



Nokia

Nokia Corporation

	
Type	Public – Oyj (OMX: NOK1V, NYSE: NOK, FWB: NOA3)
Founded	Tampere, Finland (1865) incorporated in Nokia (1871)
Founder(s)	Fredrik Idestam
Headquarters	 Espoo, Finland
Area served	Worldwide
Key people	Kari Kairamo, CEO in the 1980s Olli-Pekka Kallasvuo, President & CEO Jorma Ollila, Chairman
Industry	Telecommunications Internet Computer software
Products	Mobile phones Smartphones Multimedia computers Networks (See products listing)
Services	Services and Software Online services
Revenue	▼ €50.722 bn (2008) ^{[1][2]}
Operating income	▼ €4.966 bn (2008)
Net income	▼ €3.988 bn (2008)
Total assets	▲ €39.582 bn (2008)
Total equity	▼ €16.510 bn (2008)
Employees	124,292 as of March 31, 2009 ^[3]
Divisions	Devices Services Markets
Subsidiaries	Nokia Siemens Networks Navteq Symbian Vertu Qt Software
Website	Nokia.com

Nokia Corporation (pronounced [ˈnokia] in Finnish) (OMX: NOK1V, NYSE: NOK, FWB: NOA3) is a Finnish multinational communications corporation, headquartered in Keilaniemi, Espoo, a city neighbouring Finland's capital Helsinki.^[4] Nokia is focused on wireless and wired telecommunications, with 128,445 employees in 120 countries, sales in more than 150 countries and global annual revenue of EUR 50.7 billion and operating profit of 5.0 billion as of 2008.^{[1][2]} It is the world's largest manufacturer of mobile telephones: its global device market share was about 37% in Q1 2009, down from 39% in Q1 2008 and unchanged from Q4 2008.^[3] Nokia produces mobile phones for every major market segment and protocol, including GSM, CDMA, and W-CDMA (UMTS). Nokia's subsidiary Nokia Siemens Networks produces telecommunications network equipment, solutions and services. Navteq is part of Nokia's strategy of focusing on mobile navigation.^[5]

Nokia has sites for research and development, manufacture and sales in many countries throughout the world. As of December 2008, Nokia had R&D presence in 16 countries and employed 39,350 people in research and development, representing approximately 31% of the group's total workforce.^[1] The Nokia Research Center, founded in 1986, is Nokia's industrial research unit, consisting of about 500 researchers, engineers and scientists.^{[6][7]} It has sites in seven countries: Finland, China, India, Kenya, Switzerland, the United Kingdom and the United States.^[8] Besides its research centers, in 2001 Nokia founded (and owns) INdT – Nokia Institute of Technology, a R&D institute located in Brazil.^[9] Nokia's production facilities are located at Espoo, Oulu and Salo, Finland; Manaus, Brazil; Beijing, Dongguan and Suzhou, China; Farnborough, England; Komárom, Hungary; Chennai, India; Reynosa, Mexico; Jucu, Romania and Masan, South Korea.^{[10][11]} Nokia's Design Department remains in Salo, Finland.

Nokia is a public limited liability company listed on the Helsinki, Frankfurt, and New York stock exchanges.^[12] Nokia plays a very large role in the economy of Finland; it is by

far the largest Finnish company, accounting for about a third of the market capitalization of the Helsinki Stock Exchange (OMX Helsinki) as of 2007, a unique situation for an industrialized country.^[13] It is an important employer in Finland and several small companies have grown into large ones as its partners and subcontractors.^[14] Nokia increased Finland's GDP by more than 1.5% in 1999 alone. In 2004 Nokia's share of the Finnish GDP was 3.5% and accounted for almost a quarter of Finland's exports in 2003.^[15]

Finns have consistently ranked Nokia as both the best Finnish brand and the best employer. The Nokia brand, valued at \$35.9 billion, is listed as the fifth most valuable global brand in Interbrand/BusinessWeek's Best Global Brands list of 2008 (first non-US company).^{[16][17]} It is the number one brand in Asia (as of 2007)^[18] and Europe (as of 2008),^[19] the 42nd most admirable company worldwide in Fortune's World's Most Admired Companies list of 2009 (third in Network Communications, seventh non-US company),^[20] and is the world's 88th largest company in Fortune Global 500 list of 2008, up from 119th the previous year.^[21] As of 2008, AMR Research ranks Nokia's global supply chain number two in the world.^[22]

History



The Nokia House, Nokia's head office located by the Gulf of Finland in Keilaniemi, Espoo, was constructed between 1995 and 1997. It is the workplace of more than 1,000 Nokia employees.^[23]

Pre-telecommunications era

The predecessors of the modern Nokia were Nokia Company (Nokia Aktiebolag), Finnish Rubber Works Ltd (Suomen Gummitehdas



Fredrik Idestam, founder of Nokia.



