Nokia Siemens Networks

Corporate Responsibility report 2008

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1. Message from the CEO

Corporate responsibility is not just a “nice to have” - it is a fundamental statement of intent, of the ethics and responsibility that all of us must demonstrate to society as a whole. This is a comprehensive report on how NSN integrates corporate responsibility and ethics into its operations. From high statements of intent to implementation at a grass roots level, this report is the starting point for all of our stakeholders to see not only what we promise to do, but how successfully we are doing it.

Our customers and other stakeholders are increasingly aware and supportive of action in this area. The report gives us an excellent way to proactively and transparently communicate our achievements, which we are quite proud of. It contains real commitments to Corporate Responsibility and perhaps more importantly, a clear vision on how we want to run our company. Ethical behavior and Corporate Responsibility are not standalone activities - they are an inseparable part of our operations and determine how we operate.

This is not to say that there will not be challenges - particularly in the context of difficult times that we’re in at the moment. And we need to make choices, some difficult choices. We are a global company operating in 150 countries, with customers and employees from a variety of cultures.

We will continually and actively promote and never ever compromise on our ethical business credentials.

Simon Beresford-Wylie

Simon Beresford-Wylie Foreword
(1min 41sec)
Simon Beresford-Wylie on Environment
(2min 52sec)
Simon Beresford-Wylie on Ethics
(2min)
Simon Beresford-Wylie on Diversity
(1min 51sec)

2. Data highlights

This report demonstrates our commitment to responsible business in areas ranging from social and economic development to climate change. We believe it is essential to measure our progress and this page brings together key data on each topic.

As this is our first full report following the creation of the company in April 2007, we do not have full comparative figures for the previous year. We have been developing data collection systems and in future we will be able include comparatives.

We also include here our energy and emissions goals, both for the coming year and for the period to 2012. This is the first area where we have developed quantified goals because it is so urgent.

For the full story behind the data, follow the links to the relevant page of this report.

Goals

Decrease our CO2 footprint by approximately 2 million tonnes annually, compared to 2007, by:

- improving the efficiency of GSM/EDGE and WCDMA/HSPA base station products by up to 40 percent by 2012
- reducing energy consumption in buildings by six percent by 2012
- Increasing the use of renewable energy in company operations to 50 percent by the end of 2010.

In 2009, we aim to reduce energy consumption from our broadband network products by 29 percent for ADSL lines and 49 percent for VDSL lines, from the 2007 baseline

We aim to reduce miles flown by a further 10 percent by the end of 2009.

We intend to reduce emissions from new cars in our service fleet in Europe to 120g/km by 2010

Performance in 2008[1]

- Employees
- 60,295 employees at year end

[1] Fully comparable data for 2007 is not available as the company began operations in April 2007

- 74 percent of employees took part in the Employee Engagement Survey
- 128,384 days of training through the Nokia Siemens Networks Academy

Suppliers

- 103 supplier system audits in 2008
- 7 in-depth process audits
- 91 percent of the sites of 40 key suppliers had a documented environmental management system
- Suppliers' rating of Nokia Siemens Networks' requirements on business ethics when dealing with suppliers 8.3
- (1 being not strict at all and 10 being very strict)

Travel

- videoconferencing facilities at 25 locations
- reduced the number of miles flown by employees while on business by 10 percent.
- average emissions of new company cars down from 180g/km to 140g/km

Energy and emissions

- Total energy use 609 GWh
- Total greenhouse gas emissions from facilities (CO2 equivalents): 217,000 tonnes
- 17 percent of our electrical energy came from renewable sources

Waste and water

- Total solid waste created: 6,480 tonnes
- Solid waste reused, recycled or used as energy: 88 percent
- Water use: 883,000 m3

Research & development spending 16.3 percent of sales

Financial data

- Sales – 15.3 EUR billion
- Research & development – 2.5 EUR billion
- Payroll and benefits – 2.9 EUR billion
- Pension expense – EUR 148 million[2]
- To suppliers for goods and services: 10.391bn
- Other social expenses – EUR 445 million

[2] Pension expenses include a gain of EUR 65m recorded on the transfer of the Nokia Pension Fund to a pension insurance company in 2008.

3. Our approach to corporate responsibility

Our goal is to make a net positive impact on the environment and society.

We want to go further than merely addressing corporate responsibility (CR) risks and impacts. Our industry has a unique opportunity to contribute to society and our plan aims to maximize that positive influence.

The CR plan to 2012 targets these three broad objectives:

- mitigate CR risks
- minimize adverse environmental impacts
- maximize our positive influence.

We believe that CR means taking business decisions that incorporate these objectives, based on our values and guided by the principles embodied in our **Code of Conduct**. We consider this to be good management – where social, environmental, and business benefits converge.

Mitigate corporate responsibility risks

We need to ensure prudent risk management, including risks to our reputation, and be able to demonstrate that we have management systems in place covering anti-corruption, human rights, labor conditions, occupational health and safety, and environmental protection standards.

Our aim is to protect the brand and reputation of Nokia Siemens Networks and our customers by minimizing CR-related risks of our own operations and of our supply chain.

Minimize adverse environmental impacts

For our environmental plan to be sustainable in the long term, our environmental solutions must improve our customers' profit margins. To achieve the biggest impact we must focus innovation on the most significant areas: **our products'** energy consumption during use and the environmental impacts of **our supply chain**.

By comparison, our own operations have a relatively small impact. But we have set ambitious goals to improve the environmental efficiency of our facilities, **our travel and service fleets**.

Maximize our positive influence

Telecommunications is in a unique position to reduce the environmental impacts of **other industries**. We aim to use our understanding of the industry and our competencies to:

- Make operations more efficient, using monitoring and optimization technologies
- Dematerialize physical products, replacing them with electronic versions
- Enable environmentally friendly services
- Decrease the need for travel.

The second area of our positive contribution is **our corporate social responsibility**[3]. We aim to provide extended engagement rather than one-off donations, using communications to:

- Support achievement of United Nations Millennium Development Goals (MDGs) on poverty, education and health
- Help people in distress, in coordinating and monitoring emergency and relief efforts after natural catastrophes
- Improve access to education by connecting schools, universities, and education projects around the world.

We are pursuing these strategic objectives through detailed plans in each area, described in the pages of this report.

[3] We use this term for our voluntary social programs

4. Bringing connectivity

We are convinced that our industry provides sustainable benefits to society and that communications-related activities have a major positive impact on the social and economic development of people and their communities. To support this process, we are creating sustainable business models that help address the challenges of connecting communities in rural areas and in low-income regions.

Mobile telephony technology has dramatically expanded communications capabilities, especially in emerging markets and the developing world, yet we believe that there is even greater potential for expansion in the use of the mobile internet. In our vision of five billion people connected by the year 2015, with a hundredfold increase in traffic, we ideally see almost everyone within reach of a connection. As a first step towards the realization of that vision, we are addressing the concrete challenges of connecting the next billion. These people will be predominantly users from low-income segments of the population, from poorly connected rural areas, or from emerging markets and developing countries.

By extending communications in such challenging areas of the world, we are taking a real step towards bridging the digital divide in support of the Millennium Development Goals set by the United Nations for 2015 – in particular the reduction of poverty and the improvement of education and health.

In 2008, we continued to develop the award-winning **Village Connection** concept and introduced the Internet Kiosk as a further development of this model. We believe these are viable ways of bringing commercial mobile services to poor and rural areas, but we realize that more efforts need to be undertaken jointly with governments and regulators to create effective markets for mobile operators. As one example of our work in this area, we launched an eCommerce Solution pilot project in China in 2008, which can provide the kind of services needed to support rural development needs.

Access, however, is not only about having the right technology and infrastructure. **The Connectivity Scorecard**, developed with the London Business School, identifies countries - such as Malaysia - that are leaders in the developing world in realizing the potential of communications technology. It also highlights unused potential in many countries.

Case study: Pop!Tech's Project Masiluleke

In October 2008, Nokia Siemens Networks took part in a three day summit to develop new interdisciplinary solutions to pressing global challenges. Partly sponsored by Nokia Siemens Networks, the 'Pop!Tech Accelerator' brought together 600 leaders and thinkers from the sciences, technology, business, design, the arts, education, government and culture. Together they explored cutting-edge ideas, emerging technologies and new forces of change.

A key focus of the summit was the first Pop!Tech Accelerator project: **Project Masiluleke**. Project Masiluleke harnesses the power of mobile technology to address HIV/AIDS and TB epidemics in South Africa. The project will reach millions of people across the country, connecting hundreds of thousands to information and support.

Meaning 'hope' and 'warm counsel' in Zulu, Project Masiluleke sees Nokia Siemens Networks joining a coalition of international partners – including iTeach, the Praekelt Foundation, frog design and the National Geographic Society – which will drive adoption of the program in South Africa and beyond.

Link to **Project Masiluleke**

4.1 Internet for the next billion

Information and Communications Technologies (ICTs) have the potential to enhance the lives of people everywhere, but particularly the lives of people living in deprived and isolated areas. Nokia Siemens Networks collaborates with other private sector companies, governments and civil society organizations to create sustainable business models and solutions that make full use of the potential of ICTs to advance the social and economic development of people and their societies.

We are committed to the principle of sustainable universal access to information, and we embrace the expansion of ICTs in emerging markets. We believe in a world where everyone can be connected, regardless of geographical location or socio-economic background. The rapid spread of modern communications technology in the developing world is a business opportunity for us. But it is much more than that: it is also a fundamental corporate responsibility. To spread the benefits of, and enable access to, an information society for all is a commitment that is at the heart of our CR program.

Already the global growth of mobile communications has been truly amazing. Today, more than 80 percent of the world's population is covered by GSM mobile networks[4], and the benefits of voice and text connectivity are being experienced in many parts of the world. But we estimate that

[4] *Imagine everyone connected – Connecting people with what is important to them,* Nokia Siemens Networks, 2008, p7

today less than 40 percent of the world's population can afford connectivity. Therefore our ultimate goal is to overcome the affordability barrier for basic voice and text communications, considering the requirements of individuals with an income of $US 2 per day or less.

Our immediate objective is widespread affordable access to Internet services in low-income areas. To this end, in 2008 we shifted our focus from voice and basic data towards Internet services. We set out to understand the needs and motivations of the next billion Internet users, and to explore how we can overcome the barriers to access and thus increase uptake of sustainable solutions.

Fact:

- 80 percent of the world's population is covered by GSM mobile networks
- Less than 40 percent of the world's population can afford connectivity

Meeting the 'low income and rural challenge'

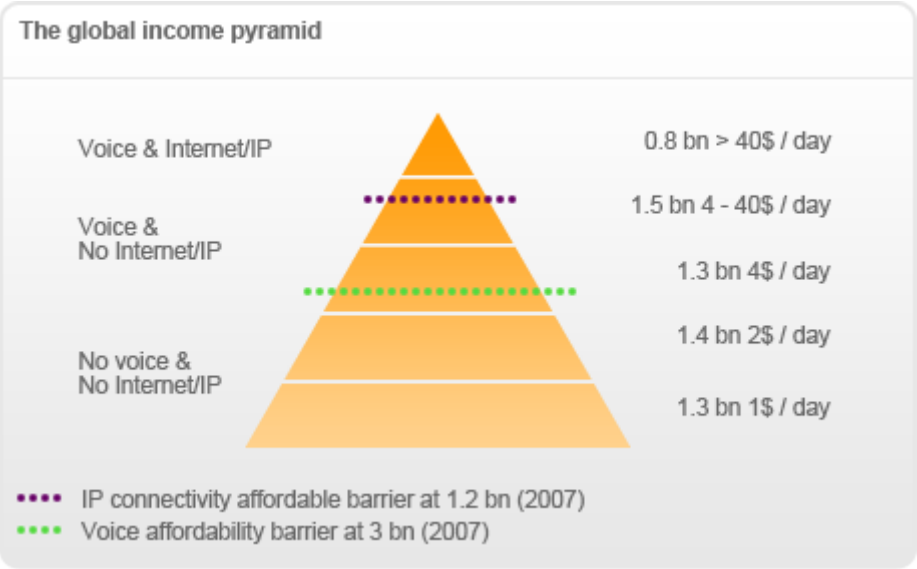
The highest mobile communications user growth rates are being experienced in some of the world's least developed regions. We believe that many people in these regions will access the Internet for the first time via their mobile devices. By 2015, when the number of people connected to mobile networks is expected to exceed five billion, 80 percent of new connections will come from the world's emerging markets – and therefore primarily from lower income segments.

If we are to achieve successful and sustainable business growth in these areas, a number of key challenges will need to be met.

These challenges, identified by Nokia Siemens Networks in recent research, relate to:

- **Affordability**

As many as 2.7 billion people in the world have to live on $US 2 a day or less. This means that people at the bottom of the global income pyramid will have only $US 3 a month or less to spend on ICT. To meet the affordability challenge and create sustainable business growth, the whole value chain needs to deliver services with the lowest possible operating and capital costs.



- **Access**

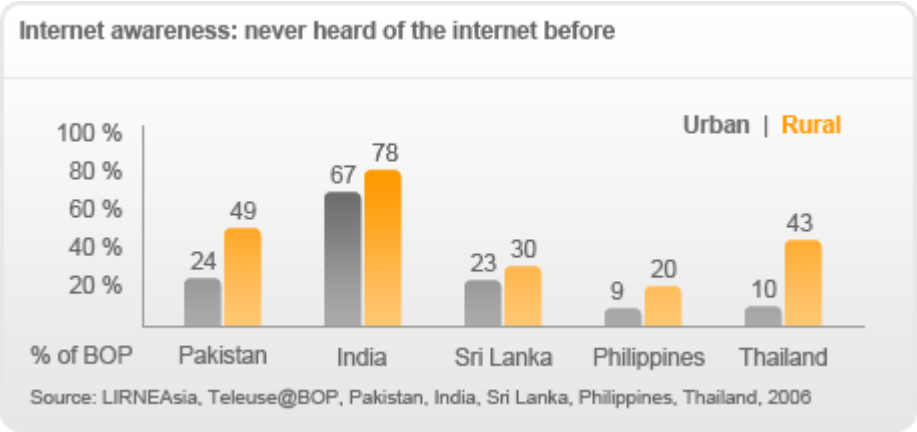
Delivery of services is a key driver of cost within the value chain. Access to services and information needs to be affordable for consumers and profitable for operators. Shared access is one model that will play an important role in the adoption of Internet services. Shared access can happen in urban areas via Internet cafés, or on a smaller scale in rural villages. In both cases, shared access can be supported by entrepreneurs and can open up opportunities for new business models.

- **Motivation**

Almost 80 percent of the lower income population of rural India have never heard of the Internet. But in addition to raising awareness, we also need to demonstrate the value of Internet services. Such value, which urgently needs to be communicated to low income consumers, will create the motivation to use these services.

- **Competence**

New users cannot be expected to master ICT overnight, and services will have to be intuitive to cater for low competence and literacy levels. That is why, as part of our CR programs, we support **education initiatives** worldwide through university collaborations and other projects to raise awareness and increase competencies and human capacity development. Content will also have to be locally relevant and linguistically appropriate to enable widespread adoption.



Mobile solutions and research

Mobile penetration holds the key to the delivery of universal internet access. Our new ways of creating practical, demand-driven mobile solutions will help address the dual low income and rural challenges.

There is a long way to go before the barriers to access are overcome. But our research is giving us a better understanding of the consumers, operators and markets.

Throughout 2008, Nokia Siemens Networks was involved in a number of research projects in this area. These included:

- **Rural Marketing Practices for Telecoms Services**

This rural marketing study aims to help service providers tap into rural markets in South and South-East Asia. The study, which was fully funded by Nokia Siemens Networks, explores some of the myths surrounding rural markets and shows how to expand services in these areas.

- **GSMA study on Taxation and the Growth of Mobile Services in sub-Saharan Africa**

Partly financed by Nokia Siemens Networks and other companies, this syndicated study builds on a 2007 GSMA study examining the impact of airtime taxes in East Africa. The 2008 study extends this analysis to include taxes levied on handsets and equipment. The report analyses the impact of lowering and removing non-VAT related mobile-specific taxes on subscriptions, usage and the total tax generated by the industry.

- **eGovernance study**

This 2007 research analyzes the demand and supply factors affecting the provision of public services through local e-content. Funded by Nokia

Siemens Networks, Nokia and CTO, the study includes interviews with policy makers, regulators, private sector representatives and civil society organizations, as well as rural and urban users of telecommunication services in Ghana, India and South Africa.

Through the projects and programs outlined in this section, we aim to provide the next billion internet users with the opportunities, capabilities and tools to help them derive maximum benefit from information technology and services.

4.2 Village Connection – our solution to promote rural connectivity

In line with our vision of five billion users connected to mobile networks by 2015, in 2007 we launched the Nokia Siemens Networks Village Connection as an innovative solution to promote access and extend coverage in remote and rural areas.

The system is designed to open information and communication services to largely untapped markets as it extends mobile voice and data coverage to rural villages. It does this using a new low-cost, franchise-based entrepreneurial business model.

In 2008, Village Connection was rolled out in India, with trials in Africa, the Asia Pacific region and Latin America. These early pilot projects have demonstrated that the technology is sound, the demand strong and the program sustainable.

While progress has been slower than anticipated in India due to the preoccupation of operators with 3G licenses, 50 villages were connected by the end of 2008 using Village Connection trial demonstrations, each delivering between 300 and 2,000 calls a day.

The Village Connection model works as follows:

- Operators set up village-based GSM access points linked to regional centers
- Village "hosts", in contract with the network operator, are trained to maintain the access point equipment and run the village network
- These local entrepreneurs sell prepaid mobile phone subscriptions to other villagers and are thus incentivized to increase the subscriber base
- The entrepreneurs also pass on basic ICT skills and knowledge to help people access and use the information services available

Village Connection breaks down the barriers to connectivity for rural areas and creates local opportunities. It acts as a spur to entrepreneurship and helps build ICT competence. The subscribers receive benefits such as access to information on healthcare, education or business.

Internet Kiosk connection

In 2008, we launched Internet Kiosk, an extension to the Village Connection program that lowers costs by sharing access.

Based on the "Internet café" model, Internet Kiosks provide lower cost and assisted Internet access in rural areas. This model enables operators to provide Internet services easily and cost-effectively at village level.

Internet Kiosks are also run by local entrepreneurs who oversee the village networks. They show villagers how to use the Internet, guide them to relevant content, and help during online sessions.

Driving operator interest

Village Connection and Internet Kiosk significantly lower the capital expenditure and reduce the operating expenditure associated with traditional wireless network roll-out. This makes investment in poorer markets potentially profitable and practical for operators.

We appreciate that, while operators may take their responsibilities to low-income areas seriously, they need effective services to support sustainable business models for new markets.

"Two key factors made Village Connection stand out in the Innovation category. The first is the system support for local subscriber management in the villages, enabling a franchise-based business model. The second is its solution architecture that eliminates the traditional network hierarchies for traffic between neighboring villages, minimizing the capital and operational expenditure for operators."

N.K. Goval, Chairman Emeritus, TEMA

In 2008, Nokia Siemens Networks joined the Global Knowledge Partnership (GKP), a multi-stakeholder network that promotes ICT for development. We believe this kind of engagement will help us further mobile penetration in non-traditional markets.

Awards 2008

TEMA
The Nokia Siemens Networks Village Connection won the "Excellence in Innovation" award at the 2nd annual National Telecom Awards held by the Telecom Equipment Manufacturers Association (TEMA).

GSMA
Village Connection was also shortlisted for the Best Use of Mobile for Social & Economic Development in the 13th Annual Global Mobile Awards by the GSM Association (GSMA).

Case study: On the road in rural Brazil

In October 2008, Nokia Siemens Networks carried out a 20-day expedition to rural Brazil to showcase Village Connection. We worked with the Brazilian operators Oi, Nokia, Intelsat and Hughes.

The expedition van and support crew visited Muniz Ferreira and Cravolandia in the rural northeastern state of Bahia. At each destination, local people were invited to make phone calls, send text messages and access the internet. Some made calls to family members, while others sent messages to friends and business partners in neighboring villages. In many cases, people experienced mobile connectivity for the first time in their lives.

The 'Connecting Brazil' roadshow helped to demonstrate the potential of our connectivity approach. For more information on the expedition, see www.expeditionbrazilconnected.com.

Case study: Village Connection in Tanzania

In February 2008, following a trial agreement between Nokia Siemens Networks and Vodacom Tanzania Limited (Vodacom), we implemented Village Connection in Tanzania.

