



Nokia CR Report 2007

Making a human connection



NOKIA
Connecting People

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CEO Message

Nokia experienced another fulfilling year in 2007, with continuing rapid change in our business, markets, technologies and applications. We consolidated our position as the global leader in mobile communications and further developed our ambition to bring social, environmental and economic benefits to people throughout the world.

During the year, we created a new organizational structure for Nokia (introduced on 1 January 2008) which reflects the growing importance of services such as music and navigation. This follows the creation of Nokia Siemens Networks earlier in the year, aimed at strengthening infrastructure business.

Our vision is a world where everyone can be connected, and with mobile subscriptions expected to hit four billion in 2009, we are closer to that than anyone could have imagined just a few years ago. But our strategy is not just about growth, and the convergence of mobile and internet technologies. It is also about doing business in ways which benefit people, communities and the environment.

This is not new for Nokia. We have always aimed to do business responsibly and working specifically on reducing our environmental impact for more than a decade. This is reflected in our membership of the FTSE4Good and Dow Jones Sustainability Indices.

But there are always new opportunities and challenges and this report describes how we have responded to them in 2007.

Increasing access to communications is key to achieving our vision. It is clear that mobile technology can make a positive contribution to societies, through connecting people to new opportunities. We are investing in research in developing countries to understand those opportunities better.

At Nokia, we see environmental responsibility as an opportunity rather than a constraint - we believe we can help people to make more sustainable choices, as well as reducing the environmental "footprint" of our products and operations.

Last year we placed a lot of emphasis on the environmental impact of our industry, especially energy efficiency. It is clear that strong, early action on climate change is essential, and while Nokia's direct CO2 emissions are relatively small we can make a significant contribution to tackling climate change through the energy our products use. We have made great progress in reducing the energy lost by a charger when it remains plugged in once the device is fully charged. In 2007, we became the first mobile manufacturer to introduce alerts in devices reminding people to unplug their chargers when not charging.

These may on first look seem like small steps, but when multiplied by the many hundreds of millions of people owning Nokia devices the potential is huge. The energy that could be saved globally by all Nokia phone users unplugging their chargers when no longer needed is equivalent to enough to power 100 000 average-size European homes.

In 2007 we initiated work with suppliers to set energy efficiency targets that go beyond our current environmental supplier requirements. This builds on our ongoing work to further assess and develop environmental, labor and social conditions throughout the supply chain.

The contribution we can make is substantial, but I know our impact will be greater if we work with others - in our industry and beyond. That is why we have become a full member of the ICT industry's Global e-Sustainability Initiative (GeSI) and extended our partnership with the global conservation organization WWF, as well as embarking on many other external activities.

It is critical that we achieve our objectives in an ethical manner, and last year we reviewed and refined our core values, to better reflect the way we work. In creating the Values, we involved around 13 000 employees in the Nokia Way Jam, a 72-hour online discussion to debate our values and our future business strategy.

Nokia Siemens Networks employees have also participated in the training to understand and comply with the Code of Conduct. By the end of 2007, more than 22 000 out of 58 500 employees of Nokia Siemens Networks had successfully completed the training - over a third of Nokia Siemens Networks worldwide employees.

Looking forward

Corporate Responsibility (CR) is no longer a specialist subject of interest only to particular interest groups, but part of the general concern of consumers, investors, suppliers, customers, and of course employees. That is reflected in our plans to integrate CR into our mainstream reporting. We have already begun increasingly to incorporate CR data into our annual report on Form 20-F.

I look forward to another year when I am sure we will confront many challenges in this rapidly-changing world, and equally sure that we will make further progress in pursuing our strategy to be a responsible leader in our industry. Society faces a huge task in seeking to make progress in a range of social, economic and environmental issues over the next few years. We will play our part in bringing the benefits of mobile technology to many more millions of people and will continue to do that in ways which reflect the Nokia values.

Olli-Pekka Kallasvuo
President and CEO of Nokia Corporation

Our impacts and values

Nokia is the world leader in mobility, driving the transformation and growth of the converging internet and communications industries. We make a wide range of mobile devices with services and software that enable people to experience music, navigation, video, television, imaging, games, business mobility and more. Developing and growing our offering of consumer Internet services, as well as our enterprise solutions and software, is a key area of focus. We also provide equipment, solutions and services for communications networks through Nokia Siemens Networks.

In 2007, Nokia's net sales were EUR 51.1 billion and operating profit was EUR 8.0 billion. At the end of 2007, we employed more than 112,000 people; had production facilities for mobile devices and network infrastructure around the world; sales in more than 150 countries; and a global network of sales, customer service and other operational units.

Corporate responsibility

Corporate responsibility is fundamental to Nokia's business, brand and culture. Nokia aims to set the standards for the industry through initiatives that not only make a positive impact, but also make good business sense. The Nokia Code of Conduct commits us to uphold the principles of the Universal Declaration of Human Rights, the International Labor Organization and the Global Compact.

Communications is a relatively "clean" industry. It is not a high energy user, does not generate substantial pollution, and does not endanger people or communities. But a responsible business needs to address its impacts and aim to make a positive contribution wherever possible.

Environmental issues have been our main priority in 2007. Climate change is a serious threat which requires everyone to contribute to building a low carbon economy. We believe that strong, early action is necessary and that we have an opportunity to make a contribution to tackling climate change beyond the impact of our operations and our products. Our [environmental strategy](#) sees Nokia among the world's leading companies for all aspects of environmental performance, with three priorities: energy efficiency, managing substances in our products, take-back and recycling.

We are also conscious of the need to achieve high standards in our [supply chain](#) as well as in [our own factories](#). We seek to provide [customers](#) with accessible products that meet their needs and to trade with them responsibly. Above all, we aim to make a positive contribution to [society](#) at the local and global level. See [Key Issues](#) for information on how we identify our most important impacts.

Values

The Nokia Way defines our core values, which underpin the way we work and support our efforts to maximize our positive impacts and minimize any negatives. We refined the values in 2007 to reflect changes to our business, engaging employees to define what it means to [work at Nokia](#). The result represents an evolution of the previous Nokia values, reflecting the evolution of our business:

- ◆ Achieving together - expands our old value of Achievement, reflecting that we increasingly work in networks.
- ◆ Very Human - builds on our previous value of Respect.
- ◆ Engaging You - all our stakeholders, not just customers.
- ◆ Passion for Innovation - more vigorous than our previous value of Renewal.

Our operations

Figures include Nokia Siemens Networks

From January 1, 2004 through March 31, 2007, we had four business groups - Mobile Phones, Multimedia, Enterprise Solutions and Networks - supported and serviced by two horizontal groups, Customer and Market Operations and Technology Platforms, in addition to various Corporate Functions. 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.

As of January 1, 2008, our three mobile device business groups and the supporting horizontal groups have been replaced by an integrated business segment, Devices & Services. This reorganization is aimed at creating a structure aligned with the opportunities we see for future growth in devices and services and to increase efficient ways of working across the company. Under this new structure we conduct and manage our devices and services business in an integrated manner through:

- ◆ Devices, responsible for developing the best device portfolio for the marketplace, including sourcing of components
- ◆ Services & Software, reflecting our strategic emphasis on developing and growing our offering of consumer Internet services and enterprise solutions and software
- ◆ Markets, responsible for the management of our supply chains, sales channels and marketing activities
- ◆ Corporate Development Office, reported under Corporate Functions, which has been established to focus on our strategy and future growth, and to provide operational support for integration across all the units

Nokia's business consists of a global network of sales, customer service and other operational units. At the end of 2007, almost a third of employees worked in research and development, at research centers in around the world and through relationship with universities. In 2007 we set up a new Nokia Research Center, in Cambridge, UK, collaborating with the University of Cambridge, and a Nokia Innovation Center in Tampere, Finland, working with the Tampere University of Technology.

At the end of 2007, Nokia operated 10 factories for the production of mobile devices in 9 countries, as well as outsourcing some mobile phone manufacturing to contract manufacturers.

More information about Nokia Siemens Networks can be obtained from their [website](#).

These tables show our main markets and operating countries:

2007 net sales, top five major markets (EURm)

China	5 898
India	3 684
Germany	2 641
United Kingdom	2 574
United States	2 124

Top five countries by personnel

Finland	23 015
Germany	13 926
China	12 856
India	11 491
Brazil	8 527

Economic impacts

Our economic activities have an impact on local and national communities, on our suppliers and customers, our employees and shareholders. The table shows the main financial items for the year.

Table of key figures (including Nokia Siemens Networks in 2007 unless otherwise noted)

	2007	2006	2005
Sales, EUR billion	51.1	41.1	34.2
Payments			
To suppliers, for goods and services, EUR billion	36.4	29.5	24.2
Employees			
Payroll and benefits, EUR billion	4.7	3.5	3.1
Pension expenses, EUR million	420	310	252
Training expenses (excl. Nokia Siemens Networks), EUR million	70	125	103
For research and development, EUR billion	5.6	3.9	3.8
To governments - total tax, EUR billion	1.5	1.4	1.3
To shareholders - dividend payments*, EUR billion	5.6	4.9	5.8

*Includes dividends and share buy-backs

Note: As of April 1, 2007, Nokia results include those of Nokia Siemens Networks on a fully consolidated basis. Nokia Siemens Networks, a company jointly owned by Nokia and Siemens, is comprised of Nokia's former Networks business group and Siemens' carrier-related operations for fixed and mobile networks. Accordingly, the results of the Nokia Group and Nokia Siemens Networks for 2007 are not directly comparable to results for 2006 and 2005. Nokia's 2006 and 2005 results included Nokia's former Networks business group only.

For full financial information see our [financial statements](#).

Corporate governance

The responsibilities of the Board of Directors include regular evaluation of Nokia's strategic direction, management policies and the effectiveness with which management implements them, assessing the overall risk of Nokia and monitoring legal compliance. The Board appoints the chief executive (CEO) and the members of Nokia's Group Executive Board.

All 10 members of Board of Directors, as of December 31, 2007 were non-executives except for the CEO. All the other members of the Board are independent as defined by Finnish rules and regulations, except the chairman, Jorma Ollila, who was also Nokia's CEO until June 1, 2006. Seven directors were considered to be independent in accordance with the New York Stock Exchange standards.

The roles and responsibilities of the Board and its committees are defined in our [Corporate Governance Guidelines](#). The Board's main committees are the Audit Committee, the Personnel Committee and the Corporate Governance and Nomination Committee. The Board and each of its committees conduct annual performance self-evaluations.

The Board of Directors appoints the chairman and the members of the Group Executive Board, which is responsible for managing the operations of the company, including corporate responsibility.

Veli Sundback, Executive Vice President, Corporate Relations and Responsibility, is the Group Executive Board member with responsibility for corporate responsibility (CR). He chairs the CR Steering Group, which supports work by managers throughout the company.

Corporate governance practices

Nokia follows rules and recommendations of the Helsinki, New York, Stockholm and Frankfurt stock exchanges, where applicable.

Our corporate governance practices comply with the Corporate Governance Recommendation for Listed Companies approved by the Helsinki Stock Exchange in December 2003.

We have an internal audit function that examines and evaluates the adequacy and effectiveness of the company's system of internal control. Internal audit reports to the Audit Committee of the Board of Directors. The head of the internal audit function has direct access to the Audit Committee, without involvement of management.

For more information, please see [corporate governance](#).

Managing risk

Our approach to risk management is based on identifying key risks which might prevent Nokia from reaching its business objectives. This covers all risk areas: strategic, operational, financial, hazard and fraud risks. It includes political, social and environmental risks, which are considered along with other aspects of risk rather than being seen as a separate strand.

We approach risk management in a systematic and pro-active way to analyze, review, and manage opportunities as well as threats, rather than solely eliminating risks.

The principles set out in Nokia's Risk Policy and approved by the Board's Audit Committee require risk management to be integrated into business processes. One of the main principles is that the business or function manager, rather than risk specialists, is responsible for the risks. However, it is everyone's responsibility at Nokia to identify risks.

Our approach to CR

Corporate responsibility (CR) at Nokia is a collective effort. We believe that management of CR issues is most effective when sustainability policies and programs are embedded in every aspect of our operations.

In this section we outline our [CR strategy](#), how we [manage CR](#) and our approach to [ethics](#).

Our Code of Conduct and the Nokia Way (our values) set clear guidelines for how we conduct our business. They are supported by more detailed policies on specific issues, such as our Employment Policy, our Environmental Policy and the Nokia Supplier Requirements.

It is the responsibility of every employee to live out the values in all their business activities.

The EU defines Corporate Responsibility as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.

CR strategy

Mobile communications have the potential to bring enormous social and economic benefits, boosting economic development and improving quality of life. They also enable reductions in environmental impacts. Our vision is to release this potential by extending access to mobile communications while simultaneously growing our business.

We aim to act responsibly in every aspect of our business activities. Our CR strategy is aligned with our core business goals. We believe the two are mutually dependent - acting responsibly is good for business, and profitable business is essential for good citizenship. We embed corporate responsibility into every aspect of our business.

For us, responsibility is business as usual. Our products are used throughout the world, and our brand is among the world's best-known. There is simply no other way for us to conduct our business but in a way that is acceptable both to our customers and other stakeholders.

Read more about [Nokia's vision and strategy](#).

Managing CR

Nokia's corporate responsibility activities are led at the Executive Board level by Veli Sundbäck, Executive Vice President, Corporate Relations and Responsibility. He oversees the work of the Corporate Responsibility Steering Group and the Environmental Steering Group.

These steering groups are responsible for supporting initiatives across the business and encouraging open communication and cooperation, both internally and externally. They are made up of managers from across the company and support our corporate structures to help integrate responsibility into our core business.

The steering groups are supported by our CR and environment teams. These teams drive CR initiatives and monitor performance across our operations.

Each key function within the business has people responsible for building and implementing processes to achieve our environmental and social targets.

Our CR Framework provides guidelines on embedding our CR strategy within our operational planning across the business.

Reporting

We believe that CR is an integral part of our business, and as such we plan to expand disclosure on our CR performance in our annual report on Form 20-F for 2008. The figures measuring our CR performance to be included in Form 20-F will be subject to independent review alongside our financial reporting.

Key issues

Identifying the CR issues that are most relevant to our business enables us to prioritize our activities to manage them effectively. We identify these issues by:

- ◆ Assessing potential opportunities and risks for our business. See [managing risk](#) for more information.
- ◆ Engaging with stakeholders to identify the issues that are most important to them. See [stakeholder engagement](#) for more information.
- ◆ Tracking public debate and media interest in CR issues

These were the key issues in 2007:

Accessibility:

Improving access to communications presents a huge opportunity for our business to bring benefits to society.

See [accessibility](#) and [universal access](#) for more information.

Environment:

We manage environmental issues based on a life-cycle approach, covering the whole product life span from cradle to cradle. This means aiming to minimize the impact of our products and operations on the environment by taking environmental considerations into account in everything we do. Management of environmental issues is fully integrated in our business operations - this is everyone's responsibility at Nokia. The main focus areas in our environmental work are materials and substance management, energy efficiency, and take-back and recycling of used devices.

See [environment](#) for more information.

Supply chain:

CR issues in the electronics supply chain were highlighted by several NGOs in 2006 and 2007. We are engaging with stakeholders and working with the industry, as well as continuing our supplier assessment and development programs based on the Nokia Supplier Requirements.

See [supply chain](#) for more information.

Human rights:

For Nokia, promoting human rights helps realize new opportunities and effectively manage risk, as well as meet essential global standards. Nokia's responsibilities as an employer with respect to human rights are based on the UDHR, ILO, and UN Global Compact principles.

The typical human rights challenges for Nokia include workplace safety and labor practices in our own operations and those of our suppliers. Over the years stakeholders have placed increasing pressure on businesses to actively influence issues involving human rights that exist within the workplace. Although human rights are the primary responsibility of governments,

companies as societal participants must operate in alignment with the Universal Declaration of Human Rights (UDHR) and are expected to promote and encourage the enjoyment of Human Rights accordingly. Additionally these issues are covered by the Nokia Code of Conduct, which commits us to uphold the principles of the Universal Declaration of Human Rights, the International Labor Organization and the Global Compact.

In 2007, we conducted a current state analysis on human rights issues and explored the potential impacts of human rights in our business. Nokia has established internal policies to provide more concrete guidance for employees who deal directly with issues and questions relating to human rights. We continue to follow the ongoing debate over business and human rights, driven by the work of John Ruggie, Special Representative of the UN Secretary General on Business and Human Rights. Nokia anticipates that the issue will be further clarified as the international standard regarding social responsibility (ISO 26000) develops as we are actively working towards.

Ethics

Code of conduct

Our Code of Conduct sets out how we intend to do business. It commits us to the highest standards of ethical conduct in everything we do.

The Code covers issues such as human rights, conflicts of interest, bribery and corruption, discrimination and safe workplace practices. It also commits us to monitor the ethical performance of our suppliers and to consider environmental issues.

Read the full [Code of Conduct](#).

The Code is continually reviewed and updated where necessary to take into account emerging issues and changes to the business.

Every Nokia employee is required to comply with our Code of Conduct in all their business activities.

Training and awareness

Managers and HR representatives are responsible for ensuring employees are aware of the Code of Conduct and its importance. They make it clear that Nokia is serious about its ethical goals and emphasize that employees must support each other to achieve them.

The Code of Conduct is available in 32 languages for employees around the world.

We require all our employees to complete training on the Code of Conduct. In 2007, we focused on raising awareness among factory employees. To achieve this, we provided resources including classroom training and additional computers to enable employees to take our online training course. Approximately 98% of employees across Nokia have now completed a Code of Conduct e-learning course.

People working for Nokia as external employees - or contractors - are also familiarized with the Nokia Code of Conduct at the beginning of their work for the company.

Reporting inappropriate business behavior

Employees are encouraged to report any potential violations of the Code of Conduct, either to their manager or via our confidential reporting system. Details of how to report potential violations confidentially and anonymously - either by email or mail - are available on our website.

A comprehensive investigation of serious allegations will be conducted by the relevant manager, overseen by more senior managers. Confirmed violations must be corrected immediately and are subject to disciplinary action up to and including termination of employment.

Stakeholder Engagement

Our stakeholders are the people who affect or are affected by our business. Here we describe how we engage with each group and our key engagement activities this year. The results of this engagement and our response to stakeholder feedback are included in the relevant sections of the report.

- ◆ [Investors](#)
- ◆ [Customers](#)
- ◆ [Governments and regulators](#)
- ◆ [Non-governmental organizations](#)
- ◆ [Industry organizations](#)
- ◆ [Universities](#)
- ◆ **Employees:** High levels of employee engagement are vital to retain the best employees and boost performance. We regularly engage with employees through a variety of channels: performance evaluations, team meetings, and our annual Listening to You employee survey. In 2007, we encouraged our employees to get involved in developing a revised set of values for the company that would reflect what is most important to them. See [employees](#) for more information.
- ◆ **Suppliers:** We engage with individual suppliers through our supply base management practices. See [supply chain](#) for more information.

Investors

We engage with investors through our investor relations service and investor website, our annual report on Form 20-F, other financial reporting and meetings with groups of or individual investors.

See our [investors website](#) for more information.

Nokia recognizes the growing importance of ethical business practices to both mainstream and socially responsible institutional investors.

In 2007, Nokia engaged with the socially responsible investor (SRI) community by conducting road shows, participating in third party SRI events and inviting investors to participate in Nokia's Corporate Responsibility Stakeholder Days.

The subjects most frequently raised by socially responsible investors include supply-chain management, environmental impact, corporate governance and Nokia's contribution to society.

We also continue to participate in third-party evaluations of Nokia's CR performance. In 2007, Nokia was again selected for inclusion in the Dow Jones Sustainability World Indexes (DJSI World) and was also added to the Dow Jones EURO STOXX Sustainability Indexes (DJSI STOXX). Nokia maintained its status in the FTSE4Good social responsibility investment index.

Customers

The key issues for both trade customers and consumers are product quality and satisfaction with our products and customer service. We survey our trade customers twice a year to gauge satisfaction levels. We engage with consumers through our Nokia Care support service both online and via call centers.

See [customers](#) for more information.

We increasingly engage with customers on other issues related to sustainability. Network operators - our biggest customers - expect us to meet high standards of corporate responsibility in our own operations and, increasingly, in our supply chain. We engage with individual network operators on our management of sustainability issues as part of their assessments of their own supply chain.

Consumer interest in sustainability issues is also growing. We encourage consumers to consider the environment by unplugging chargers once handsets are fully charged and returning handsets they no longer use for recycling.