Leo Mechelin

Oy) and Finnish Cable Works Ltd (Suomen Kaapelitehdas Oy).^[24]

Nokia's history starts in 1865 when engineer Fredrik Idestam established a ground-wood pulp mill on the banks of the Tammerkoski rapids in the town of Tampere, in southwestern Finland, and started manufacturing paper.^[25] In 1868, Idestam built a second mill near the town of Nokia, fifteen kilometres (nine miles) west of Tampere by the Nokianvirta river, which had better resources for hydropower production.^[26] In 1871, Idestam, with the help of his close friend statesman Leo Mechelin, renamed and transformed his firm into a share company, thereby founding the Nokia Company, the name it is still known by today.^[26]

The name of the town, Nokia, originated from the river which flowed through the town. The river itself, Nokianvirta, was named after the archaic Finnish word originally meaning a small, dark-furred animal that lived on the banks of the Nokianvirta river. In modern Finnish, *noki* means soot and *nokia* is its inflected plural, although this form of the word is rarely if ever used. The old word, *nois* (pl. *nokia*) or *nokinäättä* ("soot marten"), meant *sable*.^[27] After sable was hunted to

extinction in Finland, the word was applied to any dark-furred animal of the genus *Martes*, such as the **pine marten**, which are found in the area to this day.^[28]

Toward the end of the **19th century**, Mechelin's wishes to expand into the **electricity** business were at first thwarted by Idestam's opposition. However, Idestam retired from the management of the company in 1896,^[26] allowing Mechelin to become company chairman (from 1898–1914) and sell most shareholders on his plans, thus realizing his vision. In 1902, Nokia added **electricity generation** to its business activities.^[29]

Industrial conglomerate

At the beginning of the **20th century**, **Finnish Rubber Works**, manufacturer of **galoshes** and other rubber products, established its factories nearby and began using Nokia as its brand.^[30] In the **1910s**, shortly after **World War I**, Nokia Company was nearing **bankruptcy**.^[31] To ensure the continuation of electricity supply from Nokia's **generators**, Finnish Rubber Works acquired the business of the insolvent company.^[31] In 1922, Finnish Rubber Works acquired **Finnish Cable Works**, producer of **telephone**, **telegraph** and **electricity** cables.^[32] In 1937, **Verner Weckman**, a sport wrestler and Finland's first **Olympic Gold medalist**, became President of Finnish Cable Works, after 16 years as its Technical Director.^[33] After **World War II**, Finnish Cable Works supplied cables to the **Soviet Union** as part of Finland's **war reparations**. This gave the company a good foothold for later trade.^[33]

The three companies, which had been jointly owned since 1922, were merged to form a new industrial **conglomerate**, Nokia Corporation in 1967 and paved the way for Nokia's future as a global corporation.^[34] The new company was involved in many sectors, producing at one time or another paper products, **bicycle** and **car tires**, footwear (including **Wellington boots**), **personal computers**, **communications cables**, **televisions**, **electricity** generation machinery, **capacitors** and **aluminium**. Each business unit had its own director who reported to the first Nokia Corporation President, **Björn Westerlund**. As the president of Finnish Cable Works, he had been responsible for setting up the company's first electronics department in 1960, sowing the seeds of Nokia's future in telecommunications.^[35]

Eventually, the company decided to leave consumer electronics behind in the 1990s and focused solely on telecommunications. **Nokian Tyres**, manufacturer of tires split from Nokia Corporation to form its own company in 1988^[36] and two years later **Nokian Footwear**, manufacturer of rubber boots, was founded.^[30] During the rest of the 1990s, Nokia divested itself of all of its non-telecommunications businesses.^[37]

Telecommunications era

The seeds of the current incarnation of Nokia were planted with the founding of the electronics section of the cable division in 1960 and the production of its first electronic device in 1962: a pulse analyzer designed for use in nuclear power plants.^[35] In the 1967 fusion, that section was separated into its own division, and began manufacturing telecommunications equipment.

Networking equipment

In the 1970s, Nokia became more involved in the **telecommunications** industry by developing the **Nokia DX200**, a digital switch for **telephone exchanges**. In 1982, a DX200 switch became the world's first digital telephone switch to be put into operational use. The DX200 became the workhorse of the network equipment division. Its modular and flexible architecture enabled it to be developed into various switching products.^[38]

For a while in the 1970s, Nokia's network equipment production was separated into *Telefenno*, a company jointly owned by the parent corporation and by a company owned by the Finnish state. In 1987, the state sold its shares to Nokia and in 1992 the name was changed to Nokia Telecommunications.