Village Connection, the first project of its kind in Africa, is bringing benefits to the millions of villagers in Tanzania who only have up to €5 to spend on telecommunications services per household per month. It is also enabling Vodacom, supplier of universal communication services to East Africa, to maintain its leadership in remote and rural coverage in Tanzania.

4.3 eCommerce Solution

In 2008, Nokia Siemens Networks launched the eCommerce Solution pilot in rural China to provide internet shopping in rural areas. It contains an online Catalogue Sales Platform with products uploaded by urban businesses. As with **Village Connection**, this service is delivered to villagers through local entrepreneurs who provide access to the shopping platform.

The eCommerce Solution was devised and delivered in partnership with China Mobile in Fujian Province, and allows easy access to a wide range of consumer products to villages in Fujian – a vast market for urban retailers and distributors. The service also offers China Mobile an opportunity to explore new business models to help them improve their local presence in rural areas.

Through the eCommerce service, local entrepreneurs (mainly business owners in rural areas of Fujian) can expand their businesses, which are often limited due to their shop size and storage opportunities. The pilot scheme showed that during a five-month period business owners generated online transactions equal to the revenue they have raised from traditional business.

The eCommerce Solution challenges traditional ways of conducting business and purchasing goods in remote locations. After a successful pilot, this business model is now being taken forward to other rural areas within Fujian Province.

4.4 Connectivity Scorecard

Connectivity is the key enabler of the information flow that defines modern economies. It is integral to economic productivity in advanced economies, and to the transformation of the economies of many Asian and African countries. However, investing in the infrastructure of ICT is no longer enough to ensure that people and communities are as connected as they could be. We want to identify the lost potential.

In 2008, Nokia Siemens Networks published findings from a connectivity research study carried out across 25 countries. The study, which analyzes not only a nation's ICT infrastructure but how well it is being used, ranks each nation's performance on a Connectivity Scorecard.

Designed by Leonard Waverman, Fellow at the London Business School and Dean of Haskayne School of Business at the University of Calgary, the Scorecard investigates how 'usefully connected' countries around the world really are. The Scorecard assesses performance against approximately 30 indicators of connectivity – including broadband, fixed-line, mobile and computing technologies – that contribute to a country's social and economic prosperity. Measures of positive ICT deployment include workforce IT skills, literacy, the use of enterprise software, women's access to ICT.

The results reveal that even the most advanced economies, and even the 'best connected' countries (such as the United States and Sweden), are failing to fulfil their ICT potential. This means poor access to public services and reduced availability of education, as well as hundreds of billions of dollars in lost potential revenue for business.

Awareness-raising, dialogue and leadership

The Connectivity Scorecard has enabled Nokia Siemens Networks to track ICT progress in the countries covered, and to issue an urgent 'wake-up' call to governments and businesses. We want to raise awareness of the fact that better use must be made of infrastructure if countries are to experience the full social and economic benefits of ICT.

> "Even the wealthiest and most technologically advanced countries still have a great deal to gain from further development of ICT infrastructure, as well as the training and skills development to exploit those connectivity technologies to the limits of their potential."
>
> **Ilkka Lakaniemi, Head of Global Political Dialogue and Initiatives at Nokia Siemens Networks**

The Connectivity Scorecard also provides a platform for dialogue with regulators, financial institutions, multinational organizations, universities and communications service providers. Through this dialogue, we want to encourage stakeholder action and engagement to help improve individual country scores.

Our research has been extremely well received both internally and externally, and has demonstrated our commitment to understanding and extending the wider positive impacts of ICT.

Next steps

In 2009 we will publish the second version of the Nokia Siemens Network Connectivity Scorecard. It will include double the number of countries, including many from the Asia Pacific and Africa regions – altogether 25 innovation-driven economies (advanced economies) and 25 resource and efficiency-driven economies (emerging markets). This broader study gives us further insights into the correlation between ICT deployment and usage and social and economic development. The results confirm that even the wealthiest and most technologically advanced countries still have plenty of room to develop their ICT infrastructure and improve its use. They suggest that the best connectivity is yet to come, and that there is still much work to be done.

In 2009 we will also launch a Broadband Study to explore the impact of broadband on economic growth. It will complement the Connectivity Scorecard, helping operators and service providers understand the economic and social value of their investment in broadband. The research will also be used to inform regulatory bodies and decision-makers about implications of broadband policies.

Case-study: Malaysia scores a hit

While the United States topped its Connectivity Scorecard category (innovation-driven economies) with scores of 6.97 (2008) and 7.71 (2009), Malaysia twice came top of the 'resource and efficiency-driven' economies with an impressive 7.59 (2008) and 7.07 (2009). The country's performance was characterized by consistently strong scores across all categories, including top scores in consumer use and skills.

Malaysia's score reflects positive ICT use, with high levels of literacy, high levels of internet penetration, and a good gender balance in access and internet use. Malaysia's performance indicates that it is well on its way to joining the category of 'innovation-driven economies'. However, long-term investment in business, government and consumer infrastructure is required to support that progress.

Connectivity Scorecard results: 2008 & 2009

The Connectivity Scorecard is designed to provide a comparison of how countries rank in relation to each other at a given point in time. For the 2009 Scorecard, we substantially expanded and revamped our information base. We also replaced some of the original data sources in order to improve the robustness and transparency of the study. For these reasons, while the methodology remains unchanged, and while there is a high degree of

consistency between the 2008 and 2009 results, it is difficult to draw comparisons between, or to interpret, absolute scores over time.

Connectivity Scorecard 2008:

Innovation driven economies	Connectivity score
United States	6.97
Sweden	6.83
Japan	6.68
Canada	6.56
UK	6.13
Finland	6.10
Australia	5.90
Germany	5.52
France	5.07
Korea	4.73
Hong Kong SAR	4.46
Italy	3.85
Spain	3.56
Hungary	3.18
Czech Republic	3.10
Poland	2.33

Efficiency and resource driven economies	Connectivity score
Malaysia	7.59
Russia	6.60
Mexico	5.54
Brazil	5.28
South Africa	5.26
China	4.45
Philippines	3.00
India	1.83
Nigeria	1.07

Connectivity Scorecard 2009:

Innovation-driven economies	Connectivity score	Innovation-driven economies	Connectivity score
United States	7.71	Hong Kong SAR	5.33
Sweden	7.47	France	5.22
Denmark	7.18	New Zealand	4.85
Netherlands	6.75	Belgium	4.65
Norway	6.51	Korea	4.17
United Kingdom	6.44	Italy	3.99
Canada	6.15	Czech Republic	3.71
Australia	6.14	Spain	3.49
Singapore	5.99	Portugal	3.02
Japan	5.87	Hungary	2.72
Finland	5.82	Greece	2.62
Ireland	5.70	Poland	2.49
Germany	5.37		

Efficiency and resource driven economies	Connectivity score	Efficiency and resource driven economies	Connectivity score
Malaysia	7.07	Tunisia	3.50
Turkey	6.71	China	3.19
Chile	6.59	Philippines	3.17
South Africa	5.76	Egypt	3.02
Mexico	5.39	Sri Lanka	2.87
Russia	5.37	Vietnam	2.75
Argentina	5.14	India	1.88
Brazil	5.12	Indonesia	1.87
Colombia	4.08	Kenya	1.75
Botswana	3.98	Bangladesh	1.60
Thailand	3.75	Pakistan	1.54
Iran	3.62	Nigeria	1.30
Ukraine	3.60		

5. Engaging with our communities

Volunteering and engaging in charity appeals offer employees an opportunity to live our values and put our principles into practice. Employees can supplement the volunteering they choose to do in their free time with one work-day a year during working hours to volunteer on a community project that supports the overall direction of our corporate social responsibility program.

In 2008, we developed our corporate social responsibility policies and guidelines, and a toolkit for volunteers. Any project we undertake should adhere to a few clear principles:

- apply the 'Triple Bottom Line' approach, combining economic, environmental, and social goals
- be credible, sustainable, and long-term
- be in line with our corporate strategy and identity
- build on the strong record of our parent companies
- provide for a corporate identity in line with our values.

We have made efforts to provide opportunities for extended engagement in programs that promote sustainable development. Our main areas of focus for volunteering and community involvement are **rural connectivity**, **disaster relief and preparedness**, improving **access to education**, and the **environment**.

The naming competition for our community engagement programs attracted more than 2,000 entries from employees. The winning entry 'Uniting communities' reflects the contribution the company makes to society by bringing people together through communications.

Nokia Siemens Networks employees are already volunteering in community involvement projects in many countries and we expect an increasing number of people to take advantage of these opportunities in the future.

Matching employee donations

In 2008, we continued our parent companies' tradition of matching employee donations for disaster relief. We matched funds raised by employees for those affected by the Sichuan earthquake in China, for the Red Cross and Save the Children in response to the Myanmar cyclone, and for the flooding in Bihar, India. **See Disaster Relief and Preparedness** for more information.

Volunteering initiatives around the world

In 2008, Nokia Siemens Networks employees took part in a number of volunteering projects, including:

- **India**

In India, employees were involved in school reconstruction (together with Bharti Foundation) and remote teaching via networks. Employees also volunteered their time in a Saturday Skill School as part of the "Bridge the Gap" program with Swechha, an NGO that aims to teach children in six schools in the New Delhi district connected through an intranet.

- **China**

In China, staff helped out with the rebuilding of Chifeng Middle School in Chengdu which was destroyed by the Sichuan earthquake.

- **Lebanon**

Employees in Beirut spent a day in various orphanages and brought goods to children (owing to the multicultural nature of Lebanese society, orphanages run by various cultural groups were visited during the festive period where Muslim and Christian communities alike celebrate the season).

- **Ukraine**

Here, employees visited an orphanage in the small Ukrainian town of Novograd-Volynsky, bringing urgently required medicine and hygienic supplies purchased with proceeds from employee donations.

- **Hungary**

Employees in Budapest took inspiration from the new “Uniting Communities” slogan and brought toys to children who had to spend Christmas in hospital.

Case study: Connecting Friends – Award-winning project in Germany

In 2008, Nokia Siemens Networks employees in Germany took part in a community involvement initiative to help severely disabled children and young adults at a care center and special school in Munich.

The aim of the project was to help young disabled people to use communications technology effectively to maintain friendships despite being unable to meet in person or to use phone or email. Our employees took part in two specific sub-projects, 'Meeting Point' and 'Be Connected'.

'Meeting Point' created an attractive, safe and friendly outdoor space at the care center where young people can communicate face-to-face, socialize and relax. More than 100 volunteers from various companies worked together to create this area during two days of intensive work.

'Be Connected' called for 20 volunteers to dedicate their time and expertise to develop and install a communications network to connect the care center and the school. We set up equipment and keyboards which enable the children to communicate over the network with family and friends. This equipment enables people at the school and the care center to learn how to use modern communications technology to enrich their lives and to maintain links with friends and family.

'Be Connected' has been recognized as one of the '365 Landmarks' of the initiative 'Germany: Land of Ideas', a national program under the patronage of the German President, Horst Köhler.

Case study: Back to school in Ethiopia

Nokia Siemens Networks has pledged long-term support for infrastructure and skills development for a school in Aleltu, Oromia, a village in Ethiopia. Local branch employees volunteer one day per month at the school to help with mutually agreed tasks such as painting, teaching and reading.

In addition, we are also working on bringing communications technology within reach of local children through our Village Connection program. Nokia Siemens Networks also supports the creation of a vocational training center to enhance students' skills and help them obtain jobs or become entrepreneurs.

Case study: Remote volunteering in India

In India, Nokia Siemens Networks has partnered with the Bharti Foundation to inaugurate a school in Punjab. The Satya Bharti School program is a public-private partnership that brings high-quality education to poor, out-of-school, migrant and female children.

As well as supplying funding to help build the school, we encourage employees in offices throughout India to get involved – either at the school itself, or remotely by developing teaching materials and computer-aided games for the children. In this way, employees who do not have the time to visit the school or who are located far from the site can still volunteer their services and expertise.

S. Karthikeyan, a Production Planner for the Nokia Siemens Networks Chennai factory, is one such employee who participates in the project remotely. Although a long way from the school in northern India, S. Karthikeyan simplifies course materials and creates interesting presentation formats and learning tools to help motivate both teachers and students.

5.1 Disaster relief and preparedness

When natural disasters strike, communications can literally make a life or death difference. Good communications effectively supports the coordination of an emergency response, providing vital help and support to people in distress.

As a company, we have defined three key areas of response to natural disasters:

- Protect our employees and their families from personal harm and injury and protect our corporate assets as part of our business continuity management program.
- Protect our customers and their networks and help maintain or re-establish vital communications links; this is to enable emergency response agencies and the people in affected regions to coordinate their activities and communicate their needs.
- Provide relief and support for affected communities and societies through donations to relief agencies, and through rebuilding efforts, often in cooperation with our customers.

To meet these objectives we:

- Provide expertise to ensure the continued availability of communications in areas affected by natural disasters by:

- providing access to ICT services and maintaining network coverage (including using our Village Connection GSM points and satellites for backhaul);
- providing terminal equipment; and

- carrying out emergency telecom equipment (e.g. base station) repair and installation work.

- Provide financial aid via relief organizations such as the International Red Cross;
- Encourage voluntary employee donations by matching employee donations 1:1 on a case-by-case basis; and
- Engage in rebuilding efforts in appropriate ways; when utilizing our volunteering program, we often also work closely with our customers in joint efforts.

Our activities in disaster relief and preparedness in 2008 included:

- **China: snowstorms**

In February 2008, violent snowstorms brought central and southern China to a standstill.

Nokia Siemens Networks joined the relief efforts and set up a 24-hour emergency management team. We donated mobile phones and restored network connections – see case study below.

- **China: Sichuan earthquake**

In May 2008, a massive earthquake struck southern Sichuan, causing widespread devastation and loss of life.

Nokia Siemens Networks helped to restore vital communications links and networks; we provided emergency communications solutions for customers, assisted relief efforts and joined forces with UNDP to help rebuild schools – see case study below.

A fund-raising drive by 3,000 Nokia Siemens Networks employees achieved nearly $US 90,000 of donations in just eight hours. The company matched this amount, generating a total of $US 180,000 for the Red Cross Society of China to support relief efforts.

- **Myanmar: Cyclone Nargis**

On May 2 2008, a strong tropical cyclone hit Myanmar, leading to catastrophic destruction and at least 146,000 fatalities.

Nokia Siemens Networks matched employee donations to the Red Cross and Save the Children, two organizations with a known track record of meeting the humanitarian needs of the people in the affected regions.

- **India: Bihar floods**

In August 2008, flood waters inundated the Bihar state of India, affecting over 2.3 million people.

Nokia Siemens Networks delivered historic additional network capacity; this enabled Bharti Airtel Networks to operate smoothly even at the height of the floods - see case study below. We also matched funds raised by employees.

- **Ethiopia: Drought in Alaba district**

Severe droughts often afflict whole regions in Ethiopia, and 2008 was no exception.

Nokia Siemens Networks worked in partnership with Nokia, the non-governmental organisation (NGO) Save the Children, the government of Ethiopia and the Finnish embassy to help alleviate the drought situation in the Alaba district. We supported the drilling of six water wells and have recruited and trained 'community animators' from local villages. The animators will organize community members; give basic education on health, sanitation, literacy, numeracy and environmental protection, and help form water management committees.

The project began in December 2008 and will continue through 2009. All six sites selected for well drilling have yielded water – a 100 percent success rate.

Here are some case studies demonstrating our responses to natural disasters in 2008:

Case study: Rapid response in Sichuan

In May 2008, a massive earthquake struck southern Sichuan in China. Measuring 8.0 on the Richter scale, the earthquake caused widespread devastation and loss of life.

At work in the area, members of the Nokia Siemens Network China Services team risked life and limb to restore vital communications links and networks. Despite frequent powerful aftershocks, the team remained at the scene of the disaster and secured uninterrupted communication, helping to prevent panic, confusion and further loss of life. The team arranged and maintained 24-hour watch over networks, and carried out restoration tasks in a number of danger zones. They provided emergency communications solutions for customers, and delivered information to those on the ground.

Nokia Siemens Networks employees were also actively involved in relief efforts in the area. Some volunteered at hospitals and service centers while others arranged counselling sessions for expatriate families. Members of the China team also acquired 400 tents and 600 mattresses to be distributed among the displaced and homeless. All of this was accomplished within just ten days of the earthquake.

Case study: Blizzard relief efforts

In February 2008, violent snowstorms hit the central and southern part of China. Trapping thousands of people on the roads as they returned home from Chinese New Year holidays, the blizzards caused blackouts in cities and serious damage to the telecommunications infrastructure.

As one of China's worst natural disasters of the last five decades unfolded, Nokia Siemens Networks Greater China Region joined the relief efforts.
We set up a 24-hour emergency management team to ensure effective and responsive efforts with customers. We also sent two thousand Nokia mobile phones to support relief work in the frontline areas.

During the Chinese New Year Holiday, our employees contributed over five hundred working days to recovering the communications infrastructure and restoring proper network connection in the affected region. Over 100 employees also made financial donations totalling RMB 40K, which was given to a remote village in Guizhou where food and resources were scarce.

Case study: Floods in India

In August 2008, the Bihar state of India was inundated with floods when heavy monsoon rains caused a breach in the Kosi river embankments. Hundreds of villages were overwhelmed by flood waters, and much of the fertile Kosi alluvial fan area became submerged. The floods caused colossal loss of life and widespread damage to property and crops.

Despite the extraordinary conditions, Nokia Siemens Networks delivered on its commitments to Bharti Airtel Networks to provide additional network capacity in the affected areas. Setting a new record of shipments, Nokia Siemens Networks employees secured an additional capacity of 25,418 'erlangs' (a measure of network capacity) for Bharti's network in the states of Bihar and Jharkhand. This marked the highest capacity addition by Nokia Siemens Networks to the Bharti Airtel Network during a single month.

The Nokia Siemens Networks team had to work through floods and incessant rains. In an area where travel and transport logistics are at the best of times almost non-existent, the challenges were extreme.

Shishir Kumar, CEO of Airtel, said:

"Nokia Siemens Network's sense of responsibility and extraordinary efforts ensured adequate capacity for our network. It is this sense of commitment that has been central to the reliability associated with Airtel Networks in the state. Even during the worst of floods, Airtel Networks has been running smoothly and efficiently. In fact, other operators approach us to ride on our network… Nokia Siemens Networks has been a true partner in progress for us."

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Shishir Kumar, CEO of Airtel

5.2 Access to Education

Nokia Siemens Networks supports education programs, as we strongly believe that education is the best foundation for successful development. ICT is a vital tool in supporting education, and we help connect schools and universities and provide long-term support for education projects around the world.

Through our various support schemes and rural connectivity programs, such as **Village Connection**, we are committed to bringing the educational benefits of modern communications technology to everyone, including members of poor, rural or otherwise marginalized communities. In this way, we support the educational objectives of the United Nations' Millennium Development Goals – those aimed at reducing illiteracy and promoting primary, secondary and tertiary education initiatives.

By increasing public understanding of the benefits of an information society, we also expand the market for our own products: educated young people are more likely to use ICT products and services requiring networks. So, while we provide educational support and opportunities beyond our immediate needs, the kind of projects we choose are ideally closely linked to the long-term objectives of the company.

We also understand that a well-educated workforce and an increased understanding of the benefits of ICT to the world in general are key to the success of our company. Nokia Siemens Networks depends on qualified employees, and our own contribution to technical and scientific education

ensures that we have a deep pool of skills and knowledge for us to draw from in the future.

In 2008 we were involved in a range of education programs and activities:

- **France**

In France we participated in **Cercle Passeport Télécoms**, a major tutoring program aimed at engaging disaffected young people, in partnership with France Telecom, Orange, and other companies. The program offers business-style mentoring and offers academic and professional opportunities, with particular focus on young people from depressed areas and ethnic minorities.

- **India**

In India we took part in:

- A school inauguration project, in partnership with **the Bharti Foundation**
  A university collaboration project with Amity
- A school support program called “Bridge the Gap”, in collaboration with the NGO Swechha and the New Delhi school district

- **Indonesia**

In Indonesia we pledged to support the development of telecommunications skills through a university collaboration with ITB Bandung, ITS and UI – see case study below.

- **Afghanistan**

In Afghanistan we worked with Roshan, the country’s leading telecommunications provider, to support the construction of a new facility for the children’s charity Aschiana in Kabul. Nokia Siemens Networks contributed $37,000 towards a new children’s drop-in centre, which will enable Aschiana to improve and extend the reach of their services across the city.