See [environment](#) for more information.

We recognize that some consumers are concerned about potential health issues related to mobile phones and base stations. Both Nokia and NSN provide information on the latest research and links to independent sources online.

See [mobile communications and health](#) for more information on handsets and health.

See the [Nokia Siemens Networks website](#) for more information on base stations and health.

Non-governmental organizations

Environment

Nokia has worked in partnership with WWF to raise environmental awareness among our employees and on a number of other environmental activities since 2003. In 2007, we collaborated with WWF on a campaign to boost the number of handsets returned for recycling in Finland. We also joined WWF's Climate Savers Program.

See [environment](#) for more information.

Accessibility

In 2007, we held an innovation summit with experts and stakeholders to prioritize long-term initiatives to improve accessibility. Participants included representatives from regulatory authorities, academia, Nokia and disability organizations worldwide, such as the Royal National Institute of Blind People (RNIB), Finnish Federation of the Visually Impaired (FFVI) and European Older People's Platform (AGE).

See [accessibility](#) for more information.

Society

We work with a number of NGOs specializing in community and youth development projects around the world. For example, we support the Grameen Bank foundation on the Village Phone project to bring mobile access to unconnected communities across Africa through microfinance.

See [mobile technology](#) for development for more information.

Our partnership with the International Youth Foundation continues, with new programs launched in Belgium in late 2006 and Italy in 2007. We also continued to work with international children's organization, Plan International, to use ICT to raise children's awareness of their rights and opportunities. In 2007, Nokia teamed up with Plan International and Sony BMG to run a talent contest for street children to engage this marginalized section of the community, who often survive by working as street musicians.

See [youth development](#) for more information.

Supply chain

Several non-governmental organizations have recently published reports on supply chain issues in the ICT sector.

A report issued by Dutch research group SOMO in December 2006 made a series of allegations claiming that poor working conditions existed in factories producing components for mobile phone makers, including Nokia. We co-operated with SOMO, sharing information and answering their queries, but the final report still included significant errors in its claims about Nokia. We investigated all the claims made in the report about our suppliers. Our investigations found that the large majority of the report findings were inaccurate. We have identified a small number of areas for improvement and have visited the factories subsequently to check these were made. These investigations were conducted in addition to our regular supplier assessments against the Nokia Supplier Requirements.

See [supply chain](#) for more information.

Our dialogue with SOMO continues on these and other issues, both directly and through the joint industry Global e-Sustainability Initiative (GeSI).

[Read Nokia's response to the SOMO report.](#)

The Centre for Reflection and Action on Labour Issues (CEREAL) published a report on working conditions in the Mexican electronics industry in October 2007, citing Nokia and its suppliers among others. We contacted our suppliers to verify the claims and are working with them to ensure the issues raised have been addressed. Both Nokia and its suppliers engaged with CEREAL directly and through GeSI.

A group of European NGOs issued a report in December 2007 criticizing the electronics industry for not doing more to address poor labor and environmental conditions in the mines that supply metals for electronic components. We welcome this report into an issue we are already concerned about. Nokia does not accept or support any illegal activity or abuse of human or animal rights. Our suppliers must meet our [social and environmental requirements](#) and apply these to their own suppliers. We monitor this through supplier audits and provide training for suppliers to help raise standards where necessary.

In addition, GeSI together with the Electronic Industry Citizenship Coalition (EICC), has commissioned a study to improve our understanding of how metals are mined, extracted, recycled, purchased and used within the electronics sector. The study is also benchmarking efforts by other industries to positively influence the conditions in the extractives industry. Nokia is a member of GeSI and participating in this research.

Governments

Our Code of Conduct sets out how Nokia will behave in all our business activities, including our engagement with governments.

The principle we follow in our public policy consultation is to engage with government organizations only on issues where Nokia has a credible contribution to make.

We engage with governments all over the world on a wide range of issues relevant to our business. In 2007 we would like to highlight public policy engagement on the [environment](#) and [accessibility](#).

Political contributions

Nokia does not provide financial support to political parties or other political groups.

Engaging on environment and accessibility public policy

Environment

Nokia believes it is important to participate in the development of fair and reasonable regulation that provides a framework for environmental requirements and creates incentives for voluntary environmental improvements.

2007 was the follow-up year for the European Commission's Integrated Product Policy (IPP) pilot on mobile phones (which ran from 2004-2006). The pilot project focused on finding how the mobile phone industry can reduce the environmental impact of its products throughout their lifecycle. As a result of the work done in the IPP taskforces, a voluntary agreement has now been signed by Nokia and other major mobile manufacturers. The agreement includes three key commitments to:

- ◆ produce an index of environmental facts for each mobile product to enable consumers to easily compare products
- ◆ include a default on-screen message to mobile phone users on all new products to unplug chargers once the phone is fully charged
- ◆ improve management of substances of concern, such as flame retardants, PVC and phthalates.

See [environment](#) for more information.

In 2007, Nokia also contributed to preparatory studies that will feed into the drafting of the implementing measures for the EU Framework Directive on the Ecodesign of Energy Using Products. We shared knowledge and data about our products to help draft demanding yet realistic implementing measures for the Directive. This regulation may have a significant impact on the design and the lifecycle of ICT products when it is finalized.

Nokia contributed to the revision of the EU Code of Conduct on Energy Efficiency of External Power Supplies in 2007, as well as continuing to report on compliance with the existing requirements. In the US, we were involved in the drafting of new requirements for the Energy Star on external power supplies begun in 2007.

Nokia is also contributing to the process of renewing EU Directives on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and waste electrical and electronic equipment (WEEE) which began in 2007. Nokia has been and will continue to be an active stakeholder in the development of any revised requirements.

We also participated in consultations on EU initiatives to develop a sustainable consumption and production action plan and revise regulations on eco-labeling and energy labeling.

Nokia has been a member of the [Sustainable Energy Europe 2005-2008 Campaign](#) to raise public awareness and promote sustainable energy production across Europe. In 2007, we updated our commitments as part of this campaign. These include our company-wide target to reduce energy consumption in all key areas of the business and to increase the amount of green electricity we use to 50% of our total electricity consumption by 2010. See more on Nokia's role at the campaign website.

Nokia is a partner in the US Environmental Protection Agency's "Plug-In to e-Cycling" program, a joint initiative with electronics manufacturers, retailers and service providers that makes it easier for consumers to donate and recycle used electronic items.

Accessibility

We continue to participate in the European Commission's eInclusion and eAccessibility programs. A representative of the project participated in Nokia's accessibility innovation summit in 2007 with other experts and stakeholders.

See [accessibility](#) for more information.

Nokia contributed to the Ministerial Debate on European eInclusion Policy in Lisbon in 2007 to discuss how to close the digital gap in developed and emerging markets. We made a series of recommendations to increase inclusion:

- ◆ Taxation and licensing on mobile communications should be reviewed to increase access by reducing the total cost of ownership.
- ◆ Globally recognized standards for assistive technology interfaces should be developed to achieve interoperability between mainstream and assistive technologies.
- ◆ Work by the European Information & Communications Technology Industry Association on real-time total conversation should be supported.
- ◆ EU governments should consider "design for all" programs in their education systems.
- ◆ Multi-stakeholder dialogue should be encouraged to effectively tackle the challenges of e-Inclusion.

Heads of EU and African states unanimously agreed at the Summit that information and communications technologies were key enablers for poverty reduction, growth and socio-economic development.

Industry organizations

We believe collaboration with others can be the most effective way to approach certain issues. Nokia works in collaboration with other companies on key issues through a number of industry organizations. Examples include:

- ◆ The Electronics Industry Citizenship Coalition (EICC): The EICC collaborates with the GeSI Supply Chain Working Group on a number of different supply chain activities.
- ◆ The Global Compact Nordic Network: We participated in the work of the UN Global Compact through its Nordic Network, sharing best practices and supporting development in the Nordic region.
- ◆ The Global eSustainability Initiative (GeSI): Nokia became a full member of GeSI in 2007. We continued to actively participate in the GeSI Supply Chain Working Group. Through this, we took part in a multi-stakeholder project to improve labor, health and safety, and environmental conditions in the ICT supply chain in China. The report on this project was published in July 2007.

See [supply chain](#) for more information.

Other affiliations with global and regional organizations:

- ◆ EU CSR Alliance
- ◆ European Information & Communications Technology Industry Association (EICTA)
- ◆ GSM Association (GSMA)
- ◆ International Chamber of Commerce (ICC)
- ◆ Open Mobile Alliance (OMA)
- ◆ World Business Council for Sustainable Development (WBCSD)

National industry and trade associations:

- ◆ Brazilian Electrical and Electronics Industry Association (ABINEE)
- ◆ Canadian Wireless Telecommunications Association (CWTA)
- ◆ Communications and Information Network Association of Japan (CIAJ)
- ◆ Confederation of Finnish Industries (EK)
- ◆ Federation of Indian Chambers of Commerce and Industry (FICCI)
- ◆ German Association for Information Technology, Telecommunications and New Media (BITCOM)
- ◆ Intellect
- ◆ Technology Industries Finland
- ◆ US Consumer Electronics Association (CEA)
- ◆ US Information Technology Industry Council Environmental Council (ITIC EC)

Universities

Nokia collaborates with more than 100 universities in 24 countries. Our goal is to strengthen co-operation between our researchers and academics, for example, through shared facilities at Stanford and MIT in the US.

The Nokia education policy function is engaging in a dialogue with governments and educational institutions to help them shape and modernize education systems and course content. Our education function also works with Nokia business units to identify capability requirements and help them find education partners in employee training.

In 2007, we joined an EU-wide effort to reverse the growing trend away from ICT careers, particularly among young women. Nokia, among other ICT companies, is inviting schoolgirls to shadow a successful female executive on a typical work day to encourage them to consider careers in ICT. The EU Commissioner for Information Society and Media, Viviane Reding, invited ICT companies all over Europe to participate in the initiative.

Customers

We aim to provide innovative, high-quality products and services which help people to connect. We want to meet the needs of all users, including people with physical, sensory or cognitive limitations. Product and service development takes account of social and environmental issues, including privacy concerns associated with the convergence of mobile and internet technology.

We sell the vast majority of products through distributors, network operators and Nokia branded stores which are owned and operated by our retail partners. These businesses are our main customers, together with a small number of independent retailers who we sell to directly.

Some sales are made direct to users through Nokia Online. We are also creating a chain of Flagship Stores in the world's premier shopping locations which offer Nokia products and services in a fashionable, interactive environment and with highly-trained staff. In 2007, we opened our seventh Flagship Store in Shanghai, China.

Research among customers and consumers has shown high levels of satisfaction. Trade customer satisfaction levels in 2007 were at the highest level since we began the survey in 1998.

See [customer satisfaction](#) for more information.

In April 2007, Nokia held an innovation summit on accessibility to examine where we want to be in 10 years, particularly in the context of ageing populations. We also want to understand physical, sensory, and cognitive accessibility challenges and the value of solutions in developing economies.

The summit brought together Nokia employees with international experts and stakeholders. The emphasis was on moving beyond merely meeting the needs of special groups. We believe we can turn accessibility into a business advantage because improved accessibility enhances the overall usability of our products.

Sustainable design

We take a human approach to designing mobile devices, with the goal of creating stylish products that work just the way people like them to. This ethos is central to our design work and brand.

Our design process is influenced by consumers and their behavior. We have a multi-disciplinary design team of approximately 300 psychologists, researchers, anthropologists and technology specialists representing more than 30 different nationalities. Based in China, Europe, Latin America, Japan, India, the US and elsewhere, the team conducts in-depth research and analysis of consumer trends and behavior, as well as studying new technologies, materials, shapes and styles.

Raising awareness of sustainable thinking within our design teams has been a target for many years. Designers are investigating more sustainable approaches in cooperation with our environmental team. Results from these efforts are beginning to be made public during 2008.

Find out more about a [new concept](#) from our design team that explores how recycled materials could be used to make mobiles in the future.

Accessibility

In 2007, we held an innovation summit with experts and stakeholders to take a long-term look at accessibility and re-launched Nokia's accessibility website (www.nokiaaccessibility.com). The website has triple-A conformance to the worldwide web consortium (W3C) accessibility guidelines.

During the year we included several product features for accessibility, including:

- ◆ More choices in devices compatible with hearing aids.
- ◆ Text-to-speech deeper in sub-menus, a pre-installed font magnifier, a talking alarm and clock for customers with vision loss.
- ◆ Nokia Conversation, which improves message tracking for customers who rely on text for communication.

Quality and product safety

All Nokia products are designed and manufactured to be safe for users. We operate safety and security checks and assessments to achieve this. All Nokia products have been designed to meet relevant safety guidelines for electromagnetic field emissions, such as those recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

See [handsets and health](#) for more information.

The Nokia Product Security and Safety Forum is responsible for preventive product safety procedures and corrective processes for any product safety issues.

We investigate alleged claims of product malfunction and alleged claims related to injury or damage caused by product use. We normally respond directly to the consumer concerned or, where a larger number of products are involved, to the general public.

Customer satisfaction

Nokia aims to provide products and services which meet the needs of trade customers and consumers. We research the views of both groups to understand where we are succeeding and how we can do better.

Trade customers

We research trade customers' views of Nokia through the Listening to Trade Customers survey. This is carried out twice a year on our behalf by an independent research company, and aims to reach executive and operational contacts in customers who account for about 80% of Nokia's revenue each year.

In 2007 we surveyed almost 1000 individuals, from nearly 400 customers in 80 countries. The response rate was 75%.

The responses showed satisfaction with Nokia at the highest level since we began this kind of survey in 1998. Comparison with others in our industry placed us in the top 10% of telecommunications companies globally and ahead of key mobile competitors Sony Ericsson, Samsung and Motorola.

Satisfaction varied by distribution channel, which also influenced geographical scores. Distributors were most satisfied with Nokia, and Operator Groups were the most demanding.

The research revealed the following Nokia strengths driving customer satisfaction:

- ◆ Diversity of product range
- ◆ Relationships with our account teams
- ◆ Logistics

Nokia Account Managers discussed the initial survey results with their teams and customers, and then took action relevant to each account. We used the consolidated feedback to understand where systematic improvements are needed. The main areas are shown in the table, together with our plans for improvement.

Customer comment

Logistics was perceived well overall but there was potential for improvement in the ability to meet customization requirements and product deliveries during product ramp-up and launch

Relationships with our Account Teams were considered very positively but customers felt that Account Teams could contribute more on sharing our vision on industry & market evolution

Trading Terms need more tailoring towards specific trade customers.

Repair time and problem resolution require improvement

Our response

We are acting in these areas to ensure best availability in the industry to consumers and to make Nokia our trade customers' preferred partner.

We have changed the organisation to be more customer and consumer focused and added competencies needed to understand and address individual customer's strategic drivers and objectives.

We are reviewing our trading terms to meet the different needs of operators, retailers and distributors in each geographic area.

We are improving the care quality process, focussing on improvements in repair capacity planning and vendor management

Consumers

Nokia Care provides support services to consumers through online, email and call center services, supported by a network of authorized service centers. The support includes basic product information, guides and demonstrations, discussion boards, software updates, advice on specific issues, and warranty repairs. It also helps consumers to find out where to recycle their old products.

We aim at getting a holistic picture of consumer experience by using different consumer feedback channels, and respond with targeted improvement actions. The main feedback channels include consumer satisfaction surveys, feedback through independent market research companies and Nokia Care contacts.

Operators

Nokia continues to receive enquiries and assessment requests about social and environmental performance from our operator customers. We respond to those requests through our normal customer account management interface.

Accessibility

Almost one in five of the world's population lives with some kind of recognized disability, including those related to ageing. Nokia is committed to providing accessibility for everyone. We believe this is an important aspect of bridging the digital divide. It also presents business opportunities - extending access to more people increases our customer base.

Users' age is becoming an increasingly important consideration, especially with an ageing population. Sooner or later everyone will develop at least some limitations in vision, hearing, dexterity or learning. By 2015, most elderly people will have been using mobile communications for years and will expect to continue doing so. Meeting their needs presents a significant business opportunity.

We support a universal access policy, which is backed by support from mobile phone manufacturers and providers in order to decrease recurring costs of ownership. This is an ongoing target, as we firmly believe that accessibility in telecommunications is useless if it is not affordable.

We have worked on accessibility for 10 years and now offer more than 60 accessibility features or applications for people with limitations in hearing, speech, vision, mobility, and cognition. Nokia was the first company (in 1997) to introduce the loopset, an accessory which looks like a headset and lets people with telecoil hearing aids use a wireless device without interference with a hearing aid. Other initiatives include:

- ◆ Factory-installed text-to-speech application to provide audible feedback for users with vision loss.
- ◆ Features which improve the interface and usability, such as vibrating and flashing alerts, audible battery and signal strength, adjustable fonts on high contrast color screens, voice dialing and activation.
- ◆ Compatibility of digital phones with assistive devices and software such as mobile magnifiers and audible text.

The Nokia range includes many features which help people with disabilities. These include:

- ◆ Voice dialing, voice recording, and voice commands
- ◆ Equalizer to amplify or attenuate frequency ranges to fit individual hearing profiles
- ◆ Connectivity to assistive devices, including personal computers
- ◆ "Buffer" memory when dialing, allowing for more time to complete a process.

We are developing new functions such as real-time text, a downloadable application that will allow people to see the other person typing and can interject, as in a voice conversation.

For full details see www.nokiaaccessibility.com.

Our goal

Globally: to contribute to and support an emergency warning system for users with disabilities, including SMS, audio and an icon-based menu navigation

Action in 2007

During 2007 we held an innovation summit with experts and stakeholders to take a long-term look at accessibility.

We re-launched Nokia's accessibility website (www.nokiaaccessibility.com) which achieved the top accessibility certification from the Worldwide Web Consortium (W3C) - the web standards organization.

During the year we introduced these product features:

- ◆ An icon-based menu and phonebook with simplified navigation in entry-level devices such as the Nokia 1650, for customers requiring cognitive assistance.
- ◆ Noise cancellation filters which decrease background - More choices in devices compatible with hearing aids.
- ◆ Text-to-speech embedded further in sub-menus, a pre-installed font magnifier, a talking alarm and clock for customers with vision loss.
- ◆ Nokia Conversation, which improves message tracking for customers who rely on text for communication.

Nokia received an inquiry regarding 'lack of accessibility' on our Australian website. The complaint related to the fact that screen readers can't view Flash files and therefore get access to product information in text form. Also, the Support/Guides and Demonstrations page includes boxes to choose phones or enhancements but the boxes are not associated with the labels so a screen-reader has no way of knowing which box relates to which label.

We responded with our plans to make all Nokia regional sites more accessible for customers with disabilities and further included Australian product information on an Accessibility site in a format that consumers requested.

Responsible product and service use

Mobile technology brings many benefits for users but can be misused in ways which can harm or endanger users, especially children. Nokia's development of mobile and internet services means we have more responsibility for protecting users than in the past, when mobile operators were considered mainly responsible.

Nokia launched navigation, music and other services in 2007 and will provide access to a growing range of services and connections through our Ovi portal (<http://www.ovi.com>). Our vision is that combining the internet and mobility will let people access content, communities and contacts from a single place, either directly from a compatible Nokia device or from a computer. This will include access to web services such as the social networking site [Twango](#) (which Nokia acquired in 2007).

These services will allow people to use mobile phones in valuable new ways but some content and services may be considered inappropriate by some users and may raise concerns regarding their privacy.

Nokia is committed to [protecting privacy](#) and helping users avoid inappropriate content. We believe the decision about suitability is a very personal one and varies widely within and between countries. It is important that users (and parents) are aware of the risks they (or their children) are exposed to and how they can respond to those risks - for example, using access controls and content filters.

Privacy and security

Respect for privacy is part of our commitment to observe high standards of integrity and ethical conduct in all our operations. We aim to adhere to strict privacy standards when we store or process personal data, and when we develop new products and services.

User privacy has become more important for Nokia as we have developed new services to take advantage of the convergence of internet and mobile technologies. Our goal is to develop services users want in ways that ensure their privacy, that minimize the amount of sensitive information that is exposed, and when sensitive information is shared, to treat it appropriately.

Personal data

We aim to store and process personal data (including photographs and voice recordings) in ways which protect people's private lives, in accordance with these principles:

- ◆ Inform users about privacy and their choices about data in clear ways that guide users toward choices that match their intent.
- ◆ Get the consent of the data subject in advance.
- ◆ Only collect and keep relevant data.
- ◆ Ensure appropriate security of files.
- ◆ Take special care when transferring data to third parties or across borders.
- ◆ When using data for marketing purposes, respect the right of people to opt out of such communications and the need to comply with legal requirements in some countries for people to consent to the use of data for unsolicited communications.

