA standard continued to expand from Europe to Asia, most notably China. During 2000, Nokia developed and delivered the world's first integrated TETRA voice and IP Packet Data system that considerably boosts TETRA's data

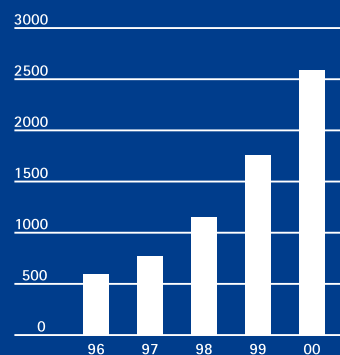
Capital expenditure

EURm



Research and development

EURm



capabilities. In October, Nokia launched the new 800 MHz TETRA system and had won the first order for this new system by the end of the year.

In the growing broadband solutions market, Nokia continued to build its position, signing contracts with 17 new customers. Commercial shipments began of the Nokia MW1122, which combines wireless in-premise connectivity and high-speed Internet access for the residential gateway market.

Nokia Mobile Phones

Growth in Nokia's mobile phone sales continued to exceed market growth in 2000 as a whole and in every quarter. Overall, Nokia sold 128.4 million mobile phones in 2000, representing 64% year-on-year growth. In 1999, Nokia sold 78.5 million units worldwide.

According to Nokia's preliminary estimates, global mobile phone market volume in 2000 was approximately 405 million units, representing 45% growth on the previous year. Market volume for 1999 was estimated at approximately 280 million units. Replacement sales account for an estimated 40% of the 405 million total volume estimate for 2000. This share is expected to rise to around 50% of total volume in 2001.

Growth in market volume in 2000 continued to be highest in Europe at slightly above 50%, compared with approximately 45% in the Americas and 35% in Asia-Pacific. Nokia's sales volume growth was clearly higher than market volume growth in all regions, most notably Asia-Pacific and Europe.

Consequently, Nokia continued to strengthen its market leadership in 2000, leading to a total global market share of approximately 32% for the full year 2000. Nokia continues to target mobile phone sales volume growth that exceeds projected market growth and thus further increase its global leadership.

During 2000, Nokia made 19 new product announcements including its first Bluetooth solution, the Nokia Connectivity Pack for the Nokia 6210.

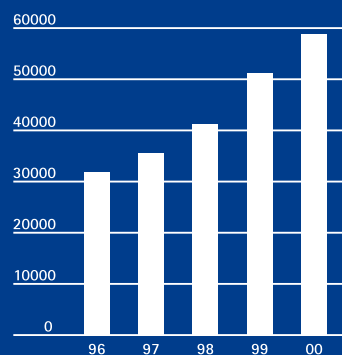
Nokia Ventures Organization

Nokia invited industry players from around the world to take part in a global initiative to develop architecture for mobile Internet technology. The initiative, Mobile Internet Technical Architecture, is the first of its kind to focus specifically on the mobile Internet, and is aimed at bringing a richer Mobile Internet experience to users in the next generation of products and services.

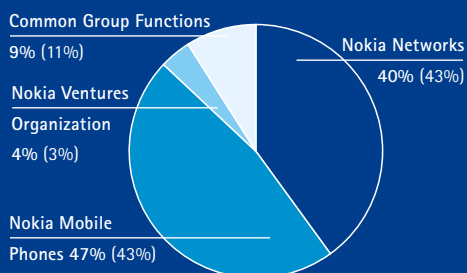
Net sales by business group Jan. 1- Dec. 31	2000 EURm	%	1999 EURm	%	Change %
Nokia Networks	7 714	25	5 673	29	36.0
Nokia Mobile Phones	21 887	72	13 182	67	66.0
Nokia Ventures Organization	854	3	415	2	105.8
Discontinued Display Products	-	-	580	3	-100.0
Inter-business group eliminations	-79	0	-78	-1	
Nokia Group	30 376	100	19 772	100	53.6

Operating profit, IAS Jan. 1- Dec. 31	2000 EURm	% of net sales	1999 EURm	% of net sales
Nokia Networks	1 358	17.6	1 082	19.1
Nokia Mobile Phones	4 879	22.3	3 099	23.5
Nokia Ventures Organization	-387	-45.3	-175	-42.2
Common Group Expenses	-74		-98	
Nokia Group	5 776	19.0	3 908	19.8

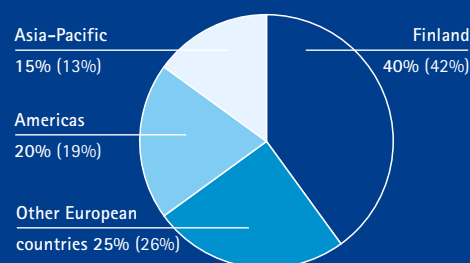
Average personnel



Personnel by business group 2000 (1999)



Personnel by market area 2000 (1999)



In 2000, Nokia Internet Communications established itself as a market leader in security infrastructure for corporate customers and strengthened its offering with several new elements. Nokia and Internet Security Systems (ISS) announced RealSecure for Nokia, the first enterprise-class intrusion detection appliance. In addition, through its relationship with McAfee, Network Associates Inc., the company announced the WebShield for Nokia, a unique anti-virus appliance dedicated to stopping viruses at the network perimeter.

Nokia Home Communications introduced its first Home Gateway product, intended for the Americas, the Nokia MW 1122, and launched the Media Terminal, a new, powerful infotainment center for the home with a software platform based on open standards and technologies. Nokia Multimedia Terminals signed its first two agreements to deliver digital multimedia terminals and related services in China. Nokia also launched a new multimedia terminal, the Mediamaster 9450, designed to meet the rapidly increasing digital free-to-air terminal demand in the Central European and Middle Eastern markets. At the end of the year, the company merged Nokia Multimedia Terminals into Nokia Home Communications.

Nokia launched its Mobile Display Appliances venture focusing on the development of Internet-enabled mobile display devices. This venture uses Nokia's expertise in mobility, IP technologies and high performance displays to offer consumers convenient and innovative access to the Internet.

Nokia Venture Partners continued to invest in emerging mobile Internet businesses, increasing Nokia's portfolio to 25 companies. The new USD 500 million fund launched in December 2000 offers Nokia early insight into new technologies and developments in the Internet economy. In addition to the Americas and Europe, the fund will focus on the fast-growing mobile Internet segments in Israel and the Asia-Pacific region.

Changes in share capital

In 2000, Nokia's share capital increased by EUR 1 927 669.44 as a result of the issue of 32 127 824 new shares upon exercise of warrants issued to key personnel in 1995 and 1997. Nokia's share capital was also increased in March by EUR 366 704.40, when 6 111 740 shares (split adjusted) were issued to finance the acquisition of Network Alchemy. The shares were issued for a subscription price of EUR 49.9131 per share, the average market price of Nokia ADSs on the New York Stock Exchange for the 15 business-day period before the closing of the transaction (split adjusted). In addition, Nokia's share capital was increased in September by EUR 234 557.70 when 3 909 295 shares were issued to finance the acquisition of DiscoveryCom. The shares were issued for a subscription price of EUR 45.9805 per share, the average market price of Nokia ADSs on the New York Stock Exchange for the five business-day period before the signing of the transaction. Due to the limited number of shares issued in these transactions, the issuances did not have any significant effect on the relative holdings of the other shareholders of the company nor on the voting powers among them.

The total number of shares at December 31, 2000 was 4 696 212 723. As a result of the new share issues, Nokia received a total of EUR 556 325 962.58 in additional shareholders' equity in 2000. At December 31, 2000, Nokia's share capital was EUR 281 772 763.38.

Nokia repurchased a total of 2 532 000 shares (split adjusted) over the Helsinki Exchanges at an aggregate price of EUR 126.8 million during the period from February 21 to March 2. The price paid was determined on the basis of the market price at the time of repurchase. The shares were repurchased to be used for the purposes specified in the authorization held by the Board. The aggregate par value of the shares purchased was EUR 151 920, representing 0.05% of the share capital of the company and the total voting rights. On July 1, a total of 61 036 Nokia shares were returned to Nokia pursuant to agreements made in connection with business acquisitions effected before the said date. The aggregate par value of these shares, which were received without consideration, was EUR 3 662.16 and they represented 0.001% of the share capital of the company and the total voting rights. These new holdings did not have any significant effect on the relative holdings of the other shareholders of the company nor on the voting powers among them.

On December 31, 2000, Nokia and its subsidiary companies owned 4 079 425 Nokia shares. The shares had an aggregate nominal value of EUR 244 765.50, representing 0.09% of the share capital of the company and the total voting rights.

Outlook

Nokia's objective is to take a leading role in creating communications products and services that enrich the daily lives of people and enable enterprises to prosper. The company strives to keep a clear focus on human needs, outstanding brand, secure and reliable products and services, and excellence in execution. Based on its resources, including technological know-how, market position, and continuous building of competencies, Nokia is well-positioned to achieve its future goals.