In the 1970s and 1980s, Nokia developed the Sanomalaitejärjestelmä ("Message device system") for **Finnish Defence Forces**.^[39]

First mobile phones

The technologies that preceded modern cellular mobile telephony systems were the various "0G" pre-cellular **mobile radio telephony** standards. Nokia had been producing commercial and military mobile radio communications technology since the 1960s. Since 1964, Nokia had developed **VHF**-radio simultaneously with Salora Oy. In 1966, Nokia and Salora started developing the **ARP** standard (which stands for Autoradiopuhelin, or "car

radio phone"), a car-based mobile radio telephony system and the first commercially operated public mobile phone network in Finland. It went online in 1971 and offered 100% coverage in 1978.^[40]

In 1979, the merger of these two companies resulted in the establishment of Mobira Oy. Mobira began developing mobile phones for the **NMT** (Nordic Mobile Telephony) network standard, the **first-generation**, first fully-automatic **cellular phone** system that went online in 1981.^[41] In 1982, Mobira introduced its first **car phone**, the Mobira Senator for NMT-450 networks.^[41]



The Mobira Cityman 200, Nokia's NMT-900 mobile phone from the early 1990s.^[42]

Nokia bought Salora Oy in 1984 and now owning 100% of the company, changed the company's telecommunication branch name to Nokia-Mobira Oy. The Mobira Talkman, launched in 1984, was one of the world's first transportable phones. In 1987, Nokia introduced one of the world's first handheld phones, the Mobira Cityman 900 for NMT-900 networks (which offered a better signal, yet a shorter roam). While the Mobira Senator of 1982 had weighed 9.8 kg (22 lb) and the Talkman just under 5 kg (11 lb), the Mobira Cityman weighed only 800 g (28 oz) with the battery and had a price tag of 24,000 **Finnish marks** (approximately €4,560).^[43] Despite the high price, the first phones were almost snatched from the sales assistants' hands. Initially, the mobile phone was a "yuppie" product and a **status symbol**.^[23]

Nokia's mobile phones got a big publicity boost in 1987, when **Soviet** leader **Mikhail Gorbachev** was pictured using a Mobira Cityman to make a call from **Helsinki** to his communications minister in **Moscow**. This led to the phone's nickname of the "Gorba".^[43]

In 1988, Jorma Nieminen, resigning from the post of **CEO** of the mobile phone unit, along with two other employees from the unit, started a notable mobile phone company of their own, Benefon Oy (since renamed to **GeoSentric**). One year later, Nokia-Mobira Oy became Nokia Mobile Phones.

Involvement in GSM

Nokia was one of the key developers of **GSM** (Global System for Mobile Communications),^[44] the **second-generation** mobile technology which could carry data as well as voice traffic. **NMT** (Nordic Mobile Telephony), the world's first mobile telephony standard that enabled international **roaming**, provided valuable experience for Nokia for its close participation in developing GSM, which was adopted in 1987 as the new European standard for digital mobile technology.^{[45][46]}

Nokia delivered its first GSM network to the Finnish operator **Radiolinja** in 1989.^[47] The world's first commercial GSM call was made on July 1, 1991 in **Helsinki**, Finland over a Nokia-supplied network, by then **Prime Minister of Finland** **Harri Holkeri**, using a prototype Nokia GSM phone.^[47] In 1992, the first GSM phone, the **Nokia 1011**, was launched.^{[47][48]} The model number

refers to its launch date, 10 November.^[48] The Nokia 1011 did not yet employ Nokia's characteristic ringtone, the **Nokia tune**. It was introduced as a ringtone in 1994 with the **Nokia 2100 series**.^[49]

GSM's high-quality voice calls, easy international roaming and support for new services like text messaging (SMS) laid the foundations for a worldwide boom in mobile phone use.^[47] GSM came to dominate the world of mobile telephony in the 1990s, in mid-2008 accounting for about three billion mobile telephone subscribers in the world, with more than 700 mobile **operators** across 218 countries and territories. New connections are added at the rate of 15 per second, or 1.3 million per day.^[50]

Personal computers and IT equipment

In the 1980s, Nokia's computer division Nokia Data produced a series of **personal computers** called **MikroMikko**.^[51] MikroMikko was Nokia Data's attempt to enter the business computer market. The first model in the line, MikroMikko 1, was released on September 29, 1981,^[52] around the same time as the first **IBM PC**. However, the personal computer division was sold to the British **ICL** (International Computers Limited) in 1991, which later became part of **Fujitsu**.^[53] MikroMikko remained a trademark of ICL and later Fujitsu. Internationally the MikroMikko line was marketed by Fujitsu as the ErgoPro.

Fujitsu later transferred its personal computer operations to **Fujitsu Siemens Computers**, which shut down its only factory in **Espoo**, Finland (in the **Kilo** district, where computers had been produced since the 1960s) at the end of March 2000,^[54]^[55] thus ending large-scale PC manufacturing in the country. Nokia was also known for producing very high quality **CRT** and early **TFT LCD** displays for PC and larger systems application. The Nokia Display Products' branded business was sold to **ViewSonic** in 2000.^[56] In addition to personal computers and displays, Nokia used to manufacture **DSL modems** and digital **set-top boxes**.