Security

Mobile internet use can expose users to some of the security risks associated with malicious software (known as malware) on personal computers.

Nokia's security implementation is targeted to protect end-user device from any attack coming outside by maintaining full control for end user decision.

We take all security issues seriously and are developing security controls and preventive measures to counteract threats. We warn users to protect their mobile device against harmful applications by exercising caution when accepting applications sent via Bluetooth or opening MMS attachments as they may include software harmful to their phones or PCs.

Product development

Nokia has been studying environmental aspects of design for more than a decade and sustainability is one of the design team's key focus areas. We are developing products and services which not only meet customers' immediate usability needs but help them to make more sustainable choices through the innovative use of materials, technologies and concepts.

The range of ideas covers accessibility as well as the environment. For example, we consider phones which stress simplicity of use for those who do not want multiple functions and phones which can easily be used by people who are illiterate.

See [accessibility](#) for more information.

An advanced design team within Nokia has been researching and developing new ideas and concepts specifically based on sustainability. Their work focuses on futuristic ideas and prototyping new approaches in materials, technologies, ecological, and ethical approaches.

Early in 2008, this team unveiled one of its concepts, called [Remade](#), which aims to reduce its environmental impact especially by using nothing new. It uses recycled plastic bottles and cans for the chassis and covers, while its rubber keymat and gaskets are produced from old car tires. The design addresses energy use as well as the phone components - the graphics are designed to save energy.

See Nokia's [Environment](#) pages for more information.

Obsolescence

The rapid development of technology means that users often want to replace their phone long before it is technically obsolete. Nokia's development of software updates can help to extend product lifespan. Users can update their phone's operating system (sometimes known as "firmware") over the air or through a personal computer. This can provide extra or improved functions and performance.

When people do replace their phones, our designs aim to make them as easy as possible to recycle.

See [recycling](#) for more information.

Handsets and health

Mobile phones use electromagnetic waves to transmit the digital signals that carry voice and other communications. It is known as Radiofrequency (RF) energy or non-ionizing radiation as well as electromagnetic fields (EMF). Electromagnetism is a natural phenomenon and is used increasingly in electrical devices ranging from kitchen appliances to computers.

Maximum permissible exposure levels have been recommended by the International Commission on Non Ionizing Radiation Protection (ICNIRP) and endorsed by the World Health Organization (WHO). The human exposure limits are set by individual country regulatory bodies. We agree with the European Commission that it is important for governments to ensure consistent regulation based on the recommendations of ICNIRP and WHO. Nokia supports the adoption of such regulation where it has yet to be introduced.

Every mobile phone model is designed to meet the EMF exposure limits. The limits are based on the Specific Absorption Rate (SAR) of the phone, which shows how much energy is absorbed in biological tissue. It is considered to be the best indicator of exposure to EMF. All Nokia mobile phones are designed to operate below the limits recommended by ICNIRP guidelines (local SAR of 2 W/kg).

Most international and national regulations are based on EMF exposure standards which have been developed following an extensive research effort. About 1700 scientific studies on EMF and health, including mobile telephony signals, have been carried out and published in peer-reviewed scientific literature over the past 60 years (according to the WHO EMF Project Data Base www.who.int/peh-emf/en/). The scientific consensus is that there are no established adverse health effects on humans below the ICNIRP guideline level. For example, in 2005 WHO stated: "Based on a recent in-depth review of the

scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields."

In 2007, the Mobile Telecommunications and Health Research Programme (MTHR) in the UK concluded that mobile phones have not been found to be associated with any biological or adverse health effects. This was the UK's largest investigation into the possible health risks from mobile telephone technology.

Nokia continues to help fund independent research on mobile telephony and health, including the MTHR program, mainly through the Mobile Manufacturers Forum.

Read more about research into mobile telephony and health at www.mmfa.org/public.

Transparency

Stakeholder questions about EMF emissions are important and we are committed to openness on this issue. We support the continuing development of informed opinion and encourage people to explore all the information available. The emission level of each of our models is available on our website and information about the SAR level is included in the User Guide with every handset sold.

Employees

Our success depends on the talent and commitment of our employees. We need to attract and retain the best people. We aim to create an inclusive workplace that welcomes people from diverse backgrounds and provides excellent opportunities for career development. We recognize we must offer competitive rewards to recruit the most talented people in each market where we operate.

We want our employees to be enthusiastic and engaged in the business. When we reviewed our values in 2007, we encouraged everyone to contribute by defining what working at Nokia means to them. We consult employees on changes to the business that affect them, and value their views.

Nokia is strongly committed to the highest standards of ethical conduct and full compliance with all applicable national and international laws.

Embedding our values

The Nokia Way defines our core values. We reviewed and refined these values in 2007 to engage employees and reflect changes to our business and the way we work. We asked employees to explain what was most important to them to help us create a new set of values that define our company.

Over 2 500 employees from around the world took part in 16 regional events to help us come up with the key themes for our new values. Involving employees at every stage of the process helped us embed a strong values culture throughout the business.

The new values are an evolution of the previous Nokia values, reflecting the evolution of our business. They are:

- ◆ Achieving together - expands our old value of "achievement", reflecting that we increasingly work in networks.
- ◆ Very Human - builds on our previous value of "respect".
- ◆ Engaging You - includes all our stakeholders, not just customers.
- ◆ Passion for Innovation - is more vigorous than our previous value of "renewal".

See the [Nokia values](#).

We are now communicating these values to all our employees, through videos and other information on our intranet, and as part of our communications on company strategy.

In May 2007, around 13 000 employees registered in the Nokia Way Jam, a 72-hour online discussion to decide on our values and debate our future business strategy. Our business is increasingly focused on the internet and we want the new values to support a more web-based work culture. The collaborative nature of the Jam was itself an expression of Nokia's culture and the value we place on achieving together. Around 77 000 comments were posted during the event.

We analyzed the results of the Jam and identified several key corporate initiatives to be included in our future plans and several initiatives within our business groups. The Jam has prompted new activity and changed some of our business priorities.

In 2007, we invited employees to enter photos in a competition designed to demonstrate our values in action and get people thinking about them. Around 1 700 photos were submitted and 7 700 people voted for their favorites. A selection of pictures will be used to communicate the values around the business.

See the [winning photo](#).

Labor practices

It is extremely important to Nokia that labor conditions at all our production sites meet recognized international standards. Each of our sites must comply with our global employment guidelines. We assess their performance regularly and those of our suppliers.

Employment guidelines

Our global employment guidelines determine how we handle employment issues at each site. They cover:

- ◆ Compensation
- ◆ Working time and location
- ◆ Employee wellbeing
- ◆ Equal opportunities
- ◆ Confidentiality and privacy issues
- ◆ Guidance on external assignments
- ◆ Conflicts of interest
- ◆ Efficient communications
- ◆ Freedom of association, including collective bargaining rights.

Labor conditions standard

On top of this and to improve management of working conditions at factories, we developed the Nokia labor conditions standard in 2006. It is based on International Labor Organization and UN Human Rights conventions, and has been benchmarked against international labor laws and standards.

The standard provides information and guidelines on how to address the following issues in everyday working life:

- ◆ Discrimination
- ◆ Forced labor
- ◆ Child labor
- ◆ Freedom of association
- ◆ Occupational safety
- ◆ Occupational health
- ◆ Disciplinary practices
- ◆ Working hours
- ◆ Compensation
- ◆ Management systems.

This standard provides a framework to monitor and assess labor conditions in a consistent manner across the business, and improves our communication with external stakeholders on these issues. It makes it easier to follow up after assessments to ensure factory managers implement recommendations in line with the standard. We began to implement it in 2007 and will continue to roll it out at all Nokia factories in 2008.

We have developed a classroom-based interactive training package to improve awareness of the labor conditions standard among our factory employees. Training will be available online for employees at other sites.

External temporary labor in production

months). The percentage of external temporary labor in our total production workforce fluctuates throughout the year to help External temporary labor is hired through agencies on a temporary basis (for applicable maximum time, normally 12

us meet demand in peak production periods and provide cover when our permanent employees are absent.

Our global policy on direct external labor in factories determines how our sites manage externals. When selecting agencies, we ensure that our suppliers and external temporary labor providers have compliant labor practices.

Factory assessments

We monitor labor conditions in all our factories to check they comply with our employment guidelines and labor conditions standard. Sites are assessed regularly and plans are developed to address any issues identified. We check these changes have been implemented through self-assessments by the sites.

Labor condition assessments are conducted every second year at all production sites. The most recent assessments took place in 2006. Until now they have been conducted by internal auditors but from 2008 a third party will verify each site's compliance with Nokia's labor conditions standard.

The 2006 assessments revealed a need to ensure our factories meet international overtime standards and to improve communication with factory employees. In response, we developed guidelines which have been shared with all factories to help them reduce and improve the distribution of overtime hours

External awards

In 2007, our factory in Manaus, Brazil, was awarded the Quality of Work Environment Award by Sesi Amazonas, the Brazilian Social Service of Industry program. The factory was named one of the five best companies in the large company category, out of 2 700 participating organizations.

The award recognizes excellence in labor conditions and social responsibility. It is based on the Nokia's policies and programs on labor conditions, a survey of randomly selected employees at the site and a factory inspection by the Sesi committee.

Our factory in Chennai, India, achieved certification for two important international standards in 2007 - the environmental management system standard ISO 14001 and the occupational health and safety standard OHSAS 18001. These were awarded as a result of an independent audit carried out by the Norwegian consultancy, Det Norske Veritas.

See [health, safety and wellbeing](#) for more information.

See [environment](#) for more information.

Inclusion

We believe that diversity and inclusion in the workplace brings competitive advantage. Employees from diverse cultures and backgrounds bring insights into our customer base around the world, adding value to our business. Nokia is committed to equal opportunities and does not condone discrimination of any kind. This commitment is embedded in our [Code of Conduct](#).

In 2007, 71% of employees participating in our annual employee survey felt that all employees of Nokia are treated as individuals regardless of age, race, gender or physical capabilities - an increase of 2% from 2006. We also conducted a survey in 2007 to find out how our policies on inclusion affect our employees' work lives. We are implementing an action plan on diversity across all business units.

Inclusion is managed within each business unit to emphasize its importance as a business issue, and help us understand and tackle local challenges better. In 2007, we appointed a global diversity and inclusion director - reporting to the Vice President of Resourcing and Diversity - to oversee the management of these issues.

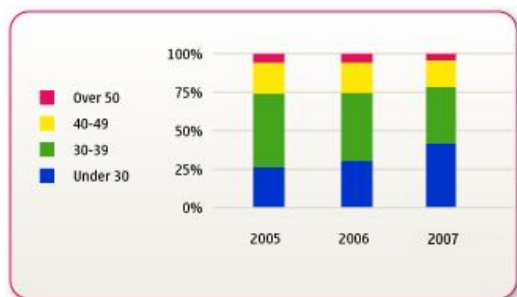
We are integrating diversity targets into our global people management processes. For example, we ask our leaders how they create an inclusive environment as part of a self-assessment questionnaire evaluating their general performance. Their responses are used to identify areas for improvement and share best practice across the business.

Women make up 40.5% of our total workforce. In 2007, 14.3% of senior managers were women, up from 12.5% in 2006. We offer a range of options that promote flexible working to help employees balance the demands of work and home life.

See [health, safety, and wellbeing](#) for more information.

The average age of Nokia's employees is 33 (see table). This average is affected by the formation of Nokia Siemens Networks as of April 1, 2007, and its employees are not included herein.

Age distribution, %



Some 28% of our employees and 54.6% of senior managers are Finnish. Our policy is to employ local people wherever we work - around 115 different nationalities work at Nokia.

Training and development

We want employees to be able to develop at Nokia, both personally and professionally. We offer an integrated package of classroom training, on-the-job learning, individual coaching, and mentoring. We encourage people to learn through active participation by trying new roles at Nokia.

During 2007, we spent approximately EUR 70 million on employee training for Nokia employees (excluding Nokia Siemens Networks as of 1st April).

Performance evaluation

Open dialogue about performance and opportunities for development helps to motivate our employees. We encourage managers to coach employees continually as well as having at least one formal personal development discussion every year.

Our 2006 employee survey showed 42% of those surveyed had not received recognition or praise from their supervisor recently and less than half said constructive feedback was a significant element of performance evaluation. In response to this feedback, we have introduced a new performance evaluation tool designed to help employees understand their assessment better and give them clear ideas about how to improve. It encourages managers to give specific examples of good performance, and explain clearly how areas for improvement are identified. This has resulted in a 5% increase in employees indicating that they receive ongoing feedback which helps to improve their performance.

We understand that praise is an important motivator and want to create a culture where team members recognize achievement and help each other perform well. In 2007, 762 people at our factory in Dongguan, China, participated in a competition designed to encourage employees to take pride in their skills by performing a range of production tasks to a high standard in the shortest time.

Leadership

Strong leadership is vital for the continued success of our company. In 2007, we launched a new leadership model - True Nokia Leader - alongside our new strategy and values. The True Nokia Leader must bring our values to life and consistently ensure they form relationships based on trust and deliver extraordinary achievement, growth and development for individuals, teams and our business. The model will guide our leadership development activities and the performance evaluations of managers and leaders.

In 2007, Nokia was named number one company in Europe and number three in the world in a Top Companies for Leaders study conducted by human resources company Hewitt Associates, in partnership with Fortune magazine. The study examines how organizations identify and develop future leadership capability and analyzes the links between leadership practices and organizational performance.

Rewarding performance

Nokia rewards employees competitively through a global reward framework designed to recognize individual contribution and achievement. Levels of compensation are determined by local labor markets and take into account both individual and company performance.

In 2007, 37% of those participating in our annual employee survey felt their pay was competitive. This is a slight increase from 2006 but it is 5% below the global external benchmark for this question across a range of industries from high tech to retail and banking.

Incentives

Our reward programs - including bonuses - recognize performance based on individual, team and company results.

Some employees raised concerns about the fairness of our bonus system in 2007. In response, we reviewed the way bonuses are structured to ensure transparency and consistency across the company. We held several focus groups with managers, human resources experts and employees, and reviewed the incentives offered by other companies.

We introduced changes to our incentive plans in the second half of 2007. The new plans are simpler, more consistent and will deliver equal or higher payouts if target performance or above is achieved. The key changes were communicated to employees through their managers, by email and in internal newsletters with supporting information on our intranet.

A wide number of employees are eligible to join our equity programs, based on rewarding performance and retaining top employees. Our broad-based equity compensation programs include stock options and performance shares. Both are linked to the company's performance over a number of years.

Incentive highlights in 2007 include:

- ◆ Cash incentive/bonus plans - 100% of professional employees participate in short-term incentive, R&D incentive, sales incentive production or short term bonus plans.
- ◆ In August 2007, employee participants in the Nokia Connecting People Bonus plan were rewarded with a partial payout based on business performance over the first half of 2007. This plan has now been replaced to align with changes to other employee incentive plans.
- ◆ A new Short Term Bonus Plan was introduced in the second half of 2007 for employees working in Production factories, Flagship stores and employees currently not eligible for any other incentives.
- ◆ An interim payout under our Performance Share Plan was delivered to participants in May 2007.

We communicate with employees about the effect of business results on their incentives after each quarterly announcement, through articles and video messages on our intranet news channel, the News Hub. We also communicate through quarterly letters, blogs, webcasts and face-to-face meetings. In addition, information is available on the Know Your Business section of our intranet.

Consultation and communication

Employees are a vital stakeholder group. We value their feedback on how we run our business. It is equally important that we keep them informed and consult them about changes that affect them.

Employee survey

In 2007, 44 091 employees in more than 50 countries participated in our annual employment survey, "Listening to You". With 86% of the workforce taking part, the response rate was our highest ever. The results showed that employees are generally enthusiastic and engaged in the company. Three quarters of those surveyed said they are proud to work for Nokia, 11% more than the external global norm. Some 82% of employees see a clear link between their work and Nokia's objectives, and 77% enjoy their day-to-day tasks (5% ahead of the external norm).

Around 63% of employees surveyed say that Nokia's efforts in corporate responsibility have increased their overall satisfaction with working for the company. This is 20% higher than the industry norm and shows that our employees are engaged in our corporate responsibility efforts.

Employee responses to questions on specific CR issues - such as inclusion and development opportunities - are included in the relevant sections of this report.

A key finding from the 2006 survey was that Nokia could improve the process for communicating on strategy with employees. We focused on involving employees through the Nokia Jam in 2007, where we gave everyone at Nokia the opportunity to participate in a discussion of our values. This helped to improve the level of positive responses on strategy-related questions in our 2007 survey. For example, this year 10% more employees agreed that "The leadership of Nokia has communicated a vision of the future that motivates me". This positive trend is shared across all business units and employee groups at Nokia. We are continuing to make this a priority in 2008.

Internal communications

We communicate with employees through several channels. These include:

Nokia News Hub: The News Hub is Nokia's global intranet news service. It aims to encourage open dialogue with employees by bringing people together to discuss a wide range of topics relevant to Nokia, such as strategy, product and service launches, company values, environmental topics, organizational updates, or financial results. Readers can rate the stories and post comments, without any prior monitoring or selection. The News Hub is accessed around 150 000 times every month. The News Hub won the award for Best navigation/usability for intranet in the 2007 British Association of Communicators in Business Awards.

Environmental e-magazine: This email bulletin raises awareness of environmental issues among employees. In 2007, articles included: take back takes off; following our footprint and green housekeeping. Further environmental stories have been published on the main intranet news hub.

We also engage with employees through blogs and interactive forums on our intranet. These include:

- ♦ Jazz Café portal: a popular internal discussion site where people can discuss different topics anonymously.
- ♦ AskHR: Our online employee assistance service continually responds to employee enquiries. Questions can be posted anonymously under categories such as employment, development and career, and people management.

Employee forums and collective bargaining

Nokia recognizes the right of employees to join unions and enter collective bargaining agreements.

In Finland, statutory legislation stipulates the issues on which employees or employee representatives must be informed or consulted. In Finland, Nokia has several different employee representative bodies in accordance to applicable legislation. These bodies are informed or consulted in their respective areas on the development or changes of the business.

The Nokia EuroForum aims to strengthen dialogue with employees. Employee representatives from EU countries meet with management twice a year through the forum to discuss business issues affecting employees.

In June 2007, 24 employee representatives from six EU countries attended a EuroForum meeting. The forum focused on issues such as training for employees on production lines, supplier quality and work - life balance. Participants also discussed the new Nokia Way values statement.

The EuroForum in November 2007 was attended by 29 employee representatives from 10 EU countries. The reorganization of the company, The "Listening to You" results and Code of Conduct were the main topics at this meeting.

Information on the EuroForum and its activity is available to employees through our intranet.

Ways of working summit

Mobile and internet services are transforming the workplace, making it possible for people to work at home and on the move. Nokia products and services play an important part in this transformation. We want to create a work culture that takes full advantage of the flexible working opportunities our products create.

To be credible in our market we need to lead by example and embrace new ways of working. The Nokia WoW (Ways of Working) is a set of initiatives designed to create more productive and efficient ways of working. These will support Nokia's transformation into internet-style working, using new workplace technology, IT tools, and work and management practices.

On October 2007 we organized a summit on ways of working to explore how to implement this transformation. Participants from different corporate functions proposed that there should be four different cross-functional working teams to drive the execution of the WoW projects. The four teams focus on eco products, travel, office 2.0, and brand and culture.

Reorganization

At the beginning of 2007, Nokia streamlined its operations in some of its R&D and related sales and marketing activities and internal IT operations. This resulted in a need to adjust the workforce, affecting 700 employees globally. Through successful redeployment and voluntary arrangements, very small fractions were made redundant. In our biggest country, Finland, where 340 employees were affected, in terms of number of personnel, no one was made redundant.

In June 2007, Nokia announced it would reorganize the business into three main units: Devices, Services & Software, and Markets. The integrated company structure was planned to allow Nokia to adapt the way we manage our portfolio of products and services to reflect the opportunities being created through the convergence of mobile technology and the internet.

The new organization was designed layer by layer, enabling wide participation in the detailed planning. New positions were created and open to applicants. The majority of employees continued with their previous roles but in new units and teams, while some moved to new roles.

Nokia engaged employee representatives in discussions in accordance to applicable practices and communicated changes to employees in good time before changes were implemented. During the reorganization, employees were kept informed throughout the six month transition with weekly updates and various information sharing sessions.