- **Germany**

In Germany we were involved in:

- Siemens Technik Akademie: an education in science and technology scheme, run through a vocational training program with the Siemens Technik Akademie. Within this scheme, we educate more young people than we need for our own corporate hiring purposes. This way, we support the educational aspirations of these teenagers and young adults and contribute our part to society in providing high-class vocational training opportunities.

- Connecting Friends: a community involvement initiative to help severely handicapped children and young adults at a care center and special school in Munich. We provided an innovative learning environment for communication skills. This scheme earned one of the coveted awards of the “Germany- Land of Ideas” initiative. See case study on our **Community involvement** page.

- Girls’ Day: a program aimed at encouraging girls to take up technical and science-based education courses and careers. Girls’ Day is organized by the German ICT Initiative D21, a public-private partnership of more than 100 companies and several ministries.

- **Hungary**

In Hungary we worked in collaboration with several universities to deliver our Cooperative Education Program. This scheme provides opportunities for hundreds of undergraduates to take part in Research and Development activities and gain practical experience within the Nokia Siemens Networks labs in Budapest.

- **Ethiopia**

In Ethiopia we pledged long-term support for infrastructure and skills development for a village school in Aleltu, Oromia. Local Nokia Siemens Networks employees now volunteer one day a month at the school to help with mutually agreed tasks, such as painting, teaching and reading – see case study on our **Community involvement** page.

- **China**

In China we worked in partnership with UNDP to support the rebuilding of schools destroyed during the Sichuan earthquake – see case study below.

- **USA**

In the USA we entered into partnerships with several of universities to deliver our Uniting Communities scholarship program aimed at fostering communications and information skills and opportunities for students.

Case study: Rebuilding schools in China

Following the massive earthquake that struck southern Sichuan, China, in May 2008, Nokia Siemens Networks joined forces with the United Nations Development Program (UNDP) to support the rebuilding of schools in stricken areas.

Nokia Siemens Networks has made an initial donation of RMB 600,000 Yuan to the UNDP's existing cooperative project with the Chinese Government, 'Using Distance Education and ICT to Improve Teacher Quality in Poor Areas of Western China'. This money will support the rebuilding of the Nanba Primary School in Pingwu County, and will help to fund teaching equipment, teacher training, psychological counseling and volunteer activities for teachers and students.

Alongside UNDP, we will be monitoring the project and will deliver further assistance in the future on a needs basis.

Case study: Developing ICT skills in Indonesia

In July 2008, Nokia Siemens Networks signed a Memorandum of Understanding (MoU) with the Institut Teknologi Bandung (ITB) to support the development of telecommunications skills in Indonesia.

Under the MoU, we have pledged support for a university program to help develop skilled engineering talent for the telecommunications industry. This agreement builds on our collaboration with ITB two years ago when we launched a Learning Center in Bandung.

Besides helping to develop local skills, the university program will also serve to open up dialogue between the business world and the academic community. Within the program there are various schemes and opportunities on offer, including scholarships for poor students, graduate internships, web-based training and certification, and a 'Women in Technology' award. Nokia Siemens Networks is also providing test-bed and classroom facilities in Jakarta, and plans to replicate the program with other universities in Indonesia.

6. Customers and brand

We aim to establish corporate responsibility (CR) as a key element in the Nokia Siemens Networks brand which differentiates us from competitors. Our customers' first priority is for products and services which meet their business needs effectively. But they are increasingly aware of consumers' desire for companies to behave responsibly and expect their suppliers to have high standards, especially concerning environmental issues and labor conditions.

Market research suggests that demonstrating environmental responsibility could help build a differentiated brand image. Environmental and ethical issues are becoming increasingly important, especially for young people who are key targets for mobile operators. We communicate with customers specifically on these issues, for example through Energy Days when we discuss energy issues and our contribution to cutting customers' energy use.

We define the brand essence of Nokia Siemens Networks as "uniting communities" and we aim to go beyond the basics of CR to establish a leadership position as a company that makes a positive contribution to society through innovative products and services. We are doing that through research and development that targets areas such **as low-income markets** and **energy efficiency**.

CR has to be based on a solid foundation of customer service and our brand research in 2008 found that we are seen as the leading supplier when it comes to understanding customers' business models and market trends. But customers increasingly demand evidence that we are an ethical supplier. Our determination to do business well was recognized in 2008 when Vodafone named Nokia Siemens Networks 'Outstanding Performer of the Year' after a year-long evaluation under its stringent Supplier Management Program.

Our responsible approach to customer issues includes ensuring **privacy and security** and product safety as well as meeting customers' fundamental product and service needs.

Product safety

Our approach to product safety consists of three elements: Safety processes incorporated in our guidelines for product creation that cover R&D, sourcing, production and documentation. This means safety is embedded in our products from the start

Monitoring safety performance of our products in the field

Risk management – addressing specific hazards:

- Hazardous substances
- Safe handling and installation

- Safety in use – especially risks of electric shock and overheating
- End of life handling.

6.1 Product development

Research and development (R&D) at Nokia Siemens Networks focuses on serving customers in ways that meet society's needs. In emerging markets, examples include the development of low-cost services. In developed markets, the challenge is to develop broadband connectivity to meet the needs of more and more users with increasing levels of use. Our vision is for huge network capacity to be available at low cost.

We have a global network of approximately 16,000 people working in product R&D and invested 16.3 percent of sales in R&D in 2008. Our main development sites are in Europe, the US, China, Asia Pacific and Israel.

Our Innovation unit within R&D scouts for the best technology-driven business concepts and helps turn them into Nokia Siemens Networks success stories. Through networking and co-creation, the aim is to:

- Discover new growth ideas
- Transform ideas into Innovation project plans
- Incubate innovation projects
- Turn projects into new business for Nokia Siemens Networks.

Energy and environment

One of the key focus areas of the Innovation unit is to look for ways for our technology to reduce energy use and environmental impacts. We foresee totally new business growth opportunities addressing the challenges posed by energy sector disruption and global climate change.

New activities in the information and communications technology (ICT) sector will improve the efficiency of other business sectors and lead to reductions in greenhouse gas emissions. The key exploration in 2008 was on energy – applying 'Smart Infrastructure' technologies to improve efficiency and reduce energy use by other industries. This is an important element of Nokia Siemens Networks' growth strategy, backed by strong market forces driving market disruption:

- Deregulation and competition in the energy markets
- Concerns about energy security
- Economic value in protection of the environment.
- Economic stimulus plans supporting infrastructure investments

The aim is to capitalize on our technology, products and solutions to provide telecommunications and networking infrastructure and software to this growing market. This means moving from an emphasis on cost reduction in

existing operations to develop new ways of delivering services, such as using ICT to create smart energy grids and machine-to-machine communications that cut energy consumption

ICT is in a unique position to affect the environmental performance of other industries by:

- Making their operations more efficient (through monitoring and optimization)
- Replacing physical products with electronic versions (dematerialization)
- Enabling environmentally friendly services
- Decreasing the need for travel.

As well as carrying out our own innovation and research projects, we participate in partnerships with the energy industry and academia. Examples include the EU Thematic Network on ICT solutions for smart distributed power generation and the Special Interest Group smart metering and energy-aware devices.

When a potential concept has been identified we carry out an Innovation project involving a customer, Nokia Siemens Networks business units, co-creator industry partners and others such as universities. These projects often attract funding from the European Union, governments and other sources.

In 2008 we identified five potential ideas to explore further and began work on three of them. (The other two projects will be carried out in 2009.)

Telco Energy Metering, using existing ICT equipment and marketing channels to meter and charge utility services.

Windmills get Smart, using our Open EMS software to create network management solutions to manage distributed energy generations, such as wind farms.

Micro Power Utility, providing a standardised solution to providing renewable energy for base stations not connected to the grid, adapted to local conditions.

6.2 Privacy and security

Communication network development is connecting more and more people, communities and enterprises. Networks are critical infrastructure in many countries whose economies depend on swift, high-capacity communications. Network traffic can provide valuable information but this raises privacy and security concerns.

Protecting networks, maintaining user privacy, confidentiality and the integrity of communication processes will become an increasingly complex task. Nokia Siemens Networks continually monitors the threats and evolves solutions which balance the need for efficient network operation and information provision with privacy and security needs.

Privacy

Subscriber privacy is threatened by criminal activity and we are developing a service to manage identity safely and easily on the internet. Our identity management framework will mean that internet users only input their details once with a trusted party, instead of entering personal information for every transaction. This will make it easier to manage and protect identity details by reducing the number of locations where personal data is stored.

Security

Communication networks can be an attractive target for cyber crime and even terrorism. Protecting network availability and integrity is increasingly important as more and more applications are based on these networks and more and more organisations depend on their availability and integrity.

We factor these considerations into our security planning and product development processes and have a clearly defined and mandatory security process for all products and solutions.

Our products include a full range of security features for carrier networks, using our own solutions as well as partnerships with 3rd party vendors. We will continuously evolve security to counter new threats, developing security features in co-operation with service providers, standardization bodies and others. We also work with others in the industry to develop standards including security aspects, and to respond to specific vulnerabilities.

We are proactive in developing guidelines and training, auditing products and networks.

7. Environmentally sustainable business

Our approach to environment is to develop, run and enable environmentally sustainable business, which:

Minimizes our own **environmental footprint** and helps our customers in minimizing their environmental footprint. This involves taking environmental responsibility for the complete lifecycle of **our products**, with a particular focus on **energy efficiency**.

Maximizes **the positive environmental impact** of the use of telecommunications in society. Advanced communications technology can play a significant role in creating a sustainable future by increasing social and economic opportunities while reducing adverse environmental impacts.

Combines environmental and business benefits for our customers in environmentally sustainable business. This is achieved through:

- Managing the entire product lifecycle to support sustainability
- Designing products that **have lower power requirements**
- Reducing the size and weight of products, enabling more efficient transport and **installation**
- Use of **renewable power sources**
- Sophisticated take-back and **recycling services for equipment**

7.1 Products - Environment

Nokia Siemens Networks' environmental vision is to connect the world in a way that creates a net positive impact to the environment. We want to maximize the benefits that telecommunications can bring to people and business, while minimizing the impacts of our products and operations.

Our products and services can contribute most to combating climate change through the services they provide to customers. Networks already support remote communications which can replace travel, and we are **researching** advanced applications that will reduce the energy consumption and carbon footprint of other industries.

It is also important that we continually improve the environmental performance of our products, including the **impact of the substances** they contain and their **packaging**. Our new base stations use only 30 percent of the energy required by the previous generation. New technology can help to reduce the number of base station sites required and minimise the need for **air conditioning**.

Renewable energy can play a major contribution to reducing carbon dioxide emissions. We aim for renewables to be the first choice for all remote base station sites by 2011 and have introduced a range of options using solar and wind suitable for different climates.

In 2008 we joined the **WWF Climate Savers** campaign and made a commitment to improve the efficiency of GSM/EDGE and WCDMA/HSPA base station products by up to 40 percent by 2012. Including all products, the use of renewable energy and other improvements in energy efficiency, we will decrease the company's CO2 footprint by approximately 2 million tons annually, compared to 2007.

We are increasing the recyclability of new equipment and provide customers with **end of life** services to dispose of their used equipment in an environmentally responsible way. More than ninety percent of the material in our base station equipment can be reused or recycled. Our Flexi Base Stations are the smallest base stations available and significantly reduce material consumption.

In 2008 we introduced new tools to calculate the impact of the transport of our products. We now include CO_2 emissions in our cost calculation process to ensure environmental impacts are integrated into decision making.

7.1.1 Positive impacts of our products and services

Our most significant environmental contribution will be in the use of our products to reduce the impacts of other industry sectors. Minimizing the environmental impacts of our products is a major part of our approach to environment – especially energy consumption and the associated greenhouse gas emissions. These direct impacts, including **the substances** in our equipment and their handling at the end of their useful **lives**, are covered in the other pages of this section.

We believe our products and services will play a crucial role in the global effort to combat climate change, and that they have an overall beneficial impact on the environment. As more and more people have access to services like broadband internet, an increasing number of activities can take place electronically instead of physically.

The ICT sector as a whole is projected to reduce global emissions by up to 15 percent by 2020 (compared to business as usual) by enabling reductions in other sectors. A study[5] by McKinsey for the Global e-Sustainability Initiative (GeSI) concludes that for every kilowatt of energy spent on ICT, five kilowatts can be saved from sectors such as travel and manufacturing. Similarly, a **report** by WWF acknowledges that while the total CO_2 impact of

[5] GeSI Smart 2020 study.

the ICT sector may grow, it will make a net positive contribution to reducing global emissions.

Communications networks facilitate dematerialization, or the substitution of physical products and activities with low carbon alternatives. For example, face to face meetings, which depend on travel, can be replaced with tele- and videoconferencing. Travel to work can be replaced by remote working, paper by email, and products such as CDs with online downloads. The Smart 2020 study by GeSI, supported by Nokia Siemens Networks, estimates that dematerialization of this kind will save 460 million tonnes of CO_2 by 2020.

Information technology supported by our networks can increase the efficiency of industrial activity. It allows power consumption to be controlled remotely, and enables machine to machine communications, which further improve efficiency. Electricity generation and distribution could also be made more efficient through ICT, with the development of intelligent distribution systems, known as **'smart grids'**.

7.1.2 Design for Environment

Products have environmental impacts over their entire life cycle, from raw material extraction to end-of-life. We therefore consider the whole life cycle and the interdependence of environmental impacts at different phases.

Designs for Environment (DfE) principles are integrated in our product development processes. All the necessary product related requirements, documents and templates are available to designers. This ensures that environmental issues are considered as part of the design process and implemented in product development programs. Our aim is to meet the requirements of customers and other stakeholders in a way that reduces environmental impacts. The key objectives are to:

- minimize material and energy use
- maximize reuse and recycling
- minimize the use of materials detrimental to the environment
- design equipment to be easily or remotely maintainable or maintenance free.

Energy efficiency is our key DfE focus, and our business units have an energy efficiency roadmap and targets. Nokia Siemens Networks is the market leader in providing energy efficient base stations, and continuous improvement in this area is a business priority.

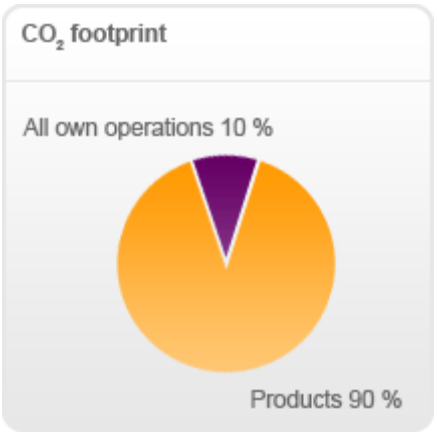
In 2008 we published an updated version of the Environmental Requirements for Nokia Siemens Networks Products (originally published in 2007). This document describes product-related environmental requirements and guidelines for all the designs, products, parts, modules, components, batteries and packaging materials.

Our Environmental Requirements include **a list of substances and materials** that are banned or restricted in our products for environmental reasons.

Individuals in each team are responsible for training our design teams on DfE, communicating the issues, and reviewing their progress. We aim to have someone with responsibility for DfE in each product development program to ensure that environmental principles are embedded.

We are currently engaged in a training and communications drive on DfE, and in November 2008 rolled out a web based training course covering tasks and requirements in product programs.

7.1.3 Products - Energy efficiency

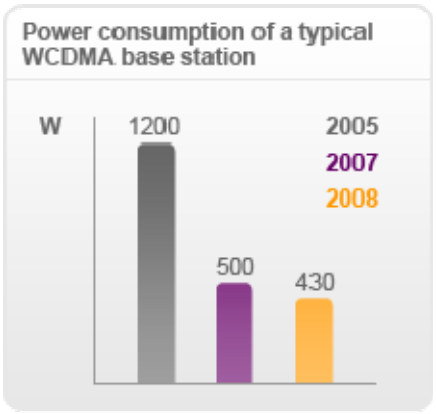


Around 90 percent of Nokia Siemens Networks' energy footprint occurs when our customers use our products, so improving the operational energy efficiency of products is a key focus of our energy strategy.

We joined the WWF Climate Savers programme in 2008 and made a commitment to improve the efficiency of GSM/EDGE and WCDMA/HSPA base station products by up to 40 percent by 2012. This, combined with increasing our use of renewable energy and improvements in building energy efficiency (see **Operations Energy**), should reduce our CO_2 footprint by 2 million tonnes annually by 2012 compared to 2007, a business as usual scenario.

In 2008, we improved data collection on the use of energy throughout the product lifecycle to provide reliable estimates of network energy consumption. The product usage energy consumption estimate now covers over ninety percent of our products. It is calculated based on the number of units sold, the power consumption of a typical installation, expected product life time, and estimates of the embedded energy in each component.

Nokia Siemens Networks is one of the leading suppliers of low energy equipment and we aim to continually improve the performance of our products. Developments in technology underlie these improvements.



Building a network with fewer sites helps optimize energy efficiency. It requires intelligent network planning, and products such as our new Flexi base station, which can be sited in previously unviable locations due to its smaller size and weight.

New network management software can also contribute in other ways. For example, network traffic is much smaller at night than during the day. During these low traffic periods, a major part of base station capacity is unused for many hours, so it can be set to power save mode. In extreme cases, a base station may be shut down during low traffic. In a network with approximately 5,000 base stations, serving a large metropolitan area, the average annual energy saving from these innovations would avoid around 43,000 tonnes of CO_2 emissions. This is equivalent to the annual electricity use of about 8,500 European households.

Air conditioning is a major energy demand for base stations. By enabling our equipment to operate at higher temperatures, the need for air-conditioning is reduced. Instead of the previous maximum temperature of 25°C, the ambient temperature can now safely reach 40°C, generating energy savings of up to 30 percent. The higher operating temperature can allow fresh air cooling, or require less powerful air-conditioning units.

In 2009, we aim to reduce energy consumption from our broadband network products by 29 percent for ADSL lines and 49 percent for VDSL lines, from the 2007 baseline.

Case study: Green Action Plan: working with YNMCC to achieve excellence in energy efficiency

We are working with YNMCC, the leading mobile services provider in Yunnan Province, China, to achieve their target of reducing energy consumption from base station sites by 30 percent by 2010 (from a 2005 baseline).

Nokia Siemens Networks provided YNMCC with small Flexi-Base stations which use less energy, require less air conditioning and work well with solar generation. We have also provided a battery cooler box which adjusts to specific conditions for air conditioning, which is more energy efficient than conventional cooling.

YNMCC and Nokia Siemens Networks monitored a pilot site fitted with Flexi base station equipment between October and November 2008 and found it reduced energy consumption by 10 percent.

In another trial, we identified potential savings using base station equipment that can operate at higher temperatures than the usual 22 °C. We found we could save 11 percent of energy running the base station at 26°C and 19 percent at 31°C. The greatest energy saving (29 percent) came from using fresh air rather than conventional air conditioning.

We also found that using solar power was cost efficient if the site was at least 5km from the power grid.

7.1.4 Renewable energy

Base station sites powered by renewable energy can play a key role in overcoming the challenge of connecting the 2.6 billion people who lack access to reliable power. Traditionally, diesel generators have been used to operate sites not on reliable power grids. They produce carbon dioxide (CO_2) emissions, and require regular refuelling and skilled maintenance work, which leads to additional travel and maintenance costs. Theft of diesel is also a serious consideration for operators. Renewable energy generation presents a more sustainable and reliable alternative. Nokia Siemens Networks aims for renewables to be the first choice for all remote base station sites by 2011 – using solar and wind energy.

We have created a range of renewable options to suit different locations, including solar panels supported by a battery, solar and wind hybrids, and solar and wind combined with small diesel generators. Our network planning

tools enable sophisticated network design, taking into account local solar mapping, predicted wind conditions, site landscape and other factors, to create a network that needs minimal external support. At the moment we have over 300 sites running on renewable power in about 30 countries, mostly in Africa and Asia.

In countries like India which face challenges with energy infrastructure, renewables are clearly an attractive option. However, to scale up our use of renewables we need to demonstrate their reliability beyond doubt. Operators need to be sure that renewable energy can provide continuous power for networks in changing weather conditions.

Case study: Trialling renewables with Bharti Infratel, India

Nokia Siemens Networks has been working with Bharti Infratel, an operator in India, since 2005 to trial hybrid solar and wind generators at sites in Orissa state and Bihar.