Challenges of growth

In the 1980s, during the era of its CEO **Kari Kairamo**, Nokia expanded into new fields, mostly by acquisitions. In the late 1980s and early 1990s, the corporation ran into serious financial problems, a major reason being its

heavy losses by the television manufacturing division and businesses that were just too diverse.^[57] These problems, and a suspected total **burnout**, probably contributed to Kairamo taking his own life in 1988. After Kairamo's death, **Simo Vuorilehto** became Nokia's Chairman and CEO. In 1990-1993, Finland underwent **severe economic depression**,^[58] which also struck Nokia. Under Vuorilehto's management, Nokia was severely overhauled. The company responded by streamlining its telecommunications divisions, and by divesting itself of the television and PC divisions.^[59]

Probably the most important strategic change in Nokia's history was made in 1992, however, when the new CEO **Jorma Ollila** made a crucial strategic decision to concentrate solely on telecommunications. Thus, during the rest of the 1990s, the rubber, cable and consumer electronics divisions were gradually sold as Nokia continued to divest itself of all of its non-telecommunications businesses.^[37]

As late as 1991, more than a quarter of Nokia's turnover still came from sales in Finland. However, after the strategic change of 1992, Nokia saw a huge increase in sales to **North America**, **South America** and **Asia**.^[60] The exploding worldwide popularity of mobile telephones, beyond even Nokia's most optimistic predictions, caused a **logistics crisis** in the mid-1990s.^[61] This prompted Nokia to overhaul its entire logistics operation.^[62] By 1998, Nokia's focus on telecommunications and its early investment in GSM technologies had made the company the world's largest mobile phone manufacturer.^[60] Between 1996 and 2001, Nokia's turnover increased almost fivefold from 6.5 billion euros to 31 billion euros.^[60] Logistics continues to be one of Nokia's major advantages over its rivals, along with greater **economies of scale**.^[63]^[64]

Recent history

Nokia opened its **Komárom**, **Hungary** mobile phone factory on May 5, 2000.^[65]

In April 2003, the troubles of the networks equipment division caused the corporation to resort to similar streamlining practices on that side, including **layoffs** and organizational restructuring.^[66] This diminished Nokia's public image in Finland,^[67]^[68] and produced a number of **court cases** and an episode of a



Reduction in size of Nokia mobile phones

documentary television show critical of Nokia.^[69]

On September 22, 2003, Nokia acquired Sega.com, a branch of Sega which has been the major basis to develop the Nokia N-Gage device.^[70]

On November 16, 2005, Nokia and **Intelli-sync Corporation**, a provider of data and PIM synchronization software, signed a definitive agreement for Nokia to acquire Intelli-sync.^[71] Nokia completed the acquisition on February 10, 2006.^[72]

Despite these occasional crises, Nokia has been phenomenally successful in its chosen field. Its growth has come mostly during the era of Jorma Ollila as **CEO** and his team of about six close colleagues. In June 2006, Ollila left to become the **chairman** of **Royal Dutch Shell**^[73] and to give way for Olli-Pekka Kallasvuo.^{[74][75]}

On February 2006, Nokia and Sanyo announced a **memorandum of understanding** to create a joint venture addressing the CDMA handset business. But in June, they announced ending negotiations without agreement. Nokia also stated its decision to pull out of CDMA research and development, to continue CDMA business in selected markets.^{[76][77][78]}

On June 19, 2006, Nokia and **Siemens AG** announced the companies would merge their mobile and fixed-line phone network equipment businesses to create one of the world's largest network firms, **Nokia Siemens Networks**.^[79] Each company has a 50% stake in the infrastructure company, and it is headquartered in **Espoo**, Finland. The companies predicted annual sales of €16 bn and cost savings of €1.5 bn a year by 2010. About

20,000 Nokia employees were transferred to this new company.



The Nokia 6300, a member of the Nokia 6000 series, Nokia's largest family of phones.

On August 8, 2006, Nokia and Loudeye Corp. announced that they had signed an agreement for Nokia to acquire online music distributor **Loudeye Corporation** for approximately US \$60 million.^[80] The company has been developing this into an online music service in the hope of using it to generate handset sales. The service, launched on August 29, 2007, is aimed to rival **iTunes**. Nokia completed the acquisition on October 16, 2006.^[81]

In March 2007, Nokia signed a memorandum with **Cluj County Council, Romania** to open a new plant near the city in Jucu commune.^{[11][82][83]} Moving the production from the **Bochum, Germany** factory to a low wage country created an uproar in Germany.^{[84][85]}

In May 2007, Nokia announced that its **Nokia 1100** handset, with over 200 million units shipped, was the best-selling mobile phone of all time and the world's top-selling consumer electronics product.^[86]

In July 2007, Nokia acquired all assets of **Twango**, the comprehensive media sharing solution for organizing and sharing photos, videos and other personal media.^{[87][88]}

In September 2007, Nokia announced its intention to acquire **Enpocket**, a supplier of mobile advertising **technology** and services.^[89]

In October 2007, pending shareholder and regulatory approval, Nokia bought **Navteq**, a

U.S.-based supplier of digital mapping data, for a price of \$8.1 billion.^{[5][90]} Nokia finalized the acquisition on July 10, 2008.^[91]

In November 2007, Nokia announced and released the **Nokia N82**, its first (and currently, only) Nseries phone with **Xenon flash**.

