NOKIA PEOPLE & PLANET REPORT 2012
Contents

1.0 ABOUT THIS REPORT
1.1 THE SCOPE OF THIS REPORT
1.2 GREETINGS FROM NOKIA’S CEO
1.3 NOKIA IN 2012
1.4 KEY SUSTAINABILITY TOPICS
    1.4.1 IDENTIFYING KEY SUSTAINABILITY TOPICS
    1.4.2 OUR KEY SUSTAINABILITY TOPICS TABLE
1.5. SUSTAINABILITY STRATEGY, TARGETS & PERFORMANCE
    1.5.1 OUR SUSTAINABILITY VISION
    1.5.2 NOKIA’S SUSTAINABILITY STRATEGY
    1.5.3 WE STRIVE FOR NET POSITIVE IMPACT
    1.5.4 KEY SUSTAINABILITY TARGETS AND PERFORMANCE TABLE
1.6 ACHIEVEMENTS & CHALLENGES IN 2012
    1.6.1 SUSTAINABILITY RANKINGS 2012
    1.6.2 EXTERNAL RECOGNITION FOR OUR WORK IN 2012
1.7 NOKIA’S SUSTAINABILITY MANAGEMENT
    1.7.1 SUSTAINABILITY GOVERNANCE
1.8 RISK & OPPORTUNITY MANAGEMENT

2.0 NOKIA & PEOPLE
2.1 UNLEASHING THE POTENTIAL OF MOBILE TECHNOLOGY
    2.1.1 PROVIDING THE NEXT BILLION WITH ACCESS TO THE INTERNET AND INFORMATION
    2.1.2 IMPROVING LIVES WITH MOBILE TECHNOLOGY
    2.1.3 ACCESSIBILITY OF NOKIA PRODUCTS
2.2 OUR IMPACT ON PEOPLE
    2.2.1 HUMAN RIGHTS
    2.2.2 NOKIA CODE OF CONDUCT
    2.2.3 EMPLOYEES
    2.2.4 CUSTOMER ENGAGEMENT
    2.2.5 STAKEHOLDER ENGAGEMENT
    2.2.6 OUR ECONOMIC IMPACT

3.0 NOKIA & THE PLANET
3.1 A LEADING ENVIRONMENTALLY-RESPONSIBLE PRODUCT RANGE
    3.1.1 DESIGN FOR THE ENVIRONMENT PROCESS
    3.1.2 PRODUCT LIFECYCLE ASSESSMENT (LCA)
    3.1.3 SUBSTANCE AND MATERIALS MANAGEMENT
    3.1.4 PACKAGING
    3.1.5 TAKEBACK & RECYCLING
3.2 ENABLING SUSTAINABLE LIFESTYLE
    3.2.1 REPLACING SEVERAL PRODUCTS WITH ONE SMARTPHONE
    3.2.2 HELPING SAVE ENERGY WITH ENERGY-EFFICIENT SOLUTIONS
3.3 OUR ENVIRONMENTAL IMPACT
    3.3.1 CLIMATE TARGETS
    3.3.2 ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)
    3.3.3 GREEN OPERATIONS AND FACILITIES
3.4 NOKIA AND SUPPLIERS
    3.4.1 NOKIA SUPPLIER REQUIREMENTS
    3.4.2 SUPPLIER ASSESSMENTS
    3.4.3 THE ENVIRONMENTAL IMPACT OF OUR SUPPLY CHAIN
    3.4.4 IMPROVING SOCIAL CONDITIONS IN OUR SUPPLY CHAIN
    3.4.5 ETHICAL SOURCING OF RAW MATERIALS

4.0 INDEPENDENT ASSURANCE
    INDEPENDENT ASSURANCE REPORT

5.0 GLOBAL REPORTING INITIATIVE
    5.1 GRI INDEX TABLE

6.0 NOKIA KEY DATA
    6.1 NOKIA KEY DATA TABLE
    NOKIA DEY DATA TABLE NOTES

6.2 NOKIA GROUP KEY DATA
6.3 NOKIA GROUP TABLE
    NOKIA GROUP TABLE NOTES
At Nokia, sustainability is about unleashing the potential of mobile technology to help people build better lives and a better planet. And it’s about minimizing possible negative impacts of our activities.

Thank you for taking the time to read this report. Within these pages, you’ll find information about our efforts during 2012 to create a sustainable business.

Traditionally, sustainability means balancing economic, environmental and social priorities so that the needs of the present do not compromise the needs of the future.

But at Nokia, it means much more.

We integrate responsible environmental and social practices into everything we do. From the devices we build and the suppliers we choose, to the mobile services we develop that enhance people’s education, livelihoods and health. We strive to create value for people and the planet, as well as for Nokia as a company. This is sometimes referred to as the shared value principle.

This report is only available in digital format, as we want to print less. We would encourage you to only print the pages you need. Additionally, the report was produced in Helsinki, Finland, to cause as few CO2 emissions as possible. We traveled to the review meetings using public transport, with the help of HERE Transport.
1.0 ABOUT THIS REPORT

1.1 The Scope of this Report

Open and transparent reporting of our progress is a key part of our sustainability activities. Nokia has been publishing corporate responsibility reports annually since 2002, and reporting on our environmental activities since 1999.

This report covers the key ethical, socio-economic and environmental issues most relevant to our business and our stakeholders for the 2012 fiscal year. Our activities are split into two major themes - our impact on people and our impact on the planet.

Nokia Siemens Networks (NSN), which is approximately 50% owned by Nokia, publishes its own detailed sustainability report, and data provided, on their website, and is excluded from this report unless otherwise indicated. We have, however, consolidated some key data from both companies (the Nokia Group) in one data table, which can be found in the ‘Key Data’ section of this report.

For an explanation of how we identified the most relevant topics to include in this report, please see ‘Identifying Key Sustainability Topics’, chapter 1.4.1.

INTEGRATED REPORTING AND ADDITIONAL SOURCES FOR SUSTAINABILITY INFORMATION

Issues of sustainability are not separate from other corporate information. We’ve integrated key data related to sustainability into our annual financial report for 2012, in the Form 20-F. This form is filed with the United States Securities and Exchange Commission, and is available on our website. During 2012, we also reported on key sustainability issues in the operating highlights section of our quarterly interim reports, as well as in various press releases throughout the year.