"We want secure sources of power for our sites. We want to use environmentally-friendly fuels and we want to reduce our operating expenses," explains Virendra Rawat, who heads Bharti's technology function.

The trial sites have achieved high reliability. After a year of operation the site at Orissa ran on solarr and wind for 95 percent of the time. The remaining 5 percent is provided by a small diesel generator. The site saves around US$14,000 annually and has answered the need for a secure energy source. The launch of 36 base station sites had been held up because they were outside the power grid.

Following the success of the site at Orissa and three other sites in Bihar, Bharti targeted 200 further sites, which can provide clean and reliable energy at almost zero operating expenditure, while reducing dependence on the power grid.

The financial viability of renewables depends on the 'payback' time for the initial investment. The cost of initial installation is high compared to diesel generators, but running costs are extremely low as they require no fuel and the maintenance costs of solar panels and wind turbines are minimal. Technological advances make renewable energy generation increasingly viable. For example, solar panels are becoming smaller and more efficient. But the cost of diesel is a key factor because it determines the level of possible savings.

The availability of sun and wind in a particular location make a big difference to the operating savings. A site powered by renewable energy should pay for itself after two to four years in a good sunny and/or windy location. Renewable generation is particularly attractive where costs are prohibitive for very long (or difficult) extension of the utility grid, or if the sites are difficult to access for servicing, which creates operational difficulties and higher costs.

If the energy consumption of a site is high, it requires larger solar or wind energy equipment, increasing the initial investment and the land area needed. However, as Nokia Siemens Networks Flexi Base station equipment is very energy efficient it works well with renewable generators. As we continue to increase efficiency, renewable generation will become even more competitive, especially as the cost of fossil fuels rises. We continually work to improve the **energy efficiency** of network equipment.

We are working hard to communicate the benefits of renewable technology, and to share our experience with operators. In 2009, we plan to hold workshops with customers to explore options for increasing the use of renewable energy. We also continue to share information on renewable technologies and vendors within the industry, for example through the GSMA Green Power for Mobile initiative.

As well as developing base stations that can run on renewable power, we also buy renewable energy for our own operations, see **Operations – Energy** for more information.

7.1.5 End of life services

Equipment must be dealt with carefully at the end of its useful life to avoid waste and hazards to people or the environment. Nokia Siemens Networks offers customers services aimed at recovering the material and energy content of the obsolete products and ensuring safe treatment of substances they contain.

We provide a service that includes the removal and environmentally responsible disposal of equipment. Depending on customer needs, these services cover decommissioning, collection, warehousing, contract recycling and reporting.

Product treatment is subcontracted to authorized recycling companies. They must meet our supplier requirements as well as complying with legal and other regulations, and conducting business ethically.

Recycling sub-contractors dismantle equipment, separating treatable materials. Some parts require special handling, such as batteries and cables. Parts containing hazardous substances are sent to toxic waste disposal plants or treatment facilities. Other material is pre-processed, for example by shredding, and recyclable materials are sold to smelters or others for remanufacturing – ultimately appearing in new products. A small part of the materials are sent to landfill –1 percent in 2008.

More than 90 percent of the material used in our base stations can be reused or recycled. This year we recycled 375 tonnes of used network equipment.

7.1.6 Packaging

All packaging uses energy and resources in its manufacture. We aim to reduce this environmental footprint by minimizing package sizes and by using materials that are easy recyclable – thus saving virgin material wherever possible. Pack sizes are also important because they influence the energy per product used in transport.

We use a wide range of packaging, both for materials and equipment that we purchase from suppliers, and for delivering products to customers. It ranges from small cardboard boxes for parts to packaging for base station cabinets and antennas.

Transport and packaging requirements are considered early in the product design process. A dedicated team is responsible for all packaging design, including designs commissioned from subcontractors. They are responsible for implementing DfE principles in packaging design, environmental data collection, and ensuring compliance with relevant legislation, such as the EU packaging waste directive. The team is supported by dedicated packaging employees in each of our factories.

We use **Design for the Environment** (DfE) principles in all packaging design. Designers aim to minimize material and energy consumption while maximising the possibility for reuse and recycling. The principles cover the elimination of hazardous substances from packaging and ensuring boxes stack efficiently to reduce freight space. They also cover the reduction of the number and types of materials used, and markings to make recycling easier. We use plastics for cushioning only where necessary.

All our delivery packaging is designed to be reused wherever possible and we reuse packaging from suppliers where that is practical. In 2008 we recycled over €3 million of packaging materials in our distribution hubs.

We are replacing wood packaging with more easily recyclable corrugated board wherever possible. We estimate that our corrugated board packaging for base station cabinets reduced packaging by 139 metric tonnes for deliveries to one of our major customers over a period of six months. We now pre-install some network components for transport within the cabinet units rather than being packaged and shipped separately. This has reduced freight volumes by approximately 1.5 m^3 per cabinet.

In 2008 our packaging design processes were independently audited, and only one area for improvement was identified. In response we are developing a standard system for calculating the environmental impacts of packaging throughout their life cycle, covering energy use and use of natural resources.

We are currently in the process of harmonizing packaging across the business, to simplify packaging requirements. Packaging made to one Nokia Siemens Networks design will fit more efficiently in delivery containers than

several designs by different suppliers. For just one product this could reduce freight volumes by 3,870 m^3, plastic packaging by 25 tonnes, and corrugated board by 67 tonnes a year.

Product packaging

Previous situation: Different package designs from each supplier, 16 packages fit in each container, 220g of plastic and 600g of corrugated board used, annual delivery volume 19,340 m^3

Current situation: Only one package design, 20 packages fit in each container, 160g plastic and 440g corrugated board used, annual delivery volume 15,470 m^3. This represents a 27 percent reduction in use of both plastic and board, and a 20 percent reduction in annual delivery volumes.

We have Product Packaging Requirements for use by suppliers and subcontractors. They define the materials that we consider acceptable for various uses, as well as other requirements such as moisture protection, stackability and labelling. The requirements state that shippers must minimize packaging size and material, minimize the use of non-recyclable materials (such as laminates), promote recycling through appropriate marking, and eliminate hazardous substances in paints and coatings. We will not accept the use of PVC, composite plastic materials that cannot be separated by hand, or flame retardants restricted on our Substance List (see **Substances**. Suppliers are also encouraged to use Nokia Siemens Networks containers for deliveries to our distribution hubs, where these will be reused in deliveries to our customers.

We aim to have a full set of environmental data on packaging, from across the business by 2011. We are collecting all our packaging data into one

database and aim to be fully compliant with EU requirements for reporting this across our global operations. We are also developing processes and tools for a comprehensive packaging waste reporting system.

7.1.7 Substance management

We design, develop, manufacture and market our products to meet or exceed applicable regulations and minimize adverse impacts, in accordance with our environment policy. Substance management, in our products and in our own operations, is a key part of this.

Nokia Siemens Networks has published a list of substances and materials that are banned or restricted in our products and packaging. We also list monitored substances which we plan to reduce or phase out in future. The substance list is available online as a guide for suppliers.

Design for Environment (DfE) principles including Nokia Siemens Networks substance list requirements are integrated in our product development processes.

Our substances team actively follows the development of legislation to ensure we are well prepared for changes in restrictions on substance use. We participate in industry associations and engage with policymakers to ensure that new requirements are practicable.

All our production sites materially comply with relevant legal requirements and Nokia Siemens Networks is able to provide comprehensive information relating to the chemicals and preparations used in their production processes. We work closely with our suppliers to make sure all substances are registered according to the new European REACH regulations.

We aim to provide substance information for our products to meet the expectations of our customers as well as the requirements of relevant regulations. We are in the process of collecting full information on the material content of the parts and components in our products to ensure compliance with all relevant substance restrictions, and to proactively prepare for future chemicals legislation.

7.2 Operations - Environment

Minimizing the impact of our operations is a key part of our approach to environment. Reducing energy use and carbon emissions is particularly important in tackling the pressing global issue of climate change. We believe our products will play an important role in the move to a low carbon economy and that our business will have an overall positive impact on climate change. But it is crucial that we minimize the impact of our own operations as well.

Our target is to reduce carbon dioxide (CO_2) emissions from our real estate operations by 30 percent by 2012. We plan to do this by using more

renewable energy and improving the energy efficiency of our buildings. We carried out pilot energy audits in 2008 to identify areas for improvement. In Shanghai, China, for example, we identified projects that could reduce energy use by 10 percent over two years. We will roll out the program of audits across our global operations in 2009.

We also continually look for ways to reduce **business travel**. In 2008, we installed videoconferencing facilities at 25 locations and plan to increase this to a total of 37 locations in 2009.

We joined the WWF Climate Savers program in June 2008. This collaboration involves rigorous auditing of our performance as well as programs to raise awareness of environmental issues among employees and other key stakeholders.

Employee engagement has a key part in reducing our environmental impacts. Every employee is responsible for reducing impacts and our **environmental policy** is communicated to everyone who works at our sites. Employees can make a significant difference by being conscious of energy and resource use. Working with WWF, we created a *Unite to Protect* sub-site on our intranet. Environmental awareness is measured through our employee engagement survey.

Nokia Siemens Networks operates an **environmental management system (EMS)** based on the international standard ISO 14001, and all our production sites are accredited to this standard. Our EMS is designed to measure and continually reduce our environmental impacts, including energy, **waste and water**.

Key environmental data for our real estate in 2008[6]:

- Total energy use 609 GWh
- Total greenhouse gas emissions from facilities (CO_2 equivalents): 217,000 tonnes
- Total solid waste created: 6,480 tonnes
- Solid waste reused, recycled or used as energy: 88 percent
- Water use: 883,000 m

7.2.1 Energy

Our most significant environmental impact comes from our use of energy and the resulting CO_2 emissions. Most of the energy and CO_2 emissions from our products throughout their life cycle are related to their use. Therefore improving energy efficiency of our products in use is a key focus

[6] Covers all Nokia Siemens Networks buildings larger than 3,000 m^2; including offices, research and development buildings and factories. Fully comparable data is not available for the previous year – the first year of Nokia Siemens Networks existence as a separate company.

(see **Products - energy efficiency**). However, it is crucial that we also minimize emissions from our operations.

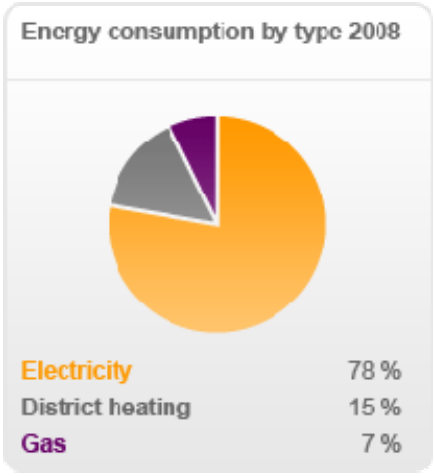
We aim to reduce CO_2 emissions from our real estate operations[7] by 30 percent by 2012, from a baseline of 2007.[8] We will do this by:

- Increasing the amount of renewable energy we use to 25 percent of our total electrical energy use in 2009 and to 50 percent of our total electrical energy use by 2010, from 10 percent in 2007.
- Improving the energy efficiency of our buildings, to reduce consumption by six percent by 2012, from a baseline of 2007.

These targets have been agreed with WWF as part of our participation in the Climate Savers program, which we joined in June 2008.

To help us achieve our emissions reduction goal, each business unit now has an energy saving strategy and we are developing saving global energy saving program. In 2008, we carried out energy audits in China, Italy, Germany, Finland, Latin America and North America, to identify potential areas where savings can be achieved.

Our total energy use was 609 GWh in 2008, resulting in 217,000 tonnes of CO_2 equivalent emissions. Our total emissions include indirect emissions from electricity and district heating as well as direct emissions from gas heating. The majority of our energy use is from electricity (78 percent).



In 2008, 17 percent of our electrical energy came from renewable sources. The renewable energy we use is assured by a Guarantee of Origin Standard. The guarantee ensures that the electricity is produced from renewable sources as defined by the European Directive. It comes largely from hydropower in Finland. We are reviewing the possibility of purchasing renewable energy from the grid in the US and Germany to meet our target of 25 percent for 2009.

[7] Covers all Nokia Siemen Networks buildings larger than 3,000 m^2; including offices, research and development buildings and factories.
[8] The 2007 baseline is for the full year, and has been calculated from nine months data (April to December) and an estimate for the remaining three months.

Energy consumption	2008	2007 (April to December)
Total energy consumption (GWh)	609	462
Renewable energy (GWh)	80	48
Renewable energy (percent of electrical energy use)	17	9

Total greenhouse gas emissions	2008	2007 (April to December)
Total emissions (tonnes CO_2 equivalent)	216 936	178 054
Indirect emissions (tonnes CO_2 equivalent)	209 098	174 469
Direct emissions (tonnes CO_2 equivalent) *	7 556	3 585
Ozone depleting substances (kg) – Finland only (24 percent of our building portfolio)	0.12	
Hydrofluorocarbon (HFC) from refrigerants (tonnes) – Finland only (24 percent of our building portfolio)	283	

*Direct emissions (scope 1) include CO2 emissions from gas and oil usage in our facilities and methane and nitrous oxide emissions from heating our facilities.

- **Energy saving in Shanghai**

Energy saving in Shanghai

A pilot energy audit in Shanghai in 2008 indicated where energy savings could be made in our factories, research and development facilities and offices. The audit identified potential savings of 10 percent over two years. The main area for improvement is technical management of ventilation, lighting, and heating and cooling systems. Changes to user behavior and improved energy management in our test laboratories could also make a significant difference.

The actions we will take to reduce energy use in Shanghai during 2009 include:

- Employee awareness campaigns on lighting and small power, and on closing doors
- Improving thermal performance of the building envelope – adjust automatic door sensors, improve draft stripping, install door closers
- Developing energy monitoring and reporting systems
- Reviewing and adjusting internal temperatures
- Increasing the set temperature of the chilled water circuit
- Reviewing compressed air loads
- Optimizing operating times for ventilation and lighting.

We will use the knowledge gained during the pilot program in Shanghai to help roll out energy saving programs globally in 2009.

- **Improving data collection**

Data collected in the previous year is not directly comparable because our data for 2007 covers a period of only nine months from the launch of the company in April to the end of the calendar year.

In 2008 we have improved our environmental data collection to cover 90 percent of our estate, compared with 65 percent in 2007. We now have a standard methodology to measure and estimate the energy consumption and greenhouse gas emissions from: real estate (including all our own manufacturing), logistics, travel, components and end-of-life services.

We have improved our estimations of greenhouse gas emissions associated with travel logistics this year. These are now based on travelled miles and transport methods, rather than cost. The impact of components and end-of-life are still areas of uncertainty. We aim to cooperate closely with our key suppliers to improve our data collection in these areas and will ask suppliers for energy efficiency data in the future.

We publish our CO_2 emissions data through the Carbon Disclosure Project. CO_2 emissions are calculated based on the official conversion factors in the Greenhouse Gas Protocol.

7.2.2 Waste and water

Our aim is to reduce the overall amount of waste that we create and reuse, recycle or capture energy from the majority of the remaining waste. We also want to minimize water use through conservation programs.

- **Waste**

Our primary aim is to reduce waste, and we run regular campaigns to raise awareness of the issue among employees. For example, we are minimizing printing and copying in our offices to reduce the amount of paper waste we create.

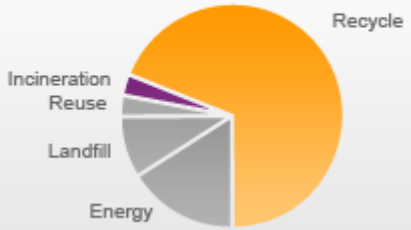
In 2008 we created 6,480 tonnes of solid waste. Of this we reused, recycled or used as energy 88 percent. Eight percent of the waste we created went to landfill. We recycled 73 percent of all our waste, exceeding last year's target to recycle 60 percent by the end of 2008.[9] In 2009 we aim to recycle 70 percent of all our waste.

During 2008, 4.5 tonnes of waste batteries were collected from our sites, globally. The majority of these were recycled in waste treatment centers specializing in hazardous materials. Only 0.02 percent of batteries ended up to landfill.

[9] We gathered data from sites larger than 3,000m^2, covering 62 percent of our sites (by area).

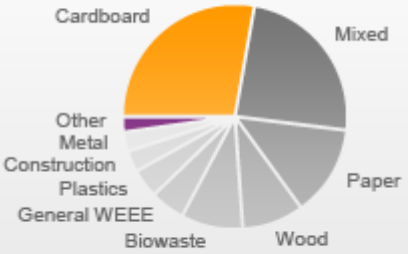
Total waste

Recycle	69 %
Energy	16 %
Landfill	9 %
Reuse	3 %
Incineration	3 %



Non hazardous waste fractions

Cardboard	28 %
Mixed waste	24 %
Paper	13 %
Wood	9 %
Biowaste	9 %
General WEEE	5 %
Plastics	4 %
Metal	3 %
Construction waste	3 %
Non-haz sludge, fat and oil, WEEE from mobile phones, Glass	2 %



Improving our recycling rates also has business benefits because it reduces the costs of waste management. We are working with our real estate advisors to improve our recycling rate. We are updating waste management guidelines and are developing monthly targets to ensure we reach the overall goal.

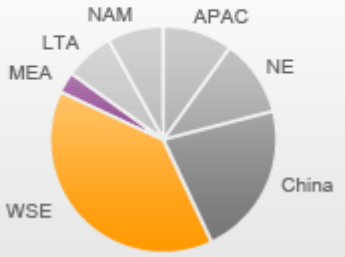
In 2008, over 80 percent of waste management staff were trained to use our new STEER data collection tool, to help us track both recycling rates and costs across the company.

- **Water**

Water	2008	2007 (April to December)
Total water consumption (m³)	883 000	840 607

Regional water consumption 2008

West & Southern Europe	39 %
China	22 %
Northern Europe	11 %
Asia Pacific	10 %
North America	8 %
Latin America	7 %
Middle East & Africa	3 %



Water is an increasingly scarce resource in many of the countries where we operate, so it is important that we also identify ways to reduce our water consumption.

For example, water efficiency was an important priority for the design of our new factory in Chennai, India. The site has its own water and sewage treatment plant, and all the water used in the factory is reused for irrigation and toilet flushing.

In 2008 we used 883,000m^3 water. The majority of the water Nokia Siemens Networks consumes is used in office buildings and factories for sanitary and catering purposes. All the water we used was derived from municipal water sources.

7.2.3 Travel

Nokia Siemens Networks is committed to reducing environmental impacts from business travel. Minimizing travel and transport helps to reduce CO_2 emissions and other air pollutants.

We have nearly 60,000 employees and more than 600 customers in 150 countries, and operate across many geographical and cultural boundaries. This means that the majority of our teams work internationally. Communications networks are making it increasingly possible to reduce the amount of travel necessary to work effectively, using virtual communications such as tele- and video-conferencing instead.

We have installed Halo video-conferencing facilities in 25 locations, prioritizing those where travel has been highest. The use of web and voice conferencing continues to increase across our operations, and we will install Halo video-conferencing facilities at a further 12 locations in 2009. We are also trialing Tandberg video-conferencing – a lighter version that can be used more widely in our sites.

Supporting employees wanting to work remotely also helps to reduce travel. We now have formal contracts and processes covering people who work

from home. We also carry out web-based training through our Academy to reduce the amount of travel necessary for our skills development programs. Around 1,100 courses are available online.

Our global travel policy was updated in 2008 to take environmental impacts into account. It encourages employees to consider whether a business trip is necessary, combine trips and take the train rather than flying, whenever possible.

- **Business flights**

In 2008, a company-wide travel ban significantly reduced our carbon footprint from travel, particularly from flights. This was a cost-saving measure but it was used to encourage people to develop alternative ways of working. We encouraged this approach by communicating the environmental benefits of minimizing flying.

The Travel Reduction Program has helped us reduce the number of miles flown by our employees while on business, and associated greenhouse gas emissions by 10 percent during 2008. We aim to reduce miles flown by a further 10 percent by the end of 2009.

- **Car policies**

In May 2008 we launched a new company car policy for our fleet of 1,500 vehicles in Finland. The policy, which our car leasing company describes as “revolutionary”, offers financial incentives to choose a more environmentally friendly vehicle. We pay a higher percentage of the leasing fee for cars with lower emissions. The policy has significantly reduced the average emissions of new cars ordered from 180g/km to 140g/km.