At the Nokia World conference in December 2007, Nokia announced their "Comes With Music" program: Nokia device buyers are to receive a year of complimentary access to music downloads.^[92] The service became commercially available in the second half of 2008.

In April 2008, Nokia began finding new ways to connect people, asking the "audience" to use their creativity and their mobile devices to become Nokia's production company - to take part in filming, acting, editing and producing a collaborative film. Nokia Productions will be the first ever mobile filmmaking project directed by **Spike Lee**. This will be a collaborative experience that exists across borders and perspectives—working off a common script.

In May 2008, Nokia announced on their annual stockholder meeting that they want to shift to the **internet** business as a whole. Nokia no longer wants to be seen as the **telephone** company. **Google**, **Apple** and **Microsoft** are not seen as natural competition for their new image but they are considered as major important players to deal with.

In September, 2008, Nokia acquired OZ Communications, a privately held company with approximately 220 employees headquartered in Montreal, Canada.^[93]

In 2008, Nokia released the Nokia E71 in the United Kingdom which was marketed to directly compete with the other **Blackberry** devices offering a full keyboard and cheaper prices.

In November 2008, Nokia announced it was ceasing mobile phone distribution in Japan.^[94] Following early December, distribution of **Nokia E71** is cancelled, both from **NTT docomo** and **SoftBank Mobile**. Nokia Japan retains global research & development programs, sourcing business, and an **MVNO** venture of **Vertu** luxury phones, using docomo's telecommunication network.

Corporate affairs

Corporate structure

Divisions

Since January 1, 2008, Nokia comprises three business groups: **Devices**, **Services** and **Markets**.^[95] The three main units receive operational support from the **Corporate Development Office**, led by **Mary T. McDowell**, which is also responsible for exploring corporate strategic and future growth opportunities.^[95]

On April 1, 2007, Nokia's Networks business group was combined with **Siemens'** carrier-related operations for fixed and mobile networks to form **Nokia Siemens Networks**, jointly owned by Nokia and Siemens and consolidated by Nokia.^[96]

Devices



*Evolution of the **Nokia Communicator**. Models 9000, 9110, 9210 and 9500 shown.*

The Devices division is responsible for developing and managing Nokia's mobile device portfolio, including the sourcing of components, headed by Kai Öistämö.^[95] The division consists of the previous mainline Mobile Phones division with the separate subdivisions Multimedia (Nseries devices) and Enterprise Solutions (Eseries devices) as well as formerly centralized core devices R&D - called Technology Platforms.

This division provides the general public with mobile voice and data products across a wide range of mobile devices, including high-volume, consumer oriented mobile phones and devices, and more expensive multimedia and enterprise-class devices. The devices are based on **GSM/EDGE**, **3G/W-CDMA** and **CDMA** cellular technologies. Nokia's Nseries Multimedia Computers extensively uses **Symbian OS**.

In the first quarter of 2006 Nokia sold over 15 million MP3 capable mobile phones, which means that Nokia is not only the

world's leading supplier of mobile phones and digital cameras (as most of Nokia's mobile telephones feature digital cameras, it is also believed that Nokia has recently overtaken Kodak in camera production making it the largest in the world), Nokia is now also the leading supplier of digital audio players (MP3 players), outpacing sales of devices such as the iPod from Apple. At the end of the year 2007, Nokia managed to sell almost 440 million mobile phones which accounted for 40% of all global mobile phones sales.^[97]

Services



The Nokia N95, an example of Nokia's Nseries multimedia computer lineup.

The Services division operates in five areas of consumer Internet services: music, maps, media, messaging and games.^[95] The division consists of the previous enterprise and consumer driver services businesses previously hosted in Multimedia and Enterprise Solutions divisions, as well as a number of new acquisitions (Loudeye, Gate5, **Enpocket**, **Intellisync**, Avvenu and OZ Communications), headed by **Niklas Savander**.

The group works with companies outside the telecommunications industry to make advances in the technology and bring new applications and possibilities in areas such as **online services**, **optics**, music synchronization and **streaming media**.