The formation of Nokia Siemens Networks (NSN) was announced already in June of 2006. However, due to regulatory issues and approvals the actual transfer of the employees took place in the majority of countries only in April of 2007. As a result of the formation of NSN more than 20 000 employees transferred from Nokia to the new company, a vast majority from the previous Nokia Networks business with some support activities coming from corporate functions. To continuously support the fluidity of talent between the two companies, Nokia and NSN have also created detailed transfer guidelines.

Health, safety, and wellbeing

The health, safety and wellbeing of our employees is vital to the success of our business. Our Occupational Health and Safety Policy sets out our commitment to provide safe and healthy working conditions for all our employees and promote wellbeing at work. We work with our contractors, suppliers and customers to continuously monitor health and safety issues and meet our commitments.

Health and safety at Nokia is managed by the Global Occupational Health and Safety (OHS) unit, part of our Human Resources department. The unit is responsible for developing our health and safety strategy, and annual action plans. The Global OHS team coordinates and facilitates health and safety arrangements in individual countries, each of which have their own health and safety services. The team also develops standard operating procedures to help us standardize procedures for hazard identification, risk assessment and incident reporting across our global operations.

We run a range of campaigns and training programs to raise awareness about health and safety issues. For example, in 2007 we ran a campaign to raise awareness about the risks and affects of dengue fever at our factory in Chennai, India. We also ran an event where people could learn about eye health. Our factory in Beijing, China, conducted a special program focusing on hearing protection. We also ran a safety induction program for employees at our flagship stores around the world.

Global operation injury and illness rate¹

Location	IIR 2007	IIR 2006	IIR 2005	IIR 2004
United States of America (Alliance) ²	na	0	0.12	na
Mexico (Reynosa)	0.99	1.72	3.1	1.18
Brazil (Manaus)	0.62	3.61	3.24	0.21
Finland (Salo) ³	1.82	1.27	2.21	1.02
Germany (Bochum)	2.18	1.64	0.89	1.62
Hungary (Komárom)	1.34	1.31	1.3	1.19
United Kingdom (Vertu)	0	0.42	1.36	0.42
India (Chennai) ⁴	0.02	0.15	na	na
South Korea (Masan)	0.69	0	0.14	0
China (Beijin, Dongguan) ⁵	0.21	0.76	0.33	0.15
Total	0.73	0.82	1.08	0.66
Industry average ⁶	na	1.1	0.4	0.4

1) The referenced injury and illness incidence rate (IIR) is a compilation of Nokia's global production operations, based on the formula of the US Bureau of Labor Statistics

IIR = (N/EH) x 200 000, where: N = Number of occupational injuries and illnesses; EH = Total hours worked by all employees during calendar year; 200 000 = Hours theoretically worked by 100 full time employees (40 hours per week, 50 weeks per year)

2) No full scale production took place at the facility in 2006, the operation was closed in 2007

3) The networks operations in Oulu and Espoo were transferred to Nokia Siemens Networks in April 2007

4) The operation started in March 2006

5) The networks operations in Beijing and Suzhow were transferred to Nokia Siemens Networks in April 2007

6) The US radio and television broadcasting wireless communications manufacturing industry average for occupational injuries and illnesses resulting in lost work days per 100 employees. The numbers for 2007 have not yet been published.

In 2007, Nokia's global injury and illness rate was 0.73, down from 0.82 last year. There were no fatal injuries. There is no global industry average to compare against, but as an example of the range, our injury and illness rate in 2007 was lower than the United States Bureau of Labor Static's injury and illness rate, that was 1.1 for our industry in 2006. The USBLS numbers for 2007 are not yet available. In order to further improve our performance in production related occupational health and safety, a Global OHS Operations team has been formed. The focus of this new team will be to develop our OHS management systems and to elaborate global standard operating procedures.

Our factory in Chennai, India, received the Occupational Health and Safety Assessment (OHSAS 18001) certification in 2007. To achieve the standard, the factory conducted a series of internal audits and developed action plans to address any issues identified. An online system to track accidents was created to ensure swift reaction to minimize risks. The factory raised awareness of safety issues through training sessions, activities during safety week and a program encouraging employees to enter suggestions on how to improve health and safety at the site.

Wellbeing

The general wellbeing of employees makes a big difference to their engagement and productivity at work. In the 2007 employee survey, 64% of the respondents felt their manager really cares about their wellbeing. There has been a steady increase in the proportion of positive responses on wellbeing over the past three years, indicating an improvement in awareness and attitudes among Nokia managers regarding the importance of employee wellbeing.

We are creating a Global Wellbeing Policy as part of our HR strategy, to be finalized in 2008. The policy will be based on our existing wellbeing at work model and guidance from our wellbeing working group which includes employees.

Fitness was the theme for employees in Finland in 2007. More than 21 000 people took part in 147 events, including fitness guidance, tests, courses, theme days, and lectures. New fitness centers for employees were opened at our sites in Mexico and China in 2007.

Employees are more likely to feel committed to their work if they have a comfortable work - life balance. This is an important factor in employee wellbeing. Our 2007 employee survey showed that 62% of respondents think their manager supports their efforts to balance their work and personal lives. We are pleased that the majority of employees feel supported but recognize there is still room for improvement. We are encouraging managers to discuss with employees how work impacts wellbeing and to set wellbeing targets.

We encourage our employees to make use of Nokia products to increase their mobility and work from home where possible in accordance to practices and rules. We held a [summit for employees](#) to discuss new ways of working this year.

We do not discriminate against existing or potential employees with chronic health conditions that do not prevent them from working. However, where applicable, new recruits may be asked to complete a medical evaluation to ensure they are fit enough to do their work safely. See [medical evaluations](#) for more information.

Medical evaluations

It is Nokia's global policy not to discriminate against potential employees with chronic conditions that do not prevent them from working. Our global recruitment policy states that the objective of medical evaluations is to ensure that candidates will be able to cope with the demands of their work according to the following principles:

- ◆ the candidate should be able to successfully cope with the health and safety demands of the work
- ◆ the work or the working conditions should not constitute a risk to the candidate's health
- ◆ the candidate's health should not constitute a health or safety risk to co-workers.

Disabilities, medical conditions or chronic illnesses that are not relevant when performing the planned work, or pregnancy, are not acceptable reasons for rejection.

Recent incidents at our local operations have brought to our attention some incidences where local laws and practices conflict with our global policy:

Hepatitis B testing in China: People who have hepatitis B can usually lead normal lives but are often discriminated against in China. In April 2007, a case was brought against Nokia by someone who claimed our operation in Dongguan decided not to hire him after a medical evaluation ordered by the company revealed he had hepatitis B. Nokia investigated the case to establish whether the Dongguan unit was in breach of our global policy. After this incident we reviewed the whole blood testing procedure in China and stopped testing for hepatitis B as part of the pre-employment medical evaluation. Instead, we now offer awareness training that provides accurate information on the disease and its contagiousness to help end discrimination against people with hepatitis B. We also offer voluntary hepatitis B vaccinations to our employees in China.

Pregnancy tests in Mexico: According to the Mexican Labor Law, pregnant women are not allowed to work night shifts or overtime. To comply with this law, our site in Reynosa required pregnancy tests as part of the pre-employment medical evaluation. As this was a breach of our global policy not to screen potential employees for pregnancy, we stopped the practice as soon as the conflict with our policy was identified. Our new process relies on women reporting their pregnancy voluntarily so that appropriate changes in their shift structure can be made. We also have a health program for pregnant women and communicate the benefits we offer through a bulletin board. In addition, we invite women to update their medical records regularly.

We are in the process of reviewing our pre-employment medical evaluation practices at our operations around the world, to ensure compliance with local laws and international standards, as well as our own global policies. The medical evaluation practices will be developed so they do not include tests that are not directly related to work related risks or working ability.

Supply Chain

Nokia sources components, materials, software and services for our products from hundreds of different suppliers around the world.

Most of these suppliers are component manufacturers, providing electronic components, displays, batteries and other parts that go into Nokia products. In addition, a portion of our mobile phone manufacturing is outsourced to contract manufacturers and we outsource the design and manufacture of a small number of products to original design manufacturers.

Supply chain issues are rising up the agenda for our stakeholders. In particular, network operators (our biggest customers) increasingly want to know how we manage our suppliers as part of their own supply chain. Several non-governmental organizations are also taking an interest in supply chain issues in the ICT sector.

See [stakeholder engagement](#) for more information.

In an increasingly competitive market, it is vital to have a competent and stable workforce in our supply chain with low attrition rates. This makes corporate responsibility an even more integral aspect of effective supply chain management.

To meet the expectations set by our company and stakeholders, all our suppliers must comply with the Nokia [Supplier Requirements](#). These include clear guidelines on ethical, social, and environmental issues as well as quality, security and product development standards. Environmental targets and commitments we set for Nokia often have a direct impact on our suppliers. We assess compliance with the Nokia Supplier Requirements through regular [supplier assessments](#).

Nokia deals directly with a relatively small number of suppliers. These "Tier One" suppliers also have their own supply chains. We work with our Tier One suppliers through our [assessment processes](#) and through joint industry initiatives to help build their [capability](#) to manage their own supply chains.

2007 highlights

- ◆ Rolled out the updated Nokia Supplier Requirements across the business
- ◆ Carried out 80 system assessments and 10 in-depth assessments of suppliers
- ◆ Initiated work with suppliers in four key commodity areas to set environmental targets beyond our current requirements
- ◆ Contacted all direct suppliers to raise awareness of EU REACH environmental legislation
- ◆ Nokia became a full member of the Global e-Sustainability Initiative (GeSI)
- ◆ Continued participation in the GeSI Supply Chain Working Group
- ◆ Through GeSI, actively participated in a multi-stakeholder project to improve labor, health and safety, and environmental conditions in the ICT supply chain in China.

Progress against targets

Issue	Action	To be completed	Progress in 2007
Nokia Supplier Requirements	Implementation of updated Nokia Supplier Requirements	2007 onwards	Communicated with direct suppliers and 40% of our supplier assessors trained
Supplier on-site assessments	Continuation of on-site supplier assessments and review of methodology as part of continuous improvements	Ongoing	Conducted 80 system assessments and six Nokia in-depth assessments. Also participated in pilot of joint industry assessments
Capability building	Increase capability building activities with key suppliers and continue training for internal sourcing personnel	Ongoing	Development programs set up with several key suppliers; supporting capability pilot in China through industry project; Working through GeSI to develop training materials
Metrics	Review current metrics for tracking management of environmental and social issues in the supply chain	Ongoing	Reviewed current metrics and working to establish new metrics
Substance management	Support roll out of the "Marking for Control of Pollution Caused by Electronic Information Products" – the China Restriction of Hazardous Substances (RoHS)	2007	Supported the rollout of new RoHS legislation introduced in 2007
Industry partnership	Continue to participate in the GeSI Supply Chain Working Group and assess implications of recent organization change	2007	Continued to participate in GeSI Supply Chain Working Group and Nokia Siemens Networks

2008 targets

- ◆ Set energy efficiency and CO2 emission reduction targets for key suppliers
- ◆ Continue rollout of EU REACH regulation within supply base
- ◆ Support rollout of further material restrictions
- ◆ Evaluate use of industry tools such as joint supplier assessments as part of assessment toolbox
- ◆ Conduct at least five in-depth assessments of key suppliers
- ◆ Continue training supplier assessors

Supplier requirements

The Nokia Supplier Requirements set out clear standards on ethical conduct, labor conditions, health and safety, and environmental protection.

All our suppliers must commit to comply with these requirements as part of their contract with Nokia.

Read the [Nokia Supplier Requirements](#) on environment, ethics, labor standards, and health and safety.

We updated our supplier requirements in 2006. The updated requirements were rolled out across the business in 2007, with training for 40% of our supplier assessors. We plan to continue this training in 2008. We have met with all our suppliers this year to communicate the details of our new requirements. We are monitoring their implementation through our [supplier assessments](#)

Environment

As in the earlier years, environmental criteria continued to be an important part of Nokia Supplier Requirements. Environmental impacts are considered at every stage of the development of Nokia products. This means that suppliers manufacturing components for Nokia equipment must live up to our strict standards on environmental protection.

All our suppliers must have an environmental management system in place that is aligned with international standards. Certain suppliers must be certified to the International Organization for Standardization's ISO 14001 standard or the Eco-Management and Audit Scheme (EMAS). These include contract manufacturers, original design manufacturers, printed wiring board and joint research and development suppliers.

To ensure compliance with the EU Restriction of Hazardous Substances Directive (RoHS) and other material restrictions, suppliers must not use materials excluded by the Nokia Substance List.

See [substance management](#) for more information.

To meet our requirements, suppliers must be able to show programs are in place to continually reduce their environmental impacts. In 2007, we began discussions with suppliers in four key commodity areas - contract manufacturers and suppliers of displays, semi-conductors and printed wiring boards - to agree environmental targets that go beyond existing requirements. The targets cover energy and water use, waste and recycling, and emissions to air and water. From 2008, we will ask these suppliers to commit to the targets and report data so we can monitor their progress.

In addition, we began working with nine key suppliers in 2007 to help ensure environmental considerations are a priority in product development. We chose one supplier from each of nine commodity areas to cover a wide range of environmental impacts in our supply chain. We have held three workshops with these suppliers so far, in addition to meetings with individual suppliers as part of our normal technology development. By increasing our cooperation with suppliers on environmental issues, we aim to speed up technology development, improve their understanding of new and existing substance restrictions, and gain insight of the practicality of our tools and processes.

New EU regulations on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) came into force in June 2007. All chemical substances manufactured or imported into the EU must be pre-registered by December 2008. In anticipation of this, we have contacted and provided information to all suppliers to ensure they are aware of the REACH regulations, understand what is required of them and take responsibility for compliance to ensure uninterrupted supply. To assess any potential impacts on our supply chain, we will monitor our suppliers' current REACH status, planned actions and commitment to compliance.

Supplier assessments

System assessments

We monitor compliance with the Nokia Supplier Requirements through regular assessments. All new suppliers must undergo a system assessment, together with suppliers who have undergone significant organizational changes, those considered to be at highest risk of non-compliance or with a strong need for development. Key suppliers are generally assessed every two years according to business need.

In 2007, we conducted 80 supplier system assessments. These assessments involve two-day site visits from our auditors to review suppliers' management systems and compliance with our requirements.

Typically, we do not work directly with suppliers further down the supply chain except where we have a contractual arrangement with them. It is not practical or sustainable for us to focus on every tier of our supply chain. We believe each tier of the supply chain must take responsibility for managing its own suppliers to achieve positive, sustainable improvements throughout the entire supply chain. We require our Tier One suppliers to take a stringent approach in managing ethical and environmental issues in their own supply chains, and our assessments include an evaluation of this. In circumstances where we find or are made aware of concerns about suppliers in Tier two and below, we work with our Tier One suppliers to address these issues and take any necessary action.

In-depth assessments

Our system assessments enable us to identify any potential concerns with individual suppliers. They are selected for further in-depth, on-site reviews. In 2007, we conducted six in-depth assessments - of four component suppliers and two original design manufacturers.

In addition, four Nokia component suppliers have been assessed as part of the EICC/GeSI industry joint audit pilot.

Supplier in-depth assessment findings, 2007

We expect to find non-conformances when we do in-depth assessments, as the suppliers have been selected because they were identified as high-risk in the system assessments. The level of non-conformance we have found is in line with the experience of other companies in the electronics industry. The purpose of these assessments is to carry out corrective actions to improve conditions.

The results of the six Nokia in-depth assessments and subsequent follow-up on non-compliances and potential risks are shown in the table below. Where a corrective action is indicated as "partial", implementation is either ongoing or awaiting on-site verification.

Areas for improvement identified	Non-conformances and potential risks (number of instances)		Corrective actions closed
	Documentation only	Other non-compliance	
Company values & business conduct policy		4	2 (2 partial)
Human Resource policy		3	2 (1 partial)
Environment policy		2	1 (1 partial)
Resource Planning		1	(1 partial)
Recruiting & exit procedures	1	4	3 (2 partial)
Occupational health & safety protection		6	4 (2 partial)
Occupational health & safety response		1	1
Employee Amenities	0	0	n/a
Working hours & time off	1	5	3 (3 partial)
Compensation & benefits		3	2 (1 partial)
Fair treatment		4	4
Communication & coordination		1	1
Feedback & complaint channels		1	(1 partial)
Environmental management	1	1	1 (1 partial)
Raw material content		2	(2 partial)
data management			
Waste Management		2	1 (1 partial)
Programs for continuous improvement		2	1 (1 partial)
Design for Environment		1	(1 partial)
Sub-supplier requirements		3	2 (1 partial)

For details on our improvement programs with suppliers, please see [learning and capability building](#).

Reviewing our approach

We continually review and develop our approach to choose the best ways to monitor supplier performance. Our range of assessment tools includes self assessments, system and in-depth on-site assessments. In addition, we are participating in the EICC/GeSI joint industry assessment pilot.

At present all assessments, corrective actions and development reports are stored and maintained within our own database system. But we are also considering subscribing to the Electronics Tool for Accountable Supply Chains (E-TASC) Internet Database. E-TASC is a web-based information management system that provides companies with a platform to collect, manage, and analyze social and environmental data provided voluntarily by their suppliers.

Learning and capability building

Working with suppliers

Nokia provides training for suppliers. It focuses on the Nokia Supplier Requirements, labor conditions, health and safety in the work place, design for the environment, and substance management.

We work with suppliers to address any weaknesses revealed by our [assessments](#). Suppliers must develop corrective action plans within 30 days and provide evidence of implementation. This can be in the form of a photograph for smaller recommendations, or may involve a further site visit if significant changes are required.

We help suppliers improve their management of corporate responsibility issues by meeting with them and sharing examples of best practice from Nokia's own operations or from other case studies. We help suppliers develop their own internal CR organization and embed CR within their business starting with a commitment from the top. We also work with Tier One suppliers to help them manage their own supply chains.

For example, in 2007 we initiated a cross-commodity development program with Foxconn - a global contract manufacturer and component supplier based in Taiwan. We helped the company set up a corporate CR structure connected to business units, and to define a corporate CR commitment. Nokia has been working with Foxconn for a number of years, meeting regularly to share best practice.

See a [supplier's view](#) for more information.

Several companies in our supply chain have been highlighted by reports from non-governmental organizations on working conditions in the ICT supply chain in 2006 and 2007. We are working with these companies to ensure any issues raised have been addressed.

See [stakeholder engagement](#) for more information.

Internal training

In 2007 we ran three training sessions on our updated Nokia Supplier Requirements, attended by approximately 50 people (40% of our supplier assessors). We also held a number of online sessions about new EU REACH regulations.

Working with industry

Nokia became a full member of the Global e-Sustainability Initiative (GeSI) in 2007. We have been a member of the GeSI Supply Chain Working Group since November 2004. This Group works closely with the Electronics Industry Citizenship Coalition (EICC). The main aim of this collaborative effort is to develop and deploy a consistent set of tools and processes to measure, monitor and improve CR performance across the ICT sector supply chain.

As part of our membership of the GeSI Supply Chain Working Group, we actively participate in the Learning and Capability Building, Joint Audit and Audit Process, and Extractives sub-groups.

Through GeSI, we are part of a multi-stakeholder capability-building project for the ICT sector in China. The Foreign Investment Advisory Service (FIAS) project began in 2006, in collaboration with the World Bank, the International Finance Corporation, the Multilateral Investment Guarantee Agency, Business for Social Responsibility, GeSI and the Electronic Industry Code of Conduct (EICC). The aim of the project is to identify key challenges and ways to improve labor and social conditions in the Shenzhen region of China.

The report published by FIAS in June 2007 found that while supply chain monitoring is valuable, the ICT industry should also collaborate with the government and non-governmental organizations to improve capability-building. It made a series of recommendations for customers, suppliers, government, industry associations and NGOs. A pilot is being conducted with a small number of suppliers in Shenzhen to test the practicality of the recommendations - and the potential to replicate them on a larger scale. The pilot is testing the effectiveness of a series of factory initiatives, including a worker hotline, a health and safety committee with employee involvement, worker training, and the implementation of social and environmental management systems. The pilot was due for completion early in 2008.

Find information about other GeSI activities at www.gesi.org.

Supplier diversity

Supplier diversity is highest on the corporate responsibility agenda in the US. We recognize that our spending with suppliers there can have a significant impact on economic development.

Our Supplier Diversity initiative encourages the creation, growth, and expansion of small, minority, and women-owned businesses within our US supply chain. Our goal is to continually increase the ratio of minority and women-owned businesses in our supply chain, and monitor our spending with these groups.