We are now reviewing company service fleet policies to reduce the carbon emissions of the fleet globally. We intend to reduce emissions from new cars in our service fleet to 120g/km by 2010 in Europe, and globally where we have adequate data to measure progress against this target.

In some of the countries where we operate, such as Singapore, a company bus service connects our offices to the city. We are also reviewing our provision for working from home, and intend to further encourage alternative ways of working in 2009.

7.2.4 Environmental Management System

Nokia Siemens Networks' environmental vision is to connect the world in a way that creates a net positive impact to the environment. We want to maximize the benefits that telecommunications can bring to people and business, while minimizing the impacts of our products and operations.

Nokia Siemens Networks operates an Environmental Management System (EMS) across the company that aims to achieve continuous improvement in environmental performance, and turn our vision into reality. Through the EMS we control and minimize the environmental footprint of our operations, and identify areas where we can reduce the impacts of our products through design for the environment and responsible disposal or recycling at end-of-life (see **Environment - Products**) By having a robust system we aim to manage, reduce and remove environmental risks and develop technologies for a more sustainable society.

The **environmental policy** is approved by the Executive Board, and is the responsibility of the Head of Environmental Affairs. It is communicated to all employees and contractors, and everybody must comply. The environmental management team reports to the Executive Board and is responsible for environmental planning and its implementation across the company. High-level strategic targets are cascaded into plans for each relevant business unit or function.

Environmental protection is the responsibility of every employee in the company. Employees receive regular training on all environmental issues that affect their working life, covering not only Nokia Siemens Networks' policy and strategy, but also relevant laws and regulations.

The Nokia Siemens Networks EMS is based on the ISO 14001 standard. All our production sites are included in the scope of the ISO 14001 certification.

Our global data collection system gathers performance information on **energy efficiency**, **waste and water**. We collect electricity data for 95 percent of our real estate operations, heating energy data for 88 percent and water consumption data for 87 percent. We have set 2007 figures as a baseline for annual improvement targets.

We also require all our suppliers to have documented Environmental Management Systems. See **Suppliers** for more information.

7.2.5 Environmental engagement

We collaborate with key stakeholders and other companies within our industry, as well as with our own employees, to improve environmental performance.

Internal engagement

Employee engagement is a key part of reducing our environmental impacts. Employees can make a real difference by being conscious of energy and resource use in the workplace and in their work activities. We measure employee awareness of our environmental responsibility through our employee engagement survey and aim for a continuous improvement.

We have carried out a range of initiatives to raise environmental awareness and demonstrate how employee actions can have a positive impact both at work and at home.

Environmental e-learning modules are available online, and we run virtual information sessions on key topics. Unite to Protect, our intranet learning platform, was developed in 2008 in collaboration with WWF, the global conservation organisation, to help engage employees. Procurement employees also receive specific training on environmental topics relevant to purchasing decisions.

The Nokia Siemens Networks Environmental Forum in June 2008 in Finland was open to all our employees, many of whom participated remotely through video links on our intranet. The Forum included, among others, an internal presentation on our approach to environment as well as a presentation from Vodafone outlining key customer expectations.

In December 2008, 89 employees entered our Green Business Innovation competition. This encouraged employees to come up with business or technology solutions that further our commitment to sustainable business. Ideas were judged on their use of new technology and potential to save money for customers and to differentiate us from competitors.

We carried out a Real Estate survey in 2008 which asked employees how we could improve environmental performance. We received 1,790 comments from employees in response. These covered issues such as improving recycling facilities and lighting and heating management, as well as suggestions about how to create a culture of energy and waste efficiency. In response to the findings we are planning an environmental awareness campaign for 2009 to promote sustainable ways of working, focusing initially on one pilot site in every region.

External engagement

In January 2008 Nokia Siemens Networks entered a three-year partnership with WWF to communicate environmental issues to employees and other stakeholders. As part of the agreement, WWF is running training workshops and web campaigns for our employees, to raise awareness of key sustainability issues and the role we can play as a company. This includes the *Unite to Protect* intranet site and e-learning modules (see above).

We also joined WWF's Climate Savers program, which brings together major international companies committed to reducing their greenhouse gas emissions. WWF will ensure our environmental targets and performance data are rigorous. See **Energy** for more information on our climate targets.

"Climate Savers companies are setting leadership examples in cutting the corporate carbon footprint"

Oliver Rapf,
Head of WWF's Climate and Business Engagement Unit

We disclose our emissions through the Carbon Disclosure Project (CDP), and are members of the CDP Supply Chain program, designed to extend action on greenhouse gas emissions throughout the supply chain.

We are working with the European Telecommunications Standards Institute (ETSI) to create a standard for measuring the energy efficiency of base stations, to make it easier to compare product performance. We expect this to be launched in 2009.

In 2008 we held energy efficiency summits in India and Pakistan to encourage network operators, regulators and other stakeholders to examine the issue of network energy use and discuss how different parties can work together to reduce environmental impacts. Speakers included representatives from government, the industry association GSMA, operators, and not-for-profit organisations such as the Climate Group. At the summit in India, the Secretary of the Indian Government Department of Telecommunications gave a keynote address on telecoms and efficiency, e-governance, taxation and India's route to a greener ICT industry. The findings from the conferences were reported at the International Telecommunications Union (ITU) general meeting in November 2008.

As a member of GeSI (Global e-Sustainability Initiative), Nokia Siemens Networks participated in its Smart 2020 study, carried out in collaboration with The Climate Group. The focus of the study is to understand the role of the ICT sector in the transition to a low carbon economy. The study can be downloaded from **www.gesi.org**.

The study shows that while the ICT sector's own footprint currently accounts for two per cent of global emissions and will almost double by 2020, this can be countered by the sector's ability to improve energy efficiency in other industries as well as its own. Smart 2020 suggests that ICT could contribute

to cutting global CO_2 emissions by up to five times its own footprint. We are investigating the possibility of developing new products and services in response to the suggestions raised by the study. See **Impacts of products and services**, and **Product development** for more information.

Our Unite (**www.unite.nokiasiemensnetworks.com**) website enables employees, customers and other interested groups to read about and discuss the potential of new products to address climate change, and other sustainability challenges.

Nokia Siemens Networks is active in several industry associations, including the International Telecommunication Union, GSM Association, and GSM Europe. We engage with these associations to guide regulatory outcomes that will benefit both the industry and the environment. For example, we have worked with the Indian government and other industry partners both directly, and through the Mobile Manufacturers Forum, to improve e-waste management in India. We have also been working with EICTA, the European digital technology industry association, to engage with legislators on the restriction of hazardous substances.

8. Radio waves and health

Mobile communication technologies use electromagnetic fields (EMF) at radio frequencies – radio waves – to transmit information. Some people worry that radio waves might be harmful. The question of radio waves and health has been researched and discussed for decades. Nokia Siemens Networks, as a manufacturer of mobile communication infrastructure, is engaged in this discussion together with governments, mobile network operators, and other stakeholders.

Based on overwhelming conclusive scientific evidence, we are convinced that exposure to radio waves from wireless technologies is harmless within the limits recommended by the World Health Organization (WHO).

However, we recognize there is public concern about the safety of radio waves. It is essential that we listen to our stakeholders and continue to monitor the safety of our products.

We believe any health information must be based on scientific evidence and we direct stakeholders to sources of objective scientific information. See **research on radio waves and health**.

- **International guidelines**

The most widely recognized global standard on radio waves and health is set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Nokia Siemens Networks supports the move by **the World Health Organization** to harmonize global regulations on EMF based on current **ICNIRP** guidelines.

We engage with customers – including mobile network operators – to make sure they are aware of EMF issues. We also provide detailed instructions to ensure they operate equipment appropriately to keep local exposure within safe limits.

Nokia Siemens Networks offers support and training where necessary for customers who need support in this area, particularly in emerging markets. In India, for example, where mobile networks are rapidly expanding, there has been considerable engagement on this issue with the government and the public.

An important part of our responsibility in this area is to engage openly in the global public debate and monitor the latest scientific studies on radio waves and health. Our EMF specialists are members of scientific organizations including the Bioelectromagnetics Society and the European Bioelectromagnetics Association, and participate in relevant scientific events.

We welcome questions and feedback on this subject. Please contact our experts directly at **emf@nsn.com**.

Further information

- World Health Organization fact sheet on base stations and wireless technologies
- The World Health Organization International EMF Project
- International Commission on Non-Ionizing Radiation Protection (ICNIRP)
- Mobile Manufacturers Forum
- EMF explained

8.1 Research on radio waves and health

Scientists have been researching radio waves for more than 50 years. Over 2,000 original, peer-reviewed papers are cited in the **database** on radio waves and health held by the World Health Organization (WHO). Indeed, the WHO has stated that scientific knowledge on electromagnetic fields (EMF), including radio waves, is now more extensive than for most chemicals (see **WHO: What are electromagnetic fields?**).

Based on this catalogue of research, the WHO advises that:

> "Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."
> (WHO Fact sheet N°304, May 2006)

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) used the available research to develop recommended limits on human exposure to radio waves in 1998. These international guidelines form the basis of standards recommended by the WHO, the **European Council** and many individual countries.

The research database has been continually reviewed by expert scientific organizations and government agencies since the publication of the 1998 ICNIRP guidelines.

Recent Independent Expert Reviews

- Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) (2007)
- Health Council of the Netherlands (2007)
- German Commission for Radiation Protection (SSK) (2006)
- Swedish Radiation Protection Authority (SSI) (2007, 2008)
- Irish Department of Communications, Marine and Natural Resources, Expert Group on Health Effects of EMF (2007)

Independent reviews of available research by these organizations have consistently concluded that there is no credible or convincing evidence that exposure to radio waves causes any adverse effects on human health within the limits recommended by ICNIRP.

Statements from Regulatory Agencies

- United States Food and Drug Administration
- US Federal Communications Commission
- Singapore Health Sciences Authority
- Australian Communications and Media Authority
- Japanese Ministry of Internal Affairs and Communication

9. Ethics

Nokia Siemens Networks is committed to conducting business with integrity and in compliance with the highest standards of ethical conduct. Not only will unethical behavior put our reputation at risk, but we firmly believe that the highest standards of ethical behavior will create and maintain competitive advantage for our business. Clear and transparent corporate governance protects our interests and those of our stakeholders.

Nokia Siemens Networks is strongly committed to the highest standards of ethical conduct, and operates in full compliance with all applicable national and international laws, including export control regulations in specific countries. Regarding international trade sanctions or embargos we strictly follow regulation imposed by the European Union, the World Trade Organization and the United Nations.

We have a detailed **Code of Conduct** and ethical business guidelines that apply to our own operations and those of our business partners and suppliers. These exist to guide us as employees and as a company in making the right choices. Compliance with the Code of Conduct is the responsibility of every employee. An updated version of the Code was launched in January 2009.

We ensure that employees understand and adhere to the Code – and live up to our ethical standards – through induction sessions, ongoing training and regular internal communications. For example, articles on ethics are published on our intranet and employees are able to post comments in response. See **training and awareness**.

Of those participating in our 2008 global **employee engagement survey**, 73 percent believe Nokia Siemens Networks operates with integrity in its external dealings (for example, with customers and the general public).

- **Accountability**

Responsibility for implementing the Code of Conduct is assigned to the Nokia Siemens Networks Ethics Office. This is separate from our Legal & Compliance and Human Resources functions, emphasizing that our approach is based on values rather than rules. In 2008, the Ethics Office was based in India.

The Ethics Officer acts as the ambassador for the Code of Conduct, engaging employees to increase their understanding of topics covered by the Code. The focus of the Ethics Office is on training and advice for employees and managers on how to apply the Code in their everyday working life. Another key function is to build confidence with customers and integrate the Code of Conduct into all our business activities.

We encourage employees and all our stakeholders to report any concerns about unethical conduct or suspected violations of our Code of Conduct (see **reporting concerns**). The Ethics Office works with our Legal & Compliance Office to investigate any reported cases of non-compliance with our Code of Conduct. It also ensures appropriate investigation procedures and follow-up actions are implemented.

The Compliance Office, part of the Legal & Compliance Office, is responsible for Nokia Siemens Networks' compliance program. This includes our anti-corruption program.

The **CR Steering Committee** regularly assesses the company's adherence to the Code of Conduct and whether employees are adequately engaged.

9.1 Code of Conduct

The Nokia Siemens Networks Code of Conduct sets out the ethical standards our employees must uphold. Our company values are embedded throughout. In January 2009, a revised version of the Code was published, which is aligned with the Nokia Code of Conduct.

The Code covers:

- **Human rights**

We will respect the rights laid down by the United Nations' Universal Declaration of Human Rights, including:

- Freedom from discrimination on any grounds
- Freedom from arbitrary detention, execution or torture
- Freedom of peaceful assembly and association
- Freedom of thought, conscience and religion
- Freedom of opinion and expression.

- **Ethical conduct**

We are committed to the highest standards of ethical conduct and full compliance with all applicable national and international laws, including issues such as:

- Labor conditions
- Antitrust and promoting fair competition
- Prevention of bribery and corruption
- Good corporate governance
- Protection and recognition of copyright, company assets and other forms of intellectual property
- Privacy and data protection.

- **Environment**

We are determined to be environmentally aware in all we do, going beyond compliance by improving the environmental performance of our operations and throughout the lifecycle of our products.

- **People**

We are committed to provide a safe and health workplace where all employees are treated with respect and provided with equal opportunities for development.

- **Anti-corruption**

Employees must avoid any activity that can lead to a conflict of interest, including:

- Gifts and hospitality
- Bribes and facilitation payments
- Political donations.

- **Partners**

We require our business partners and suppliers to comply with all applicable laws and regulations, and encourage them to go beyond compliance to improve their management of ethical, environmental and social issues.

View the full text of the **Code of Conduct.**

9.2 Training and awareness

All employees must be familiar with our Code of Conduct and understand its relevance to their work. The Code is available in several languages on our intranet and external website. An introduction to the Code is included in our induction program for new employees and all employees are expected to complete training on the Code.

Our online training program is designed to make the Code relevant to real-life work situations employees may encounter. The program includes a test for employees to confirm their understanding of the issues. By the end of 2008, more than half of our employees had completed the training.

In situations where employees do not have access to online training, we provide classroom-based alternatives in countries such as Afghanistan, Brazil and Pakistan. This applies mainly to employees working in factories or mobile workers.

We introduced a new mandatory ethical business training module in February 2009 as part of the launch of the revised Code of Conduct. All employees must complete the training annually to ensure they are familiar with the revised Code, our anti-corruption program, gift policy and conflict of interest procedures. This training gives employees an opportunity to practice ethical decision-making and to apply the Code of Conduct to various real-life scenarios. The training also informs employees where to find other useful materials, who to ask for support, and how to report concerns.

Employees are encouraged to contact their line manager, Human Resources department or our Ethics, Legal or Compliance Offices if they are unsure of how to act in any situation or wish to **report a concern**.

- **Ethical dilemmas**

Our employees may encounter a wide range of ethical dilemmas in their work, from being offered a small gift from a supplier to being asked for bribes to further business opportunities. These are some examples of dilemmas encountered in 2008.

Dilemma	Our guidance	Outcome
On arrival in a foreign country for a business trip, an employee is stopped by immigration officials who claim he does not have the right visa and threaten to deport him unless he pays them $200.	Employees should never make a facilitation payment to further business goals, or pay any bribe unless they are in a situation that appears to be dangerous or life threatening.	The employee paid the bribe but later informed his manager. Because he used his own money, not company funds, he was not dismissed but he did receive a reprimand.
A team wants to make a donation to support an orchestra as part of their community program. One of the directors of the orchestra is the wife of a CEO of one of our customers.	No gifts should be made that might be considered to be made for the purpose of furthering business.	The donation was not made as it was deemed unethical.
A team is faced with a customer who will only work with a man.	We recognize that different cultures and values of the countries where we work may sometimes conflict with our global Code of Conduct. However, employees must uphold the Code.	In one case, the team agreed to the customer's demand to work only with a man. In a second case, they resisted the demand and the client relented.

9.3 Reporting concerns

Employees and other stakeholders who are concerned about unethical behavior or suspected violations of our Code of Conduct are encouraged to report their concerns openly or anonymously.

Employees can raise concerns with their line manager, local Human Resources department or regional compliance representative, or by using the global channels available. Our Ethics and Compliance Offices monitor and investigate all reported concerns.

Enquiries about our anti-corruption program, our Anti-Corruption Compliance Employee Handbook or anti-corruption laws can be emailed directly to the Compliance Office at **compliance@nsn.com**. Questions about our Code of Conduct should be directed to the Ethics Office at **ethics@nsn.com**.

Suspected violations of our anti-corruption compliance program or any anti-corruption laws can be reported to the Office of the General Counsel at **generalcounsel@nsn.com.** We also operate a whistle-blowing system on our **website** which allows people to report concerns anonymously.

In addition, ethical concerns can be reported through our online corporate responsibility feedback form. This form can be used to make suggestions or enquire about CR activities at Nokia Siemens Networks, such as our environmental and community engagement programs.

During 2008, 70 enquiries were made through our online corporate responsibility feedback form, 11 of them regarding ethics. Our Corporate Affairs team monitors and responds to this feedback, and passes on any reported ethical concerns for investigation by the Ethics and Compliance Offices.

10. Suppliers

We expect suppliers to maintain the same high standards of ethical, environmental and social responsibility that we set for ourselves. Our comprehensive global Supplier Requirements contain both environmental and ethical requirements that clearly outline our expectations in these areas. Trained procurement teams implement these requirements through our processes for selecting and maintaining suppliers.

Nokia Siemens Networks has thousands of suppliers all around the world. These suppliers can be divided into two categories:

- **Direct** – suppliers of products, software and services related to Nokia Siemens Networks products and services for customers
- **Indirect** – suppliers of a wide range of products and services that support our facilities, from catering and office supplies to production equipment for our factories.

Our work on corporate responsibility (CR) in the supply chain began with our direct suppliers, which represent the majority of our purchasing expenditure. Working with direct suppliers is an important part of our commitment to pursue high social and environmental standards throughout the lifecycle of the products we deliver to our customers.

During 2008, we went on to strengthen our activities with indirect suppliers. These include a wide variety of suppliers which are usually local to our operations in individual countries or regions.

We monitor suppliers through regular audits to identify risks, assess compliance and raise awareness of our requirements, as well as sharing best practice on CR management. See **supplier monitoring**.

Our approach aims to ensure that suppliers not only comply with Nokia Siemens Networks' requirements themselves, but that they also put in place similar requirements for their own suppliers in the next tier of the supply chain. In this way, each tier of the supply chain is responsible for monitoring compliance in the tier below. We believe this is the best way to build sustainable improvements in CR performance throughout the supply chain.

Nokia Siemens Networks also works in collaboration with others in our industry to improve standards in the ICT supply chain through groups such as the Global e-Sustainability Initiative. See **working with industry**.

10.1 Supplier requirements

Nokia Siemens Networks has a comprehensive set of Supplier Requirements which include clear standards for suppliers on the management of ethical, environmental and social issues.

These are based on the following international standards:

- United Nations Declaration of Human Rights
- International Labor Organization Core Conventions
- Social accountability standard SA 8000
- Occupational health and safety management standard OHSAS18001
- Environmental management standard ISO 14001.

The ethical, environmental and social requirements are applicable to all suppliers of Nokia Siemens Networks.

- **Communicating the requirements to suppliers**

Openness and trust are important in working with our suppliers and helping to improve levels of compliance. Our procurement organization communicates our requirements to suppliers through face-to-face meetings, assessments, contractual agreements, training programs, and other supplier events.

We produced a brochure in 2008 on our approach to managing CR in the supply chain. It outlines and sets the context for the ethical, environmental and social elements of Nokia Siemens Networks' Supplier Requirements.

The brochure was launched at our Supplier Day in September 2008. Almost 260 people attended the one-day event in Helsinki, representing 135 of our key suppliers from all around the world. The main objective for the event was to strengthen our relationship with suppliers' senior management. Our top managers shared their views on business outlook, strategy and expectations. The Nokia Siemens Networks CEO and other top management representatives also highlighted our key expectations of suppliers on ethical, environmental and social issues.

Our change management procedures focus on informing suppliers promptly about changes to the business that may affect them. This includes information relevant to CR issues, such as any changes to the Supplier Requirements.