Dividend

The Nokia Board of Directors will propose to the Annual General Meeting on March 21, 2001, that a dividend of EUR 0.28 per share (EUR 0.20 per share for 1999, split adjusted) be paid.

Consolidated financial statements according to International Accounting Standards (IAS)

Consolidated profit and loss account, IAS

Financial year ended December 31	Notes *)	2000 EURm	1999 EURm
Net sales		30 376	19 772
Cost of sales		-19 072	-12 227
Research and development expenses		-2 584	-1 755
Selling, general and administrative expenses		-2 804	-1 811
Amortization of goodwill		-140	-71
Operating profit	2, 3, 4, 5, 6, 7	5 776	3 908
Share of results of associated companies		-16	-5
Financial income and expenses	8	102	-58
Profit before tax and minority interests		5 862	3 845
Tax	9	-1 784	-1 189
Minority interests		-140	-79
Net profit		3 938	2 577
Earnings per share	23	2000 EUR	1999 EUR
Net profit			
Basic		0.84	0.56
Diluted		0.82	0.54
Average number of shares (1 000 shares)	23	2000	1999
Basic		4 673 162	4 593 761
Diluted		4 792 980	4 743 184

*) Notes are shown on pages 12 to 25.

Consolidated balance sheet, IAS

December 31	Notes*	2000 EURm	1999 EURm
ASSETS			
Fixed assets and other non-current assets			
Intangible assets	10	1 994	838
Property, plant and equipment	11	2 732	2 031
Investments in associated companies	12	61	76
Investments in other companies	12	150	68
Deferred tax assets	19	401	257
Other assets	13	1 050	217
		6 388	3 487
Current assets			
Inventories	14	2 263	1 772
Receivables	15	7 056	4 861
Short-term investments	16	2 774	3 136
Bank and cash		1 409	1 023
		13 502	10 792
Total assets		19 890	14 279

December 31	Notes*	2000 EURm	1999 EURm
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity			
Share capital		282	279
Share issue premium		1 695	1 079
Treasury shares		-157	-24
Translation differences		347	243
Retained earnings	17	8 641	5 801
		10 808	7 378
Minority interests			
		177	122
Long-term liabilities			
Long-term interest-bearing liabilities	18	173	269
Deferred tax liabilities	19	69	80
Other long-term liabilities		69	58
		311	407
Current liabilities			
Short-term borrowings	20	1 069	792
Current portion of long-term debt	18	47	1
Accounts payable		2 814	2 202
Accrued expenses	21	2 860	2 026
Provisions	22	1 804	1 351
		8 594	6 372
Total shareholders' equity and liabilities		19 890	14 279

*) Notes are shown on pages 12 to 25.

Consolidated cash flow statement, IAS

Financial year ended December 31	Notes*	2000 EURm	1999 EURm
Cash flow from operating activities			
Operating profit		5 776	3 908
Adjustments, total	28	967	597
Operating profit before change in net working capital		6 743	4 505
Change in net working capital	28	-1 377	-21
Cash generated from operations		5 366	4 484
Interest received		255	189
Interest paid		-115	-212
Other financial income and expenses		-454	-113
Income taxes paid		-1 543	-1 246
Net cash from operating activities		3 509	3 102
Cash flow from investing activities			
Acquisition of Group companies, net of acquired cash		-400	-178
Treasury shares acquired		-160	-25
Investments in other shares		-111	-37
Additions in capitalized development costs		-393	-271
Capital expenditures		-1 580	-1 302
Proceeds from disposal of shares in Group companies, net of disposed cash		4	27
Proceeds from sale of other shares		75	121
Proceeds from sale of fixed assets		221	318
Dividends received		51	6
Net cash used in investing activities		-2 293	-1 341
Cash flow from financing activities			
Share issue		72	152
Capital investment by minority shareholders		7	28
Proceeds from (+), payments of (-) long-term liabilities		-82	-6
Proceeds from (+), payments of (-) short-term borrowings		133	-126
Proceeds from (+), payments of (-) long-term receivables		-776	-171
Proceeds from (+), payments of (-) short-term receivables		378	128
Dividends paid		-1 004	-597
Net cash used in financing activities		-1 272	-592
Net decrease/increase in cash and cash equivalents		-56	1 169
Cash and cash equivalents at beginning of period		4 239	2 990
Cash and cash equivalents at end of period		4 183	4 159

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.

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.

Reconciliation:

As previously reported for 1999 and 1998, respectively	4 159	2 891
Foreign exchange adjustment	80	99
	4 239	2 990
Net decrease/increase in cash and cash equivalents	-56	1 169
As reported for 2000 and 1999	4 183	4 159

*) Notes are shown on pages 12 to 25.

Statement of changes in shareholders' equity, IAS

Group, EURm	Number of shares (1 000)	Share capital	Share issue premium	Treasury shares	Translation differences	Retained earnings	Total
Balance at Dec. 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						-586	-586
Dividend on treasury shares						31	31
Translation differences					61		61
Other increase/decrease, net						-8	-8
Net profit						2 577	2 577
Balance at Dec. 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
Disposal of treasury shares	557			27			27
Stock options issued on acquisitions			75				75
Stock options exercised related to acquisition			-13				-13
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 Dec. 31, 2000	4 692 133	282	1 695	-157	347	8 641	10 808

Notes to the consolidated financial statements

1. Accounting principles

Basis of presentation

The consolidated financial statements of Nokia Corporation (“Nokia” or “the Group”), a Finnish limited liability company with domicile in Helsinki, are prepared in accordance with International Accounting Standards (IAS). The financial statements are presented in millions of euros (EURm) and are prepared under the historical cost convention. The notes to the financial statements also conform with Finnish Accounting legislation.

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 the parent company, Nokia Corporation, and each of those companies in which it owns, directly or indirectly through subsidiaries, over 50% of the voting rights. The accounts of certain companies in which Nokia has control are also consolidated. The companies acquired during the financial period have been consolidated from the date the responsibility for their 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.

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.

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, unless a longer period not exceeding 20 years can be justified. Expected useful lives are reviewed at each balance sheet date and where these differ significantly from previous estimates, amortization periods are changed accordingly.

The Group's share of profits and losses of associated companies is included in the consolidated profit and loss account in accordance with the equity method of accounting. The Group's share of post acquisition reserves (retained earnings and other reserves) is added to the cost of associated company investments 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.

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.

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 the year-end. Foreign exchange gains and losses related to normal business operations are treated as adjustments to cost of goods sold. 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 ruling at the year-end. Exchange differences arising from the application of the purchase method are treated as an adjustment affecting 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 probable 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 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 is shown as a part of the 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 year-end quoted market rate, comparing it with the value calculated with 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

The Group recognizes sales when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed and determinable, and collectibility is probable. For Nokia Networks, substantially all sales are derived from contracts for products and services which involve solutions achieved through significant customization and modification. The percentage of completion method is used for all such contracts, provided that the outcome of the contract can be assessed with reasonable certainty. Sales are recognized over the contract period based on the progress to completion as determined by relevant input measures or milestone activities. When it is probable that contract costs will exceed total contract revenue, the expected loss is expensed immediately.

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 their expected useful lives. The amortization period is between 2 and 5 years.

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 4.

Property, plant and equipment

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

- Buildings and constructions 20 – 33 years
- 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 overheads 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 issued 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 has adopted the new 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 stock split effective on April 10, 2000.

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.

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. Nokia evaluates the performance of its segments and allocates resources to them based on operating profit.

2000, EURm	Nokia Networks	Nokia Mobile Phones	Nokia Ventures Organization	Common Group Functions	Total reportable segment	Eliminations	Group
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	1 358	4 879	-387	-74	5 776		5 776
Share of result of associated companies	-	-	-	-16	-16		-16
Balance Sheet Information							
Capital expenditure	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
Total assets (2)							19 325
Segment liabilities (3)	1 936	4 602	256	686	7 480	-685	6 795
Unallocated liabilities							1 771
Total liabilities (4)							8 566
1999, EURm							
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	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	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
Total assets (2)							13 850
Segment liabilities (3)	1 588	3 722	168	929	6 407	-1 156	5 251
Unallocated liabilities							1 318
Total liabilities (4)							6 569

(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) Total assets excluding prepaid expenses and accrued income related to taxes and deferred tax assets.

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

(4) Total liabilities excluding prepaid income and accrued expenses related to taxes and deferred tax liabilities.

Net sales to external customers by market area	2000 EURm	1999 EURm
Finland	494	479
USA	5 312	3 360
China	3 065	2 332
Great Britain	2 828	1 855
Germany	2 579	1 679
Other	16 098	10 067
Total	30 376	19 772

Segment assets by location of assets	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	8 270	6 276
Total	19 325	13 850

Capital expenditure by market area	2000 EURm	1999 EURm
Finland	587	487
USA	279	313
China	157	121
Great Britain	75	54
Germany	133	124
Other	349	259
Total	1 580	1 358

3. Personnel expenses

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

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

Remuneration of the Chairman and the other members of the Boards of Directors, Group Executive Board and Presidents and Managing Directors*

17	15
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* Incentives included in remuneration	4	3
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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.