We publish details of our financial performance in our quarterly interim reports and annual financial reports, such as our Form 20-F.

Additional information in our sustainability initiatives is available from a number of sources:

- Nokia’s Annual Report in Form 20-F
- Carbon disclosure project website which provides detailed information on Nokia’s activities and performance related to climate change
- Nokia Siemens Networks’ Sustainability Report
- Nokia’s global website, which provides more information about our day-to-day activities

We also encourage our suppliers to report their sustainability performance, a topic discussed in the ‘Nokia and Suppliers’ section of this report.

PricewaterhouseCoopers Oy (PwC) has provided assurance on selected sustainability information included in this report. Please see ‘Independent Assurance’, starting from page 129.

The Global Reporting Initiative index and compliance is at the end of this report, starting from page 133.

The key data tables can be found on pages 157-171 at the end of the report.

YOUR FEEDBACK

We welcome your views on our activities and our performance. If you’d like to share your opinions, please contact the Nokia sustainability team at sustainability.feedback@nokia.com
1.0 ABOUT THIS REPORT

1.1 THE SCOPE OF THIS REPORT
1.2 GREETINGS FROM NOKIA'S CEO
1.3 NOKIA IN 2012
1.4 KEY SUSTAINABILITY TOPICS
1.5 SUSTAINABILITY STRATEGY, TARGETS & PERFORMANCE
1.6 ACHIEVEMENTS & CHALLENGES IN 2012
1.7 NOKIA’S SUSTAINABILITY MANAGEMENT
1.8 RISK & OPPORTUNITY MANAGEMENT

2.0 NOKIA & PEOPLE

3.0 NOKIA & THE PLANET

4.0 INDEPENDENT ASSURANCE

5.0 GLOBAL REPORTING INITIATIVE

6.0 NOKIA KEY DATA

6.2 NOKIA GROUP KEY DATA

GREETINGS FROM NOKIA’S CEO
Greetings from Nokia’s CEO

HELLO THERE,

Nokia is passionate about doing good work for people, communities and the planet. It’s a purpose we share as a company, one that runs deep in our DNA and guides our daily actions. For the past 25 years, we’ve been connecting people – first to one another through voice calls, then to information through the internet, and now we’re helping people sense the world around them through connected devices and services.

I’m immensely proud of what the Nokia team has created just in the past 12 months – from beautifully designed feature phones with battery life that lasts a month to our Nokia Asha smartphones that save up to 90% of data costs, from our flagship Nokia Lumia 920 smartphone with its remarkable imaging capabilities, to our suite of mapping and navigation services that enrich the location-based experience. Through differentiation in personal experiences, we strive to raise the bar for what consumers should expect from their mobile device.

As part of these efforts, I’m extremely proud that concern for the environment is at the heart of our business decisions. From production materials, labor policies and packaging to applications and services, Nokia has a long history of prioritizing sustainability in our daily work. To us, it’s not just the right way to do business: it’s the only way. This ethos extends to the work we do for our people, our communities and our planet.

OUR PEOPLE

In 2012, Nokia continued our transition as we focused our strategy and took steps to bring our workforce in line with a new way of working. In many respects, it was a challenging year as changes meant reductions in employee numbers and site closures. However, despite the challenges we faced, Nokia never wavered in its commitment to being a responsible employer.

We invited employees impacted by restructuring to join our Bridge Program to help them start new careers inside or outside Nokia, or develop new skills through continued education. Some even opted to start their own company with Nokia grants.

As a result, by the end of 2012, nearly 1,000 new businesses were created as a result of the Bridge Program – an enormous success.

As our strategy led us to collocate resources and align sites closer to our suppliers, we faced some difficult decisions, notably the closure of our Salo factory in Finland. Nonetheless, we are so proud that in Salo, a site with rich Nokia heritage, our research-and-development teams continue to flourish, bringing many critical technologies and products to life.

Today Nokia operates seven production facilities worldwide, and we can confidently say in each of those locations, the working conditions and treatment of our employees is world-class. But we will not stop there. We want to go further and ensure people working for our suppliers and all the way across the complex supply chain are also treated with the utmost dignity and respect.

OUR COMMUNITIES

Nokia doesn’t just make products for one end of the market. We want to give everyone a choice regardless of geographic or personal constraints, and during 2012, we launched a number of important products that demonstrated this goal.

Part of our strategy is to connect the next billion people to the internet, and as these newcomers appear on the grid, we want to help empower them as citizens of the digital economy. We’re doing this by giving them access to learning and knowledge through their devices, opportunities for self-improvement, as well as resources that will help them better provide for their families and serve their communities.

Internet access on a mobile phone provides opportunities for digital newcomers to engage in social media, create personal content, and share it across networks for the first time. All of
Greetings from Nokia’s CEO

this enables the free flow of ideas, personal expression and innovation. Yet, at the same time, we are mindful that many digital newcomers are less aware of their online privacy and security. In 2012, Nokia and UNICEF formed a partnership to help educate people on how to stay safe online. The project has initially focused on children and teens in South Africa, Kenya and Zambia.

Also in 2012, we continued to expand Nokia Life, our SMS-based information service to help people make better decisions about their health, education, agriculture and even entertainment. Since it launched in 2009, Nokia Life has reached close to 100 million people in China, India, Indonesia and Nigeria, with expansion to Kenya in March 2013. Nokia Life+, its cloud-based counterpart that also launched in 2012, reaches millions more in 21 countries.

All in all, we want to make our products usable for all people. We’re proud that in 2012 we also made great strides in advancing ease of access to mobile devices, notably our Lumia smartphones, for those with hearing, vision or dexterity impairments.

OUR PLANET

Doing good work in our communities means being a responsible environmental advocate, a belief that impacts our product making. In 2012, we introduced bio-plastics and recycled metals, among other environmental innovations, to our Lumia smartphones.

We’ve also remained firm in our commitment to minimize adverse environmental effects that may result from our operations, production or usage of our products. We assess the environmental impact of our products throughout their lifecycle – from the initial sourcing of materials, to manufacturing, to packaging, to transportation, and the product use by individual consumers. We even consider the impact after the end of the product’s life to encourage recycling.

As a result, Nokia has led the way in energy-efficiency, safe materials and reducing electronic waste.