In 2007, we spent around US\$18 million with suppliers from minority groups in the US. This represents around 4% of our US spend with suppliers.

A supplier's view

Comment from the Executive Director of Foxconn Global Social & Environmental Responsibility Committee

"In 2007, Foxconn was advised by our customer to adopt industry best practice and set up an internal Global Social and Environmental Committee. That advice has helped us plan and manage social and environmental issues in a systematic, responsive and effective manner similar to the business value propositions we deliver to customers with our products and services.

The Committee holds regular meetings to bring in new improvement agendas. For example, new initiatives in 2007 included energy efficiency, air quality control and power saving. Through the guidance of our customer and our internal organizational change, Foxconn has made progress in social and environmental responsibility, developing a Code of Conduct in 2007, improving employee benefits, and ensuring cleaner, safer and more enjoyable working conditions. We have renovated existing buildings and set up new facilities offering employees after-work activities focused on entertainment, learning and health.

Foxconn embarked on its journey of corporate social and environmental responsibility (SER) in 2004, but without Nokia's help this 'quantum leap' and significant progress wouldn't have been possible. This is genuinely a realization of supply chain collaboration and partnered actions."

Society

Mobile technology for development

Access to mobile and digital technology is an important driver of social and economic development, both in the developed and the developing world. This has been shown by a major study into the relationship between access to mobile technology and development 'The Impact of Mobile Phones in the Developing World'.

Mobile phones offer far more than the ability to make calls. Billions of people in the developing world live in remote and rural communities without access to healthcare or education, transport and up to date news - let alone banking or financial services. Mobile phone networks have the potential to transform the delivery of these services and make them available to many more people.

Our business model enables us to reach billions of people, and thus create real change on a wide scale.

We commissioned the Centre for Knowledge Societies (CKS) to carry out a study into the effect of mobile phones on economic and social life in rural areas, [The Mobile Development Report](#). The study identified several service areas which could be transformed by mobile technology to improve people's quality of life. These include transport, micro-commerce, finance, healthcare, governance, education and infotainment.

We are currently preparing to help develop these services and the CKS research supports our belief in the potential of the work we are undertaking. In 2007 we collaborated with the non-for profit research institute INdT to set up R&D teams in the Amazon which will investigate technology applications. In 2008 we plan to create R&D teams in India and Kenya to explore how mobile technology can serve people in these markets. These teams will operate over a timeframe of five to ten years.

Collaboration

We are committed to multilateral cooperation to find ways to use mobile technology to meet development needs. This year we sponsored a conference in the US, Pop!Tech, which explored how technology can be used to transform lives in the developing world. We also sponsored the MobileActive conference in Brazil, which looked at the role of mobile communications in civic engagement and activism.

In mid-2007, we launched a new wiki website www.ShareIdeas.org in partnership with Vodafone, encouraging people to share ideas on how to use mobile communications to address social and environmental challenges. The site features case studies from around the world in six areas - civic engagement, economic empowerment, education, the environment, health and safety, and humanitarian relief. It has 900 registered users, any of which can post a story or edit existing content.

We have also conducted research into barriers to access.

See [total cost of ownership](#) research for more information.

Total cost of ownership

Over 80 percent of the world's population live in areas covered by GSM networks, yet only half of the world's population uses mobile communications services. Nokia conducted a study into the total cost of ownership (TCO) of mobile communications, including services, taxes and handsets for low-income people. Affordability is very important factor in bringing digital inclusion to people living on low incomes across the eighty emerging markets in the study.

A TCO of not more than US\$ 5 dollars a month would enable the majority of people in emerging markets to use mobile services, and this would help bridge the digital divide. Only four out of the 80 countries studied have achieved this: Sri Lanka, India, Bangladesh and Pakistan. Most governments in these countries have made serious efforts to enhance the affordability of owning and using mobile phones.

Village phone

Many low-income people in rural areas have no access to mobile communications, and may miss out on the social and economic benefits that access to information brings. The Village Phone project is run by Grameen Bank Foundation together with local microfinance institutions and local operators. Nokia is the technology partner in the project, which enables low-income people to create new small businesses and gain affordable access to mobile communications in remote and rural villages.

A local entrepreneur takes a microfinance loan of about US\$150- \$200 to become a Village Phone operator. This allows them to buy a business kit which includes a Nokia handset, a SIM card with prepaid airtime, a charger, an external antenna set and localized marketing materials. The Village Phone operator then sells calling time to customers in the community. This provides an income for the village phone operators and their families. Access to mobile communications helps people keep in contact and make arrangements in their personal lives. It also supports commercial enterprises and enables people to increase the profits from their small businesses.

The microfinance loan period is usually up to nine months but Village Phone operators typically manage to repay the loan within six months. Extra income from their business can help to buy food, send children to school and pay for housing.

The Village Phone concept is based on the pioneering work in Bangladesh of the Nobel Peace Prize winners, Grameen Bank and Professor Muhammad Yunus. Nokia has been the technology partner in Village Phone projects in Africa since 2005. In Rwanda and Uganda, thousands of new Village Phone businesses have been created, and the numbers continue to grow. In Uganda, for example, there were around 10,000 Village Phones by the end of 2007. This has a potential impact on millions of people as one Village Phone can serve over 500 villagers.

Village Phone Direct

Building on the success of Village Phone, Nokia helped the Grameen Foundation set up Village Phone Direct in 2007, to help microfinance institutions globally create independent Village Phone projects. The Village Phone Direct micro-franchise model helps microfinance institutions work independently with the local operators to establish Village Phone businesses in local rural communities. Village Phone Direct projects are currently in Haiti and the Philippines.

In June 2007, Nokia supported Grameen Foundation to launch the Village Phone Direct Assistance Center (www.villagephonedirect.org) to help microfinance institutions develop their own Village Phone Direct programs.

BridgelT

Access to a quality education is perhaps the most important factor determining the future of young people everywhere. Yet the vast majority of today's youth lack the educational opportunities they need to become productive members of society.

BridgelT is a global initiative implemented through a unique partnership between Nokia, the International Youth Foundation (IYF), Pearson, SEAMO Innotech and the United Nations Development Program (UNDP). BridgelT uses existing information and communications technologies in new ways to help close the education gap.

The BridgelT concept was launched in 2003 in the Philippines, where many schools lack access to the internet and modern educational resources.

Called Text2Teach, the scheme has reached 204 schools and 900,000 pupils across the Philippines. Text message technology enables teachers and students to request and download educational materials, giving them access to a library of over 900 multimedia educational resources. This includes 480 lesson plans and more than 370 science, math and English videos, giving primary school pupils access to a new educational experience. Nokia supplies mobile phones and monthly prepaid credit to the participating schools.

The University of the Philippines conducted an impact assessment which showed that in participating schools average academic scores have increased significantly and absenteeism has fallen. Nokia has pledged to make the program available to an additional 500 schools, with a donation of P27 000 000 (US\$ 665 000) over the next three years. The Government of the Philippines has asked IYF and SEAMEO Innotech to provide Text2Teach content for use throughout the country using satellite delivery.

Banking to the unbanked

The high cost of building and operating financial service infrastructures means the majority of people do not have access to banking. This means they have to rely on a cash-based economy with little security, which creates an informal labor market and a lower tax base for governments. Mobile phones have the potential to transform this situation by providing basic financial services economically to people on low incomes.

In many developing countries people already use pre-paid airtime as a virtual currency. For example, if bread costs one dollar, a customer may pay the baker by transferring pre-paid airtime worth one dollar when they buy the bread. This credit system could be improved by making it possible for people to withdraw cash in exchange for credits.

A local business could store virtual currency and the consumer could deposit and withdraw cash. This would help people to transfer money flexibly and keep their money safe.

The credit system could also help people access mobile phones by facilitating small loans. The cost of buying a phone is a significant expense for most people, though it is likely to be small in comparison to the running cost. If the barrier to access is cash flow rather than cost, issuing small loans through the phone credit system could help.

Nokia has developed a new phone, the Nokia 6131, which can be used instead of a credit card or as a travel ticket. It could help to provide social security and banking services in areas where there are no computers or internet services.

Pilot studies in Africa and Asia have demonstrated the potential for mobiles to deliver basic financial services in developing countries. Nokia has partnered with Vodafone and Nokia Siemens Network to publish a report '[The Transformational Potential of M-Transactions](#)'. The report encourages policy-makers to build a new regulatory framework to encourage financial transactions by mobile phones and increase access to banking services in the developing world.

Mobile phone data collection

Many areas around the world that have limited access to information and communications technology (ICT) still use pen and paper as the principle means of collecting data on public health. This can be an inefficient way of collecting data- both in terms of time and potential for error. In 2007 we developed a mobile application which facilitates data collection in areas that are not connected to the internet.

The Mobile Survey System (MobiSUS) is based on a handheld 'Smart Phone' which uses mobile phone technology to transfer data. Health workers in remote locations can report and access data using this technology, which significantly improves reporting time and accuracy. This makes it possible to respond to potential disease outbreaks more rapidly.

The pilot study of the technology has shown very positive results and we will be developing the project further throughout 2008.

Youth development

Youth development is crucial for social and economic progress, especially in disadvantaged communities, and this is an important focus for Nokia's community involvement activities. We support life skills education programs with several partners that develop confidence, teamwork, leadership, and conflict management in around 40 countries.

Partnership with the International Youth Foundation

The International Youth Foundation (IYF) is one of Nokia's main community involvement partners. The IYF supports thousands of effective programs making a lasting difference to young people. Its mission is to identify programs that work, strengthen their impact, and expand their reach so many more young people benefit. During 2007 Nokia supported projects that directly benefited more than 25 000 young people. Their work in turn helped more than 91 000 other people.

Nokia is the founding sponsor of the YouthActionNet leadership program aimed at reaching young people who are leading societal change. In 2007 we awarded twenty fellowships in 14 countries, selected from an application pool of more than 300 young social entrepreneurs. The Fellows included a 21-year-old Canadian working to combat the global sex trade in children and a 28-year-old in the Philippines who provides loans to underprivileged youth to start small enterprises.

Read more about the inspirational young people who have participated in [YouthActionNet](#)

YouthActionNet runs training and networking events for the Fellows and connects them with each other through a networking website.

These case studies give further examples of IYF projects supported by Nokia in 2007:

- ◆ [Youth employability, Latin America](#)
- ◆ [Civic engagement program, Hungary](#)
- ◆ [Mobile technology training for disadvantaged youth, US](#)

During the 2007 calendar year, we also awarded 45 scholarships worth US\$184 508 to young people who lost parents in the attacks on the World Trade Centre on September 11th, 2001.

Partnership with PLAN

Nokia has partnered with the international child-centered development organization, Plan, to empower young people to communicate about issues that are important to them. We believe that access to various media such as radio, music video, the internet, mobile devices and television helps to empower young people. Engaging young people helps them become active citizens and enables them to have a say in decisions that affect their lives. Plan and Nokia have programs in Kenya, Egypt and Senegal, as well as Benin, Burkina Faso, Ghana, Mali, Niger, Sierra Leone and Togo.

These case studies give further examples of Plan projects we supported in 2007:

[Music training for street children, Indonesia](#)

[Kids Waves](#)

Youth employability

Nokia supports the Conéctate program in Chile, which helps disadvantaged youths from urban areas to gain valuable work skills. The program is run by the Asociaci3n Chilena Pro Naciones Unidas (ACHNU).

Nearly a quarter of Chile's population is between the ages of 15 and 29, many of whom are unemployed or working informally. Meanwhile the tourism, communication and information technology sectors are growing quickly and need skilled workers.

Conéctate! was launched in 2005 to equip young people with the knowledge and skills they need to enter the workforce. Over the course of three years it will provide training and job placement services to an estimated 550 young people. Participants are selected from poor districts in Santiago and Concepci3n and receive an intensive six-month training program covering life and workplace skills and community service. They move on to an internship in their chosen field, after which the program staff help them look for employment.

The project's external evaluation in 2007 found that 54% of youth beneficiaries had been placed in quality jobs, 96% of the program's overall target. The "Manual for Life Skills Training," based on the project's experiences facilitating workshops on youth life skills is expected to go to print early 2008. The publication will help develop a youth employment training and placement model to be adopted by public institutions.

Nokia also funds and participates in similar youth employability programs in Venezuela and Columbia.

Music training for street children, Indonesia

In 2007 Nokia partnered with Sony BMG and Plan International to set up a musical talent contest for street children in Jakarta, Indonesia. The contest, titled 'Make a Change through Music' aimed to engage this marginalized section of the community who often survive by working as street musicians.

The first round of the contest involved 1 300 children from 15 shelters. A group of 500 were then chosen to take part in a music workshop, with the chance to win a recording contract with Sony BMG and work with GIGI, the top band among Indonesian youth. The children had the rare opportunity to use proper musical instruments and work with recording professionals. The experience gave them the opportunity to express themselves and the organizers hope it will inspire them to try to build a life off the streets. The program also generated media coverage and helped to draw attention to the lives of street children.

Nokia and Plan aim to engage more street children by donating musical instruments and employing music teachers to work in the children's shelters.

Civic engagement program, Hungary

Forty years of centralized one-party politics and obligatory volunteering have made many people in Hungary apathetic about civil engagement. Young people have few opportunities to develop their own ideas on how to improve their communities.

We support the work of the Foundation for Democratic Youth (DIA) which aims to show young people the benefits of social action, to increase cultural integration and encourage personal development.

The DIA's program has built a national network of young people, aged 14 to 25, who are committed to volunteering. Youth-led groups are supported in their action on issues important to them; and an annual 'Youth Service Day' has encouraged thousands of young people to get involved in projects to benefit their local communities. This gives participants valuable life, leadership, and project management skills and prepares them for future academic and employment success.

During 2007 the national network of volunteer groups grew to 61, with 23 new groups created. The groups have engaged over 800 young people during the year. In total, they have completed 403 activities, and given over 86 000 volunteer hours to community service.

Almost 7 000 young people have completed 243 000 hours of volunteering activities since the program began in 2003.

Children's radio, Africa

The Kids Wave project, run by Plan, aims to increase the amount of quality programming for and involving children across Africa. Radio for children can help with education and development. It gives children a platform to express themselves and take concrete actions to improve their lives and the lives of other children in their country. It can also help raise awareness of the rights of the child.

Kids Wave was piloted in Senegal in 2007, and has since been established in Benin, Burkino Faso, Ghana, Mali, Niger, Sierra Leone and Togo. The program funds the production of radio shows and provides training for children and radio hosts. It also runs children's club activities, events and media projects.

Nokia works with PLAN in Egypt on Children's Rights TV and in Kenya on Childline. Childline is a 24-hour free helpline to ensure that children who need help have access to counseling and advice. The lines are also available to parents and guardians in need of help.

Mobile technology training for disadvantaged youth, US

In 2007 Nokia worked with the Bay Area Video Coalition (BAVC) on a pilot scheme called WiFiAnywhere, designed to give underserved youth communities in San Francisco a chance to experiment with cutting edge mobile technologies, learn to make videos and develop key life-skills.

WiFiAnywhere was launched in January 2007, and has since provided 70 students in two high schools with 156 hours of training in production planning, scripting, storyboarding, production and directing. Nokia provided free wireless internet, internet tablets and Nokia N93 video phones, with which students produced 2-3 minute individual short video narratives focusing on what "home" means to them. Participants also were given the opportunity to visit New York or Paris on an exchange program, and to attend the Sundance Film Festival, documenting what they saw and sharing their experiences with other students on their return.

Disaster relief

We contribute to disaster relief efforts in partnership with Nokia Siemens Networks (NSN). Nokia donates cash and phone handsets to relief organizations, while NSN helps to rebuild communications infrastructure. In 2007 we donated to several relief organizations for disasters in Chile, Peru, Ghana, Greece, the USA and Bangladesh.

In disaster relief Nokia cooperates and supports international relief agencies, such as the Red Cross/red Crescent, UN organizations and leading national relief organizations.

As well as providing immediate aid, we want to play a role in the long-term reconstruction of communities affected by disasters. For example, we created the Tsunami Reconstruction Initiative in partnership with the International Youth Foundation (IYF) and the Grameen Foundation to help long-term recovery efforts in regions affected by the 2004 Tsunami.

The initiative is designed to help young people in affected areas of India, Indonesia, Sri Lanka, and Thailand to find jobs or set up small businesses - thus creating long-term livelihoods. Over the three years following its launch in 2006, the €2.5 million program will provide more than 5 600 young people aged 16 to 29 with access to job and life skills training, apprenticeships, job placements, and loans.

By the end of 2007, the initiative had impacted the lives of 2 420 young people, provided 1 860 loans and helped to establish 1 730 businesses.

Employee volunteering

Employees give their time to community projects they care about through the Nokia Helping Hands program. Nokia employees in many countries can take two working days per year to volunteer.

In 2007, employees in 32 countries volunteered for over 32 000 hours of service. They did work such as building schools, cleaning beaches, collecting toys, clothes, and other supplies for people in need, and arranging activities for children and the elderly.

These three examples illustrate the kind of work volunteers get involved in:

Installing digital televisions for the elderly in Finland

In February 2007, 190 Nokia volunteers took the step of training to install digital television. Finland was preparing to transfer to digital signals and this was a difficult change for people uncomfortable with technical devices. To aid the transition the Finnish Traffic and Communications Ministry, and several other organizations launched a special project to encourage volunteers to install digital television for elderly people. This also gave elderly people living alone an opportunity to meet people from their communities. Local volunteers were connected with people who requested the service through a special call-centre.

"Participating sounded fascinating and at the same time I would be able to help the elderly people, so I immediately registered. I was always welcomed warmly and we discussed digital broadcasting in general, the current affairs of the world and of course about the weather", says Ari-Pekka Verta, a Nokia volunteer.

The Workout, USA

In May 2007 Nokia held a special Nokia Helping Hands volunteering day called The Workout to promote volunteering among Nokia employees in the US. Volunteers gave around 850 hours of time to 16 non-profit organizations. Projects included building homes, beautifying neighborhoods, and helping out at food banks and farms. Nokia made a financial contribution to each organization supported by the employee volunteer teams. See the [website](#) for more information.

Building schools in Thailand

In March 2007, 33 Nokia employees helped build a school at Baan Segra, in Tak province.

The school has two teachers and 77 children during the day, with 30 adults attending in the evening. But there was no school building so teaching took place in the open. The new building is large enough for the school to take more students from nearby villages. The team traveled 690 kilometers from Bangkok to the village (a trip that took about 12 hours) to help build the new school.

Environment

Nokia's target is to be a leader in environmental performance. Responsible business practices have always been a part of our culture and way of working. Our goal is not only to continuously improve the environmental performance of our [operations](#), but also to make a positive impact through [products and services](#) which enable people to make more sustainable choices.

Our approach to managing environmental issues is based on lifecycle thinking. We take a cradle-to-cradle approach in order to reduce environmental impacts in our operations and throughout the life of our products, including proper treatment and recycling at the end of their useful life.

Our priorities in environmental management are energy efficiency, managing substances in our products and take-back of used devices for proper recycling.



Nokia strives to reduce the possible harmful environmental impact of its products, services, and operations over the entire product life cycle.

We believe that proactive measures and solutions to combat climate change are essential. This has received new impetus from the growing evidence of the serious threat the world faces and the urgency of action needed, as described in 2007 in the 4th Assessment by the Intergovernmental Panel on Climate Change (IPCC).

Nokia signed an international communiqué, along with over 150 other global organizations, ahead of the December 2007 United Nations Climate Change Conference in Bali, Indonesia. It urged world leaders to develop policies and measures for the business sector to contribute to building a low carbon economy to help tackle climate change. Nokia's participation shows our desire to be an environmental leader and our support for the belief that the benefits of strong, early action on climate change outweigh the costs of doing nothing.

Our direct impact on climate change is relatively small but we believe we have a responsibility to tackle this vital challenge as broadly as we can, in our operations and through the use of our products.

Working with stakeholders

We believe we can maximize our contribution by working with others in our industry and beyond. In 2007 we initiated work with suppliers to set energy efficiency targets that go beyond our current environmental supplier requirements. This builds on our work to assess and develop environmental, labor and social conditions throughout the supply chain.

See [supply chain](#) for more information.

Nokia joined WWF's [Climate Savers](#) program in 2007. "Climate Savers" companies work with WWF to achieve targets to reduce greenhouse gas emissions.