4. 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 company 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 *
Pension expense:	
1998	12
1999	-84
2000	42
Cumulative adjustment (pension credit)	55

* EUR 70 million net of tax

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 EURm	Foreign plans EURm	Domestic plans EURm	Foreign plans 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	-52.5	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 *	13

* Included within other non-current assets

The principal actuarial assumptions used were as follows:

	2000		1999	
	Domestic plans %	Foreign plans %	Domestic plans %	Foreign plans %
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 (EUR 605 million in 1999).

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

5. Selling and marketing expenses, administration expenses and other operating income and expenses

	2000 EURm	1999 EURm
Selling and marketing expenses	-2 103	-1 220
Administration expenses	-754	-759
Other operating expenses	-225	-163
Other operating income	278	331
Total	-2 804	-1 811

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 and the SDH transport business (EUR 80 million and EUR 56 million, respectively). Other operating expenses for 1999 include a charge EUR 70 million related to exit from the display business.

6. 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 48 million.

In February 1999, Nokia acquired Diamond Lane Communications for EUR 112 million in cash. The fair value of net assets acquired was EUR 5 million giving rise to a goodwill of EUR 107 million.

7. Depreciation

	2000 EURm	1999 EURm
Depreciation by asset category		
Intangible assets		
Capitalized development costs	118	110
Intangible rights	50	34
Goodwill	140	71
Other intangible assets	29	19
Property, plant and equipment		
Buildings and constructions	27	18
Machinery and equipment	615	405
Other tangible assets	30	8
Total	1 009	665

Depreciation by function

	2000 EURm	1999 EURm
Cost of sales	298	201
R&D	244	241
Selling, marketing and administration	230	101
Other operating expenses	97	51
Goodwill	140	71
Total	1 009	665

8. Financial income and expenses

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

9. Income taxes

	2000 EURm	1999 EURm
Current tax	-1 852	-1 250
Deferred tax	68	61
Total	-1 784	-1 189
Finland	-1 173	-740
Other countries	-611	-449
Total	-1 784	-1 189

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

	2000 EURm	1999 EURm
Income tax expense at statutory rate	1 689	1 078
Deduction for write-down of investments in subsidiaries	-28	-
Amortization of goodwill	40	17
Provisions without income tax benefit/expense	53	35
Taxes for prior years	53	8
Taxes on foreign subsidiaries' net income in excess of income taxes at statutory rates	-29	32
Operating losses with no current tax benefit	25	22
Group adjustments	-	-4
Other	-19	1
Income tax expense	1 784	1 189

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.

10. Intangible assets

	2000 EURm	1999 EURm
Capitalized development costs		
Acquisition cost Jan. 1	811	650
Additions	394	271
Disposals	-108	-110
Accumulated depreciation Dec. 31	-457	-398
Net carrying amount Dec. 31	640	413

Intangible rights

Acquisition cost Jan. 1	187	137
Additions	77	50
Disposals	-19	-
Accumulated depreciation Dec. 31	-134	-103
Net carrying amount Dec. 31	111	84

Goodwill

Acquisition cost Jan. 1	554	347
Additions	1 016	210
Disposals	-	-3
Accumulated depreciation Dec. 31	-458	-318
Net carrying amount Dec. 31	1 112	236

Other intangible assets

Acquisition cost Jan. 1	164	66
Additions	55	116
Disposals	-12	-20
Translation differences	7	2
Accumulated depreciation Dec. 31	-83	-59
Net carrying amount Dec. 31	131	105

11. Property, plant and equipment

	2000 EURm	1999 EURm
Land and water areas		
Acquisition cost Jan. 1	111	67
Additions	33	48
Disposals	-3	-9
Translation differences	2	5
Net carrying amount Dec. 31	143	111
Buildings and constructions		
Acquisition cost Jan. 1	540	460
Additions	224	145
Disposals	-39	-85
Translation differences	14	20
Accumulated depreciation Dec. 31	-117	-104
Net carrying amount Dec. 31	622	436

Machinery and equipment		
Acquisition cost Jan. 1	2 382	1 685
Additions	1 089	863
Disposals	-178	-207
Translation differences	50	41
Accumulated depreciation Dec. 31	-1 718	-1 208
Net carrying amount Dec. 31	1 625	1 174

Other tangible assets		
Acquisition cost Jan. 1	53	86
Additions	34	12
Disposals	-15	-52
Translation differences	2	7
Accumulated depreciation Dec. 31	-46	-44
Net carrying amount Dec. 31	28	9

Advance payments and fixed assets under construction		
Acquisition cost Jan. 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 Dec. 31	314	301

12. Investments

	2000 EURm	1999 EURm
Associated companies		
Acquisition cost Jan. 1	76	91
Additions	6	16
Disposals	-	-33
Share of results	-16	-6
Translation differences	-5	8
Net carrying amount Dec. 31	61	76

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).

	2000 EURm	1999 EURm
Other companies		
Acquisition cost Jan. 1	68	75
Additions	104	21
Disposals	-24	-19
Write-downs	-	-10
Translation differences	2	1
Net carrying amount Dec. 31	150	68

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 118 million (EUR 180 million in 1999).

13. Other assets

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

14. 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

15. 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.

16. 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.

17. Distributable earnings

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

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

18. Long-term liabilities

	Outstanding Dec. 31, 2000 EURm	Repayment date beyond 5 years EURm
Long-term loans are repayable as follows:		
Loans from financial institutions	62	-
Pension loans	12	12
Other long-term finance loans	99	-
Deferred tax liabilities	69	-
Other long-term liabilities	69	58
	311	70

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

	EURm	
2001	47	13.1%
2002	64	17.9%
2003	31	8.7%
2004	66	18.4%
2005	-	-
Thereafter	150	41.9%
	358	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%

Long-term loan portfolio includes a fixed-rate loan with a face amount of 40 million British pound sterling that matures in 2004. The loan is callable by the creditor on a three-month notice basis beginning in 1994, although the Group does not anticipate that the creditors will request for repayment prior to the final maturity.

The Group has committed credit facilities totaling USD 850 million and short-term uncommitted facilities.

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.

Bonds	Million	Interest	2000 EURm	1999 EURm
1989-2004	40.0 GBP	11.375%	66	79
1993-2003	150.0 FIM	Floating	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 on line current portion of long-term debt.

19. Deferred taxes

	2000 EURm	1999 EURm
In companies' balance sheet		
Tax losses carried forward	73	40
Temporary differences	147	91
	220	131
On consolidation		
Intercompany profit in inventory	87	88
Property, plant and equipment	6	6
Other	17	1
	110	95
Appropriations		
Untaxed reserves	2	-49
	2	-49
Net deferred tax asset	332	177

of which in 2000 deferred tax assets amounted to EUR 401 million (EUR 257 million in 1999) and deferred tax liabilities to EUR 69 million (EUR 80 million in 1999).

In 2000 the Group recognized a provision for social security costs on unexercised stock options. The cumulative prior year net effect of the change has been recorded as an adjustment to the opening balance of retained earnings. Deferred tax asset for the provision, EUR 84 million, has been recorded as an adjustment to the opening balance of deferred taxes.

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.

20. Short-term borrowings

Short-term borrowings consist primarily of borrowings from banks. The weighted average interest rate at December 31, 2000 and 1999 is 5.9% and 5.2%, respectively. The weighted average interest rate of short-term borrowings is derived from loans denominated in different foreign currencies.

21. Accrued expenses

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

22. Provisions

	2000 EURm	1999 EURm
Warranty	903	656
Other	901	695
Total	1 804	1 351

23. Earnings per share

		2000	1999
Numerator/EURm			
Basic/Diluted:	Income available to common shareholders	3 938	2 577
Denominator/1 000 shares			
Basic:	Weighted average shares	4 673 162	4 593 761
	Effect of dilutive securities: warrants	119 818	149 423
Diluted:	Adjusted weighted average shares and assumed conversions	4 792 980	4 743 184

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 stock split effective on April 10, 2000.

24. Commitments and contingencies

	2000 EURm	1999 EURm
Collateral for own commitments		
Mortgages	12	6
Assets pledged	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

25. 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:

2000		Finance lease	Operating lease
Leasing payments, EURm	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 and EUR 216 million in 2000 and 1999, respectively.

26. Related party transactions

Nokia Pension Foundation is a separate legal entity that manages and holds in trust the assets for the Group's Finnish employee benefit plans these assets include 0.3% 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 is EUR -19 million.

There were no loans granted to top management at December 31, 2000 or 1999.

See Note 3, Personnel Expenses for officers and directors remunerations.