Markets

The Markets division, the successor organization to Nokia's Customer and Market Operations division, is responsible for the

management of the **supply chains**, sales channels, brand and marketing functions of the company, headed by Anssi Vanjoki.^[95]

Subsidiaries

Nokia has several subsidiaries, of which the two most significant as of 2009 are **Nokia Siemens Networks** and **Navteq**.^[95] Other notable subsidiaries include, but are not limited to **Symbian Limited**, a software development and licensing company that produces **Symbian OS**, a smartphone operating system used by Nokia and other manufacturers; **Vertu**, a British-based manufacturer and retailer of luxury mobile phones; **Qt Software**, a Norwegian-based software company, and **OZ Communications**, a consumer e-mail and instant messaging provider.

Nokia Siemens Networks

Nokia Siemens Networks (previously Nokia Networks) provides wireless and wired network infrastructure, communications and networks service platforms, as well as professional services to operators and service providers.^[95] Nokia Siemens Networks focuses in **GSM**, **EDGE**, **3G/W-CDMA** and **WiMAX** radio access networks; core networks with increasing IP and multiaccess capabilities; and services.

On June 19, 2006 Nokia and **Siemens AG** announced the companies are to merge their mobile and fixed-line phone network equipment businesses to create one of the world's largest network firms, called **Nokia Siemens Networks**.^[79] The Nokia Siemens Networks brand identity was subsequently launched at the 3GSM World Congress in Barcelona in February 2007.^{[98][99]}

As of March 2009, Nokia Siemens Networks serves more than 600 operator customers in more than 150 countries, with over 1.5 billion people connected through its networks.^[100]

Navteq

Navteq, which was acquired by Nokia on October 1, 2007, is a **Chicago, Illinois**-based provider of digital map data for automotive navigation systems, mobile navigation devices, Internet-based mapping applications, and government and business solutions.^[95] Navteq's map data will be part of the **Nokia Maps** online service where users can download maps, use voice-guided

navigation and other context-aware web services.^{[5][95]}

Corporate governance

The control and management of Nokia is divided among the shareholders at a general meeting and the Group Executive Board (left),^[101] under the direction of the Board of Directors (right).^[102] The Chairman and the rest of the Group Executive Board members are appointed by the Board of Directors. Only the Chairman of the Group Executive Board can belong to both, the Board of Directors and the Group Executive Board. The Board of Directors' committees consist of the Audit Committee,^[103] the Personnel Committee^[104] and the Corporate Governance and Nomination Committee.^{[105][106]}

The operations of the company are managed within the framework set by the Finnish Companies Act,^[107] Nokia's Articles of Association^[108] and Corporate Governance Guidelines,^[109] and related Board of Directors adopted charters.

Former corporate officers

Chief Executive Officers	Chairmen of the Board
Björn Westerlund 1967–1977	Lauri J. Kivekäs 1967–1977
Kari Kairamo 1977–1988	Björn Westerlund 1977–1979
Simo Vuorilehto 1988–1992	Mika Tiivola 1979–1986
Jorma Ollila 1992–2006	Kari Kairamo 1986–1988
Olli-Pekka Kallasvuori 2006–	

Historical logos




Nokia Company logo. Founded in Tampere in 1865, incorporated in Nokia in 1871.^[29]




The brand logo of Finnish Rubber Works, founded in Helsinki in 1898.^[30]




The Nokia "arrows" logo, used before the "Connecting People" logo.



Nokia introduced its "Connecting People" advertising slogan, coined by Ove Strandberg.^[112] This earlier version of the slogan used Times Roman SC (Small Caps) font.^[113]



Nokia's current logo with the redesigned "Connecting People" slogan. This slogan uses Nokia's proprietary 'Nokia' font.



Nokia Siemens Networks logo. Founded in 2007.

Corporate culture



The Nokia House, Nokia's head office in Keilaniemi, Espoo, Finland.

1977–1979 Mika Tiivola
1986–1988 Jorma Ollila
1990–1992 ———
1992–1999 Jorma Ollila

Nokia's official corporate culture manifesto, *The Nokia Way*, emphasizes the speed and flexibility of decision-making in a flat, networked organization, although the corporation's size necessarily imposes a certain amount of bureaucracy.^[114]

The official business language of Nokia is English. All documentation is written in English, and is used in official intra-company spoken communication and e-mail.