We have also worked with the European Union's Integrated Product Policy (IPP) project, leading a pilot study applying the lifecycle approach of IPP to mobile phones. The actual project was completed in 2006 but the work continued in several taskforces, resulting in proposals for three [industry voluntary agreements](#) in 2007. The final report will be published in spring 2008.

See [energy efficiency](#) for more information.

Highlights of 2007

In 2007, we made progress on several aspects of energy efficiency and reduction of greenhouse gas emissions:

- ◆ Introduced a charger which uses just 0.03W power if it is still connected to the mains when the phone is fully charged: 94% less than the maximum defined by the Energy Star requirements for use of no-load energy.
- ◆ Became the first mobile phone manufacturer to introduce alerts telling users when their phone batteries are fully charged so they should unplug the charger.
- ◆ Began to use bioplastics in phone covers instead of conventional plastics, saving an estimated 15% of the energy and greenhouse gas emissions during manufacturing.
- ◆ Bought 25% of our electricity from renewable sources
- ◆ Made further progress in deploying more ecological packaging. By the end of 2007 we had shipped over 250 million devices using a compact package, which has helped to take 5,000 trucks off the road, and saved about 100 million euros (since Feb 2006).

Other environmental achievements in 2007 were:

- ◆ Removed PVC from our mobile devices and gave a timeline for removing brominated flame retardants from our products.
- ◆ Agreed upon environmental targets with key suppliers.
- ◆ Joined the ICT industry's Global e-Sustainability Initiative (GeSI), and the UN StEP Initiative which works on sustainable solutions for electronic waste.

Products and services

Nokia's products affect the environment through the materials we specify, the energy consumed in manufacturing, distributing and using them, and what happens when consumers have finished with them.

Our devices can also have a positive impact, for example helping to save energy through downloading music instead of making and distributing CDs. Devices with features such as navigation, camera, music player or video recorder can avoid the need for separate equipment which brings additional environmental benefits through saving materials, energy, and transport need.

Nokia launched several [environmental services](#) relating to mobile devices in 2007. These include MobilEdu, a mobile environmental learning service launched in China, and specific environmental content in some of our devices, including advice on finding the closest recycling point at the end of the product's life.

We work to reduce products' environmental impacts in three main areas: [energy use](#), [material content](#), and [take-back and recycling](#). The main contribution of our business to energy consumption and greenhouse gas emissions is in the use phase of our products, and we have developed chargers which use less energy in no-load mode. In 2007 we became the first mobile phone manufacturer to introduce alerts in our devices, telling users to unplug the charger once the battery is full.

Our work on [materials](#) has gone beyond restricting substances of concern to look for innovative materials with environmental advantages. In 2007 we began using bioplastics, made from renewable sources rather than fossil fuels.

Nokia continues to encourage consumers to return devices for responsible recycling when they are no longer used. In 2007 we ran major awareness campaigns in several markets.

See [take-back and recycling](#) for more information.

Environmental Services

In 2007 we began offering consumers environmental content in our devices.

Nokia launched an environmental catalogue providing mobile services and applications for users. We became the first mobile device manufacturer to launch products with environmental content and services, on Nokia N73 and Nokia N95 devices as well as the internet tablets N800 and N810. During the first three months the service attracted 240 000 users.

The Eco catalogue consists of Nokia's own content as well as third party material. It provides information about the product's environmental attributes such as material use, energy consumption, recycling and instructions for the user. Also, consumers are guided to find the closest recycling/service point using Nokia internet tablets. The Eco catalogue provides songs which can be used as personal ring tones and winning short films on sustainability from the Cannes film festival for young film makers, made using the Nokia N73.

The Eco catalogue provides environmental tips for consumers by the organization "We are what we do" - a movement inspiring people to use their everyday actions to change the world. It also has WWF content, such as images and audio and video clips. Eco Catalogue is a downloadable service which provides up-to-date content with easy accessibility.

Nokia's first commercialized consumer environmental service, launched in China in 2007, is MobilEdu. It provides wireless learning that integrates device, content, and service for mobile users to learn and share in an effective and efficient way. MobilEdu uses mobile internet to improve environmental awareness, which is highly individualized and convenient. MobilEdu literally delivers environmental awareness to people's handsets. It has a sustainable content platform, where the contents for environmental awareness improvement can always be up-to-date and integrated with various offline activities as well. The number of users of MobileEdu service in China was 300,000 during the first 6 months. At March 2008 the environmental content had been downloaded 1.2 million times. The user base is still growing with 5,000 more each day.

Devices as a channel for environmental awareness

Mobile devices can act as an efficient and environmentally friendly channel for various environmental awareness campaigns. Since November 2007 Nokia has offered nokia.mobi free of charge as a channel for the WWF campaign regarding climate change. In three months the pages containing the banner were viewed close to 40 million times with some six million clicks on the banner. The top 5 countries were India, Russia, Indonesia, Egypt, and Saudi Arabia.

Offset service

Carbon offsetting offers the opportunity to compensate for unavoidable CO2 emissions. Nokia launched a mobile carbon offsetting application in the Nokia World event in Amsterdam in December 2007, providing each visitor with an opportunity to offset the carbon emissions created by their travel to the event directly from a mobile device. We worked together with an offsetting company, Climate Care, and the carbon offsets will help fund projects around the world that focus on renewable energy and energy efficiency solutions. The service is now downloadable to all Nokia S60 devices at www.nokia.com/environment/weoffset.

Energy efficiency

As one of the world's most recognized brands with sales in more than 150 countries Nokia has both a responsibility and an opportunity to make a contribution to tackling climate change well beyond the impact of our operations. The main contribution of our business to greenhouse gas emissions is in the use phase of our products. We estimate that our own operations account for roughly 10% of the emissions associated with our business. The other 90% comes from the manufacture of components by suppliers and the distribution of products, but mostly during the device use and charging.

But with a billion Nokia phones in use around the world even small individual improvements can add up to a substantial energy saving. The greatest potential is in the use of chargers because two thirds of the power consumed by a mobile phone is wasted when the battery is full but the charger remains plugged in to the mains - the "no-load" mode.

The scale of the opportunity is demonstrated by the fact that if all Nokia users unplugged their chargers when their phones were fully charged we estimate that would save enough energy to power 100,000 European homes. The energy involved in building and running the network is also significant. That is now the responsibility of Nokia Siemens Networks and is covered [in their CR web pages](#).

We are tackling this challenge in two main ways:

- ◆ Reducing the no-load energy consumption used by chargers

Since the beginning of the decade we have reduced the no-load demand by 70% in average and 90% in our best chargers. Our target is to reduce this by a further 50% (from 2006 level) by 2010. The high efficiency charger introduced with the Nokia 3110 Evolve, uses just 0.03W. This is 94% below the EPA's Energy Star requirement.

- ◆ Alerting users when their phones are fully charged

In 2007 we became the first mobile phone manufacturer to introduce alerts in our devices, telling users when their phone batteries are fully charged so they should unplug the charger. The alerts will be included across our product range by the end of 2008.

We have also worked with the European Union's Integrated Product Policy (IPP) project, leading a pilot study applying the lifecycle approach of IPP to mobile phones. The taskforce work resulted in these voluntary commitments by the leading mobile manufacturers:

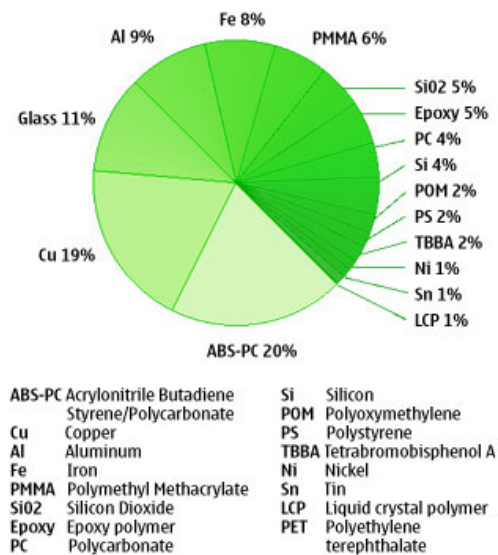
- ◆ By October 31st 2008 manufacturers have committed to produce an environmental index for consumers that is similar to the energy efficiency grading (A to G) for electrical appliances. It will begin with the no-load energy use of the charger and could be extended later to other kinds of environmental information.

- ◆ By October 31st 2008, mobile manufacturers will introduce communications materials to encourage users to unplug chargers once they are fully charged, and to dispose of phones responsibly
- ◆ By the end of 2009 mobile manufacturers will have added a visual reminder on the screen of all their phones to unplug the charger when the phone is loaded.

Materials

Our main objectives for materials are that we know all the substances in our products, not just those that raise concerns, and that they will all be safe for people and the environment when used in the proper way. We concentrate on what is in our products rather than what has been excluded. Nokia is the first mobile phone manufacturer which, in close cooperation with its suppliers, has full material declaration for our mobile devices. This means we can respond swiftly if new concerns arise about substances we use.

The chart shows the typical composition of a Nokia mobile phone:



Innovative materials

We continually review the potential of new materials to improve the environmental impact of our products. In 2007 we introduced bioplastics in the Nokia 3110 Evolve and we are studying the possibility of using recycled plastics in specific parts of the device.

We have also looked into a possibility of creating a device that could be made entirely from recycled materials, avoiding the use of virgin materials and diverting waste from landfill. Our design team has created the Remade concept device which uses recycled materials from metal cans, plastic bottles, and car tires. The concept will inspire and stimulate further thinking on how mobile devices might be made in the future.

Watch a video about [Nokia's Remade concept](#).

Our research teams have also conceived the Eco Sensor Concept - a mobile phone and sensing device that will collect environmental data that can be shared with others, increasing environmental awareness.

Find out more about the [Eco Sensor Concept](#).

External requirements

Several countries are introducing measures similar to the European Union legislation on Restrictions on Certain Hazardous Substances (RoHS) which became effective in 2006. All our terminal products comply with RoHS worldwide.

The European Union Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (known as REACH) aims to evaluate and register tens of thousands of chemicals, and to substitute those considered most dangerous. It will be introduced in phases, beginning with pre-registration of substances and registration of new substances during 2008, followed by publication of a "Candidate List" of substances of very high concern.

During 2007 we began to make sure that Nokia's European suppliers, and those importing into the EU, understand and are ready to respond to the REACH requirements. We are providing suppliers with information about Nokia's specific uses of their materials to help them register substances. We are also gathering information from suppliers to identify any potential impacts on the availability of materials and to ensure their commitment to fulfilling the REACH requirements. This process has been made easier by our practice of having full substance knowledge for all our products.

Substances of concern

Our approach to substances is based on the precautionary principle. This means we will not wait for full scientific certainty where we have reasonable grounds for concern about the possibility of severe or irreversible damage to health or the environment. For example, we will voluntarily substitute substances where suitable and technically viable alternatives are available

We apply the same standards all over the world, which means all our products comply with requirements such as the European Union legislation on Restrictions on Certain Hazardous Substances (RoHS) Directive.

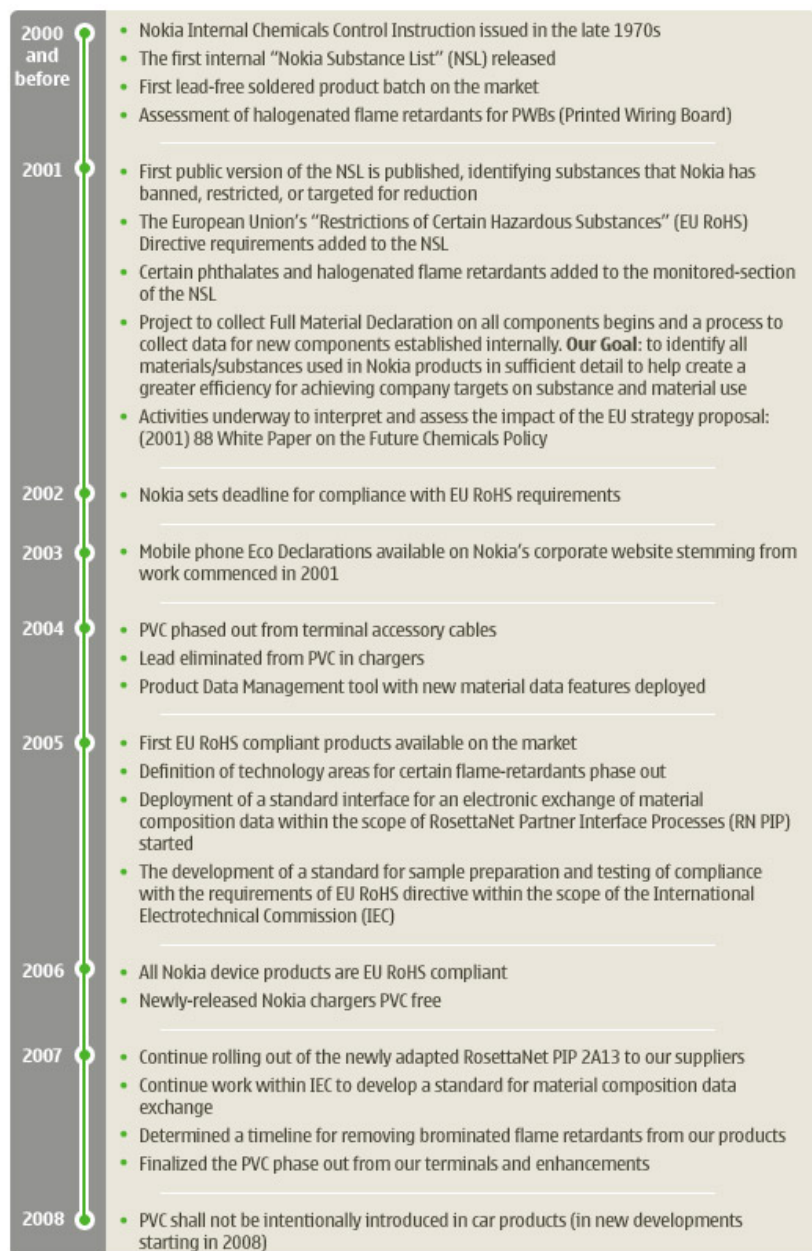
Nokia Substance List (NSL)

The [Nokia Substance List \(NSL\)](#), first released in 2001, shows the timeline of phase outs. In 2007, we published the 10th version. It is updated annually and the latest version was released in February 2008.

The NSL identifies substances that Nokia has banned, restricted, or targeted for reduction with the aim of phasing out their use in our products. The list is divided into two sections, Restriction in Force and Monitored Substances. We work together with our suppliers in investigating alternative materials and solutions that will help us fully eliminate restricted or monitored substances from our total product line. In addition, we will give interim updates on individual substance phase outs as needed.

In 2007 we published a plan to phase out PVC in ancillary equipment which is part of in-car systems. We no longer use brominated flame retardants on new printed wiring boards for mobile phones, and we are phasing them out in all new products.

Read more about Nokia's commitment to using [safe materials](#).



Biomaterials

The material used in mobile phone covers have traditionally been conventional plastics which are produced by processing oil - a non-renewable resource.

We have been working with a supplier to develop bioplastic - material with similar qualities to conventional plastic but made from renewable material based on plants. Bioplastic has now been developed as engineering material with improved strength and heat resistance. We are the first manufacturer to use this particular material, currently in combination with conventional plastic.

Our first product to use this material is the Nokia 3110 Evolve, which was launched in 2007. The back cover on this model uses more than 50% renewable materials. We estimate that this is 15% more energy efficient compared to using entirely oil-based plastics. In addition there are 15% less CO2 emissions.

We plan to introduce more products using bioplastics and to develop material using a higher percentage without compromising quality and technical standards.

Development of bio-based materials which do not compete with food industry is our focus.

Working with suppliers

We require suppliers to record the material content of products supplied to Nokia. These records must be available on request.

Our environmental requirements include the need to know, control and manage the material content of the components and parts supplied. We expect suppliers to integrate environmental considerations in their design procedures and to ensure environmental issues are considered in their own supply chain management.

We check compliance with these requirements as well as other social and ethical standards through audits and inspections. If we find a supplier is not complying we require them to take corrective action and will check this has been done. We work with suppliers to help them make improvements, offering examples of best practice, training and other support. If a supplier were to refuse to address any of these issues we would be prepared to reconsider our business relationship.

Nokia cooperates with certain suppliers in developing indicators for environmental performance of components and materials in devices. Close supplier involvement in substance management ensures fast introduction of new environmental requirements.

See [supply chain](#) for more information.

Packaging

During 2007, 15,000 tons of packaging material has been saved by using smaller packaging. Not having to produce this amount of paper also saved 100,000 m³ of water.

Packaging has the important function of protecting products in transit from the factory to the user and we must make sure it achieves this effectively while minimizing environmental impacts. Direct environmental impacts depend on the kind of material used, the volume of material used and what happens to it when the user opens the pack and it is no longer required. Packaging also has indirect impacts because the weight and size affects the energy required to transport and store products. Smaller and lighter pack sizes require less energy per product.

In 2007, we made progress in several areas in reducing the volume of packaging per product and using more recycled material. Over the years we have been replacing plastic with paper-based material.

Smaller pack sizes



The "letterbox" pack introduced in 2006 in co-operation with the operator O2 was introduced for Nokia's online sales in 2007. As well as saving packaging material and transport energy, the pack also improves service to users and avoids redelivery because it is small enough to fit through a standard home letterbox.



We introduced a smaller sales pack in 2006 for entry level products (roughly half our range) which uses only 54% of the previous weight of material and more than doubles the number of products per pallet in transport from the factory. In 2007 this pack was used for 190m products.

We further reduced the size of this compact pack in 2007, saving an additional centimeter in height. This has increased the number of products per pallet by a further 60.



In 2007, we also improved the packs for larger models such as the Nokia E Series devices. We have replaced trays made from molded pulp with foldable inner parts. This makes the pack smaller, we use more of the same materials so it is easier to recycle, and the inner material is printable, which enables a more engaging pack experience. Typical Eseries packaging fits 250 boxes per pallet, but Nokia E51 with the new solution fits 450 per pallet. Each sales package also saves 25% in packaging material.

In the past we used a single pack, designed to fit the largest components globally, which meant that packs were unnecessarily large for sales in many countries (the charger for the UK is significantly larger than elsewhere). In 2007 we adopted a new policy of using two pack sizes per product. Additional smaller packs were introduced for three models in 2007; Nokia 6500 Slide, Nokia 6500 Classic and Nokia 3500 Classic. The pack size was cut in half for 80% of our production volume of these three models. This policy will be extended during 2008.

Printed material

We have reduced the amount of printed material inside the box, which also permits smaller sales packages. The box now includes fewer leaflets and we shortened the printed user guides. Instead of printed material, users can find instructions through help information accessible in their devices (in all S60 models) or through increased web support.

Recycled material

In recent years we used an average of 30% recycled material in packaging, although the figure varies from region to region because of differing availability of suitable material.

In 2007 we began to increase the level of recycled content, beginning with the Evolve 3110 pack in Europe, which has 60% recycled content. The 3110 pack also uses uncoated board, which results in a more natural finish and makes the material easier to recycle.

From plastic to paper based materials

We have been moving from plastic packaging to paper-based materials for several years.

Plastics are still used as packaging material for example in Nokia Enhancements and Nokia Nseries. Our focus has been to decrease the amount of plastic needed and where it is used we will increase the percentage of recycled plastics during 2008.

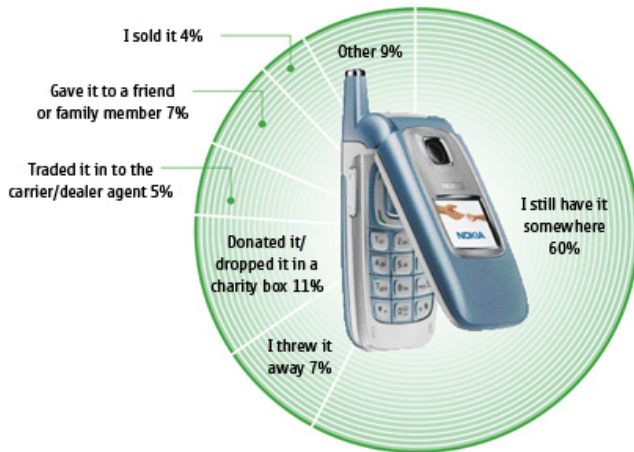
Take-back and recycling

Nokia can drive environmental value by striving to return as much as possible of the materials in our products back into circulation (a cradle-to-cradle concept). By doing this we can avoid much of the energy and chemicals that would be used in manufacturing (extraction and refining) new materials for products. By making conscious choices in the design and driving for best recycling practices we can improve our environmental impacts.