This thinking extends to how we can help the consumer him or herself lead a more sustainable lifestyle by the use of technology and applications. One example is our work in location-based services. In 2012, we united our location, mapping and navigation offerings under a new brand called, HERE. The “HERE Transport” application (or, in the United States, “HERE Transit”), is a public transportation application for our Lumia smartphones that helps people reduce their environmental footprint by selecting the most efficient travel option, whether by bus or train, in more than 700 cities across 50 countries. For drivers, the same principle applies with “HERE Drive,” a complementary application that lets you choose the most efficient route to save on the costs of gas and reduce CO2 emissions.

As we move forward, we are focused on reducing our own energy and greenhouse gas emissions across Nokia’s own operations. We’re very proud that in 2012 more than 40% of Nokia’s electricity came from renewable sources, either generated on site or purchased, making it a record year. However, we did consume more energy per product produced – something we aim to address in 2013. In our factories, we reduced waste by 22% per product, and our waste utilization efforts helped us reuse or recycle 98% of byproducts – an impressive feat for our manufacturing teams.

Sustainability matters – it’s a common thread that impacts people, communities and planet. Nokia is passionate about doing our part. We’re proud of what we’ve accomplished together in 2012 and look onward as we strive to do it even better.

Regards,

Stephen
1.3 Nokia in 2012

WHO WE ARE

Nokia is a global leader in mobile communications whose products have become an integral part of the lives of people around the world. Every day, more than 1.3 billion people use their Nokia to capture and share experiences, access information, find their way or simply to speak to one another. Nokia’s technological and design innovations have made its brand one of the most recognized in the world. Nokia Siemens Networks, jointly owned by Nokia and Siemens, is one of the leading global providers of telecommunications infrastructure hardware, software and services, with a strong focus on mobile broadband.

In 2012 our network of production facilities for mobile products and network infrastructure covered seven countries, with a new factory for mobile products targeted to open in Vietnam in the second half of 2013. In addition, we have a global network of sales, customer service and other operational units. We sell our products in more than 160 countries. Nokia has made significant investments into research and development and has been one of the leading innovators in the industry over the past two decades. For mobile products, we operate several major research and development and software development facilities, with key sites in China, Finland, and the United States.

STRUCTURE AT DECEMBER 31, 2012

We have three businesses:

- **Device & Services**
  Which includes the Smart Devices & Mobile Phones business units.

- **HERE**
  Formerly Location & Commerce.

- **Nokia Siemens Networks.**

Smart Devices focuses on our most advanced products, including Lumia smartphones powered by the Windows Phone operating system, whereas Mobile Phones focuses on our most affordable products, including Asha smartphones powered by the Series 40 operating system.

HERE develops location-based products and services for a broad range of devices and operating systems, including our Lumia smartphones. As of January 1, 2013, HERE is the new name of our former Location & Commerce business.

Nokia Siemens Networks, jointly owned by Nokia and Siemens, is a leading global provider of telecommunications infrastructure, with a focus on the mobile broadband market. (Nokia Siemens Network publishes its own corporate responsibility report, and is not included in this report unless otherwise stated).
1.3 Nokia in 2012

STRATEGY

Nokia’s strategy to generate sustainable long-term growth is centered on the creation of connected products that sense the world. We create products for virtually every demographic and every geography worldwide. The key elements of our strategy are:

• Building a new winning mobile ecosystem for smartphones in partnership with Microsoft.
• Connecting the next billion people to the internet and information, especially in emerging markets.
• Continuing to invest in next-generation disruptive technologies through long-term exploratory research into the future of mobility and computing.

AT-A-GLANCE (NOKIA GROUP LEVEL)

• Head office in Finland; research and development, production, sales, marketing activities in various countries
• Total number of employees at year-end: 97,798 (Nokia Group)
• Major research and development as well as software development sites in China, Finland and the United States
• Sales in over 160 countries

Our ten largest markets by turnover in 2012 were (listed from largest to the smallest): China, India, Japan, United States, Brazil, Germany, Russia, United Kingdom, Indonesia, and Italy.

More Nokia and Nokia Group data is available in the Key Data section of this report. More information about our financials, organization and other key corporate information can be found from Nokia’s annual report in Form 20-F.
1.4 KEY SUSTAINABILITY TOPICS

1.4.1 IDENTIFYING KEY SUSTAINABILITY TOPICS
1.4.2 OUR KEY SUSTAINABILITY TOPICS TABLE
1.4.1
Identifying Key Sustainability Topics

In this report, we discuss our performance in the areas where our business practices most affect society and the environment. A combination of factors have gone into the identification of the key issues we monitor, as well as the selection of topics we present in this report:

- Our long history and experience of working on sustainability issues.
- Issues of public debate, and media and analyst interest.
- Regular engagement with stakeholders and partners, to understand the issues that are most important to them. In 2011, we conducted an online stakeholder survey to better understand their expectations, and to align our sustainability efforts and reporting with their priorities. We've subsequently applied the findings of this survey to our reporting. Stakeholder engagement is a key component in identifying topics; we've dedicated an entire chapter to it (2.2.5).
- Global macrotrends and sustainability challenges, including the UN Millennium Development Goals. Identifying how Nokia can help drive positive change is part of Nokia’s annual planning process.
- Risk and opportunity assessments with regards to sustainability, and on our business as a whole. (See ‘Risk and Opportunity Management’, chapter 1.8).
- Participation in the Global eSustainability Initiative (GeSI) ‘materiality analysis’, an initiative that defines areas where the ICT sector can make the greatest contribution. GeSI’s analysis uses a combination of stakeholder and company interviews, desk research, and workshops.
- The Global Reporting Initiative (GRI) guidelines, which help identify the topics most relevant to Nokia and our industry. See the ‘GRI Index’ at the end of this report.

Using these factors, we’ve analyzed the shared value to people, the planet and our company. This analysis forms a basis for our sustainability strategy and related target setting. The results of the analysis are presented in the following table, which summarizes the key topics of our sustainability work and the high level structure of this report.