27. Associated companies

	2000 EURm	1999 EURm
Share of results of associated companies	-16	-5
Dividend income	1	2
Share of shareholders' equity of associated companies	45	68
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

28. Notes to cash flow statement

	2000 EURm	1999 EURm
Adjustments for:		
Depreciation	1 009	665
Other operating income and expenses	-42	-68
Adjustments, total	967	597
Change in net working capital		
Short-term trade receivables, increase (-), decrease (+)	-2 304	-982
Inventories, increase (-), decrease (+)	-422	-362
Interest-free short-term liabilities, increase (+), decrease (-)	1 349	1 323
Change in net working capital	-1 377	-21
Non-cash investing activities		
Acquisition of:		
Network Alchemy	336	-
DiscoveryCom	223	-
Rooftop	-	42
	559	42

29. 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 co-operation 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 the top 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, which 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 firm and probable 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 U.S. dollar, U.K. pound Sterling and Australian dollar. In general, the appreciation of the euro to 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 hedging 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 certain derivative instruments, Nokia uses Monte Carlo simulation. Volatilities and correlations are calculated from a one-year set of daily data. The VaR based net foreign exchange transaction risk figure after hedging transactions in Nokia Group with a one-week horizon and 95% confidence level was EUR 12.9 million at December 31, 2000 (EUR 6.0 million in 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 in 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 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 minimum of one-year set of daily data. The VaR based net interest rate risk figure after hedging transactions in Nokia Group with a one-week horizon and 95% confidence level was EUR 2.9 million at December 31, 2000 (EUR 3.2 million in 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 certain 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). A 10% adverse move in equity prices would have decreased the market value of the investments by EUR 14 million (EUR 18 million in 1999). There are currently no outstanding derivative financial instruments designated as hedges of these equity investments.

In addition to the listed equity holdings, Nokia invests in private equity through Nokia Venture Funds. The 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 the 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 the 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 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 Credit committee along the principles defined in the Company's credit policy and according to the 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 guarantees a 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 at maintaining 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 rating A1 in 2000. The ratings of Nokia from credit rating agencies as at December 31, 2000 were:

Short	Standard & Poor's	A-1
	Moody's	P-1
Long	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
- US 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 has been used to a significant degree in 2000.

Notional amounts of derivative financial instruments ¹

EURm	2000	1999
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 the exposure of Nokia caused by its use of derivatives.

² Notional amounts outstanding include positions, which 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 (December 31, 1999 EUR 0.6 billion).

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, which do not meet hedge accounting criteria. A gain of EUR 24 million has been realised in the profit and loss account in 2000.

30. 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 liabilities. 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.

EURm	2000		1999	
	Carrying amount	Fair value	Carrying amount	Fair value
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 value of swap instruments have been estimated by using discounted cash flow analyses and quoted market rates at year-end dates.

Forward rate agreements, interest rate option and futures contracts

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

31. Principal Nokia Group companies on December 31, 2000

		Net sales EURm	Number of shares	Parent holding %	Group majority %	Total nominal value in 1 000 units	Book value EURm
FI	Nokia Matkapuhelimet Oy	13 763	665	60.2	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	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	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	100.0	10 USD	809
NL	Nokia Finance International B.V.		231	100.0	100.0	229 NLG	348

Shares in listed companies

Group holding more than 5%	Group holding %	Group voting %
Nextrom Holding S.A.	59.97	39.97 *)
Nokian Renkaat Oyj/Nokian Tyres plc	19.2	19.2

*) 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.

Profit and loss account, parent company, FAS

Financial year ended December 31	Notes*	2000 EURm	1999 EURm
Net sales		128	69
Cost of sales		-13	-3
Gross margin		115	66
Marketing expenses		-29	-7
Research and development expenses		-240	-138
Administrative expenses		-191	-79
Other operating expenses		-11	-21
Other operating income		85	116
Operating loss	2, 3	-271	-63
Financial income and expenses			
Income from long-term investments			
Dividend income from Group companies		290	34
Dividend income from other companies		69	8
Interest income from Group companies		18	5
Interest income from other companies		2	2
Other interest and financial income			
Interest income from Group companies		97	57
Interest income from other companies		1	31
Other financial income from other companies		8	3
Exchange gains and losses		-34	-55
Interest expenses and other financial expenses			
Interest expenses to Group companies		-7	-7
Interest expenses to other companies		-18	-45
Other financial expenses		-41	-2
Financial income and expenses, total		385	31
Profit before extraordinary items, appropriations, and taxes		114	-32
Extraordinary items			
Group contributions		3 517	2 238
Extraordinary items, total		3 517	2 238
Profit before appropriations and taxes		3 631	2 206
Appropriations			
Difference between actual and planned depreciation, increase (-)/decrease (+)		8	5
Income taxes			
for the year		-975	-602
from previous years		-9	5
Net profit		2 655	1 614

* Notes are shown on pages 28 to 30.

Cash flow statement, parent company, FAS

Financial year ended December 31	Notes*	2000 EURm	1999 EURm
Cash flow from operating activities			
Operating loss		-271	-63
Adjustments, total	15	-4	-96
Operating loss before change in net working capital		-275	-159
Change in net working capital	15	-85	110
Cash generated from operations		-360	-49
Interest received		181	86
Interest paid		-24	-40
Other financial income and expenses		-357	-65
Income taxes paid		-897	-663
Cash flow before extraordinary items		-1 457	-731
Extraordinary income and expenses		2 195	1 794
Net cash from operating activities		738	1 063
Cash flow from investing activities			
Investments in shares		-802	-84
Treasury shares acquired		-127	-
Capital expenditures		-50	-65
Proceeds from sale of shares and discontinued operations, net		192	176
Proceeds from sale of fixed assets		49	20
Dividends received		341	40
Net cash from investing activities		-397	87
Cash flow from financing activities			
Share issue		72	152
Proceeds from (+), payments of (-) long-term liabilities		-50	7
Proceeds from (+), payments of (-) short-term borrowings (-)		-278	142
Proceeds from (+), payments of (-) long-term receivables		-429	-172
Proceeds from (+), payments of (-) short-term receivables		794	-814
Dividends paid		-931	-589
Net cash used in financing activities		-822	-1 274
Net decrease in cash and cash equivalents		-481	-124
Cash and cash equivalents at beginning of period		498	622
Cash and cash equivalents at end of period		17	498

* Notes are shown on pages 28 to 30.

Balance sheet, parent company, FAS

December 31	Notes*	2000 EURm	1999 EURm	December 31	Notes*	2000 EURm	1999 EURm
ASSETS				SHAREHOLDERS' EQUITY AND LIABILITIES			
Fixed assets and other non-current assets				Shareholders' equity			
Intangible assets	4			Share capital		282	279
Intangible rights		1	1	Share issue premium		1 619	1 065
Other intangible assets		4	4	Treasury shares	8	-127	-
		5	5	Retained earnings	8	2 328	1 645
Tangible assets	5			Net profit for the year	8	2 655	1 614
Land and water areas		25	34			6 757	4 603
Buildings and constructions		73	75	Accumulated appropriations	9		
Machinery and equipment		19	27	Accumulated depreciation in excess of plan		63	71
Other tangible assets		-	1	Liabilities			
Advance payments and fixed assets under construction		28	19	Long-term liabilities	10		
		145	156	Bonds	11	91	151
Investments				Short-term liabilities			
Investments in subsidiaries	6	1 902	836	Current finance liabilities from Group companies		429	821
Investments in associated companies	6	25	22	Current maturities of long-term loans	10	47	1
Investments in other shares	6	104	30	Advance payments from other companies		3	4
Long-term loan receivables from Group companies		613	112	Trade creditors to Group companies		38	13
Long-term loan receivables from other companies		31	1	Trade creditors to other companies		11	10
Other non-current assets		25	128	Accrued expenses and prepaid income to Group companies		5	1
		2 700	1 129	Accrued expenses and prepaid income to other companies		211	263
Current assets						744	1 113
Inventories and work in progress				Total liabilities		835	1 264
Finished goods		2	-				
Receivables							
Trade debtors from Group companies		63	80				
Trade debtors from other companies		5	1				
Short-term loan receivables from Group companies		4 580	3 861				
Short-term loan receivables from other companies		8	7				
Prepaid expenses and accrued income from Group companies		51	30				
Prepaid expenses and accrued income from other companies		79	171				
		4 786	4 150				
Short-term investments		3	487				
Bank and cash		14	11				
		7 655	5 938			7 655	5 938

* Notes are shown on pages 28 to 30.

Notes to the financial statements of the parent company

1. Accounting principles

The Parent company Financial Statements are prepared according to Finnish Accounting Standards – FAS. See Group note no. 1.

Appropriations

In Finland companies are permitted to reduce or increase taxable income by net charges or by income representing adjustments to untaxed reserve accounts, provided that such amounts are reflected in the Group companies' financial statements.