Until May 2007, the *Nokia Values* were Customer Satisfaction, Respect, Achievement, and Renewal. In May 2007, Nokia re-defined its values after initiating a series of discussions worldwide as to what the new values of the company should be. Based on the employee suggestions, the new values were defined as: Engaging You, Achieving Together, Passion for Innovation and Very Human.^[114]

Online services

Group Executive Board [101]
<div> Olli-Pekka Kallasvuo (Chairman), b. 1953</div> <div>President, CEO and Group Executive Board Chairman of Nokia Corporation since June 1, 2006</div> <div>Member of the Nokia Board of Directors since May 3, 2007</div> <div>With Nokia 1980–1981, rejoined 1982, Group Executive Board member since 1990</div>
<div> Esko Aho, b. 1954</div> <div>Executive Vice President, Corporate Relations and Responsibility</div> <div>Joined Nokia November 1, 2008, Group Executive Board member since 2009</div>
<div> Robert Andersson, b. 1960</div> <div>Executive Vice President, Devices Finance, Strategy and Sourcing</div> <div>Joined Nokia 1985, Group Executive Board member since 2005</div>
<div> Simon Beresford-Wylie, b. 1958</div> <div>Chief Executive Officer, Nokia Siemens Networks</div> <div>Joined Nokia 1998, Group Executive Board member since 2005</div>
<div> Timo Ihamuotila, b. 1966</div> <div>Executive Vice President, Sales</div> <div>With Nokia 1993–1996, rejoined 1999, Group Executive Board member since 2007</div>
<div> Mary T. McDowell, b. 1964</div> <div>Executive Vice President, Chief Development Officer</div> <div>Joined Nokia 2004, Group Executive Board member since 2004</div>
<div> Hallstein Mørk, b. 1953</div> <div>Executive Vice President, Human Resources</div> <div>Joined Nokia 1999, Group Executive Board member since 2004</div>
<div> Dr. Tero Ojanperä, b. 1966</div> <div>Executive Vice President, Services</div> <div>Joined Nokia 1990, Group Executive Board member since 2005</div>
<div> Niklas Savander, b. 1962</div> <div>Executive Vice President, Services</div> <div>Joined Nokia 1997, Group Executive Board member since 2006</div>
<div> Richard A. Simonson, b. 1958</div> <div>Executive Vice President, Chief Financial Officer</div> <div>Joined Nokia 2001, Group Executive Board member since 2004</div>
<div> Anssi Vanjoki, b. 1956</div> <div>Executive Vice President, Markets</div> <div>Joined Nokia 1991, Group Executive Board member since 1998</div>
<div> Dr. Kai Öistämö, b. 1964</div> <div>Executive Vice President, Devices</div> <div>Joined Nokia 1991, Group Executive Board member since 2005</div>

.mobi and the Mobile Web

Nokia was the first proponent of a **Top Level Domain** (TLD) specifically for the **Mobile Web** and, as a result, was instrumental in the launch of the **.mobi** domain name extension in September 2006 as an official backer.^{[115][116]} Since then, Nokia has launched the largest mobile portal, **Nokia.mobi**, which receives over 100 million visits a month.^[117] It followed that with the launch of a mobile **Ad Service** to cater to the growing demand for mobile advertisement.^[118]

Ovi

Ovi, announced on August 29, 2007, is the name for Nokia's "umbrella concept" Internet services.^[119] Centered on Ovi.com, it is marketed as a "personal dashboard" where users can share photos with friends, download music, maps and games directly to their phones and access third-party services like Yahoo's **Flickr** photo site. It has some significance in that Nokia is moving deeper into the world of Internet services, where head-on competition

Board of Directors [102][110]
<div> Jorma Ollila (Chairman), b. 1950</div> <div>Board member since 1995, Chairman of the Board of Directors since 1999</div> <div>Chairman of the Board of Directors of Royal Dutch Shell PLC</div>
<div> Dame Marjorie Scardino (Vice Chairman), b. 1947</div> <div>Board member since 2001</div> <div>Chairman of the Corporate Governance and Nomination Committee, Member of the Personnel Committee</div> <div>Chief Executive Officer and member of the Board of Directors of Pearson PLC</div>
<div> Georg Ehrnrooth, b. 1940</div> <div>Board member since 2000</div> <div>Member of the Audit Committee, Member of the Corporate Governance and Nomination Committee</div>
<div> Lalita D. Gupte, b. 1948</div> <div>Board member since 2007</div> <div>Member of the Audit Committee</div> <div>Non-executive Chairman of the ICICI Venture Funds Management Co Ltd.</div>
<div> Dr. Bengt Holmström, b. 1949</div> <div>Board member since 1999</div> <div>Paul A. Samuelson Professor of Economics at Massachusetts Institute of Technology, joint appointment at the MIT Sloan School of Management</div>
<div> Dr. Henning Kagermann, b. 1947</div> <div>Board member since 2007</div> <div>CEO and Chairman of the Executive Board of SAP AG</div>
<div> Olli-Pekka Kallasvuo, b. 1953</div> <div>Board member since 2007</div> <div>President and CEO of Nokia Corporation</div>
<div> Per Karlsson, b. 1955</div> <div>Board member since 2002, Independent Corporate Advisor</div> <div>Chairman of the Personnel Committee, Member of the Corporate Governance and Nomination Committee</div>
<div> Risto Siilasmaa, b. 1966</div> <div>Board member since 2008</div> <div>Member of the Audit Committee</div> <div>Founder and Chairman of F-Secure</div>
<div> Keijo Suila, b. 1945</div> <div>Board member since 2006</div> <div>Member of the Audit Committee</div>