- **Supplier satisfaction survey**

In 2008, 290 key suppliers took part in our annual supplier satisfaction survey. We asked them to score our performance on a scale of one to 10 in six areas of our business relations with suppliers, including quality, planning,

communications and engagement. Their feedback showed “Business ethics and environment” as the highest scoring area, with an overall score of 8.3.

Survey scores: Business ethics and environment

Question	Score
Labor condition issues are important to Nokia Siemens Networks when dealing with suppliers	8.6
Nokia Siemens Networks communicate their ethical and labor condition requirements clearly	8.3
Environmental issues are important to Nokia Siemens Networks when dealing with suppliers	8.5
Nokia Siemens Networks communicates their environmental requirements clearly	8.1
Nokia Siemens Networks ‘ other business expectations do not force them to compromise basic ethical and environmental level of compliance	8.1
Overall: How would you rate Nokia Siemens Networks’ requirements on business ethics when dealing with suppliers (1 being not strict at all and 10 being very strict)	8.3

Score scael: 1 = strongly disagree to 10 = strongly agree

All the questions in this area receive a score higher than eight out of 10. This feedback demonstrates that most of our key suppliers are familiar with our requirements on ethics and the environment, and that we take the requirements seriously when dealing with our suppliers.

- **Supplier CR workshop in China**

We held a pilot Corporate Responsibility workshop for suppliers in China in June 2008, focusing on labor conditions. Human resources and business representatives from five supplier companies attended the one-day workshop in Shanghai.

The aim was to share ideas and best practice on how to implement our supplier requirements and meet international labor standards in practice. Feedback from the participants was very positive and we plan to conduct further workshops in future on issues relevant to the region where they are held.

10.2 Supplier monitoring

Auditing suppliers is essential to ensure compliance with our requirements and promote improved CR standards in the supply chain. All audits are conducted by trained Nokia Siemens Networks auditors according to our supplier audit framework.

We conduct system audits of all new suppliers as part of the qualification process, as well as regularly monitoring existing suppliers. These usually involve two-day site visits as well as checks of relevant certifications and documents. We carried out 103 system audits in 2008 to assess compliance with the Nokia Siemens Networks Supplier Requirements.

These system audits help us identify high-risk suppliers for more in-depth process audits, focusing specifically on labor conditions and environmental management. In 2008, we conducted in-depth process audits of seven suppliers in China, India and UK. The main areas identified for improvement include: disciplinary practices; freedom of association (where it is legally restricted); health and safety; overtime; pay structure; monitoring of sub-suppliers; and waste management.

We work with our suppliers to improve their performance. Our auditing process requires suppliers to present corrective action plans within 30 days of any instances of non-compliance identified by our audits. We then follow up to ensure these are implemented.

- **Focus on environmental standards**

Environmental standards are of the utmost importance to Nokia Siemens Networks. We are determined to reduce the environmental impacts of our products throughout their lifecycle (see **environment**). This means working together with our direct suppliers to reduce their impacts as well as improving the environmental performance of our own products and operations.

We require suppliers to have a documented environmental management system (EMS). In the case of contract manufacturers and other key suppliers, this EMS must be certified to environmental management standard ISO 14001.

At the start of 2008, we conducted a survey to assess compliance with our requirement on EMS among our direct suppliers. 91 percent of the sites of the 40 key suppliers who participated in the survey had a documented EMS in place. The majority of these EMS were certified to ISO 14001.

Previous surveys have shown a comparable high level of compliance with the EMS requirement. It is unlikely that 100 percent of suppliers' sites would be compliant at any one time because it typically takes 12 to 18 months to develop an EMS for each site and existing suppliers often introduce new sites, or new suppliers may be selected.

We require all our suppliers to reduce their overall environmental impacts, but we are focusing in particular on improving energy efficiency among our direct suppliers. In 2008, we began rolling out a new program to improve energy efficiency and reduce related greenhouse gas emissions. Through this program, we will gather a set of best practices to share with other suppliers to promote improvements in energy efficiency throughout the supply chain.

10.3 Awareness building

Our procurement teams are responsible for ensuring compliance with our ethical, environmental and social supplier requirements through our established procurement processes.

Training and communication are essential to build awareness of these requirements among our procurement teams. We communicate about CR issues through our intranet, external website, internal news channels, team meetings and organizational information sessions.

As a new company, internal training is an important focus. In 2008, 286 people completed either online or face-to-face training on ‘CR in the supply chain’.

We held 11 half-day face-to-face sessions in China, Finland, Germany, India, Italy and Singapore, as well as two online sessions to reach staff in other locations. The training introduces the concept of CR, goes through the ethical, environmental and social aspects of our Supplier Requirements, and advises on how to manage CR in the supply chain.

In addition, we held four one-hour online sessions covering basic information on CR and supplier requirements. The aim of these sessions is to emphasize that ethical, environmental and social requirements are an integral part of our procurement processes and everyone is responsible for ensuring they are implemented.

10.4 Working with industry

We collaborate with other companies in the information and communications technology (ICT) sector to promote better CR management and performance throughout the industry’s supply chain.

Nokia Siemens Networks has been a member of the **Global e-Sustainability Initiative** (GeSI) since the company’s inception. GeSI is a global partnership of ICT companies that promotes technologies for sustainable development.

We participate in the GeSI Supply Chain Working Group to develop tools and management practices to help companies improve standards in the ICT supply chain.

In 2008, we began implementing **E-TASC** – a web-based supply chain risk management tool created by GeSI and the **Electronic Industry Citizenship Coalition** (EICC). E-TASC compiles information gathered from suppliers through online self-assessments and a common auditing process to be shared between participating companies.

This tool is designed to reduce the burden on both suppliers and ICT companies by requiring only one set of assessments and auditing, rather

than any one supplier having to undergo separate audits by each of its customers.

Nokia Siemens Networks has started the process of implementing the E-TASC self-assessment tool with 20 key suppliers. We have also begun to use this tool to assess CR performance in our factories, as a supplier to mobile network operators who also participate in E-TASC (see **Managing CR**).

11. Employees

In this period of post-merger integration, we have continued to build the Nokia Siemens Networks culture. We want employees to live our values and to share a common vision. We have worked to establish an open and fair working environment – one in which employees feel motivated, engaged and well rewarded.

In 2008 we worked on integrating the values into business processes, including individual performance measurement and leadership programs. Our first Employee Engagement Survey demonstrated that employees share our values and are implementing them. It produced broadly positive responses in many areas, but also identified areas where employees feel the need for improvement. For example, responses on Personal Development and Reward & Recognition were less positive than we would like.

We introduced a new Health and Safety Policy in 2008 and are moving ahead with plans to improve the health and safety culture throughout the company. This will include global data collection systems which are not yet in place. To promote a comprehensive approach to employee wellbeing, we will introduce a “wellbeing@work” program in 2009

Our desire to ensure good labor conditions in our factories led to Nokia Siemens Networks joining the E-TASC supply chain consortium for the electronics industry. We will use the E-TASC self-assessment and audit process to identify areas for improvement.

Restructuring of the company to find synergies has continued following its creation in 2007. This resulted in an adjustment of the overall headcount by a total of 6,200 positions by the end of 2008, less than the 9,000 we originally anticipated in the first two years of the company’s existence.

Goals for 2009

- Every employee will have a Personal Development Plan
- Every line manager will have engagement targets
- Values will be on the agenda of every leadership team and business unit
- Awareness raising of labor conditions and related issues will be carried out within the HR organization.

11.1 Culture and values

Creating a culture for a new company is a long-term process. It requires a clear understanding throughout the business of our aspiration to be a high-performance company, and a shared vision of the kind of company Nokia Siemens Networks wants to be.

Our values were defined in 2007 during the process of creating the new company from our parent companies – Nokia and Siemens – with their different cultures. We set out to create a new culture for Nokia Siemens Networks, and invited employees to participate in an online discussion about our culture and values. Around 10,000 people (17 percent of our staff) took part, and from this process we defined our five core company values.

Nokia Siemens Networks' five core values:

- Focus on customers
- Win together
- Innovate
- Communicate openly
- Inspire

In 2008 we focused on integrating these values into business processes. We recognize that values need to be more than just statements – they need to be embedded in our business. For example, they must be reflected in our customer satisfaction scores and other performance measurement systems.

Our values are being integrated into individual performance measurement. In 2008 we assessed how successfully employees have applied the values as part of their performance evaluations. In 2009 we will include targets to encourage further individual engagement with our values.

Performance evaluations are now based on both what the individual has achieved and how this has been achieved, with scores divided equally between the two parts. Managers are guided through a series of questions based on each of the values to assess employees' performance.

Values-based criteria and indicators are also used in our **Competence Management, Leadership Development and Team Development programs**.

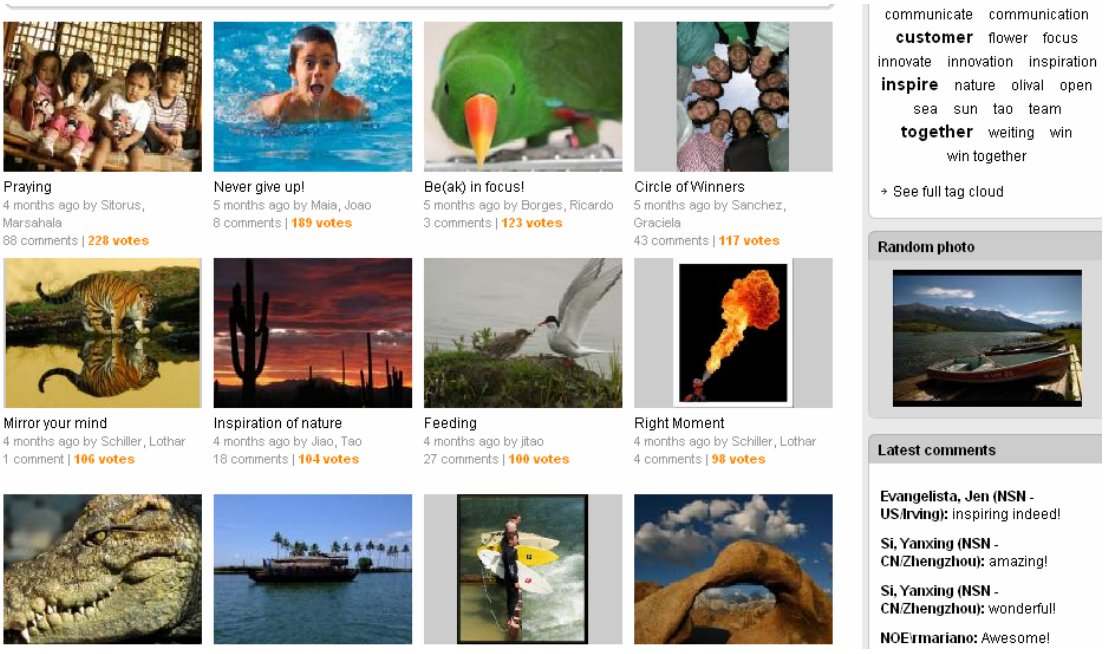
The **Global Employee Engagement Survey** shows that people endorse our values and are implementing them. In 2008 we launched a photo competition to further promote employee engagement with our values. The aim was to enter photographs taken by employees and choose which best captured and expressed our values. More than 1,200 photos were submitted and there were more than 12,000 visits to the interactive online gallery, where employees could vote for the winning entry and make comments.

There were five categories in total – one for each value – and in each category the picture with the most votes won. The results were as follows:

Value	Winner	Photo	Number of votes
Focus on customers	Ricardo Borges, Portugal	Be(ak) in Focus	123
Win Together	Graciela Sanchez, Venezuela	Circle of Winners	117
Innovate	Joao Maia, Portugal	Never give up	189
Communicate Openly	Marsahala Sitorus, Indonesia	Praying	228
Inspire	Tao Jiao, USA	Inspiration of Nature	104

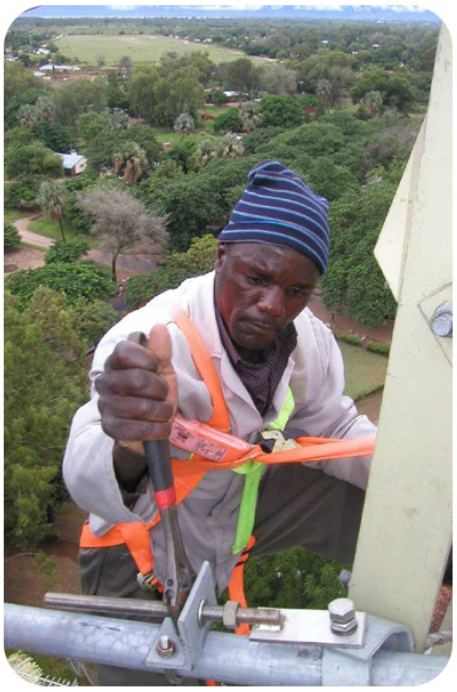
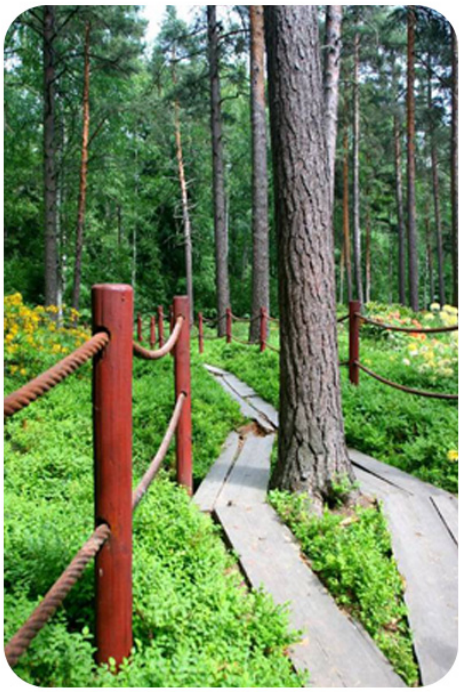
The quality and diversity of the pictures was impressive, and more than 50 submissions were selected by the Nokia Siemens Networks Brand Center to be used in our global communications. We are very pleased that the creativity of our employees can be integrated into our brand in this way. It shows that we have a 'living brand' that is fully aligned with our values.

A few examples of the chosen pictures are set out below:







Other examples of photo submissions

Nokia Siemens Networks Quality Award 2008

To help integrate our values into the business, in 2008 we held the first annual Nokia Siemens Networks Quality Award. The Quality Award showcases outstanding results from across the company in the areas of Innovation, Operational Excellence and Customer Delight.

Centered around our five core company values, the Quality Award is an opportunity for any employee within Nokia Siemens Networks to demonstrate their commitment to customers. We include a set of values-based questions in the award application form to help participants understand what is expected.

Nine finalists were selected for 2008. In May they presented their achievements to the Executive Board, who chose the winners. These finalists, along with other selected projects, have been widely promoted throughout the company as examples of best practice, and some of their ideas have already been successfully replicated.

In the Quality Awards 2009 Corporate Responsibility was included as an additional performance area.

11.2 Engagement

We have many communication channels with employees which enable the exchange of information and views. These include interactive channels, such as senior management blogs, Inside News and Culture Square, where employees are invited to take part in discussions on various topics. We also produce regular audience-specific newsletters such as *NSN World* and *Line Manager's Matters.*

In April 2008, we carried out our first Employee Engagement Survey across Nokia Siemens Networks. This survey is designed to support leaders in creating real change by listening to, involving, motivating and energizing our people, as well as improving our understanding of employee engagement levels and what drives these. It provides a benchmark against other companies and a baseline for measuring our progress.

The survey contained 80 questions across 14 categories, covering areas such as leadership inspiration, line manager relationship, innovation, personal development and ethics. The main focus of the survey was those aspects of our culture and working environment that are conducive to employee engagement. It was available in nine languages and achieved an encouraging response rate, with 74 percent of our employees taking part.

Feedback from the survey is now being used to shape our strategic planning and drive organizational change globally and behavior change locally.

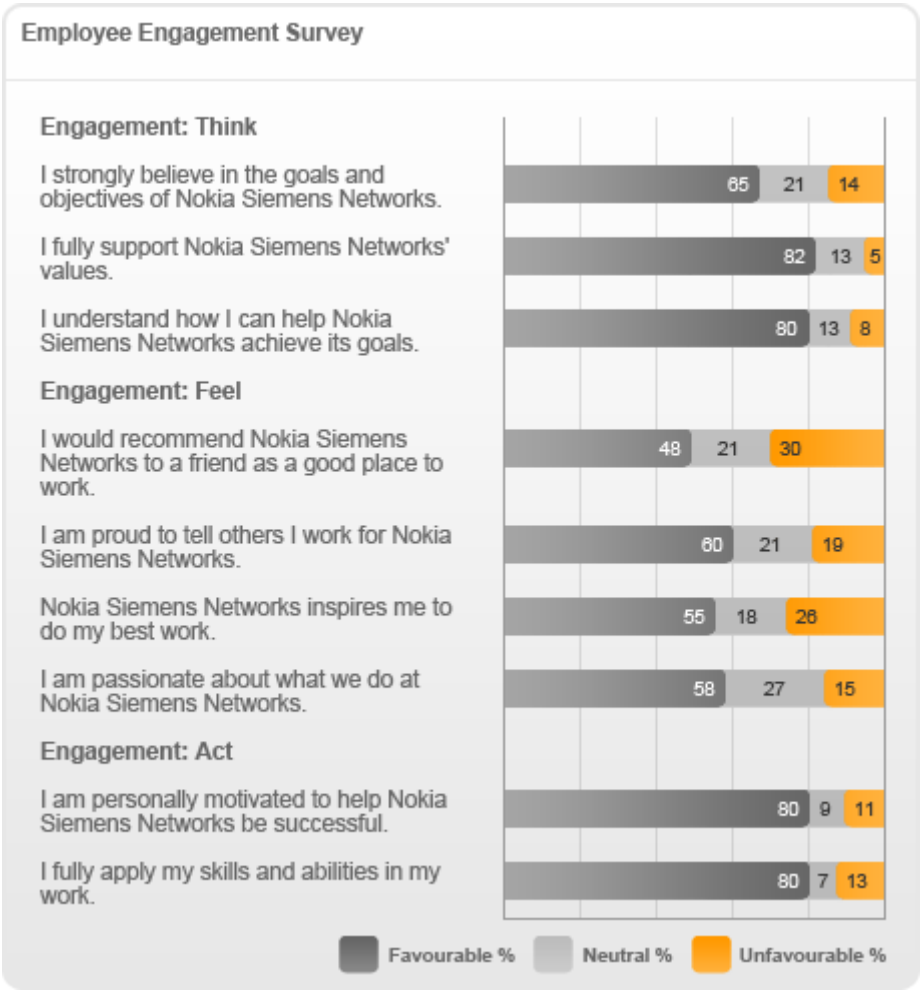
Survey results

Engagement consists of three components. To be fully engaged, employees must have:

- Rational understanding of the organization's strategic goals and values and how employees fit in (Think)
- Emotional attachment to the organization (Feel)
- Motivation and willingness to invest discretionary effort to go above and beyond (Act)

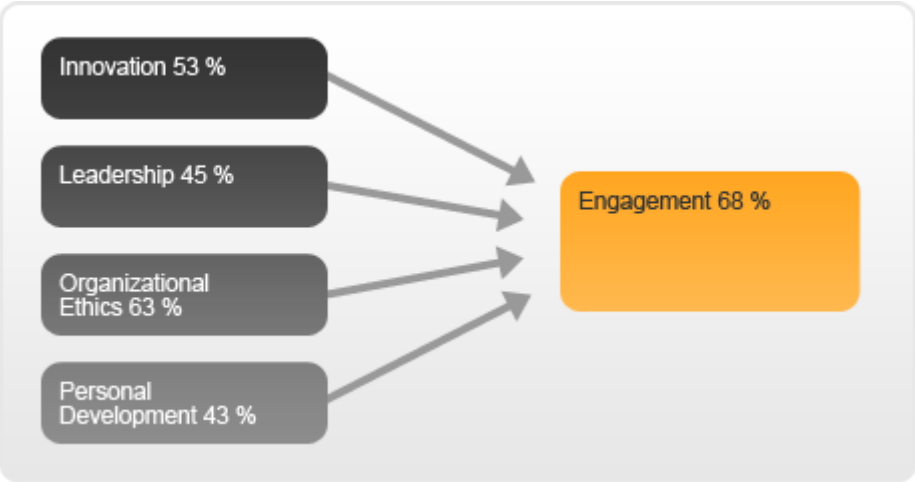
Nokia Siemens Networks is still on a journey of transformation, and we have focused on levels of engagement expected for companies going through significant transition. The TP-ISR Global Transitional Companies Norm provides an appropriate external benchmark to help us assess our results. The TP-ISR Global Transitional Companies Norm is a weighted average of employee survey results from companies across a range of industries that are experiencing major, destabilizing change – including significant merger or acquisition. The Norm is updated annually and currently includes data from 29 organizations, representing over 122,111 employees.