2. Personnel expenses

	2000 EURm	1999 EURm
Wages and salaries	87	47
Pension expenses	3	7
Other social expenses	45	12
Personnel expenses as per profit and loss account	135	66

Remuneration of the members of the Board of Directors and the Chief Executive Officer and the President*	3	2
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* Incentives included in remuneration	1	-
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Pension commitments for the management:

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

Personnel average	2000	1999
Marketing	54	37
R&D	1 166	1 198
Administration	510	428
	1 730	1 663

3. Depreciation

	2000 EURm	1999 EURm
Depreciation by asset class category		
Intangible assets		
Intangible rights	1	1
Other intangible assets	1	-
Property, plant and equipment		
Buildings and constructions	3	3
Machinery and equipment	8	9
Total	13	13

Depreciation by function

R&D	3	4
Selling, marketing and administration	10	9
Total	13	13

4. Intangible assets

	2000 EURm	1999 EURm
Intangible rights		
Acquisition cost Jan. 1	5	5
Additions	1	-
Disposals	-	-
Accumulated depreciation Dec. 31	-5	-4
Net carrying amount Dec. 31	1	1

Other intangible assets

Acquisition cost Jan. 1	5	4
Additions	1	2
Disposals	-1	-1
Accumulated depreciation Dec. 31	-1	-1
Net carrying amount Dec. 31	4	4

5. Tangible assets

	2000 EURm	1999 EURm
Land and water areas		
Acquisition cost Jan. 1	34	23
Additions	-	12
Disposals	-9	-1
Net carrying amount Dec. 31	25	34

Buildings and constructions

Acquisition cost Jan. 1	93	84
Additions	1	9
Accumulated depreciation Dec. 31	-21	-18
Net carrying amount Dec. 31	73	75

Machinery and equipment

Acquisition cost Jan. 1	54	41
Additions	9	14
Disposals	-15	-1
Accumulated depreciation Dec. 31	-29	-27
Net carrying amount Dec. 31	19	27

Other tangible assets

Acquisition cost Jan. 1	2	2
Accumulated depreciation Dec. 31	-2	-1
Net carrying amount Dec. 31	-	1

Advance payments and fixed assets under construction

Acquisition cost Jan. 1	19	2
Additions	39	36
Disposals	-30	-19
Net carrying amount Dec. 31	28	19

6. Investments

	2000 EURm	1999 EURm		2000 EURm	1999 EURm
Investments in subsidiaries			Investments in other shares		
Acquisition cost Jan. 1	836	768	Acquisition cost Jan. 1	30	76
Additions	1 080	105	Additions	219	21
Disposals	-14	-37	Disposals	-145	-67
Net carrying amount Dec. 31	1 902	836	Net carrying amount Dec. 31	104	30
Investments in associated companies			Shareholdings in other companies include listed investments of EUR 92 million (EUR 29 million in 1999). At the balance sheet date, the fair value of these investments was EUR 113 million (EUR 149 million in 1999).		
Acquisition cost Jan. 1	22	31			
Additions	3	-			
Disposals	-	-9			
Net carrying amount Dec. 31	25	22			

Shareholdings in associated companies include listed investments of EUR 20 million (EUR 18 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).

7. Shareholders' equity

Parent Company, EURm	Share capital	Share issue premium	Treasury shares	Retained earnings	Total
Balance at Dec. 31, 1998	255	895	-	5 668	6 818
Share issue	3	191			194
Bonus issue	36	-36			-
Cancellation of treasury shares	-15	15			-
Dividend				-586	-586
Reserved for public worthy causes decided by the Board				-2	-2
Other increase/decrease, net				-3 435	-3 435
Net profit				1 614	1 614
Balance at Dec. 31, 1999	279	1 065	-	3 259	4 603
Share issue	3	554			557
Acquisition of treasury shares			-127		-127
Dividend				-931	-931
Net profit				2 655	2 655
Balance at Dec. 31, 2000	282	1 619	-127	4 983	6 757

8. Distributable earnings

	2000 EURm	1999 EURm
Retained earnings from previous years	2 328	1 645
Net profit for the year	2 655	1 614
Retained earnings, total	4 983	3 259
Treasury shares	-127	-
Distributable earnings, Dec. 31	4 856	3 259

9. Accumulated appropriations

Deferred tax liability for the accumulated appropriations computed using the tax rate of 29% totalled EUR 18 million (EUR 21 million in 1999, tax rate 29%).

10. Long-term liabilities

	Outstanding Dec. 31, 2000 EURm	Repayment date beyond 5 years EURm
Long-term loans are repayable as follows:		
Bonds	91	-
	91	-

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

	EURm	%
2001	47	34.1
2002	-	-
2003	25	18.3
2004	66	47.6
2005	-	-
Thereafter	-	-
	138	100.0

11. Bonds

	Million	Interest	2000 EURm	1999 EURm
1989-2004	40.0 GBP	11.375%	66	79
1993-2003	150.0 FIM	Floating	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 on line current portion of long-term debt.

12. Commitments and contingencies

	2000 EURm	1999 EURm
Contingent liabilities on behalf of Group companies		
Guarantees for loans	111	155
Leasing guarantees	595	-
Other guarantees	122	90
Contingent liabilities on behalf of other companies		
Guarantees for loans	193	178

13. Leasing contracts

At December 31, 2000 the leasing contracts of the Parent Company amounted to EUR 55 million (EUR 41 million in 1999), of which EUR 7 million will fall due in 2001 (EUR 5 million in 2000).

14. Loans granted to top management

There were no loans granted to top management at 31.12.2000.

15. Notes to cash flow statement

	2000 EURm	1999 EURm
Adjustments for:		
Depreciation	13	13
Other operating income and expenses	-17	-109
Adjustments, total	-4	-96
Change in net working capital		
Short-term trade receivables, increase (-), decrease (+)	3	-108
Inventories, increase (-), decrease (+)	-2	1
Interest-free short-term liabilities, increase (+), decrease (-)	-86	217
Change in net working capital	-85	110

In August 2000 Nokia acquired DiscoveryCom for EUR 223 million, which was paid in Nokia stock and Nokia stock options. In March 2000 Nokia acquired Network Alchemy for EUR 336 million, which was paid in Nokia stock and Nokia stock options. During 1999 Nokia acquired Rooftop Communications for EUR 48 million of which EUR 42 million was satisfied by issuing Nokia shares and the remainder EUR 6 million was paid in cash.

16. Principal Nokia Group companies on December 31, 2000

See Group note no. 31.

17. Nokia Shares and Shareholders

See Nokia Shares and Shareholders p. 31-35.

Nokia shares and shareholders

Shares and voting rights

Nokia has one class of shares. Each Nokia share entitles to one (1) vote at General Meetings of Nokia, and to a fixed annual dividend amounting to 10 per cent of the par value of the share.¹

Nokia shareholders resolved at the Annual General Meeting held on March 22, 2000 to split the par value of the share on a four-for-one basis. With effect from April 10, 2000, the par value of the share is EUR 0.06.

The minimum share capital stipulated in the Articles of Association is EUR 170 million and the maximum share capital 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 votes 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 par value of EUR 244 765.50 representing approximately 0.09 per cent of the total number of shares and voting rights.

Share capital and shares, Dec. 31²

	2000	1999	1998	1997	1996
Share capital, EURm					
K (common)	*)	*)	54	66	84
A (preferred)			201	186	168
Total	282	279	255	252	252
Shares (1000, par value EUR 0.06)					
K (common)	*)	*)	1 016 246	1 259 000	1 595 403
A (preferred)			3 828 527	3 538 634	3 197 397
Total	4 696 213	4 654 064	4 844 773	4 797 634	4 792 800
Shares owned by the Group at year-end (1 000)	4 080	1 385	257 288	257 288	260 488
Number of shares excl. shares owned by the Group at year-end (1 000)	4 692 133	4 652 679	4 587 485	4 540 346	4 532 312
Average number of shares excl. shares owned by the Group during the year (1 000)	4 673 162	4 593 761	4 553 364	4 532 512	4 536 976
Number of registered shareholders ³	94 500	48 771	30 339	28 596	26 160

*) Since April 9, 1999 one class of shares only.

Key Ratios, Dec. 31, IAS (calculation see page 39)

	2000	1999	1998	1997	1996
Earnings per share from continuing operations, basic					
Earnings per share, EUR	0.84	0.56	0.37	0.22	0.11
P/E Ratio					
K (common)	*)	*)	35.3	18.4	24.8
A (preferred)	56.5	80.4	35.3	18.3	24.9
(Nominal) dividend per share, EUR	0.28	0.20	0.12	0.08	0.04
Total dividends paid, EURm	1 315	931	586	378	176
Payout ratio	0.33	0.36	0.33	0.35	0.33
Dividend yield, %					
K (common)	*)	*)	0.9	1.9	1.3
A (preferred)	0.6	0.4	0.9	1.9	1.3
Shareholders' equity per share, EUR	2.30	1.59	1.11	0.80	0.59
Market capitalization, EURm⁴	222 876	209 371	59 796	18 503	12 706

*) Since April 9, 1999 one class of shares only.