MACROTRENDS IMPACTING NOKIA AND SUSTAINABILITY

We have identified the following broad global trends, impact areas and challenges as some of the most significant concerning the world as a whole, and Nokia as an actor in it. These are also areas where Nokia and mobile technology can play a role as part of a solution:

- Economic development, employment and livelihoods
- Human rights, ethics and democratization
- Education, health and safety
- Population growth and urbanization
- Climate change and resource efficiency

The key sustainability topics we’ve identified are illustrated in the table overleaf.
1.4.1 Identifying Key Sustainability Topics

Key topics and their impact on sustainable development, stakeholder interest and Nokia’s business.

The topics closest to the top right corner of the diagram are the most material ones to our stakeholders and our business, in terms of sustainable development. However, all of the topics in this diagram are very important in our sustainability work.

The topics and their importance is explained in the table on the following pages.
### Our Key Sustainability Topics Table

In this table, we’ve summarized the key topics covered in this report. We’ve also outlined their importance to sustainable development, and how they relate to our business and to our stakeholders. Each subject is discussed in more detail in the relevant sections of the report, as indicated.

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving People’s Lives with Mobile Technology</td>
<td>With over 1.3 billion people using Nokia devices, we have both an opportunity and a responsibility to make a real difference in their lives. A key pillar of our strategy is to bring access to the internet and information to a billion people who currently don’t have it. By extending the power of mobile technology, we’re helping to address global sustainability challenges like education, health, livelihoods, and accessibility. See ‘Unleashing the Potential of Mobile Technology’, chapter 2.1</td>
</tr>
<tr>
<td>Labor &amp; Social Issues in our Operations</td>
<td>Our success depends on our employees. Ensuring their wellbeing is critical to ensuring the wellbeing of the company. Topics covered include employee satisfaction, company values, diversity and inclusion, training and development, performance and rewards, health, safety and well-being, labor conditions, human rights, and ethics. During 2012, employee satisfaction and motivation were especially important due to a high level of operational restructuring. See ‘Employees’, chapter 2.2.3</td>
</tr>
<tr>
<td>Social Issues &amp; Ethics in our Supply Chain</td>
<td>We have thousands of direct and indirect suppliers. We’re committed to ensuring that, in addition to meeting environmental requirements, our suppliers exercise the highest standards of social responsibility. Some suppliers are more advanced than others in terms of the sustainability and responsibility of their operations. So our approach must meet different needs and build capabilities over time. Our supply chain is long and complex – there are typically four to eight layers between Nokia and any mining activities for the sourcing of metals used in phone components; our challenge is to work actively to increase transparency through all of these layers. See ‘Nokia and Suppliers’, chapter 3.4</td>
</tr>
<tr>
<td>Customer Satisfaction, Customer Privacy, Product Safety</td>
<td>Customer satisfaction, product safety and protecting customer privacy are top priorities for Nokia. Delivering customer satisfaction is first and foremost about creating value for our trade customers and the people who use our products. One important aspect of this is increasing the sustainability of our devices throughout their lifecycle. Our products must be safe for both people and the environment. Protecting customer privacy has always been important to Nokia. And its importance grows as we develop new services and bring more people online through the internet and mobile technologies. Through these services, people are using and sharing their personal information in new contexts, and it’s important to us that we do our part to help them understand the implications. Nokia manages this issue with the highest integrity. See ‘Customer Engagement’, chapter 2.2.4</td>
</tr>
<tr>
<td>Our Economic Impact</td>
<td>As a global company, the Nokia Group has a significant economic impact, both directly and indirectly. Our direct economic impact on different stakeholder groups in 2012 can be summarized by the following figures: Net sales €30,176 million. Total purchases of goods and services from suppliers: €21,125 million. Wages and benefits to employees: €7,183 million. Dividends to shareholders: €755 million. Interest to creditors: €277 million. Taxes: €478 million. In addition, Nokia contributes to economic development in many ways, through our products, used by over one billion people. See ‘Our Economic Impact’, chapter 2.2.6</td>
</tr>
</tbody>
</table>
1.4.2 Our Key Sustainability Topics Table

In this table, we’ve summarized the key topics covered in this report. We’ve also outlined their importance to sustainable development, and how they relate to our business and to our stakeholders. Each subject is discussed in more detail in the relevant sections of the report, as indicated.

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading Environmentally-Responsible Product Range</td>
<td>During product creation, we focus on energy-efficiency, sustainable use of materials, smart packaging, and creating environmental services that encourage people to adopt a more sustainable lifestyle. During the last decade, we’ve reduced the greenhouse gas footprint of our phones by up to 50%. At the same time, we’ve introduced new features and capabilities that make them multifunctional products, reducing the need to buy different devices for different purposes. We go far beyond simply complying with legal and customer environmental requirements, including implementing our own substance and materials initiatives. See ‘A Leading Environmentally-Responsible Product Range’, chapter 3.1</td>
</tr>
<tr>
<td>Takeback &amp; Recycling</td>
<td>As the number of electronic devices in the world increases, so does the concern about e-waste from old devices. And with a finite supply of raw materials available for producing new phones, dealing properly with the end-of-life of mobile devices is a major issue that impacts our entire industry. We work around the globe to raise awareness of the importance of recycling, and to ensure it’s done properly and safely. Our current challenge is to show people how recycling phones is both easy and beneficial, to inspire them to take action. See ‘Takeback and Recycling’, chapter 3.1.5</td>
</tr>
<tr>
<td>Green Operations &amp; Facilities</td>
<td>Although Nokia is not part of an energy-intensive industry, our operations do have an environmental impact through energy consumption and resulting emissions. We work continuously to reduce and control our environmental footprint. As the number of devices that can access internet increases, so too does the energy consumption of our data centers. The environmental impact of our activities is an area where stakeholder interest, with various reporting requirements, has increased in recent years. In extreme cases, non-compliance with various regulations and customer requirements can cause risks to our operations. See ‘Our Environmental Impact’, chapter 3.3</td>
</tr>
<tr>
<td>Green Supply Chain &amp; Logistics</td>
<td>The vast majority of the environmental impact of a Nokia device comes from our supply and logistics chains. That’s why we work closely with our suppliers and logistics service providers to reduce this impact. Our main focus is on energy consumption, greenhouse gas emissions, waste and water use. We encourage our direct suppliers to set reduction targets, and we follow up on their performance. We also require suppliers’ sites to be ISO 14001 certified. Our major challenge is the size of our supply chain, where we and our first-tier suppliers represent only part of the overall environmental impact of our devices. See ‘Nokia and Suppliers’, chapter 3.4 and ‘Green Logistics’, chapter 3.3.3</td>
</tr>
</tbody>
</table>
1.5 SUSTAINABILITY STRATEGY, TARGETS & PERFORMANCE
1.0 ABOUT THIS REPORT