Our Employee Engagement Survey results show that 68 percent of our employees are engaged in their work for Nokia Siemens Networks. Rational and motivational engagement are high, with for example, 82 percent fully supporting our values, but levels of emotional engagement are lower. This pattern is often seen in companies going through significant transition, although our results for emotional engagement were lower than expected. Only 48 percent said they would recommend Nokia Siemens Networks to a friend as a good place to work, 17 percent below the Transitional Norm. Of those surveyed, 60 percent said they are proud to tell others they work for Nokia Siemens Networks, 15 percent below the Norm.



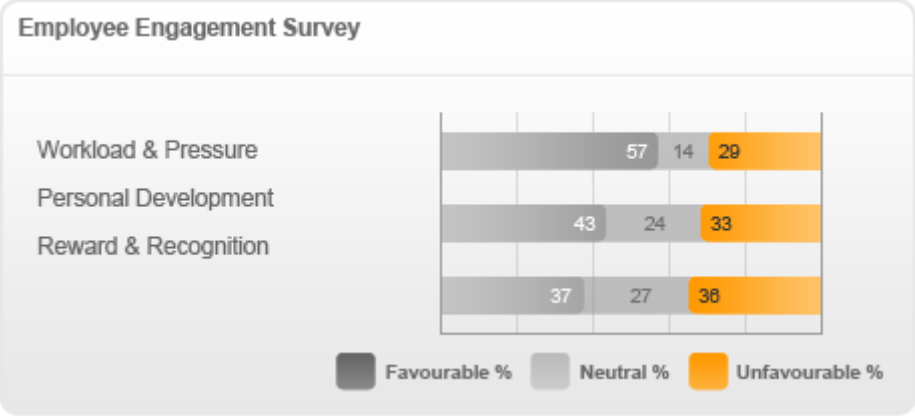
Having employees who are engaged with the company and passionate about their work is critical to our success, and can be a true differentiator for us. We want to do all we can to enable employees to feel engaged and passionate. From the survey results, we have identified the key drivers of engagement at Nokia Siemens Networks. These are:

- Innovation (53 percent)
- Leadership (45 percent)
- Organisation Ethics (63 percent)
- Personal Development (43 percent)



By focusing on the key drivers that have been identified in 2008, we aim to continue to improve employee engagement in the future.

In addition to the key drivers for engagement, significant numbers of employees identified three other areas for improvement. These were workload and pressure with 57 percent favorable responses (1 percent below the Transitional Norm), personal development at 43 percent (4 percent below the Transitional Norm), and reward and recognition at 37 percent.



Although scores on reward and recognition are typically low for most companies, our results in 2008 were significantly below the external level For example, perception of pay being as good or better than other companies was 20 percent below the Transitional Norm. This may in part be explained by the timing of our survey just before the completion of our harmonization process and our Annual Compensation planning (see **Compensation and benefits**). We expect that these measures will address many of our employees' concerns in this area.

Plans for improvement

Following the Employee Engagement Survey, we embarked on a company-wide action planning process to help us achieve improvements in the engagement key driver areas. Implementation of these action plans and improvements in employee engagement are included in leadership objectives.

In September 2008 we carried out a review of our action planning which showed that there is global, regional and local commitment from leaders to bring about change and improvement. This was further supported by a Pulse Survey conducted at the end of October 2008, the results of which are summarized here:

- Between April and October 2008 employee engagement improved.
- The rational element of engagement improved significantly, with the gap closing between Nokia Siemens Networks and external benchmarks.
- Emotional engagement: people feel that the company inspires them to do good work, but they still don't feel fully connected with the company.
- Motivational engagement: people feel that their skills are being slightly under-utilized compared to previous results and that they have more to give.
- There were significant improvements in Leadership, Organizational Ethics and Reward & Recognition.
- There was a significant decline in Workload & Pressure.
- Innovation and Personal Development remained stable.

11.3 Training and development

Our goal is to create a work environment in which all employees can fulfill their potential, creating capable, competent people who will have lifetime employability.

We believe that by far the greatest contribution to personal development is achieved through learning on the job. Self-study, coaching and mentoring are also important, with structured learning making the least significant contribution.

Structured learning needs are identified in two ways, through:

- Assessment of competencies required company-wide and identification of gaps to be filled.
- An employee-focused approach, defined with line managers considering the needs of each work group.

The three main contributions to personal development and their relative weighting at Nokia Siemens Networks are:

- Learning on the job (70 percent)
- Self-study, coaching and mentoring (20 percent)
- Structured learning (10 percent)

Achieving Together

Achieving Together is our performance management process through which each employee takes part in bi-annual achievement reviews. Employees also conduct annual performance reviews with their line managers to discuss their performance relative to the expectations of their role and contribution to the team against the Nokia Siemens Networks values.

Each employee uses our personalized Performance Development Plan (PDP) as a framework to agree with their line manager their personal and career development aspirations for the coming year. The PDP is a living document and can be updated at any time to identify learning requirements and achievements in the three main areas. The Academy analyzes the data related to the structured learning criterion to determine whether individual employees should take specific training courses to improve.

Achieving Together enables employees to understand how they can contribute to the company's success and align their own achievements and career aspirations to the company strategy. This also facilitates dialog between managers and team members.

We use a tool known as “Success4U” that analyses data by region and business unit to identify development trends and programs required to meet company and individual needs.

Due to market conditions, towards the end of 2008 we introduced a moratorium on external training provision. Our internal Academy continues to respond to formal training requirements with courses that meet the needs we have identified. The Academy has training facilities in more than 40 countries and provides wide-ranging opportunities, with over 2,000 courses in nine languages. We provided 128,384 days of training through the Academy in 2008.

Nokia Siemens Networks Academy:

- Countries with training facilities: 40
- Courses: 2,000+
- Languages: 9
- Number of training days in 2008: 128,384

Leadership development

We ran our Leader in Nokia Siemens Networks program throughout 2008 to explore with line managers how our values shape leadership activities. The sessions were experiential and interactive, using video clips, case studies and other means to create a dialog around our values.

We ran 53 sessions in 2008, 89 percent of which were sponsored by a senior executive, demonstrating support from top management. The program reached 696 managers in 23 countries. Overall participant satisfaction rated 4.84 on a scale of one to six, meeting our target of 4.8.

In 2009 we will focus on developing the talent model required for Nokia Siemens Networks and the succession planning we need.

Case study: Joachim Kehrle

Joachim Kehrle was the 500th participant in our Leader in Nokia Siemens Networks program.

He works in Operations Delivery Capability in Ulm, Germany, working with sites in Germany, Finland and China. He described his leadership approach and his response to the session:

"It is very important for me to implement the value 'communicate openly' and listen to the ideas of my team, record their contributions, answer their questions and show them respect. For me there are no silly questions.
We learn from each other a lot because we are from different countries in the team and we cooperate with people from all regions.

We are adopting a new way of leading, very much based on team work. We see problems as an opportunity for innovation and look for solutions together. We accept all the people in the team and their ideas, and support the team members in using their talents. We are aligned towards serving our customers and being ahead of the competition. I am the captain of a football team and the motivation goes through the entire team – we have the same goal and play the same game.

It's difficult if you have to decide that there is one in the team who is not a team player and is not performing well. That is the worst challenge for a line manager. When I had to do this I prepared the discussion to bring the bad news in an objective and considered way and took into account the person and their personal life and the impact of my decision. I listened to the person and was available to discuss and support them.

The very important thing is to trust your team, respect all members and communicate openly, no matter where they are based or what their cultural background is."

11.4 Diversity

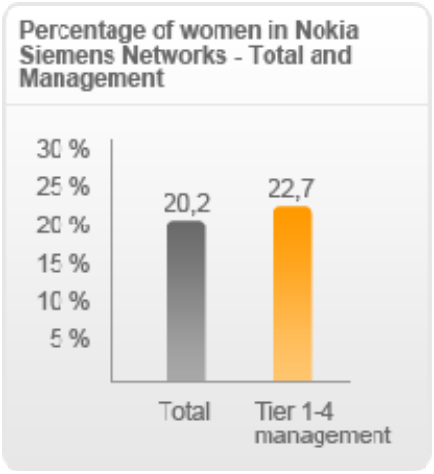
Nokia Siemens Networks is a multicultural company. We respect employees' individual differences and recognize that a diversity of backgrounds, skills and perspectives is highly beneficial to our business – enabling us to understand the global market in which we operate.

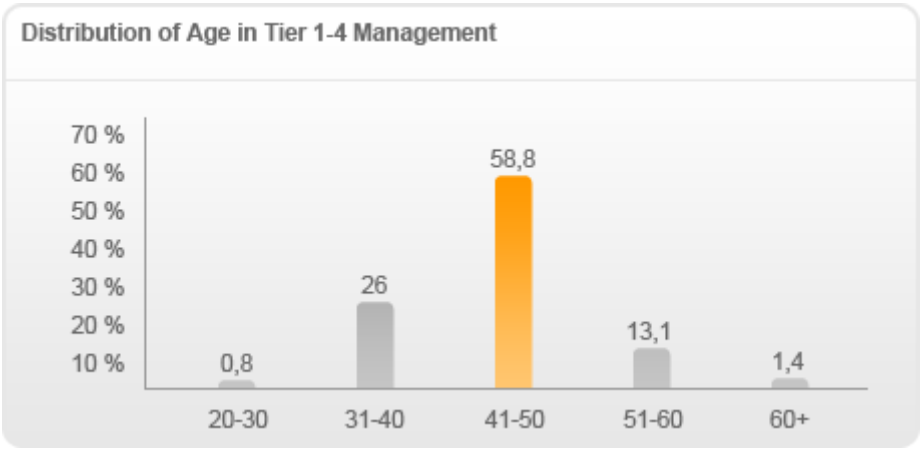
In 2008 we continued to encourage managers to embrace diversity, and to take advantage of the range of strengths and capabilities that different people from different backgrounds can bring to their teams. We have also created a new role, Head of Values and Diversity, to place more emphasis and focus on diversity within the company.

Our employees are increasingly aware of the measures we have put in place to encourage diversity. Of those participating in our Employee Engagement Survey, 78 percent agreed that their team has a climate in which diverse perspectives are valued.

Throughout the year we continued to monitor gender, age and nationality. Figures from 2008 show that:

- 20 percent of our employees are women
- 23 percent of managers are women, compared with 17 percent in the previous year
- The average age of our employees is 37, and the average age of our management is 44
- 27 percent of tier 1-4 line managers are under the age of 41
- 30 percent of managers are German and 30 percent Finnish
- 79 percent of managers are European, compared with 85 percent in the previous year.





11.5 Health, safety and wellbeing

Providing a safe and healthy workplace is enshrined in the Nokia Siemens Networks Code of Conduct. In 2008 we introduced a new Health and Safety Policy that sets out our commitments and clearly defines roles and responsibilities. The policy commits us to:

- Comply with, and where feasible, exceed legal requirements in each country
- Integrate health and safety management into our business and processes so that individual employees and managers at all levels have responsibility for safety
- Strive for continuous improvement in health and safety performance
- Promote a healthy lifestyle and support voluntary activities that enhance employees' health, wellbeing and work–life balance
- Promote awareness through communication and training
- Take immediate action to remedy any situation where incidents, audits or other feedback identify areas for improvement
- Expect suppliers, contractors and other business partners to place equally high priority on health and safety.

In 2008, we invested in building effective health and safety governance for Nokia Siemens Networks. Responsibility for approving policies, standards and plans lies with a steering group, chaired by the head of Human Resources, that **covers labor conditions** and health and safety.

We began the process of building a rigorous health and safety culture throughout the company, creating a regional and country structure, and recruiting health and safety managers where necessary. By the end of 2008 most regional managers were in place. We aim to complete this structure by mid 2009, including finding external support where appropriate.

Country health and safety managers are carrying out gap analyses against legal and other relevant requirements, and risk assessments that will feed into improvement plans. They are following a management system based on our Health and Safety Workbook template. This template is designed to ensure the same fundamental standards for all Nokia Siemens Networks country organizations, but allows for local adaptation when necessary.

Another major project in 2008 was the development of the Global Health and Safety Guidelines for Network Implementation projects. The material was piloted in the West and South Europe and Middle East and Africa regions, and we intend to launch the guidelines globally during 2009. We will communicate the new guidelines to our employees and subcontractors. We will also carry out a communications and training program to continue building health and safety awareness.

We collect health and safety data at country level, but due to different reporting practices and local legislation, this data cannot be consolidated globally. We plan to develop a global data collection system in 2009.

The issue of well-being at work was addressed by Human Resources in 2008. We launched several pilot projects with a view to developing practices and tools for line managers to evaluate and promote well-being and work–life balance within their teams.

Targets for 2009

- Complete the baseline review and roll out the global incident and accident reporting process
- Occupational safety: focus on the health and safety practices in the Services/Network Implementation projects
- Health: focus on promoting wellbeing at work and especially work-life–balance.

Case study: Health and safety in South Africa

In South Africa it is common practice for sub-contractors to hire casual laborers off the street each day. These workers often have no understanding of workplace health and safety, to the extent that they might consider it normal practice to dig a trench without any footwear at all.

This is the kind of scenario being addressed by the health and safety management team in South Africa. In 2008 they began developing a health and safety management system to ensure that such things don't happen.

The challenge was to develop a management system that is effective for health and safety, and customer service. It needs to take into account company policies and codes of conduct, local laws, efficient delivery of the service to customers, and cultural considerations.

This challenge is being met thanks largely to the determination and skills of health and safety coordinator Dudu Mtshali and advisor Dwayne Duncum. Together they have made excellent progress developing and communicating the health and safety message to the 600 employees and subcontractors in South Africa. Dudu says "A lot of people didn't use to take health and safety seriously, it was never high on the agenda. But that really is starting to change now, although we still have plenty to do".

Tangible progress is visible in the much greater use of personal protective equipment on-site. Equally important, attitudes have changed, with greater awareness and understanding of the importance of health and safety in the workplace.

Case study: Health and safety SMS in Brazil

Nokia Siemens Networks' Managed Services (MS) group has approximately 4,500 employees in Brazil working in the field to address customer requirements. Carrying out installations, maintenance and technical support, these employees spend much of their time on the streets or in remote locations on customer call-outs.

In 2008 questions arose about how to reach these employees with newly devised health and safety messages and training information. Brazil MS Health and Safety and HR groups came up with the idea of sending regular SMS messages to these employees to update them with crucial health and safety information.

The program has evolved into a successful health and safety contact system, whereby messages are sent regularly to all employees according to a planned agenda. During Safety Week in March 2008, daily text invitations were sent out to workers to participate in lectures, health assessments and other health and safety activities.

Through the SMS scheme, Brazil MS has devised a powerful tool to help raise awareness of health and safety issues among its employees, wherever they are and whatever they may be doing.

Security

Nokia Siemens Networks recognises the importance of security and safety. We put special emphasis on protecting the safety and well-being of employees, customer data and business secrets. If security is compromised, employees and/or business operations could suffer major harm.

A Security Council is the top decision-making body for all Corporate Security activities. The Council is chaired by the Chief Financial Officer and consists of representatives from the business units and key functions. The Council approves key policies and sets the security strategy. The Head of Security ensures that security services and operations are well aligned with business needs.

Our security framework covers all employees, contractors, temporary personnel, and others who work on company premises or have access to company information or systems. We are committed to complying with legal, statutory, regulatory, and contractual obligations and require the same of our trading partners, contractors, and service providers.

Roles and responsibilities

Security is achieved through the everyday actions of security-minded employees and by having appropriate controls in place. All employees, contractors, and temporary workers are responsible for ensuring that company assets are used only in proper pursuit of the business and that

their actions comply with legal and other obligations, as well as NSN policies.

Employees are encouraged to report security vulnerabilities and possible enhancement ideas to their line manager or directly to Corporate Security.

Managers are responsible for encouraging security discipline among team members and for maintaining awareness through information, training, and advice to team members. We provide employees with complete, concise and clear security information.

11.6 Compensation & Benefits

In 2008 we delivered on our plans to harmonize and align our pay and benefit programs in all countries where we operate. Building on a common model of job levels, we have harmonized our key salary administration processes, developed a global approach to incentive management, integrated benefits packages at local level and harmonized expatriation policies.

Whether they are ex-Nokia, ex-Siemens or new hires, all our employees are now treated in a consistent way and abide by similar terms and conditions. Our managers use the same reward processes in a transparent and fair manner. This alignment and integration has taken 18 months, and has been achieved without any significant disruptions.

Throughout 2008 we also aligned our pay and benefit packages with the external high-tech market. While our goal is to offer competitive salaries to attract and retain the best people in our industry, we need to balance these interests with affordability and financial stability. For this reason, as the economic downturn accelerated we took precautionary measures to limit our salary budget for 2009. We need to be responsive and pro-active in order to help our company ride out the global economic turbulence.

Several of our compensation and benefit schemes are evolving as part of the process of strategic alignment. In a number of countries we are bringing to an end the Long Serving Award program and are now reinvesting these funds into health and wellbeing schemes.

The future challenge for us is to ensure that our reward solutions are well understood by managers and valued by our employees. In 2009 we will be rolling out education programs to improve awareness and engagement. We also aspire to increase the flexible nature of our compensation and benefits package to employees across the company. Our goal is to offer employees more choice and allow them to tailor programs to their personal needs.

Our people-related costs are significant, and we want to ensure this investment provides value to our employees and is aligned to our strategic business interests.

11.7 Labor conditions

The Nokia Siemens Networks Code of Conduct requires that we will not use child or forced labor, and will not tolerate treatment or working conditions that are in conflict with international conventions and practices. We consider that the International Labor Organization (ILO) Fundamental Rights at Work should be valid all over the world, regardless of whether a country has ratified the ILO conventions. Among other things, these cover:

- Freedom of association and collective bargaining
- Freedom from forced labor
- Abolition of child labor
- Freedom from discrimination.

In 2008, we started to develop a framework for managing labor conditions. The first step was to define a standard based on the ILO conventions and standardized Industry Code of Conduct, and benchmarked against international labor laws and standards.

Our approach identifies three levels:

- Essential: compliance with local legislation and other applicable local agreements
- Expected: good practices that meet customer and other stakeholder expectations, based on ILO conventions and benchmarked against other standards and industry best practices. Compliance is required except when local legislation prevents it
- Desirable: world class practices.

This standard will be integrated into Nokia Siemens Networks global employment policies and guidelines, providing information and guidance on the following topics in our daily working life:

- Child labor avoidance
- Voluntary employment
- Freedom of association
- Non-discrimination
- Humane treatment
- Working time
- Compensation
- Occupational health
- Occupational safety.

Using the standard as a performance indicator, we are also building effective management systems to monitor and assess labor conditions at Nokia Siemens Networks, starting first with manufacturing operations.

Customers increasingly expect high labor standards and we engage with them to communicate our approach. In 2008 we also joined the E-TASC industry supply chain consortium. E-TASC is a web-based information management system developed by the Global e-Sustainability Initiative (GeSI) and Electronics Industry Citizenship Coalition (EICC). It provides companies with a platform to collect, manage, and analyze social and environmental data. (See **Supply chain**.)

We have used this tool to carry out a baseline review, both on a global company level and for all our factories. Based on the information gathered through E-TASC, an improvement plan for each factory will be defined.

In 2009 we will focus on raising awareness of labor conditions and related issues within the HR organization.

11.8 Change and restructuring

Nokia Siemens Networks was formed to strengthen our market position by streamlining the network businesses of the two parent companies, Nokia and Siemens.

To guide Nokia Siemens Networks leaders and managers during the post-merger period, we established Lead Change – a global framework. The aim of the framework is to provide practical advice and guidance to enable managers to support their teams in dealing with the obstacles, challenges, and multiple changes arising from the merger. It also shows managers and their teams how to grasp the opportunities arising from our transformation journey towards a solutions and services company.

As part of the Lead Change framework, every employee was invited to an event in 2007 where matters about the new company were discussed. Since that time, the framework has been extended to include a variety of managerial support tools, including value discussions, employee engagement, change management and communications. All our Strategic Change Programs use the Lead Change methods in their planning, execution and monitoring.