¹ Nokia used to have two classes of shares, A shares and K shares. Nokia shareholders resolved at the Annual General Meeting held on March 17, 1999 to consolidate the two classes of shares. The rights presently related to all Nokia shares correspond to the rights of the previous class A shares. The rights of the previous class K shares entitled to ten (10) votes at General Meetings, but to no fixed annual dividend. The consolidation of the two classes of shares is effective since April 9, 1999.

² Figures have been recalculated to reflect the par value of EUR 0.06 of the share.

³ Each account operator is included in the figure as only one registered shareholder.

⁴ Shares owned by the Group companies are not included.

Splits of the par value of the Nokia share

	Par value before	Split ratio	Par value after	Effective date
1986	FIM 100 (EUR 16.82)	5:1	FIM 20 (EUR 3.36)	December 31, 1986
1995	FIM 20 (EUR 3.36)	4:1	FIM 5 (EUR 0.84)	April 24, 1995
1998	FIM 5 (EUR 0.84)	2:1	FIM 2.5 (EUR 0.42)	April 16, 1998
1999	FIM 2.5 (EUR 0.42)	2:1	EUR 0.24 ⁵	April 12, 1999
2000	EUR 0.24	4:1	EUR 0.06	April 10, 2000

Authorizations

Authorizations to increase the share capital

The Board of Directors had been authorized by Nokia shareholders at the Annual General Meeting held on March 17, 1999 to decide on an increase of the share capital by a maximum of EUR 28 800 000 offering a maximum of 480 000 000 new shares (split adjusted). 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 decide on an increase of the share capital by a maximum of EUR 28 800 000 in one or more issues offering a maximum of 480 000 000 new shares with a par value of 6 cents within one year as 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 has 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 up to EUR 28 565 442.30 corresponding to 476 090 705 shares on December 31, 2000. The authorization is effective until 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.

Other authorizations

At the Annual General Meeting held on March 22, 2000 Nokia shareholders authorized the Board of Directors to repurchase a maximum of 224 million Nokia shares and to resolve on the transfer of such shares. No shares were repurchased or transferred in 2000 under the authorizations. These authorizations are effective until March 22, 2001.

Convertible bonds, warrants and stock options⁶

Nokia Stock Option Plan 1994

The Annual General Meeting held on April 7, 1994 approved the issue of up to 200 2 per cent 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 termination of Nokia Stock Option Plan 1994 on January 31, 2000, a total of 12 506 112 shares had been exercised and the share capital had been increased by a total of EUR 750 366.72 representing less than one per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1994 had been offered to approximately 50 persons.

Nokia Stock Option Plan 1995

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 has a principal amount of FIM 1 000 and carries 2 000 A warrants and 2 000 B warrants. The bonds were fully repaid by December 31, 2000. Each warrant confers the right to subscribe for sixteen shares at an aggregate subscription price of FIM 168. The A warrants may be exercised from December 1, 1997 to January 31, 2001, and the B warrants from December 1, 1999 to January 31, 2001. If exercised in full, the warrants would be

exercisable for a total of 92 800 000 shares, whereby the share capital would be increased by a maximum amount of EUR 5 568 000 representing approximately 2.0 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1995 covers approximately 350 persons. The B warrants were listed on the Helsinki Exchanges from December 1, 1999 until January 24, 2001. Nokia Stock Option Plan 1995 came to an end on January 31, 2001.

Nokia Stock Option Plan 1997

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 has a principal amount of FIM 500 and carries 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 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 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1997 covers approximately 2 000 persons. The A and B warrants are 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.

Nokia Stock Option Plan 1999

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 marked with A, 12 000 000 with B, and 12 000 000 with C. Each stock option confers the right to subscribe for four shares. 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 the trade volume weighted average price of the share on the Helsinki Exchanges during the last five trading days in March 2001. 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 per cent of the outstanding share capital of Nokia. Nokia Stock Option Plan 1999 covers more than 16 000 persons. Nokia will apply for listing of the A stock options on the Helsinki Exchanges as of April 2, 2001.

General

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

Pursuant to the warrants and stock options issued, an aggregate maximum number of 252 909 488 new shares may be subscribed for representing approximately

Continues on page 35

⁵ A bonus issue of EUR 0.03 per each share of a par value of EUR 0.24 in the same connection.

⁶ Figures have been recalculated to reflect the par value of EUR 0.06 of the share.

Share issues and bonus issues 1996–2000⁷

Type of issue	Subscription date	Subscription price or amount of bonus issue EUR	Number of new shares (1 000)	Date of payment	Net proceeds EURm	New share capital EURm
Nokia Stock Option Plan 1994	1998	0.98	268	1998	0.26	0.01
	1999	0.98	12 238	1999	12.03	0.73
Nokia Stock Option Plan 1995	1997	1.77	2 326	1997	4.11	0.12
	1998	1.77	30 304	1998	53.52	1.59
	1999	1.77	18 602	1999	32.85	1.12
	2000	1.77	22 011	2000	38.87	1.32
Nokia Stock Option Plan 1997	1997	3.23	2 508	1997	8.09	0.13
	1998	3.23	16 566	1998	53.46	0.87
	1999	3.23	33 456	1999	107.97	2.01
	2000	3.23	10 117	2000	32.65	0.61
Bonus issue	1999	0.0075	-	1999	-	36.05
Share issue to stockholders of Rooftop Communications Corporation	1999	20.04	2 118	1999	42.45	0.13
Share issue to stockholders of Network Alchemy, Inc.	2000	49.91	6 112	2000	305.06	0.37
Share issue to stockholders of DiscoveryCom, Inc.	2000	45.98	3 909	2000	179.75	0.23

Reductions of share capital

Type of reduction	Year	Number of shares affected (1 000, par value EUR 0.06)	Amount of reduction of the share capital EURm	Amount of reduction of the restricted capital EURm	Amount of reduction of the retained earnings EURm
Cancellation of shares	1999	257 123	15.43	-	3 435.27

Share turnover (all stock exchanges)⁸

	2000	1999	1998	1997	1996
K share turnover (1 000)			255 108	198 632	540 936
Total number of K shares (1 000)	*)	*)	508 124	629 496	797 704
% of total number of K shares			50	32	68
A share turnover (1 000)	7 827 428	7 930 612	5 128 156	5 212 208	6 083 032
Total number of A shares (1 000)	5 000 000	4 654 064	1 914 264	1 769 320	1 598 696
% of total number of A shares	157	170	268	295	380

Share prices, EUR (Helsinki Exchanges)⁸

	2000	1999	1998	1997	1996
K share					
Low/high			3.87/13.41	2.73/5.74	1.54/2.82
Average ⁹	*)	*)	10.28	3.70	1.98
Year-end			13.04	4.10	2.80
A share					
Low/high	35.81/64.88	13.74/45.00	3.89/13.41	2.76/5.76	1.54/2.82
Average ⁹	51.09	21.67	7.95	4.12	2.00
Year-end	47.50	45.00	13.04	4.08	2.82

*) Since April 9, 1999 one class of shares. Consequently, the figures concern the total number of all the shares.

⁷ Prices and numbers of shares have been recalculated to reflect the par value of EUR 0.06 of the share.

⁹ Calculated by weighing average price of each day with daily trading volumes.

⁸ Figures have been recalculated to reflect the par value of EUR 0.06 of the share.

Share prices, USD (New York Stock Exchange)¹⁰

	2000	1999	1998	1997	1996
ADS					
Low/high	29.44/61.88	15.05/47.77	4.25/15.75	3.50/6.50	2.00/3.75
Average ¹¹	47.36	23.16	8.50	4.75	2.50
Year-end	43.50	47.77	15.00	4.50	3.75

Largest registered shareholders, December 31, 2000

Registered shareholders represent 10.84 per cent of the total number of shares of the Parent Company.

Largest registered shareholders

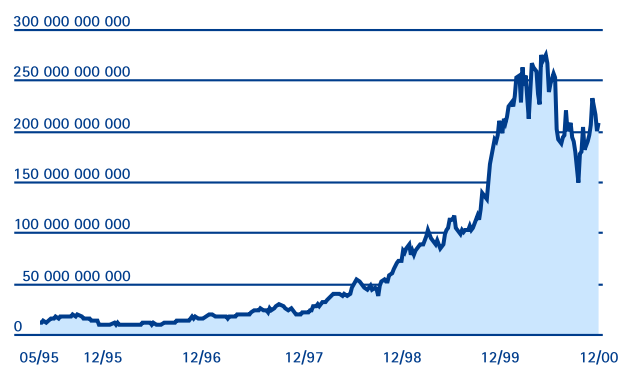
(shares registered in the name of a nominee not included)

	Total number of shares (1 000)	Per cent of all the shares and voting rights
UPM-Kymmene Corporation	25 299	0.54
Industrial Insurance Company Ltd	21 275	0.45
Suomi Mutual Life Assurance Company	21 200	0.45
Svenska Litteratursällskapet i Finland r f	20 522	0.44
Juselius Sigrid stiftelse	16 800	0.36
The Local Government Pensions Institution	16 131	0.34
The Pension Foundation of Nokia Corporation	12 142	0.26
Finnish National Fund for Research and Development	10 335	0.22
The Finnish Cultural Foundation	8 649	0.18
Varma-Sampo Mutual Pension Insurance Company	8 480	0.18

¹⁰ Figures have been recalculated to reflect the par value of EUR 0.06 of the share.