1.5.1 Our Sustainability Vision is

**GREAT MOBILE PRODUCTS THAT:**

- help people improve their lives
- are made with best environmental and social practices
1.5.2 Nokia’s Sustainability Strategy

**NOKIA IS AN INNOVATOR IN SUSTAINABILITY**

We work continuously to:

- **MAXIMIZE** our positive impact, with specific emphasis on:
  - ‘Connecting the Next Billion’ – people who are not yet connected to the internet and information.
  - Introducing innovative solutions that provide a positive environmental and social impact.
  - Expanding our Nokia Life service further.
  - Making Nokia products usable for all, including people with disabilities.

- **OPTIMIZE** our social impact, focusing on world-class working conditions within our own operations and supply chain.

- **MINIMIZE** our environmental impact with special focus on:
  - Greenhouse gases and energy.
  - Water and waste.
  - Materials in products and packaging.
  - Takeback and recycling.

We work with key stakeholders throughout our value chain to achieve our goals and ensure that our high sustainability standard is maintained.

### WE WORK THROUGHOUT OUR VALUE CHAIN

<table>
<thead>
<tr>
<th></th>
<th>Suppliers</th>
<th>Our Operations</th>
<th>Logistics</th>
<th>Product Use</th>
<th>End of Product Life</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WE MAXIMIZE</strong></td>
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<tr>
<td>POSITIVE SOCIAL AND ENVIRONMENTAL IMPACT</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td><strong>WE OPTIMIZE</strong></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
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<tr>
<td>SOCIAL IMPACT</td>
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<tr>
<td><strong>WE MINIMIZE</strong></td>
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<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NEGATIVE ENVIRONMENTAL IMPACT</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Value chain areas with overall high impact: ✓ – low impact: ✓
Value chain areas where Nokia’s influence can be high: ✓
1.5.3 We Strive For

**NET POSITIVE IMPACT ON PEOPLE & PLANET**

**POSITIVE IMPACT**
- GREEN ENERGY
- DIRECT INCOME TAXES €478M IN 2012
- NOKIA LIFE 90 MILLION PEOPLE
- AROUND 40,000 EMPLOYEES
- CONNECT THE NEXT BILLION
- NOKIA MOBILE MATHEMATICS
- PRODUCT RECYCLING
- ACCESSIBLE PRODUCTS
- SUSTAINABLE PRODUCTS
- MOBILE SOLUTIONS FOR SOCIAL GOOD
- BRIDGE

**NEGATIVE IMPACT**
- IMPACT OF RESTRUCTURING ON EMPLOYEES
- WASTE
- NOKIA’S CO2 EMISSIONS
- SUPPLIERS’ WATER USE
- CO2 EMISSIONS OF SUPPLIERS, LOGISTICS & PRODUCT USE
- WATER USE OF SUPPLIERS, CO2 EMISSIONS OF SUPPLIERS, LOGISTICS & PRODUCT USE
- MATERIALS & ENERGY USE OF SUPPLIERS, CO2 EMISSIONS OF SUPPLIERS, LOGISTICS & PRODUCT USE
- WATER USE OF SUPPLIERS, CO2 EMISSIONS OF SUPPLIERS, LOGISTICS & PRODUCT USE
- WASTE OF SUPPLIERS, CO2 EMISSIONS OF SUPPLIERS, LOGISTICS & PRODUCT USE
- IMPACT OF RESTRUCTURING ON EMPLOYEES
- SUPPLIERS’ EMISSIONS
### Key Sustainability Targets and Performance

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>CURRENT TARGET</th>
<th>PROGRESS</th>
<th>NEW TARGETS</th>
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<tbody>
<tr>
<td><strong>Our Operations</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>Reduce greenhouse gas emissions at our offices, R&amp;D sites and manufacturing facilities by a minimum of 30% by 2020 (2006 baseline).</td>
<td>Compared to 2011, in 2012 the total net CO₂ emissions of our facilities decreased by 14% and compared with the 2006 baseline year level, by 29%.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td></td>
<td>Reduce CO₂ emissions per person working in Nokia offices and at R&amp;D sites by a minimum of 15% by the end of 2012 and by 28% by the end of 2015 (2006 baseline).</td>
<td>Despite our continued energy savings actions, our CO₂ emissions from offices and R&amp;D premises, measured as CO₂/person, were 4% higher in 2012 than in our 2006 baseline year. This is due to various challenges resulting from the unfortunate employee layoffs. Vacant workspaces led to unavoidable excess energy consumption. Closing or sub-leasing unneeded offices, and thereby recovering normal efficiencies, happens slowly.</td>
<td>Our new short-term target for 2013 is to reduce CO₂ emissions per person working in Nokia offices and at R&amp;D sites by 20% (2006 baseline) and thus return to the trend of decreasing emissions.</td>
</tr>
<tr>
<td></td>
<td>Maintain annual air travel-related CO₂ emissions, both total and per employee, significantly below 2008 levels by limiting unnecessary travel and providing alternatives such as videoconferencing.</td>
<td>Nokia’s CO₂ emissions from air travel were 38,514 tonnes in 2012 which is a 54% reduction from 2011. This significant decrease resulted from strict cost control and significant organizational restructuring. In 2012 new videoconferencing devices were also installed in almost all larger meeting rooms in Nokia offices around the world. Per employee reduction was around 39%. In comparison to our 2008 baseline level, total CO₂ emissions from air travel have reduced by 71%.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td>Energy</td>
<td>Reduce energy used in production by 10% per unit produced by the end of 2012 (second half of 2010 - first half of 2011 baseline).</td>
<td>Decreased production volumes and therefore suboptimal local capacity use undermined our energy-efficiency. Despite our investments and daily energy management, we were not able to reduce energy used per unit produced. Instead, energy use increased 16% per unit, compared with our baseline. However, our energy use in absolute terms decreased by 16%.</td>
<td>Our new short-term target for 2013 is to reduce our per production unit energy consumption at our factories by 10% and by 15% by 2015 (second half of 2010 - first half of 2011 baseline).</td>
</tr>
</tbody>
</table>
### Key Sustainability Targets and Performance