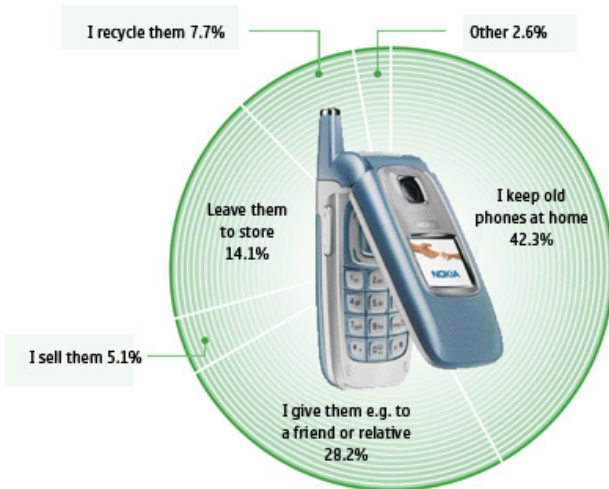
The design of the products and our repair network can extend the lifetime of the products and thus reduce waste in the first place. Recycling provides further benefits. Efficient recycling starts by getting the products back and consolidating/sorting/pre-treating them to maximize the efficiencies of the recycling. This is why we emphasize take-back (to get the devices back) and recycler selection (to ensure efficiency and the highest environment, health and safety standards).

End-of-life handsets contain many valuable materials which can be recovered and reused in manufacturing new products. Up to 80% of the materials in an old phone can be reused in this way. In the best available recycling everything can be recovered from the mobile phone and nothing goes to landfill. However, our research shows that nearly 50% of used phones are not returned or even passed on to another user.

Where are all the phones in New York



Where are all the phones in Finland



The proportions vary by region and prior to return of the handsets the majority of old phones are sold in the secondary market or are passed on to someone, which prolongs the use of the device.

Our responsibility is to make the return of obsolete products as easy as possible and to make sure a used handset is treated responsibly at the end of its life, recycling it once it is no longer used. We have a network of recycling vendors worldwide who operate in accordance with our standards. We offer take-back in 85 countries, with several take-back points through more than 4500 service centers.

In addition, all Nokia operated retail stores take back old devices. Although we offer take back services in all markets, the chart shows that the vast majority of those which are returned go through various retail channels or are recycled through national or other commercial collection schemes. The combination of these different channels means there is no need for any devices to end up in landfill.

Nokia participates in many projects to improve performance, for example the MPPI work group where global guidelines for environmentally sound handling of end-of-life mobile phones have been drafted, covering design, collection, refurbishment, and recycling.

Building awareness - Take-back campaigns in 2007

Consumer awareness is very important in getting users to return the products to the right collection channels, so Nokia is driving this in many ways globally. Return rates for mobiles are typically 3-5% in most collection schemes so the greatest challenge is to raise awareness of the potential to return old phones and motivate people to do so.

We have carried out several campaigns to raise recycling awareness and continue to explore which methods have the biggest impact.

In 2007 we ran major awareness campaigns in various markets:

- ◆ In China, Nokia has, on its own, recycled over 55 tons of obsolete materials, which equals roughly 550 000 devices. In addition we continued the Green Box scheme which began at the end of 2005, in conjunction with other manufacturers and China Mobile. Green Boxes to collect old phones are placed in China Mobile shops throughout the country. In 2007, about 500 Nokia Care Points also started to collect phones from users and China Mobile began to give prepaid cards to consumers as an incentive. Over 80 tons of obsolete materials have been collected during 2007, which equals roughly 800 000 devices. The Green Box take-back and recycling program has been extended to 11 Nokia suppliers in China, covering more than 50 000 employees.
- ◆ In Finland, where we had distributed 200 000 return envelopes at the end of 2006, we offered a donation of €2 to WWF for each phone returned. The campaign achieved a return rate of more than 11%. Roughly 25 000 devices were collected during the campaign.
- ◆ In North America, we ran several campaigns in celebration of America Recycles Day on November 15. All Nokia locations held collection events for employees and in Irving, Texas and Mountain View, California we included the community in the collection. In New York City we invited citizens to recycle their used handsets through our Flagship Store and set up a toll-free number through which people could request a postage-paid recycle bag. The community collection events produced over 16 tons of obsolete electronic materials for recycling, including over 7,000 phones. Additional events were held on Earth Day which resulted in over 50 tons of obsolete materials being recycled.
- ◆ We have found that including a return envelope in the box with a new device is not effective. When we tested this in the U.S. we achieved a return rate of less than 2%. We now offer downloadable postage-paid return labels instead.
- ◆ In Chile and Peru we have been collecting phones in an agreement with Movistar. In total over 3 tons of obsolete materials have been collected, which equals roughly 33,000 devices.
- ◆ In the Philippines, we have taken part in a national pilot project to collect obsolete mobile phones.
- ◆ In Malaysia we kicked off a recycling campaign in cooperation with a local retailer, giving consumers a 20 % discount voucher to buy enhancements or batteries in exchange for returned mobile devices.

We will continue to run take-back and recycling awareness campaigns to explore which incentives work in which markets. We also continue to participate to building up national separate collection infrastructure for e-waste in several markets, including the European Union and Australia.

Through WEEE collection schemes in EU in 2007 Nokia contributed to the management and recycling of 17,000 tons of electronics waste.

Responding to external feedback

In November 2007, the environmental group Greenpeace reported that take-back was not available at six locations (which are part of Nokia's global voluntary take-back program) they visited out of more than 4 500 Nokia collection points. This situation has now been addressed and we are working to ensure a fully functioning process to manage this issue with our service providers. We have set a target to re-train all personnel at Nokia service points to ensure a consistent approach globally.

Nokia supports the concept of individual producer responsibility. In order for us to carry out our own responsibilities we need others in the value chain, like consumers and retailers, to commit to return obsolete mobile devices for responsible recycling. Such co-operation eventually leads to a situation where significant drivers for environmentally optimized product design, enabling easier recycling, would become commonplace, bringing further benefits for consumers, producers and the environment.

We are currently developing awareness-building programs that fit into existing recycling infrastructure and local cultural norms as well as pending local legal requirements. Throughout 2008, we will be running a major training and awareness program designed to ensure that those working in care centers operated on behalf of Nokia take back unwanted devices and can advise consumers on recycling issues. We are also investing in putting more take-back bins and collection points at these care centers.

To help us understand what else still needs to be done we are conducting research with consumers in many markets around the world looking at attitudes to recycling mobile devices, incentives and how we can make it easier for people to get involved in take-back programs. This will inform our recycling programs in future.

Operations

In 2007 we had 17 office and R&D campuses, 17 major single offices and R&D sites, and 11 factories around the world, excluding Nokia Networks sites, which became part of Nokia Siemens Networks in April 2007.

Energy consumption at these sites is the main environmental concern. These locations, with total area of 1 368 000 square meters, collectively consumed 672 GWh of energy in 2007 and were responsible for 235 100 tons of carbon dioxide emissions from energy consumption.

We have been carrying out specific energy-saving projects since 2003 and introduced [a new property strategy](#) in 2007.

In 2007, we also introduced new ways of working to [reduce energy from travel](#).

We also work to [reduce waste and water](#).

Energy efficiency

Our industry is not a major energy user - telecommunications accounts for less than 1% of CO2 emissions in the world, but to be an environmental leader we must address energy use as broadly as we can.

We are improving the energy efficiency of our operations and reducing the climate impact by increasing the use of renewable energy. Our strategy includes changing workplace practices to reduce travel as well as improving the energy efficiency of our buildings. We have introduced a carbon offset program for air travel.

Beginning in 2003, we have carried out new energy-saving projects in our offices and sites each year. The resulting cumulative energy savings between 2003 and 2006 were approximately 3.5 % (27,000 MWh) of 2005 consumption. Our target is to find a further 6% savings from 2007 to 2012, compared to consumption in 2006. In 2007 we achieved around 1 600 MWh new savings in our facilities, but are expecting bigger numbers already in 2008 due energy simulations done in 2007. Since our building portfolio and production volumes have increased, total energy consumption per area has grown. However, the energy consumption per device volume has decreased.

In 2007 we created a global property strategy linked to the LEED (Leadership in Energy and Environmental Design) strategy. The LEED Green Building Rating System covers several aspects of environmental sustainability. We aim to achieve LEED certification for new buildings which we own and will consider the same level of environmental performance for major renovations. We have achieved LEED certification for the first time in Beijing, China in spring 2008.

Energy consumption

We have achieved facilities' energy improvements initially by optimizing technical systems both in factories and office-buildings. Savings have typically been made by lighting, temperature and ventilation adjustments. For example, in 2007 we covered atrium glasses with reflective solar films in two offices in the United Kingdom and we changed the air conditioning at our Salo factory in Finland, including the installation of frequency converters which help to save energy by running the ventilation and pump motors optimally according to the need.

The next step will be to build on this base by initiating investment-based projects which are essential with reaching the 6% savings target of our 2006 energy use by 2012.

These initiatives may be carried out with a "Benefit sharing" model, which is already in use in some of our facilities. This model gives a technical collaborator an incentive to reduce the energy used in our buildings because it shares any resulting cost saving.

Factory energy audits

In 2007 we began a factory energy audit project at two factories to get a solid base for investment-based projects. Our intention is to cover all our factories by 2009. We used software to simulate factory energy use, which will help to identify potential energy efficiency improvements and consider proposals for action. The simulation allows us to consider alternative investments at each factory to arrive at an optimum approach. Our initial analysis suggests we may be able to save around 5% of factory energy consumption, helping us significantly towards the 6% saving target.

Renewable energy

Our global target for renewable electricity is to cover 25% of our total needs during 2007-2009, increasing to 50% in 2010.

In 2007 we achieved the 25% target by buying renewable electricity certificates (RECS). The 133 GWh of renewable energy reduced our CO₂-emissions by 27 400 tons. That is equivalent to the emissions from a petrol-driven car (consuming 7.5 l/100 km) driving nearly 4,000 times round the globe.

See [performance](#) for full details about our energy use.

Buildings

In 2007 we created a global property strategy linked to the LEED (Leadership in Energy and Environmental Design) green building rating system.

LEED promotes a whole-building approach to sustainability by recognizing performance in the areas of:

- ◆ sustainable sites
- ◆ water efficiency
- ◆ energy and atmosphere
- ◆ materials and resources
- ◆ indoor environmental quality
- ◆ innovation and design process

The LEED certification provides independent verification that a building project meets environmental performance standards. To earn certification, a project must meet detailed requirements to accumulate credits. There are four certification levels: Certified, Silver, Gold and Platinum, depending on the amount of credits the project achieves.

We aim to achieve LEED certification for new buildings which we own and will consider the same level of environmental sustainability performance for major renovations of existing buildings.

We are working towards the LEED New Construction certification for our new office and R&D building in the Beijing Economic Technological Development Area and our first factory LEED NC project is underway in Cluj, Romania. Our first LEED Commercial Interiors project is underway in Southwood, UK.

Environmental impact assessments

We carry out an environmental impact assessment (EIA) for a new factory, for example in Cluj, Romania in 2007. Nokia has made a decision to make internal EIA for our new factories even if it is not required by the local law.

Transport and travel

We have reduced packaging sizes, which saves energy used in storage and transporting each product because it reduces the weight and we can fit more products in the same space. We first introduced a smaller sales pack for compact products in 2005 and in 2007 we further reduced the size. In 2007, we also improved the packs for larger models such as the E Series.

See [packaging](#) for more information.

Travel

Mobile communications can increasingly be part of the solution in the fight against climate change, for example by offering alternatives to traveling for meetings.

In 2007, we reviewed our own working practices, aiming to cut emissions by reducing employee travel, including substituting public transport for private cars.

During 2007 Nokia employees used teleconferencing for about 145,000 hours per month (including Nokia Networks figures in January-March).

To improve functionality and reduce the need for traveling, Nokia set up new advanced telepresence facilities at 21 key office locations with plans to roll out in total to 30 sites globally. In addition we set up 20 new more traditional video conferencing facilities and will increase the number to 220 by end of 2008.

Beginning in 2008, we will introduce measures to reduce emissions from employees' travel to work:

- ◆ Encouraging remote and teleworking
- ◆ More shuttle buses
- ◆ Subsidies for low-emission cars and for public transport

Carbon offsets

In 2007, we introduced a voluntary carbon offset scheme for all flights on Nokia business. After a trip, the traveler can pay to offset the associated CO2 emissions and the cost will be reimbursed by Nokia. The payments will help fund a balanced portfolio of Gold standard projects around the world that focus on renewable energy and energy efficiency.

Other environmental impacts

While energy efficiency is the most significant area where we can improve the environmental performance of our operations, we also continue to manage other important issues.

See [performance](#) for more information about these areas.

Water use

Water at Nokia facilities is mainly used for sanitary and catering purposes, with only small volumes used in the production processes, such as for cooling systems.

VOCs

Volatile organic compounds (VOC) arise from the use of solvents in the soldering and cleaning process.

Ozone depleting substances (ODS)

Ozone depleting substances are not used in our products or production. The reported ODS figures are due to refrigerants (HFC, HCFC and CFC types) contained in cooling systems in facilities.

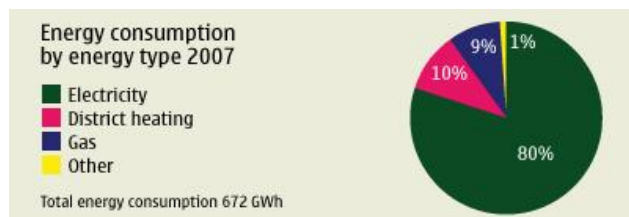
Waste

Our goal is to reduce all waste to a minimum, especially waste destined to end up untreated in landfills. Due to growing production volumes the total amounts have not reduced but we managed to increase utilization percentage from 83% to 88%. This percentage includes solid waste that is reused, recycled for materials, or used as a source of energy.

Specific achievements during 2007 include:

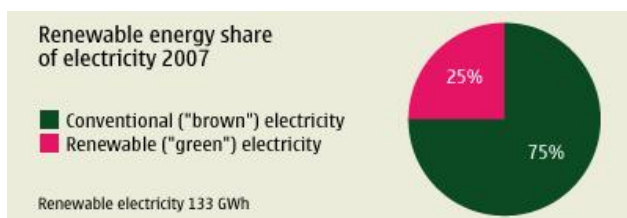
- ◆ In Brazil, we reduced water consumption by 9% between 2006 and 2007.
- ◆ In India, a "War on Waste" project achieved considerable water savings and reduced waste by reusing treated sewage water for landscaping.
- ◆ In China, awareness and action days reduced factory scrap cost by 13%.
- ◆ In Germany, a new cardboard shredding machine enables reuse of incoming packaging cardboard as filling material for outgoing packages, reducing cardboard scrap and the need for other filling material.
- ◆ In Finland, we were able to increase factories' packaging plastics recycling from 2006 to 2007 by 233 % when we started cooperation with a recycler which relocated close to our factory. Our total waste recycling percentage increased from 80% to 87%. Earlier these packages were utilized as a source of energy.

Performance



Environmental statistics 2004-2007, excluding Nokia Siemens Networks data. Energy consumption

	2007*		2006		2005		2004	
	GWh	GJ	GWh	GJ	GWh	GJ	GWh	GJ
Electricity, total	541	1 949 000	680	2 450 000	639	2 300 000	603	2 170 000
Americas	110	395 000	133	481 000	139	500 000	130	468 000
Asia-Pacific	149	536 000	134	483 000	106	380 000	109	392 000
Europe & Africa	282	1 018 000	413	1 486 000	394	1 420 000	363	1 310 000
District heating, total	67	240 000	93	335 000	96	346 000	94	338 000
Americas	0	0	0	0	0	0	0	0
Asia-Pacific	0	0	0	0	0	0	0	0
Europe & Africa	67	240 000	93	335 000	96	346 000	94	338 000
District cooling, total	2	6 000	2	7 200	2	7 200	2,4	8 480
Americas	0	0	0	0	0	0	0	0
Asia-Pacific	0	0	0	0	0	0	0	0
Europe & Africa	2	6 000	2	7 200	2	7 200	2,4	8 480
Gas, total	59	214 000	65	234 000	71	257 000	69	250 000
Americas	13	47 000	16	57 600	20	72 200	17	63 000
Asia-Pacific	18	64 000	12	43 200	11	41 600	13	47 000
Europe & Africa	28	103 000	37	133 200	40	143 200	39	140 000
Oil, total	3,4	12 200	9,5	34 100	1,7	6 100	2	7 100
Americas	1,7	6 200	1,5	5 400	0,9	3 100	0,1	270
Asia-Pacific	1,6	5 800	7,1	25 500	0	0	1,4	5 200
Europe & Africa	0,1	200	0,9	3 200	0,8	3 000	0,5	1 630
Energy, total	672	2 421 200	850	3 060 300	810	2 916 300	770	2 770 000
Americas	125	448 200	151	544 000	160	575 300	148	533 000
Asia-Pacific	169	605 800	153	551 700	117	421 600	124	447 000
Europe & Africa	379	1 367 200	546	1 964 600	533	1 919 400	498	1 790 000
	2007 kWh/m2		2006 kWh/m2		2005 kWh/m2		2004 kWh/m2	
Energy, total per m2	491		438		447		414	
Americas	492		417		465		479	
Asia-Pacific	594		471		474		429	
Europe & Africa	456		435		436		394	



*Nokia's former Networks business group is included in Nokia figures during Jan-March 2007 and from April on Networks figures are part [Nokia Siemens Networks data](#). The year 2007 figures are thus not directly comparable with previous years.

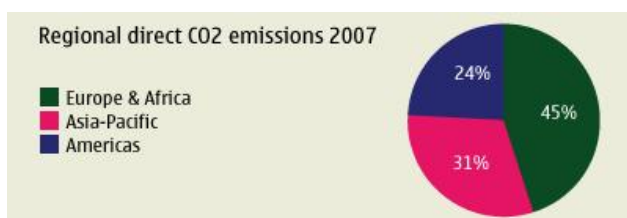
Nokia data collection coverage in 2007 was 91% of all square meters managed by Nokia, including all production sites and other sites greater than 3000 sqm. (Coverage in previous years has been: 90 % in 2006, 88 % in 2005, 87% in 2004)

Nokia Networks share of above figures during January - March 2007: Electricity 52 GWh, District heating 16 GWh, Gas 2 GWh, Oil 0.05 GWh, Total Energy 71GWh.

Increase in electricity consumption per sqm is mainly due to grown production volumes and server room capacity increase - in relation to net sales consumption has decreased.

Air emissions

Emissions from facilities' energy consumption



Direct CO₂ emissions

	2007 (tonnes) *, **	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
Direct CO₂ Total	12 034	15 755	14 743	14 492
Americas	2 869	3 598	4 262	3 506
Asia-Pacific	3 775	4 496	2 310	3 010
Europe & Africa	5 390	7 661	8 171	7 976

Indirect CO₂ emissions

	2007 (tonnes) *	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
Indirect CO₂ Total	223 053	316 812	280 566	252 714
Americas	48 503	61 589	64 289	60 329
Asia-Pacific	115 817	101 836	68 919	69 673
Europe & Africa	58 733	153 387	147 358	122 712

Total CO₂ emissions

	2007 (tonnes) *, **	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
Total	235 087	332 567	295 309	267 206
Americas	51 372	65 187	68 551	63 835
Asia-Pacific	119 592	106 332	71 229	72 683
Europe & Africa	64 123	161 048	155 529	130 688

CO₂, total per m²

	2007 kWh/m ² *	2006 kWh/m ²	2005 kWh/m ²	2004 kWh/m ²
Total	0,17	0,17	0,16	0,14
Americas	0,20	0,18	0,20	0,21
Asia-Pacific	0,42	0,33	0,29	0,25
Europe & Africa	0,08	0,13	0,13	0,10

Total greenhouse gas emissions from facilities in CO₂-equivalent

	2007 (tonnes) *	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
Total greenhouse gas emissions	236 087	334 547	295 530	267 612
Carbon Dioxide (CO₂)	235 087	332 567	295 309	267 206
Hydro-Fluoro-Carbon (HFC)	1 000	1 980	221	406

Volatile Organic Compounds (VOC) Emissions to air

	2007 (kg)*	2006 (kg)	2005 (kg)	2004 (kg)
Total	42 952	33 594	30 203	33 345

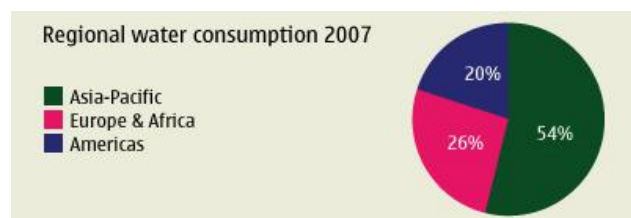
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**Direct CO₂ emissions (Scope 1 emissions) include emissions from gas and oil usage in Nokia facilities. Year 2007 emissions are calculated by a WRI/WBCSD GHG Protocol Initiative calculation tool: "Calculation Tool for Direct Emissions from Stationary Combustion, version 3.1" The effect of greenhouse gases CH₄ and N₂O produced during burning process have been included in CO₂ emissions. In 2006 and previous years direct emissions have been calculated with values taken from publication of Technical Research Centre of Finland. WRI/WBCSD model gives around 5% smaller emissions. In addition to direct CO₂ emissions also HFC (Hydro-Fluoro-Carbon) emissions are part of Scope 1 emissions. HFCs are refrigerants and emissions are minor fugitive emissions from facilities' cooling systems.