¹¹ Calculated by weighing average price of each day with daily trading volumes.

Nokia market capitalization, EURm



Janus Capital Corporation informed Nokia on December 9, 1999 that its holdings in Nokia shares had exceeded the limit of 5 per cent of the total voting rights and the share capital of Nokia Corporation. Part of the holdings is in the form of ADSs, and part in ordinary shares.

The number of registered shareholders was 94 500 on December 31, 2000. Each account operator (23) is included in this figure as only one registered shareholder.

Shares and warrants owned by the members of the Board of Directors and the Group Executive Board

Members of the Board of Directors and the Group Executive Board owned on December 31, 2000 an aggregate of 393 268 shares representing approximately 0.01 per cent of the aggregate number of shares and voting rights, as well as a total of 3 057 000 warrants and stock options representing approximately 5.96 per cent of the total number of warrants and stock options issued. If exercised in full the said warrants and stock options would be exercisable for 15 312 000 shares representing approximately 0.32 per cent of the total number of shares and voting rights on December 31, 2000.

Nokia share price on the Helsinki Exchanges, EUR



Nokia ADS price on the New York Stock Exchange, USD



Breakdown of share ownership, December 31, 2000

By number of shares owned	Number of shareholders ¹²	Per cent of shareholders	Total number of shares	Per cent of share capital	Average holding
1 – 100	38 861	41.15	2 208 775	0.05	57
101 – 1 000	35 613	37.71	13 337 251	0.28	375
1 001 – 10 000	15 373	16.28	52 829 755	1.12	3 437
10 001 – 100 000	4 159	4.40	112 902 774	2.40	27 147
100 001 – 500 000	339	0.36	66 304 939	1.41	195 590
500 001 – 1 000 000	30	0.03	21 787 384	0.46	726 246
1 000 001 – 5 000 000	33	0.03	70 189 419	1.50	2 126 952
Over 5 000 000	21	0.02	4 355 309 706	92.75	207 395 700
Total	94 429¹³		4 694 870 003	99.97	49 718
Shares not transferred into the book-entry system ¹⁴			1 342 720	0.03	
Total			4 696 212 723	100.00	

By shareholder category, per cent	Shares
1. Foreign shareholders	89.47
1.a Directly registered	0.31
1.b Registered in the name of a nominee	89.16
2. Corporations	1.25
3. Households	4.03
4. Financial and insurance institutions	1.49
5. Non-profit organizations	2.35
6. General government	1.41
Total	100.00

¹² The account operators (23) are included.

¹³ Shareholders holding Nokia shares in a joint ownership (71) calculated as one shareholder.

¹⁴ The shares of Nokia are registered in the Finnish book-entry system. By December 31, 2000 a total number of 99.97 per cent of Nokia shares had been transferred to this system. Nokia shareholders resolved at the Extraordinary General Meeting held on December 13, 1999 to sell the shares that have not been transferred into the book-entry system to the benefit of holders of such shares. The shares were not sold by December 31, 2000.

Continues from page 32

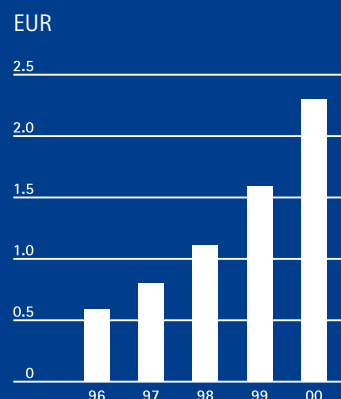
mately 5.1 per cent of the total number of votes on December 31, 2000. During 2000 the exercise of 2 007 989 warrants attached to the bonds resulted in the issue of 32 127 824 new shares and the increase of the share capital of the Parent Company with EUR 1 927 669.44.

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

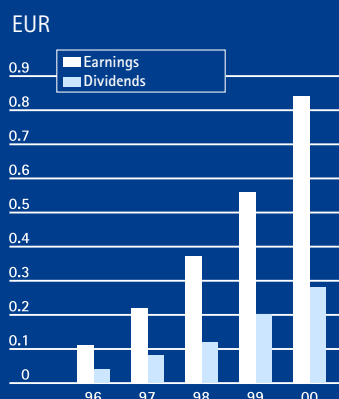
The Nokia Holding Inc. 1999 Stock Option Plan

In 1999 Nokia introduced a complementary stock option plan available for Nokia employees in the U.S. and Canada (The Nokia Holding Inc. 1999 Stock Option Plan). Each stock option granted by December 31, 2000 entitles to purchase of 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 granted to approximately 700 employees were outstanding under the Plan. An exercise of the stock options under this Plan does not result in increase of the share capital of Nokia Corporation. The maximum number of ADSs that may be issued under the Plan is 2 000 000.

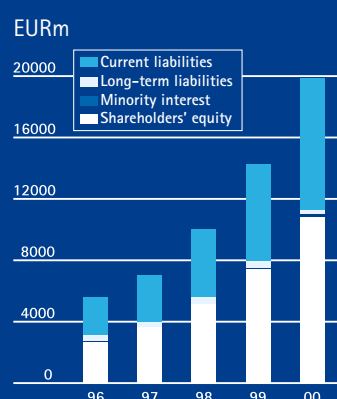
Shareholders' equity per share



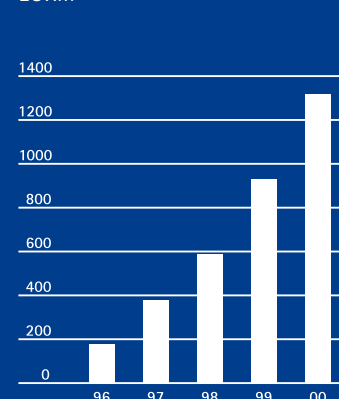
Earnings and dividend per share



Shareholders' equity and liabilities



Total dividends



Nokia 1996–2000, IAS

	2000	1999	1998	1997	1996
Profit and loss account, EURm					
Net sales	30 376	19 772	13 326	8 849	6 613
Cost and expenses	-24 600	-15 864	-10 837	-7 427	-5 896
Operating profit	5 776	3 908	2 489	1 422	717
Share of results of associated companies	-16	-5	6	9	6
Financial income and expenses	102	-58	-39	-23	-68
Profit before tax and minority interests	5 862	3 845	2 456	1 408	655
Tax	-1 784	-1 189	-737	-382	-144
Minority interests	-140	-79	-39	-17	1
Profit from continuing operations	3 938	2 577	1 680	1 009	512
Discontinued operations	-	-	-	44	37
Profit from ordinary activities before cumulative effect of change in accounting policies	3 938	2 577	1 680	1 053	549
Cumulative prior year effect (after tax) of change in accounting policies	-	-	70	-	-
Net profit	3 938	2 577	1 750	1 053	549
Balance sheet items, EURm					
Fixed assets and other non-current assets	6 388	3 487	2 220	1 589	1 414
Current assets	13 502	10 792	7 814	5 431	4 182
Inventories	2 263	1 772	1 292	1 230	1 080
Accounts receivable and prepaid expenses	7 056	4 861	3 631	2 141	1 833
Cash and cash equivalents	4 183	4 159	2 891	2 060	1 269
Shareholders' equity	10 808	7 378	5 109	3 620	2 678
Minority shareholders' interests	177	122	63	33	5
Long-term liabilities	311	407	409	276	406
Long-term interest-bearing liabilities	173	269	257	226	356
Deferred tax liabilities	69	80	88	-	-
Other long-term liabilities	69	58	64	50	50
Current liabilities	8 594	6 372	4 453	3 091	2 507
Short-term borrowings	1 069	792	699	506	573
Current portion of long-term loans	47	1	61	48	93
Accounts payable	2 814	2 202	1 357	818	599
Accrued expenses and provisions	4 664	3 377	2 336	1 719	1 242
Total assets	19 890	14 279	10 034	7 020	5 596