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>CURRENT TARGET</th>
<th>PROGRESS</th>
<th>NEW TARGETS</th>
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<tbody>
<tr>
<td><strong>OUR OPERATIONS</strong></td>
<td></td>
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<tr>
<td>Energy (Continued)</td>
<td>In addition to studying opportunities to increase our onsite renewable energy production, we plan to continue to maintain the purchase renewable energy via the grid and renewable energy certificates at least at the current level of 35-40%.</td>
<td>In 2012, we generated 2500 MWh of renewable electricity and on site, bought 165,800 MWh of renewable electricity certificates, raising the total level of renewable electricity an all-time high of 41%. Nokia has made efforts to purchase renewable energy wherever available, but the slow development of renewable energy markets in some of the countries in which we operate continues to be a challenge.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td>Waste</td>
<td>We have set a target of halving the landfill waste from our factories each year, starting from 2008. This will lead us close to 100% waste utilization by the end of 2012.</td>
<td>Thanks to consistent work, utilization of waste at Nokia’s factories increased from 89% in 2008 to 98% in 2012.</td>
<td>We want now to maintain this level. Our new target is to reduce waste by 9% by the end of 2013 and 15% by the end of 2015. (second half of 2010 - first half of 2011 baseline).</td>
</tr>
<tr>
<td>Materials</td>
<td>By 2020, we will use only 100% certified renewable or recycled materials for our packaging. By 2015, our total packaging material should, on average, consist of 70% recycled fibers.</td>
<td>At the end of 2012 66% of our packaging materials was made of recycled fibers.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
<td>Providing safe and healthy working conditions for all our employees and strengthening our performance in matters of occupational health and safety (OHS).</td>
<td>In 2012, all Nokia factories became internally compliant with the OHSAS 18001 Management System. In 2012, we also expanded our global OHS injury and illness reporting to include not only internal Nokia employees, but those of our external contractors and service providers as well. In 2012, our total incident frequency rate for all of our major manufacturing facilities was 0.2, down from 0.5 in 2011. This was despite the expanded scope. In other words, for every 100 employees, contractors and service providers, there were only 0.2 incidents of occupational injury or illness. Since 2011, our global occupational health and safety injury and illness reporting has included all cases that require some type of medical treatment, not just those that result in absence from work.</td>
<td>Current target remains.</td>
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</table>
## Key Sustainability Targets and Performance

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>CURRENT TARGET</th>
<th>PROGRESS</th>
<th>NEW TARGETS</th>
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</thead>
<tbody>
<tr>
<td><strong>PRODUCT USE</strong></td>
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<tr>
<td>Product Use</td>
<td>Reduce the no-load power consumption of an average charger by 75% by the end of 2012 (2006 baseline)</td>
<td>Over the last decade, we have reduced the no-load power consumption of our chargers by over 73%, and in our best-in-class chargers by over 90%. We did not fully meet our reduction target for 2012. The target for the average no-load was 0.07W and we reached 0.098W which is a reduction of 13% from 2011.</td>
<td>We will continue our efforts to reach the average no-load consumption of 0.07W in our chargers.</td>
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<tr>
<td></td>
<td>Expand Nokia Life.</td>
<td>90 million people had used Nokia Life; more than double the amount at the end of 2011. The Nokia Life service launched in beta mode in Kenya in December 2012. Nokia Life+, a cloud-powered web application and evolution of Nokia Life, was developed in beta mode in 21 countries.</td>
<td>Current target remains.</td>
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<tr>
<td></td>
<td>Making Nokia products usable for all, including people with disabilities.</td>
<td>We advanced in the ease of access of our smartphones for people with disabilities. In particular, the new features in the latest Lumia products got excellent feedback from partially sighted customers. During 2012 Nokia Screen Reader, the key application for the visually impaired, was expanded to be freely downloadable by all Nokia Symbian devices. Altogether more than 100,000 downloads were completed during 2012. For the hard-of-hearing Nokia developed LPS-6, a new version of the Nokia Wireless Loopset.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td><strong>LOGISTICS &amp; SUPPLIERS</strong></td>
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</tr>
<tr>
<td>Logistics</td>
<td>Reduce greenhouse gas emissions per sales package produced by 20% by the end of 2012 (2008 baseline).</td>
<td>By the end of 2012 we reached and clearly exceeded our 20% target. The reduction was measured at 37%. However, due to a change in the data collection methodology in 2010, the result is not completely accurate.</td>
<td>Our new target is: to reduce logistics-related CO2 emissions per product sold by 5% by the end of 2013 and 15% by the end of 2015 (2010 baseline).</td>
</tr>
</tbody>
</table>
### Key Sustainability Targets and Performance

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>CURRENT TARGET</th>
<th>PROGRESS</th>
<th>NEW TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGISTICS &amp; SUPPLIERS Suppliers</td>
<td>Drive significant emission reductions with suppliers of key component or high impact areas.</td>
<td>Between 2010 and 2012, the suppliers of flex printed circuits have been able to reduce their CO2 emissions between 20% and 60% depending on the supplier. For the printed wired board production the positive reduction trend started first in 2011. Between 2011 and 2012, all printed wired board suppliers were able to reduce their CO2 emissions, whereas in the previous year, between 2010 and 2011, only half of the suppliers succeeded in reducing their emissions.</td>
<td>Current target remains.</td>
</tr>
<tr>
<td></td>
<td>We expect suppliers to provide a safe working environment, to exercise good labor practices, use environmentally friendly manufacturing processes, and to reduce the environmental impact of their operations. One of the main tools we use to monitor supplier performance is a variety of assessments.</td>
<td>By the end of 2012, 345 supplier facilities had been risk self-assessed in relation to labor, ethics, health and safety, and environmental practices at their factories (292 in 2011 and 26 in 2010). This accounts for around 90% of the estimated business value of our hardware and mechanics for 2012. (Estimated business value is based on the estimated volume for the year). In 2012, we conducted 23 Nokia Supplier Requirements assessments and 10 Environmental and Ethical in-depth assessments (35 and 8 respectively in 2011).</td>
<td>Current target remains.</td>
</tr>
<tr>
<td></td>
<td>We work to improve supplier performance and ensure compliance of social conditions through health, safety and labor metrics.</td>
<td>In 2011, the average reportable occupational illness and injury incidence rate (IIR) was 0.50 for the supplier sites supporting Nokia’s business, meaning that for every 100 employees there were 0.50 reportable occupational injuries or illnesses during the calendar year (0.34 in 2010). The average employee attrition rate at supplier sites supporting Nokia business was 17.8% in 2011 (21% in 2010). Employee attrition represents staff turnover; employees that leave the organization divided by the total number of employees. The average response regarding employee satisfaction survey practices at our supplier sites was 3.1 on a scale from 1 to 4 in 2011 (2.8 in 2010), which indicates that approximately 60% of all employees at supplier sites are covered by an annual employee satisfaction survey.</td>
<td>Current target remains.</td>
</tr>
</tbody>
</table>
everyone has a right to live their full potential
1.6 ACHIEVEMENTS & CHALLENGES IN 2012
1.6 Achievements and Challenges in 2012