Indirect CO₂-emissions (Scope 2 emissions) include emissions from purchased electricity and district heating and cooling. Emissions are calculated by A WRI/WBCSD GHG Protocol Initiative calculation tool: "Indirect CO₂ Emissions from Use Of Electricity, Calculation worksheets" (years 2003 and 2004) and since then "Indirect CO₂ Emissions from the Consumption of Purchased Electricity, Heat, and/ or Steam". The latest version published in GHG website is always used to calculate new data: data from previous years has not been updated with new factors. The year 2006 emissions are calculated with tool worksheet version 1.2 and 2007 with version 2.0.

Year 2004 indirect emissions have been corrected to currently published figures (from 189 640 tonnes) based on unit conversion failure found in third party audit. Year 2005 emission figure decreased in verification by 1137 tonnes and year 2006 increased by 959 tonnes when using more recent version of emission factors for US data.

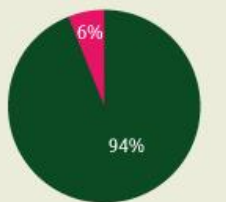
Water



	2007 (m3)*	2006 (m3)	2005 (m3)	2004 (m3)
Total	1 226 097	1 357 385	1 196 508	1 281 500
Americas	243 755	396 898	346 027	465 400
Asia-Pacific	658 459	523 559	374 039	402 846
Europe & Africa	323 883	436 928	476 442	413 254

Water withdrawal by source 2007

■ Municipal water supply
■ Ground water



Water withdrawal by source

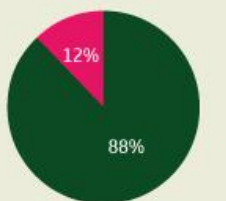
	2007 (m3)*	2006 (m3)	2005 (m3)	2004 (m3)
Municipal water supply	1 154 873	1 292 136	1 122 706	1 097 251
Ground water	71 224	65 249	73 802	184 249

Discharges to Water, Total ***

	2007 (tonnes) *	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
BOD5	328	411	353	333
TSS	433	542	466	440
N	52	66	57	53
P	13	16	14	13

Water discharge destination 2007

■ Municipal treatment facility
■ Nokia treatment facility



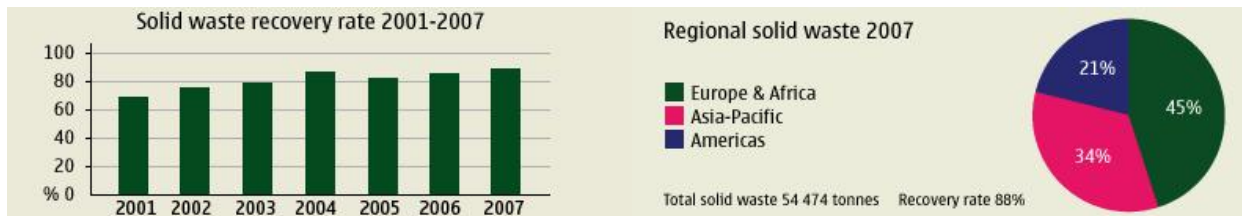
Water discharge destination

	2007 (m3)*	2006 (m3)	2005 (m3)	2004 (m3)
Municipal treatment facility	1 082 781	1 251 866	1 122 706	1 097 251
Nokia treatment facility	143 316	105 519	73 802	184 249

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Nokia Networks share of water consumption during January March 2007: 55 700 m3.

*** Discharges to water are coming from sanitary waste water and are calculated based on the headcount. BOD5 (Biological Oxygen Demand for 5 days) measures the amount of oxygen required or consumed for the microbiological decomposition (oxidation) of organic material in water. TSS means Total Suspended Solids, N stands for Nitrogen and P for Phosphorus.



	2007 (tonnes) *	2006 (tonnes)	2005 (tonnes)	2004 (tonnes)
All Waste Total	54 790	49 952	35 236	27 072
Solid Waste Total	54 474	49 668	34 612	26 605
Americas	11 681	14 533	8 659	6 133
Asia-Pacific	18 375	10 856	4 666	3 734
Europe & Africa	24 418	24 280	21 287	16 738
Recovery rate %	88	83	82	84
Other Waste Total	316	284	624	467
Americas	126	88	68	70
Asia-Pacific	74	34	19	21
Europe & Africa	116	162	537	376
Recovery rate %	62	62	79	71

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Nokia data collection coverage in 2007 was 91% of all square meters managed by Nokia, including all production sites and other sites greater than 3000 sqm. (Coverage in previous years has been: 90 % in 2006, 88 % in 2005, 87% in 2004)

Nokia Networks share of above figures during January March 2007: Total waste 2780 tonnes.

Even if the total amount of solid waste has increased, Nokia has managed to keep a good level in terms of waste utilization %. In general the total waste amount has increased due to the changes and increase in production.

Other waste includes fractions that are considered separate from solid waste streams because of their special nature. In 2006 waste categorization was changed a bit and hence part of waste previously reported under Other Waste, is now reported under Solid Waste. That explains the change in figures between 2005 and 2006.

Emissions of Ozone Depleting Substances (ODS)

	2007 (kg)*	2006 (kg)	2005 (kg)	2004 (kg)
Ozone Depleting Potential (ODP), Total	105	326	101	139

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Nokia data collection coverage in 2007 was 91% of all square meters managed by Nokia, including all production sites and other sites greater than 3000 sqm. (Coverage in previous years has been: 90 % in 2006, 88 % in 2005, 87% in 2004)

Nokia uses no ODS in its products or production. The reported ODS figures are due to ODS contained in cooling systems in facilities. ODP (Ozone Depleting Potential) = emission in kg of CFC-11 equivalent.

Environmental data in relation to net sales

	2007 *	2006	2005	2004
Net sales (EURm)	39 388	41 121	34 191	29 267
Energy consumption (GJ/EURm)	61	74	85	95
Indirect CO2 emissions (tonnes/EURm)	5.66	8.00	8.21	8.63
Direct CO2 emissions (tonnes/EURm)	0.31	0.38	0.43	0.50
Water consumption (m3/EURm)	31	33	35	44
Solid Waste (tonnes/EURm)	1.38	1.21	1.01	0.91
Total Waste (tonnes/EURm)	1.39	1.21	1.03	0.92
Use of ODS (ODP kg/EURm)	0.003	0.008	0.003	0.005

* Year 2007 Net sales includes total net sales from Mobile Phones, Multimedia and Enterprise Solutions business groups + Networks net sales from first quarter.

Learn more about:

- ◆ [Case study: Komárom, Hungary](#)

GHG methodology

Nokia's approach to measuring greenhouse gas emissions follows the Greenhouse Gas (GHG) Protocol (www.ghgprotocol.org) developed by the World Resources Institute and the World Business Council for Sustainable Development. We are further developing our data collection procedures in 2008. Below are listed some key items of the Nokia GHG methodology.

1. Scope

Greenhouse Gases- GHG Protocol covers six gas types. Out of these six, carbon dioxide and HFC (Hydrofluorocarbons) used for refrigerants are relevant for us. Other greenhouse gases such as methane and nitrous oxides are not applicable as such, although the calculation of CO₂-emissions from fuel burning takes into account the small portion of methane and nitrous oxide composed in the burning process.

Organizational Boundaries - Nokia uses the "operational control" approach, which means we include entities based on whether we can introduce and implement operating policies rather than on the basis of financial control. In the first operating year of Nokia Siemens Networks in 2007 we calculated and reported our GHG emissions separately from Nokia and Nokia Siemens Networks, but according to the same methodology.

Operational Boundaries - GHG Protocol defines three scopes of CO₂-emissions: Scope 1 (Direct emissions, from sources owned or controlled by the company), Scope 2 (Indirect emissions, from the consumption of purchased electricity, heat, and/or steam) and Scope 3 (Indirect emissions, as a consequence of the activities of the company, but from sources not owned or controlled by the company).

We report currently externally Scope 1 and Scope 2 emissions. In addition, we have set public goals (add link to Goals-section of CR-report) for the most important Scope 3 emission sources: chargers, suppliers and service providers as well as for commuting and business travel.

Our Scope 1 emissions include emissions from oil and gas usage in our facilities and hydrofluorocarbon (HFC) fugitive emissions during the use of refrigeration and air conditioning equipment. Scope 2 emissions include emissions from purchased electricity and district heating as well as from district cooling available in some European countries.

Facility coverage -Our Scope 1 and Scope 2 data consists of data from buildings larger than 3,000 m², which covers approximately 90% of total Nokia area. Major portion of the data is based on purchase records or meter readings. In some cases readings are not available (e.g. leasing of office space in a shared building). In those cases we estimate energy consumption using actual data for the whole building. In rare cases, if even building-specific consumption data is not available, we may estimate a building's energy consumption using actual data from similar buildings owned by the company.

2. Measurement

Greenhouse gas measurement is defined by the activity data, covering the quantity of energy used, and the emission factors defining the amount of GHGs for each energy type. Activity data is based on actual fuel use wherever possible.

Our GHG measurement from years 2003-2006 were verified by third party in autumn 2007 and verifications will continue on annual basis.

Direct emissions: Our calculation coefficients for direct CO₂ emissions during 2003-2006 were based on the publication made by Technical Research Centre of Finland (VTT). Year 2007 emissions are calculated according to GHG Protocol tool for stationary combustion.

Indirect emissions: Since the beginning of CO₂ reporting, we have used GHG Protocol calculation tool for purchased electricity, heat and/or steam. This includes emission factors based on national and power pool averages published in the GHG Protocol tool. Our green energy acquisition reduces the emission factor to zero for the share of electricity that has been produced with renewables.

Case study: Komárom, Hungary

In 2007, Nokia worked with WWF to make a study in the Komárom factory based on the One Planet Business concept. The study was an ecological footprint analysis of the manufacturing site that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology.

The study identified Nokia's footprint, opportunities and recommendations in different areas of the ecological footprint (see figure below). The study came up with new ideas, but also confirmed we have been pursuing the right environmental actions.

Ideas from the study ranged from setting all computers to double-sided printing to serving more vegetarian and vegan options in the staff canteen.

As a result of the study, the Nokia environmental team is in the process of:

- ♦ selecting and implementing quick actions such as arranging communication sessions, optimizing waste handling, using recycled paper, and setting all computers to double-sided printing
- ♦ defining intermediate and long-term actions, some of which may not be possible to implement in existing factories, but will be taken into account when planning new ones.
- ♦ contacting suppliers and collaborators to influence them to reduce the quantity of non-reusable packaging, increase energy efficiency of process and IT equipment, and to optimize freight transport.

All actions will be implemented globally (when relevant and possible) and followed up as part of the EMS process.

Environmental management

Environmental management system

We believe that environmental management has to be fully incorporated in our business processes. Environmental issues are everyone's responsibility at Nokia and an integral part of managing our business because they are related to all we do. Our environmental work is based on global policies and standards.

Nokia's environmental network acts as a virtual team across the organization and is led by the Vice President and Head of Environmental Affairs at Nokia. Group-wide environmental strategy, targets and priorities are developed and agreed by the Nokia Environmental Management Team (NEMT) representing all relevant Nokia units. Key issues prepared by NEMT are approved by the Nokia Environmental Steering Group which in 2007 had a management representative from each Business Group and Horizontal Group and some Corporate Functions in Nokia, and was chaired by a Group Executive Board (GEB) Member, the Executive Vice President, Corporate Relations and Responsibility. Major issues are escalated to the GEB if needed.

We use Environmental Management Systems (EMS) and the ISO 14001 standard to control and manage the environmental aspects of our production and large offices. All Nokia production sites have ISO 14001 certified EMS. We also require this of our main contract manufacturers and EMS is one of our supplier requirements. We have also implemented an internally verified EMS in our large offices and R&D sites.

Our Environmental Management System consists of:

- ♦ Nokia Environmental Policy
- ♦ Identification of environmental aspects, and evaluation of their significance
- ♦ Objectives and programs for achieving environmental targets
- ♦ Compliance with legal and other regulatory requirements
- ♦ Audits, management reviews, and continuous improvement
- ♦ Operational management (data and processes) for energy and water consumption, waste etc.

The goal of the Nokia EMS is to improve our environmental performance, focusing on:

- ◆ Energy consumption
- ◆ Water consumption
- ◆ Air emissions
- ◆ Ozone-depleting substances
- ◆ Waste management
- ◆ Packaging

Actions based on audit findings from 2006 have been followed up and improved. The main environmental issues that arose during 2007 were in one factory only. They were concerned with having chemical security data sheets available in English as well as the local language, checking compliance with legal and other requirements in the activities and processes themselves, not only in documentation, finding final products in the unready material cart, and ensuring proper waste handling. These will all be followed up during 2008.

We believe that minimizing our environmental impacts requires continuous improvement, so a team of people has been set up to share best practices and to follow up global environmental targets. It includes people responsible for EMS from manufacturing sites, and a representative from offices sites who is responsible for EMS.

In 2008, we will begin integrating the EMS into our quality management system. The first step will be to agree harmonized targets including global limits for waste produced and energy consumed per phone.

Regulatory compliance

There were no breaches of environmental regulations during the year.

Training and Development

At Nokia employees can participate in a wide range of internal events and training that help raise awareness and develop understanding of environmental issues, both inside and outside the company.

Global environmental forums, held twice a year, bring together senior management and employees to engage in open dialogue around Nokia's environmental strategic directions and activities. These are supported by area forums, focusing on environmental issues from a regional perspective.

A series of environmental virtual information sessions covering a wide range of topics related to Nokia's environmental work are organized as online teleconferences, making it possible to join from anywhere in the world. Presented by both internal and external experts, nine environmental virtual information sessions were held in 2007.

Environmental road shows are held regularly at Nokia offices and production sites throughout all regions. Helping to increase environmental awareness, the road shows focus on environmental issues at both a Nokia-level as well as a site specific-level, and provide tips for sustainable choices in people's private lives as well.

Many of Nokia's regular management training programs include environmental issues. In addition, there are management training workshops on business cases with an environmental focus, and seminars covering relevant and topical environmental issues are arranged with WWF, the global conservation organization, as part of the Nokia/WWF partnership.

Connect to Protect, another example of a joint activity with WWF, is an internal web-based learning platform. It helps to raise environmental awareness among Nokia employees and to provide guidance on adopting an environmentally friendly lifestyle both at home and at work.

There are many environmental awareness programs running in Nokia factories. One of the largest is the Nokia Environmental Ambassadors Club in China which has attracted over 1000 Nokia employees to work for environment in their spare time. More than 5400 hours have been contributed by the club's volunteers in 2007, for example, planting trees with neighboring suppliers, providing environmental education to Nokia Hope Schools in 10 cities in remote areas, and setting up battery recycling bins and environmental posters in Dongguan city center with other associations.

Case study: Chennai, India

Nokia started the operations in Nokia Telecom Special Economic Zone (SEZ) in Chennai, India at the start of 2006. The park expanded during 2007, with suppliers opening operations making phone covers and chargers amongst other components. Expansion continues in 2008, with the total number of people employed expected to double by the end of the year.

The vision of the Nokia Telecom SEZ is to be an environmental role model. To make this vision a reality Nokia set up the Nokia SEZ Environmental Team (NSET) in December 2006, including environmental managers from all seven companies in the Park as well as Nokia. To start with each supplier company was required by Nokia to carry out an Environmental Impact Assessment, even though this was a legal requirement for only one of the supplier companies. Following the assessments, each company developed an environmental plan which was approved by Nokia's environmental manager. The implementation of these environmental plans is monitored through audits carried by the Park environmental manager.

NSET's key role is to manage environmental issues across the park companies, co-create environmental solutions, share information and best practice among the companies. This involves identifying environmental risks, developing common action, key indicators and reporting. The team also liaises with the authorities and with other local industries on environmental issues.

Setting up waste management solutions was the first priority due to lack of adequate recycling infrastructure. The law also prohibits the transport of certain hazardous waste across state boundaries and out of the country for management.

The Nokia Telecom SEZ has adopted a zero water discharge approach. No industrial wastewater is discharged from any of the park companies. The companies recycle any industrial waste-water that they generate. Domestic wastewater is treated in a common sewage treatment plant and recycled for use in flushing and gardening. Rainwater is also collected in a pond in the park for reuse. Throughout 2007 we maintained water consumption below our target of 40 liters per person per day.

Goals

As a part of Nokia's Climate Strategy, we have set goals to reduce energy consumption and CO₂ emissions in key areas of the business. Those marked [V] require external verification of performance. We have not set an overall target for all CO₂ reductions related to Nokia products and operations because the direct impacts which are under our control are a small part of our overall impact. Most of the CO₂ emissions take place either in component manufacturing by our suppliers or in the use phase of our products.

Chargers

- ◆ Reduce the average charger's no-load power consumption from 2006 level by 50% by the end of 2010 (V).
- ◆ By the end of 2008, add reminders in all new mobile devices about unplugging the charger once the phone has been fully charged.

Offices and sites

- ◆ Save a minimum 32,000 MWh of energy in our facilities from 2007 through 2012. This is 6% of consumption in 2006 (V).
- ◆ Renewable electricity to cover 25 % of our total electricity needs 2007 to 2009, and 50 % in the year 2010 (V).

Suppliers and service providers

- ◆ Set energy efficiency and carbon dioxide emission reduction targets for key global suppliers by 2009.
- ◆ Set reduction targets for logistics service providers by 2009.

Work and management practices

- ◆ Reduce commuting by private cars by increasing the amount of regular teleworking sixfold from the 2006 level by the year 2010 and by introducing commuting benefits packages to promote the use of public transport.
- ◆ Reduce business travel by implementing a comprehensive range of video conferencing facilities.
- ◆ Offset business travel CO₂ emissions with an external partner which offers projects approved as "Gold Standard" offset schemes.

Performance

Indexes

Nokia provides two separate indexes:

[Global Reporting Initiative \(GRI\) Guidelines](#)

Nokia's CR report within the GRI framework to ease compatibility with other organizations

[Ten principles of the United Nations Global Compact](#)

Nokia's continued commitment to the UN Global Compact

About the report

This is Nokia's 5th Corporate Responsibility (CR) Report, covering the calendar year 2007.

The report highlights Nokia's performance in the areas where business practices most affect society and the environment. It covers the key ethical, socio-economic and environmental areas we believe are most relevant to our business and our stakeholders.

On April 1, 2007, Nokia's Networks business group was combined with Siemens AG's carrier-related operations for fixed and mobile networks to form Nokia Siemens Networks, a company jointly owned by Nokia and Siemens and consolidated by Nokia. Accordingly, the numerical data regarding Nokia Group and Nokia Siemens Networks for the year 2007 are not directly comparable to numerical data for previous years. Please see the [Nokia Siemens Networks CR Report](#) for information on its CR activities.

This report is available only online and can be downloaded in a way that matches a reader's specific interests. Readers can create their own [personal report](#) containing only the topics they want to read.

Further details, background information on our approach and a history of Nokia's CR activities can be found on the corporate pages of Nokia's website. More detailed country information on specific activities relevant to corporate responsibility is included in Nokia's CR map.

Some of the highlights of our CR Report 2007 are included in our corporate brochure About Nokia, published in May 2008. Previous CR reports can be found on the company's CR website.

Details about Nokia's financial performance are published in quarterly results releases, the annual report on Form 20-F, and Nokia's annual accounts. All these can also be viewed on the corporate website.

We welcome your views on our activities and our performance. Please contact the Nokia CSR team at csr.feedback@nokia.com