Leadership and change communications

We believe that the regular sharing of strategy updates, relevant business plans and financial results is essential to successful change management. To ensure every employee has a good understanding of the big picture, we make clear links to our strategy and business performance when planning and communicating change.

When announcing a change which has potential implications on employees' roles and contracts, we aim to apply the following principles and processes worldwide:

- Communicate openly and transparently to all impacted employees simultaneously, primarily face-to-face. Share the plans with local works councils or employee representatives as appropriate
- Explain reasons for the planned changes and link them to the overall targets and strategy
- Encourage line managers to support their team members via continuous dialogue, and provide them with tools to do this appropriately
- Pay special attention to virtual teams that have members in different countries
- Identify other key stakeholders and inform them in a transparent manner
- Whenever possible, provide assistance to affected employees in finding alternative employment, either within the company or through career counselling, recruitment events and outplacement services.

Synergy-related restructuring

As a result of the merger, synergy-related restructuring was expected to result in a reduction of 9,000 jobs in the first two years of the company's existence. By the end of 2008 we had adjusted the overall headcount by a total of 6,200 positions.

These adjustments have been essential to build a truly competitive company, but it has been a sensitive process during which we have aimed to be fair and transparent. The most significant reductions have come in mature markets, especially Finland and Germany where positions in the headquarters of our parent companies overlapped, as well as in R&D and other functions. We continue to employ substantial numbers in these countries, conduct significant research and development activity, and take responsibility for next-generation solutions and services.

Throughout the process of restructuring, we have aimed to communicate openly with employees. We recognize the need to respect both those who are impacted and those who stay, and aim to commit management time to explain the reasons for and the implications of planned reductions. We have consulted with Works Councils, employee representatives and other stakeholders as required by local laws, to find appropriate solutions for reduction plans and impacted employees.

Our headcount figures for 2008:

- Total number of employees: 60,295 (end of 2008)
- with a voluntary attrition rate of 6.2%

In 2008, a considerable number of new employees joined us from our customers through managed services deals, some through acquisitions, and some through new opportunities. The number of new employees reflects our efforts to balance our global footprint to better address our growing customer base in emerging markets.

By the end of 2008, the company achieved an overall headcount adjustment of nearly 6,200 employees since starting its operations in April 2007 (excluding growth via managed services in-sourcings and acquisitions). The total number of employees at the end of 2008 was 60,295. The headcount reductions figures for restructuring processes which were still ongoing at the turn of the year are not counted in the achieved overall adjustment figure in 2008.

12. Managing corporate responsibility

Corporate responsibility (CR) is an integral part of our business strategy and our management approach. We believe that business success is only possible when it also benefits the environment and the society. (See **Our approach to corporate responsibility**)

Corporate Affairs is responsible for our corporate responsibility strategy and has overall responsibility for **CR**. The head of Corporate Affairs sits on the Executive Board and reports to the CEO. Environmental Affairs, part of the Corporate Affairs team, is responsible for our environment strategy and policy. The Corporate Social Responsibility team oversees community engagement programs including employee volunteering and **charity donations**. In 2008 we appointed a new Ethics Officer who has responsibility for implementing the Nokia Siemens Networks **Code of Conduct.**

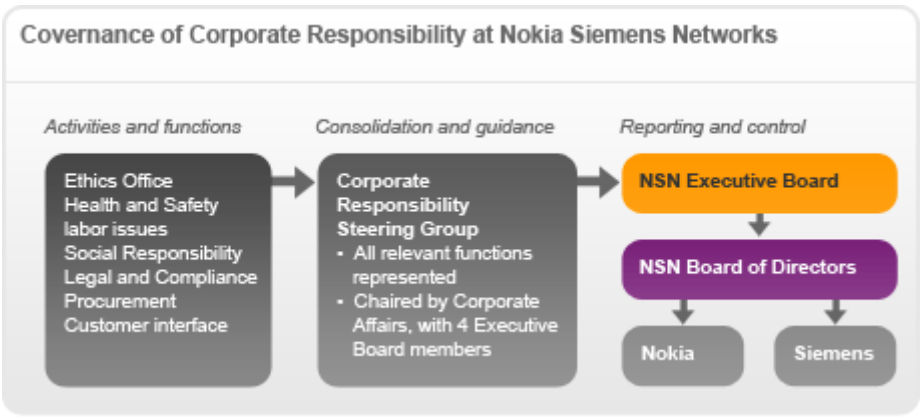
Responsibility for other specific elements of CR lies with the relevant functions, including Human Resources (anti-discrimination, Health & Safety) and Procurement (CR in the supply chain).

Governance

In 2008 we established a Corporate Responsibility Steering Committee (CRSC) chaired by the Head of Corporate Affairs to consolidate functional activity and direct our approach to CR.

The CRSC reports to the Executive Board and includes four executive board members. Other members are the Ethics Officer, head of social responsibility and representatives of business functions, as well as an employee representative.

Insert organization chart based on this:



The mission of the CR Steering Committee is to:

- Assess overall company adherence to the Code of Conduct, and employee engagement
- Consider further revision and/or refinement of the Code, where and when needed
- Follow social issues that affect the industry and Nokia Siemens Networks and assign responsibilities to address them
- Review CR globally, including the success of community involvement initiatives
- Monitor the impact of CR issues on operations and sourcing
- Ensure CR activity is reported transparently both internally and externally
- Organize the response to CR related issues within Nokia Siemens Networks

Management system

In 2008 we joined (Electronics – Tool for Accountable Supply Chains) an industry supply chain consortium. We have begun to use the E-TASC self-assessment and audit process to assess our performance on labor, health and safety, ethics and environmental issues in our factories.

The initial assessment covered the company as a whole and produced a score of 94 percent. While this was a very positive result, the assessment identified the need to create more robust management systems for labor conditions. Most factories completed the E-TASC audit by the end of 2008, and the results range from 72 percent to 88 percent, with an average of 83 percent. In 2009 we intend to verify the data to address some inconsistencies in the e-TASC tool.

Stakeholder engagement

We seek dialogue with a wide range of stakeholders to understand different perspectives and communicate our point of view. This helps us to identify emerging corporate responsibility issues as well as priorities for action and communications.

- **Governments and regulators**

Engaging with policymakers is particularly important in our industry, where global, regional and local regulation has a major impact on access to communications and our ability to develop networks.

Along with other multinational organizations, in 2008 we agreed to work closely with the Organisation for Economic Co-operation and Development (OECD) to provide input on technological solutions that contribute to economic development. In June 2008, the OECD arranged its second ministerial meeting on the Future of the Internet Economy Seoul, South

Korea, to set frameworks for research on the economic and social contributions of the internet.

In 2008 we worked with the Finnish, German and several other governments on a number of strategy issues relating to the socio-economic benefits of ICT to both developed and developing nations. We also joined a number of international initiatives to promote the use of ICT for development, such as the Global Knowledge Partnership, the UN Global Alliance for ICT and Development and the Internet Governance Forum.

We have an open dialogue with the International Telecommunications Union (ITU) to influence the regulatory framework for the ICT industry. For example, in 2008, we took part in a global regulatory summit with over 1,000 regulators from developing world countries. Nokia Siemens Networks promotes the message to regulators that, with the convergence of technologies, new regulations should take into account the increasing relationships between ICT and other economic sectors such as energy and finance. We call for targeted and timely regulation that encourages innovation and competition.

In 2008, we engaged with the Finnish government and other EU governments to discuss national and European proposals on how to assess the expanding provision of broadband to counter the existing digital divide within EU nations. Nokia Siemens Networks' believes that widespread broadband should be encouraged together with policies that encourage ICT skills development to generate greater economic gains, such as improved workforce productivity. Providing greater coverage is only a partial solution and the regulation should reflect this.

Nokia Siemens Networks is working as a member of a taskforce led by UNESCO and the World Economic Forum on a manual for monitoring and evaluating multi-stakeholder partnerships in education. We want to ensure our work to improve **access to education**, is making a positive impact by partnering with education organizations with relevant expertise. The manual provides tools and guidelines to help organizations like us to monitor and evaluate partnerships to ensure that intended outcomes are achieved in a satisfactory way.

Engagement with many other stakeholder groups is summarized in the table.

Customers	We engage with customers through industry forums, such as the Global e-Sustainability Initiative (GeSI),the European Information & Communications Technology Industry Association (EICTA), GSMA and the Global mobile Suppliers Association (GSA). In 2008 we also joined the E-TASC industry supply chain consortium. We engage directly with customers on specific issues. In 2008 we held energy summits in India and Pakistan to encourage network operators, regulators and other stakeholders to examine the issues around network energy use. The findings were taken to the ICT Summit in November 2008.
Employees	We engage with employees through a range of internal communications channels and our **Global Employee Engagement Survey**.
NGOs	We engage with environmental NGOs - most significantly in a partnership with **WWF**.
Industry	- Nokia Siemens Networks is represented on the International Chamber of Commerce Commission on Business in Society. See Customers, above, for ICT industry activity
Investors	We took part in the Dow Jones sustainability index questionnaire, within the Nokia assessment. Nokia and Nokia Siemens Networks were named Leader of the Communications Technology sector.
Intergovernment agencies	We work closely with international and national funding institutions, such as the World Bank, the IFC (International Finance Corporation), and national aid organizations. We are helping to develop a framework to enable these institutions to engage effectively in public private partnerships (PPP), in a way that is commercially beneficial. - In 2008, we engaged with the World Bank on ICT, to present our position on the importance of telecommunications to the future global economy.
Suppliers	We work with suppliers on CR issues, for example through a workshop with five supplier companies in China in June 2008 and our global Supplier Day in September 2008 in Finland. See **Suppliers** .
Academic institutions	We work with academic research institutions, particularly in emerging markets, as part of our commitment to developing skills. For example, we are working closely with Nokia to establish innovation centers in Kenya and Uganda.
Multi-stakeholder networks	- In 2008 we joined the Global Knowledge Partnership (GKP), a multi-stakeholder network to promote ICT for development. See **Village Connection**.

12.1 Reporting

This is Nokia Siemens Networks' first full-year Corporate Responsibility (CR) Report, covering the calendar year 2008, following the creation of the company in April 2007. It details our performance, management approach and targets. A summary is available as **a PDF**.

Environmental data covers all our factories and facilities globally. In 2008 we improved our data collection system for energy, waste and water. Data now covers 95 percent of our estate, compared to 65 percent in 2007. We extrapolate the remaining figures using country averages.

This year, for the first time we have published information from our ethics helpline and anti-corruption **reporting lines**.

- **Assurance**

PricewaterhouseCoopers is providing assurance for specific indicators in this CR report.

Indicators assured by PricewaterhouseCoopers
Facility related direct and indirect energy consumption and related greenhouse gas emissions
ISO 14001 certification for all manufacturing sites
ROHS compliance of products. Lead free solder in all manufacturing lines
Percentage of suppliers having Environmental Management System (EMS) in place for sites serving Nokia Siemens Networks
Percentage of suppliers having reduction targets for energy, CO2, water, and waste in place and monitored
Suppliers' compliance with Supplier Requirements
Supplier Satisfaction Survey procedures and results
GSM and 3G targets for energy reduction
Packaging xx% recyclable
Own fleet CO2 emissions

Our CO_2 reduction targets and performance are externally audited as part of our involvement with the WWF Climate Savers program.

Internal communications on CR

We communicate with employees on topical CR issues throughout the year using both global and regionally relevant communications channels. Our internal communications channels allow anonymous and open comment by employees, which stimulates discussion on CR topics. Managers actively participate in these discussions.

We aim to engage employees through our internal communications on CR and encourage them to participate in a range of CR activities. Many of our offices have collected feedback from employees on how to improve environmental performance. Our *Unite to Protect* intranet site displays information on everyday environmental actions in and out of the office.

This year we ran a global photo competition to stimulate discussion of our **company values**. We also organized a competition for employees to suggest a name for our community **involvement activities**, which generated over 2,000 suggestions.

We actively promote the use of the helplines and reporting channels we have in place for ethics and compliance and encourage employees to make comments and ask general questions about our CR performance.

13. GRI Index

Note: the table shows the location of GRI indicators included in this report.

GRI guideline item			Inclusion?	Location
Strategy and analysis				
1.1	Core	Statement from the most senior decision maker, including vision and strategy	Yes	CEO podcast
1.2	Core	Key impacts, risks and opportunities.	Yes	Our approach
Profile – most items are available on the corporate website				
2.9		Significant changes during the reporting period	Partial	Change and restructuring
Report Parameters				
3.1		Reporting period for information provided.	Yes	Reporting
3.2		Date of most recent previous report.	Yes	Reporting
3.3		Reporting cycle.	Yes	Reporting
3.4		Contact point for questions regarding the report or its contents.	Yes	Feedback
Report scope and boundary				
3.5		Process for defining report content	Partial	Stakeholder engagement
3.6		Boundary of the report.	Yes	Reporting
3.7		State any specific limitations on the scope or boundary of the report.	Yes	Reporting
3.9		Data measurement techniques and the bases of calculations	Yes	Operations – environment
GRI content index				
3.12		Table identifying the location of the Standard disclosures in the report.	Yes	GRI Index
Assurance				
3.13		Policy and current practice with regard to seeking external assurance	Yes	Reporting
Governance, Commitments and Engagement				
Governance				
4.1		Governance structure of the organization	Yes	Corporate website
4.2		Indicate whether the Chair of the highest governance body is also an executive	Yes	Corporate website
4.4		Mechanisms for stakeholders and employees to provide recommendations or direction to the highest governance body.	Partial	Stakeholder engagement; Employees/ Engagement
4.8		Internally developed statements of mission or values, codes of conduct, and principles	Yes	Our approach to CR; Code of Conduct
4.9		Procedures of the highest governance body for overseeing the organization's identification and management of performance	Partial	Managing CR
Commitments to external initiatives				
4.11		Explanation of whether and how the precautionary approach or principle is	Partial	Our approach to CR;

		addressed		Environmentally sustainable business (whole section)
4.12		Externally developed economic, environmental, and social charters, principles or other initiatives to which the organization subscribes or endorses.	Yes	Stakeholder engagement; Environmental engagement
4.13		Members in associations and/or national/international advocacy organizations	Yes	Stakeholder engagement; Environmental engagement
Stakeholder engagement				
4.14		List of stakeholder groups engaged by the organization	Yes	Stakeholder engagement; Environmental engagement
4.15		Basis for identification and selection of stakeholders with whom to engage.	Yes	Stakeholder engagement
4.16		Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Yes	Stakeholder engagement; Environmental engagement
4.17		Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded	Yes	Stakeholder engagement

Performance: Economic				
Disclosure on Management approach				
		Organization-wide goals	Yes	Bringing connectivity (whole section)
		Brief, organization-wide policy (or policies) that defines the organization's overall commitment	Yes	Bringing connectivity (whole section)
		Additional relevant information	Yes	Bringing connectivity (whole section)
Economic Performance indicators				
Economic Performance				
EC1	Core	Direct economic value generated and distributed	Partial	Data highlights
EC2	Core	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Yes	Products – environment; Impacts of products and services
Indirect economic impacts				
EC8	Core	Development and impact of infrastructure investments and services	Yes	Bringing connectivity
EC9	Additional	Understanding and describing significant indirect economic impacts	Yes	Bringing connectivity

Performance: Environmental				
Disclosure on Management approach				
		Organization-wide goals regarding environmental performance	Yes	Our approach to CR
		Brief, organization-wide policy (or policies) that defines the organization's overall environmental commitment	Yes	Our approach to CR
		The most senior position with operational responsibility for environmental aspects	Yes	Managing CR
		Procedures related to training and raising awareness	Yes	Environmental engagement
		Procedures related to monitoring and corrective and preventive actions, including those related to the supply chain.	Yes	Operations – Environment; Supplier monitoring
		Additional relevant information	Yes	Products – Environment; Operations - Environment
Environmental Performance indicators				
Energy				
EN3	Core	Direct energy consumption by primary energy source.	Yes	Energy
EN4	Core	Indirect energy consumption by primary source.	Partial	Energy
EN6	Additional	Initiatives to provide energy-efficient or renewable energy based products and services.	Yes	Renewable energy
EN7	Additional	Initiatives to reduce indirect energy consumption and reductions achieved.	Yes	Packaging and logistics; Travel
Water				
EN8	Core	Total water withdrawal by source.	Yes	Data highlights; Waste and water
Emissions, effluents and waste				
EN16	Core	Total direct and indirect greenhouse gas emissions by weight.	Yes	Energy
EN18	Additional	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Yes	Energy
EN22	Core	Total weight of waste by type and disposal method.	Yes	Waste and water
Products and services				
EN26	Core	Initiatives to mitigate environmental impacts of products and services	Yes	Products - Environment
EN27	Core	Percentage of products sold and their packaging materials that are reclaimed by category.	Partial	Packaging; End of life services
Compliance				
EN28	Core	Significant fines and number of sanctions for non-compliance with environmental laws and regulations.	Yes	Operations – environment
Transport				
EN29	Additional	Significant environmental impacts of transport	Yes	Packaging; Travel
Overall				

Performance: Labor Practices and Decent work				
Disclosure on management approach				
		Organization-wide goals	Yes	Employees (whole

				section); Supplier requirements
		Brief, organization-wide policy (or policies)	Yes	Employees (whole section)
		Training and raising awareness in relation to the labor aspects.	Yes	Awareness building
		Procedures related to monitoring and corrective and preventive actions,	Yes	Labor conditions; Supplier monitoring; Supplier audits
		Additional relevant information	Yes	Labor conditions; Suppliers
Labour Practices and Decent Work Performance Indicators				
Employment				
LA1	Core	Total workforce by employment type, employment contract and region.	Partial	Corporate website; Data highlights
LA2	Core	Total number and rate of employee turnover by age group, gender and region.	Partial	Change and restructuring
Training and education				
LA11	Additional	Programmes for skills management and lifelong learning	Partial	Employees/ Training and development
LA12	Additional	Percentage of employees receiving regular performance and career development reviews.	Yes	Employees/ Training and development
Diversity and equal opportunity				
LA13	Core	Composition of governance bodies and breakdown of employees per category	Partial	Diversity

Performance: Human rights				
Disclosure on management approach				
		Organization-wide goals relevant to human rights aspects	Yes	Labor conditions; Supplier requirements; Suppliers/ Ethical requirements
		Brief, organization-wide policy (or policies)	Yes	Labor conditions; Code of conduct
		The most senior position with operational responsibility for human rights	Yes	Managing CR
		Procedures related to training and raising awareness	Yes	Labor conditions; Supply chain
		Monitoring and corrective and preventive actions,	Yes	Supply chain; Supplier monitoring; Supplier audits
		Additional relevant information	Partial	Supply chain; Human rights
Human rights indicators				
Investment and procurement activities				
HR2	Core	Percentage of significant suppliers and contractors that have undergone screening on human rights	Partial	Monitoring suppliers; Supplier audits

Performance: Society				
Disclosure on management approach				
		Organization-wide goals relevant to the society aspects.	Yes	Bringing connectivity; Engaging with our communities
		Brief, organization-wide policy (or policies) relating to the society aspects	Yes	Bringing connectivity; Engaging with our communities
		The most senior position with operational responsibility for society aspects	Yes	Managing CR
		Procedures related to training and raising awareness in relation to the society aspects.	Partial	Awareness building; Ethics/Training and awareness
		Additional relevant information	Partial	Bringing connectivity; Ethics; Engaging with our communities
Society performance indicators				
Community				
SO1	Core	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities	Partial	Bringing connectivity
Corruption				
SO3	Core	Percentage of employees trained in organization's anti-corruption policies and procedures.	Yes	Ethics/Training and awareness

SO4	Core	Actions taken in response to incidents of corruption.	Yes	Ethics/Training and awareness
Public policy				
SO5	Core	Public policy positions and participation in public policy development and lobbying.	Yes	Stakeholder engagement; Environmental engagement

Performance: Product responsibility				
Disclosure on management approach				
		Organization-wide goals regarding product responsibility aspects.	Yes	Customers and brand (whole section); Radio waves and health
		Brief, organization-wide policy (or policies) relating to the product responsibility aspects	Yes	Customers and brand (whole section); Radio waves and health
		The most senior position with operational responsibility for product responsibility aspects	Yes	Managing CR
		Additional relevant information	Yes	Customers and brand (whole section); Radio waves and health
Product responsibility Performance indicators				
Product and service labeling				
PR5	Additional	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Partial	Radio waves and health; Customers and brand