IMPACTING PEOPLE
BRIDGE CONTINUED TO SUPPORT NOKIA EMPLOYEES AFFECTED BY PERSONNEL REDUCTIONS

In 2012, Nokia announced 14,000 job cuts. This decision was painful, both for our employees and for the communities where Nokia operates. Because we choose to conduct our business responsibly, there was no question but to continue the Bridge program we’d started in 2011, to help people find new employment or in some other way take their next step after leaving Nokia.

Bridge has proven to be a success. One highlight of the program is that almost 1,000 new businesses have been set up by former Nokia employees by the end of 2012.

57% of all the people leaving responded that they knew their next step after leaving Nokia, even before their employment with Nokia formally came to an end.

In 2012, our Bridge program won a European Excellence Award in the Change Communication category.

We still employ nearly 40,000 people around the world.

More information on the Bridge program is available in chapter 2.2.3.

PARTNERING FOR SUSTAINABLE DEVELOPMENT
PROGRESS IN MOBILE LEARNING

Nokia is committed to helping make education available to everyone. We have partnered with for example UNESCO, UNICEF, Plan, Oxfam and British Council to support individuals, organizations, and governments in harnessing the power of mobile technology to improve people’s access to education.

We made significant progress in 2012 through our various mobile learning initiatives:

- **Nokia Life**: By the end of the year, over 90 million people had used this service. The service also launched in beta mode in Kenya in December 2012. Nokia Life+, a cloud-powered web application and evolution of Nokia Life, was launched in beta mode in 21 countries in 2012. For more information, see chapter 2.1.2.

- **Nokia Mobile Mathematics**: 50,000 students, 700 teachers, and 200 schools were served through this program in South Africa. We also extended it into Senegal for teacher training, and translated the content into French. For more information, see chapter 2.1.2.

- **Nokia Education Delivery**: Since the inception of the program, the quality of teaching and classroom environment in India and Indonesia improved by 30%; student engagement increased by 13% in Bangladesh. For more information, see chapter 2.1.2.
1.6 Achievements and Challenges in 2012

IMPACTING THE PLANET
SUSTAINABLE MOBILE PRODUCTS

In 2012, we introduced devices that showcase our widest range of environmental features and innovations. Examples include the Nokia Lumia 820 within the high-end smart devices, and the Nokia Asha 311 in the feature phone end of the spectrum. For more information about our environmentally-responsible approach to products, see chapter 3.1.

With the launch of Windows 8 in 2012, we made a number of improvements to the accessibility of our Lumia range (Nokia Lumia 920, 820 and 620). For more information, see chapter 2.1.3.

HERE Transport (formerly Nokia Transport) makes it easier for people to reduce their carbon footprint, offering public transportation route planning and other transit services in hundreds of cities around the world. In 2012, this service was available for around 700 cities in 50 countries.

GREEN AND ETHICAL OPERATIONS

We made significant headway in further improving environmental and ethical matters within our operations during 2012.

- Utilization of waste at Nokia factories increased to an average of about 98%.
- We made over 97% of our packaging from renewable, paper-based materials.
- Our occupational health and safety illness and injury rate (called Total Incident Frequency Rate, or TIFR for short) decreased to 0.2 (from 0.5 in 2011), despite recording all incidents requiring any type of medical treatment, not just those that resulted in absence from work.

RESPONSIBLE SUPPLY CHAIN

We worked with our suppliers throughout 2012 to improve the environmental and social performance of their activities.

- From 2010 to 2012, our flex printed circuit suppliers have been able to reduce their CO₂ emissions between 20% and 60%, depending on the supplier.
- For the printed wired boards, the positive reduction trend first started in 2011. Between 2011 and 2012, all printed wired board suppliers were able to reduce their CO₂ emissions, whereas in the previous year, between 2010 and 2011, only half of the suppliers succeeded in reducing their emissions.
- We conducted extensive water risk assessments, and held workshops on water issues with our suppliers in the Beijing Xingwang and Chennai Business Parks.
- We evaluated due diligence information on conflict minerals from the majority of our direct hardware suppliers, and identified hundreds of smelters in our supply chain.
- We joined the Solutions for Hope pilot initiative, which aims to source conflict-free tantalum from the Democratic Republic of Congo.

In addition to some successes throughout 2012, Nokia faced a number of challenges.

DIFFICULT BUSINESS SITUATION

Nokia continued to experience a difficult business situation, requiring us to close a number of sites and lay off a significant proportion of our workforce. We extended our extensive support program, Bridge, for affected employees and communities. For more information, see chapter 2.2.3.
1.6.1 Achievements and Challenges in 2012, Sustainability Rankings

- **INTERNET PRIVACY**
  Internet access on a mobile phone provides opportunities for an ever greater number of people to engage in social media, or create and share their own content. At the same time it poses challenges in protecting people’s privacy and personal information. As a company bringing more people online via mobile devices, we recognize our responsibility in addressing privacy concerns.

The Global e-Sustainability Initiative, GeSI, of which we are a member, has identified the protection of minors from threats to which they may be exposed when online and when using ICT resources in general as one of the most important issues in the area of responsible business. Nokia, in partnership with UNICEF, took a concrete step toward this in 2012, promoting the safe and beneficial use of digital media through UNICEF’s Voices of Youth projects.