	2000	1999	1998	1997	1996
Net sales by business group, EURm					
Nokia Networks	7 714	5 673	4 390	3 166	2 242
Nokia Mobile Phones	21 887	13 182	8 070	4 649	3 629
Nokia Ventures Organization	854	415	-	-	-
Discontinued Operations ¹	-	580	1 014	1 218	874
Inter-business group eliminations	-79	-78	-148	-184	-132
Nokia Group	30 376	19 772	13 326	8 849	6 613
Net sales by market area, EURm					
Europe	15 554	10 614	7 673	5 212	4 070
of which Finland	494	479	465	430	410
Americas	7 708	4 909	2 815	1 601	1 065
Asia-Pacific	7 114	4 249	2 838	2 036	1 478
Total	30 376	19 772	13 326	8 849	6 613
Operating profit/loss, EURm					
Nokia Networks	1 358	1 082	960	682	501
Nokia Mobile Phones	4 879	3 099	1 540	645	241
Nokia Ventures Organization	-387	-175	-	-	-
Common Group Expenses ²	-74	-98	-11	95	-25
Nokia Group	5 776	3 908	2 489	1 422	717
Average personnel					
Nokia Networks	23 508	22 804	19 280	15 710	12 558
Nokia Mobile Phones	27 353	20 975	16 064	12 631	10 927
Nokia Ventures Organization	2 222	1 256	-	-	-
Common Group Functions ³	5 625	6 142	5 747	7 149	8 281
Nokia Group	58 708	51 177	41 091	35 490	31 766
In Finland	24 495	23 155	20 978	19 342	17 999
Outside Finland	34 213	28 022	20 113	16 148	13 767

1 "Discontinued Operations" include discontinued and divested operations as follows: Display Products 1996-1999, NKF/Cable Industry until the moment of disposal 1996 and Türkkablo 1996.

2 "Common Group Expenses" include the operating profit/loss of Common Group Functions and discontinued and divested operations as follows: Display Products 1996-1999, NKF/Cable Industry until the moment of disposal 1996 and Türkkablo 1996.

3 "Common Group Functions" include also discontinued and divested operations as follows: Display Products 1996-1999, NKF/Cable Industry until the moment of disposal 1996 and Türkkablo 1996.

Nokia 1996–2000, IAS

Key ratios and economic indicators

	2000	1999	1998	1997	1996
Net sales, EURm	30 376	19 772	13 326	8 849	6 613
Change, %	53.6	48.4	50.6	33.8	6.8
Exports from Finland, EURm	13 390	9 334	7 038	5 408	3 946
Exports and foreign subsidiaries, EURm	29 882	19 293	12 861	8 419	6 203
Salaries and social expenses, EURm	2 888	2 383	1 958	1 317	899
Operating profit, EURm	5 776	3 908	2 489	1 422	717
% of net sales	19.0	19.8	18.7	16.1	10.8
Financial income and expenses, EURm	102	-58	-39	-23	-68
% of net sales	0.3	-0.3	-0.3	-0.3	-1.0
Profit before tax and minority interests, EURm	5 862	3 845	2 456	1 408	655
% of net sales	19.3	19.4	18.4	15.9	9.9
Profit from continuing operations, EURm	3 938	2 577	1 680	1 009	512
% of net sales	13.0	13.0	12.6	11.4	7.7
Taxes, EURm	1 784	1 189	737	382	144
Dividends, EURm	1 315 *	931	586	378	176
Capital expenditure, EURm	1 580	1 358	761	404	341
% of net sales	5.2	6.9	5.7	4.6	5.2
Gross investments**, EURm	3 095	1 889	1 072	668	514
% of net sales	10.2	9.6	8.0	7.6	7.8
R&D expenditure, EURm	2 584	1 755	1 150	767	591
% of net sales	8.5	8.9	8.6	8.7	8.9
Average personnel	58 708	51 177	41 091	35 490	31 766
Non-interest bearing liabilities, EURm	7 616	5 717	3 844	2 586	1 891
Interest bearing liabilities, EURm	1 289	1 062	1 017	781	1 022
Return on capital employed, %	58.0	55.7	50.2	38.3	22.7
Return on equity, %	43.3	41.3	38.5	32.0	20.5
Equity ratio, %	55.7	53.3	52.0	52.7	48.4
Net debt to equity, %	-26	-41	-36	-35	-9

* Board's proposal

** Includes acquisitions, investments in shares and capitalized development costs.

Calculation of key ratios, see page 39.

Calculation of key ratios

Key ratios under IAS

Operating profit

Profit after depreciation

Shareholders' equity

Share capital + reserves

Earnings per share

Profit from continuing operations

Average of adjusted number of shares during the year

P/E ratio

Adjusted share price, December 31

Earnings per share

Dividend per share

Nominal dividend per share

The adjustment coefficients of the share issues that have taken place during or after the year in question

Payout ratio

Dividend per share

Earnings per share

Dividend yield, %

Nominal dividend per share

Share price

Shareholders' equity per share

Shareholders' equity

Adjusted number of shares at year-end

Market capitalization

Number of shares x share price per share class

Adjusted average share price

Amount traded during the period

Adjusted number of shares traded during the period

Share turnover, %

Number of shares traded during the period

Average number of shares during the period

Return on capital employed, %

Profit before taxes and minority interests
+ interest and other financial expenses

Average shareholders' equity + short-term borrowings + long-term interest-bearing liabilities (including the current portion thereof) + minority shareholders' interests

Return on shareholders' equity, %

Profit from continuing operations

Average shareholders' equity during the year

Equity ratio, %

Shareholders' equity + minority shareholders' interests

Total assets – advance payments received

Net debt to equity (gearing), %

Long-term interest-bearing liabilities (including the current portion thereof)
+ short-term borrowings - cash and cash equivalents

Shareholders' equity + minority shareholders' interests

Year-end currency rates 2000

Average rates 2000

	1 EUR =		1 EUR =
USD	0.890	USD	0.921
GBP	0.607	GBP	0.608
SEK	8.698	SEK	8.450
JPY	99.960	JPY	99.065

Proposal by the Board of Directors to the Annual General Meeting

The distributable earnings in the balance sheet of the Group amount to EUR 8 597 million and those of the Company to EUR 4 856 million.

The Board proposes that from the funds at the disposal of the Annual General Meeting, a dividend of EUR 0.28 per share is to be paid out on a total of 4 696 212 723 shares, amounting to EUR 1 315 million.

Espoo, January 30, 2001

Jorma Ollila
Chairman and CEO

Paul J. Collins

Georg Ehrnrooth

Bengt Holmström

Jouko K. Leskinen

Robert F.W. van Oordt

Vesa Vainio

Iiro Viinanen

Pekka Ala-Pietilä
President

Auditors' report

To the shareholders of Nokia Corporation

We have audited the accounting records, the financial statements and the administration of Nokia Corporation for the year ended December 31, 2000. The financial statements prepared by the Board of Directors and the President include the report of the Board of Directors, consolidated financial statements prepared in accordance with International Accounting Standards (IAS), and parent company financial statements prepared in accordance with prevailing regulations in Finland (FAS). Based on our audit we express an opinion on the consolidated financial statements and on the parent company's financial statements and administration.

We conducted our audit in accordance with Finnish Generally Accepted Auditing Standards. Those standards require that we plan and perform the audit in order to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. The purpose of our audit of the administration has been to examine that the Chairman and the other members of the Board of Directors and the President have complied with the rules of the Finnish Companies' Act.

Consolidated financial statements

In our opinion, the consolidated financial statements prepared in accordance with International Accounting Standards (IAS) give a true and fair view of the consolidated result of operations as well as of the financial position. The financial statements are in accordance with prevailing regulations in Finland and can be adopted.

Parent company's financial statements and administration

The financial statements have been prepared in accordance with the Finnish Accounting Act and other rules and regulations governing the preparation of financial statements in Finland. The financial statements give a true and fair view, as defined in the Finnish Accounting Act, of the parent company's result of operations, as well as the financial position. The financial statements can be adopted and the Chairman and the other members of the Board of Directors and the President of the parent company can be discharged from liability for the period audited by us. The proposal by the Board of Directors concerning the disposition of the profit for the year is in compliance with the Finnish Companies' Act.

Espoo January 30, 2001

Pricewaterhouse Coopers Oy
Authorized Public Accountants

Lars Blomquist
Authorized Public Accountant

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 EURm	1999 EURm
Reconciliation of net income		
Net income reported under IAS	3 938	2 577
U.S. GAAP adjustments:		
Pension expense	-13	9
Development costs	-65	-47
Marketable securities	-10	-15
Sale-leaseback transaction	-	4
Provision for social security cost on stock options	34	-
Stock compensation expense	-46	-
Deferred tax effect of U.S. GAAP adjustments	9	14
Net income under U.S. GAAP	3 847	2 542

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

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.

Development costs

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

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

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.

Sale-leaseback transaction

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 a financing. Accordingly, the gain would be reversed and the proceeds from the sale treated as an obligation. Rental payments would be applied to interest expense on the obligation as well as to reducing the principal amount of the obligation.

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.



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