Nokia Ovi logo.

with **Microsoft**, **Google** and **Apple** is inevitable.^[120]

The services so far announced to be offered through Ovi include the **Nokia Music Store**, **Nokia Maps**, Ovi Mail, the **N-Gage** mobile gaming platform available for several **S60 smartphones**, Share on Ovi, Files on Ovi, and Contacts and Calendar.^[121] The Ovi Store, the Ovi application store will be launched in May 2009.^[122]

MOSH

In August 2007, Nokia launched their new social network, dubbed **MOSH**. MOSH by Nokia is the first-ever social network built by a handset manufacturer. **MOSH** aims to bring social, media-based networks to the mobile environment. Users can upload, download,

share, and bookmark a variety of media - audio files, video files, documents, applications, games, images.^[123]

Comes With Music

On December 4, 2007, Nokia unveiled their plans for the "Nokia Comes With Music" initiative, a program that would partner with **Universal Music Group International** and **Sony BMG** to bundle a year's worth of unlimited, **DRM**-encumbered downloads with the purchase of a Nokia phone. Following the termination of the year of free downloads, tracks can be kept without having to renew the subscription. Downloads will be both PC and mobile-based.^[92]

Nokia Messaging

On August 13, 2008, Nokia launched a beta release of "Nokia Email service", a new push **e-mail** service, since graduated as part of Nokia Messaging.^[124] Nokia Messaging can sync personal e-mail accounts offered by a variety of ISPs (Internet Service Providers). Nokia Messaging is available at email.nokia.com.

Environmental record

Electronic products such as cell phones impact the environment both during production and after their useful life when they are discarded and turned into **electronic waste**. According to environmental organization **Greenpeace**, Nokia has a good track record in limiting the amount of toxic chemicals in its products, supporting recycling, and reducing impact on climate change, compared to other large electronics brands. In the 11th Greenpeace Guide to Greener Electronics, Nokia stays in first place with an improved total score of 7.5/10.^{[125][126]}

In an effort to further reduce their environmental impact, Nokia released a new phone concept, Remade, in February 2008.^[127] The phone has been constructed of solely recyclable materials.^[127] The outer part of the phone is made from recycled materials such as aluminum cans, plastic bottles, and used car tires.^[128] The screen is constructed of recycled glass, and the hinges have been created from rubber tires. The interior of the phone is entirely constructed with refurbished phone parts, and there is a feature that encourages energy saving habits by reducing the backlight to the ideal level,

which then allows the battery to last longer without frequent charges.

Research cooperation with universities

Nokia is actively exploring and engaging in **open innovation** through selective research collaborations with major universities and institutions by sharing resources and leveraging ideas. Current collaborations include:^[129]

- **École Polytechnique Fédérale de Lausanne**, Switzerland
- **ETH Zurich**, Switzerland
- **Helsinki University of Technology**, Finland
- **Massachusetts Institute of Technology**, United States
- **Stanford University**, United States
- **Tampere University of Technology**, Finland
- **Tsinghua University**, China
- **University of California, Berkeley**, United States
- **University of Cambridge**, United Kingdom
- **University of Southern California**, United States

See also

- **Gnokii**
- **List of Nokia products**
- **Maemo**
- **Nokia Software Updater**
- **Nokia Sugar Bowl**
- **Nokian Footwear**
- **Nokian Tyres**
- **Symbian OS**

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Further reading

External links

- Official Nokia portal (with complete list of regional websites)
- Nokia Corporation Company Profile at Yahoo!
- Nokia Siemens Networks

Title	Author	Publisher	Year	Length	ISBN
Nokia: The Inside Story	Martti Häikiö	FT / Prentice Hall	October 2002	256 pp	ISBN 0-273-65983-9
Work Goes Mobile: Nokia's Lessons from the Leading Edge	Michael Lattanzi, Antti Korhonen, Vishy Gopalakrishnan	John Wiley & Sons	January 2006	212 pp	ISBN 0-470-02752-5
Mobile Usability: How Nokia Changed the Face of the Mobile Phone	Christian Lindholm, Turkka Keinonen, Harri Kiljander	McGraw-Hill Companies	June 2003	301 pp	ISBN 0-07-138514-2
Business The Nokia Way: Secrets of the World's Fastest Moving Company	Trevor Merriden	John Wiley & Sons	February 2001	168 pp	ISBN 1-84112-104-5
The Nokia Revolution: The Story of an Extraordinary Company That Transformed an Industry	Dan Steinbock	AMACOM Books	April 2001	375 pp	ISBN 0-8144-0636-X

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