- **MANAGEMENT OF ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS**
  We faced some challenges with the management of our energy consumption and greenhouse gas emissions in 2012. Even though Nokia’s workforce diminished, some of our facilities, such as office space, had been optimized for the use of more people. As a result, there were temporary inefficiencies in the use of our facilities, particularly in the latter half of the year. This led to higher energy consumption, both per product manufactured and per person working in the offices even though our total energy consumption went down.

- **RENEWABLE ENERGY MARKETS**
  The slow development of renewable energy markets in some of the countries we operate in continues to be a challenge, and, although Nokia has made efforts to purchase renewable energy wherever available, this is not always possible. Despite this, 41% of the electricity we used in 2012 came from renewable sources (either generated on site or purchased). This is the highest percentage we’ve achieved so far.

- **REALITY-PERCEPTION GAP**
  Nokia is in the number 20 spot in Interbrand’s ranking of the 2012 Best Global Green Brands, which examines how leading brands perform in the area of sustainability and how their environmentally conscious efforts are perceived by the public. According to the study, it is the sum of performance and perception that makes up the whole of a green company. In Nokia’s case, the gap between performance and perception is the highest of any company on the list of Best Global Green Brands, indicating that we do far more in terms of sustainability than we are given credit for.

### SUSTAINABILITY RANKINGS 2012

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>RANKINGS IN 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Dow Jones Sustainability Indexes Review</td>
<td>Among the top four best-performing companies in the communications technology category.</td>
</tr>
<tr>
<td>Carbon Disclosure Project</td>
<td>Among the top ten global 500 companies rated for both performance and disclosure regarding greenhouse gas emissions.</td>
</tr>
<tr>
<td>FTSE4Good Index</td>
<td>Included in FTSE4Good since 2001. Ranked 1-3 among technology super sector leaders in the FTSE ESG rating in 2012.</td>
</tr>
<tr>
<td>Newsweek Green Rankings</td>
<td>Ranked first in the technology equipment sector, and fourteenth out of the 500 largest companies in the world.</td>
</tr>
<tr>
<td>Greenpeace Guide to Greener Electronics</td>
<td>Rated first for mobile device manufacturers and third for leading electronics manufacturers.</td>
</tr>
<tr>
<td>Oekom Industry Report for IT Communications Equipment</td>
<td>Oekom Prime Status (absolute best-in-class approach). This report assesses a company’s social, cultural and environmental sustainability.</td>
</tr>
<tr>
<td>INTERBRAND’s Best Global Green Brands</td>
<td>Number 20</td>
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</tbody>
</table>
## Achievements and Challenges in 2012, External Recognition

### External Recognition for Nokia's Work in 2012

<table>
<thead>
<tr>
<th>Country</th>
<th>Award or Honor</th>
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<tbody>
<tr>
<td>India</td>
<td>• OLIVE CROWN AWARDS (for responsible corporate communication and marketing):</td>
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<tr>
<td></td>
<td>Green Advertiser of the Year and Green Brand of the Year categories.</td>
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<tr>
<td></td>
<td>• SKOCH DIGITAL INCLUSION AWARDS 2012: Gold for Nokia Education Delivery (BridgeIT) in the Education category.</td>
</tr>
<tr>
<td></td>
<td>• mBILLIONTH AWARDS 2012: The Juror’s Distinction for Nokia Education Delivery (BridgeIT).</td>
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<tr>
<td></td>
<td>• MANTHAN AWARD SOUTH ASIA AND ASIA-PACIFIC: (to recognize best practices in electronic content and creativity) for Nokia Life in the e-Agriculture category.</td>
</tr>
<tr>
<td>Pakistan</td>
<td>• CSR BUSINESS EXCELLENCE AWARD 2012 to Nokia mobile phone takeback and recycling, by the National Forum for Environment and Health (NFEH), supported by the United Nations Environmental Programme (UNEP).</td>
</tr>
<tr>
<td>Philippines</td>
<td>• READER’S DIGEST TRUSTED BRANDS SURVEY: Gold Award in the Smartphone category and Platinum Award in the Mobile phone category.</td>
</tr>
<tr>
<td>Mexico</td>
<td>• SELECCIONES READER’S DIGEST MARCAS DE CONFIANZA (trusted brands).</td>
</tr>
<tr>
<td>USA</td>
<td>• ELECTRONIC EXCELLENCE EXECUTIVE AWARD at the Annual e-Waste Management Summit.</td>
</tr>
<tr>
<td>Europe</td>
<td>• EUROPEAN EXCELLENCE AWARDS 2012: Nokia Bridge Program won in the Change Communication category.</td>
</tr>
<tr>
<td>China</td>
<td>• BEST CHINA CSR EMPLOYER 2012</td>
</tr>
<tr>
<td></td>
<td>• 2011-2012 OCCUPATIONAL HEALTH PROMOTION OUTSTANDING COMPANY AWARD for Nokia Beijing factory.</td>
</tr>
<tr>
<td></td>
<td>• 2012 CSR OUTSTANDING CASE FOR NOKIA YOUTH ENTREPRENEUR EDUCATION PROGRAM (NYEP) by China Philanthropy Times.</td>
</tr>
</tbody>
</table>
1.0 ABOUT THIS REPORT
1.1 THE SCOPE OF THIS REPORT
1.2 GREETINGS FROM NOKIA’S CEO
1.3 NOKIA IN 2012
1.4 KEY SUSTAINABILITY TOPICS
1.5 SUSTAINABILITY STRATEGY, TARGETS & PERFORMANCE
1.6 ACHIEVEMENTS & CHALLENGES IN 2012
1.7 NOKIA’S SUSTAINABILITY MANAGEMENT
1.7.1 SUSTAINABILITY GOVERNANCE
1.8 RISK & OPPORTUNITY MANAGEMENT
2.0 NOKIA & PEOPLE
3.0 NOKIA & THE PLANET
4.0 INDEPENDENT ASSURANCE
5.0 GLOBAL REPORTING INITIATIVE
6.0 NOKIA KEY DATA
6.2 NOKIA GROUP KEY DATA

NOKIA’S SUSTAINABILITY MANAGEMENT
1.7.1 Sustainability Governance

Nokia’s sustainability governance and management practices are in place to ensure that social and environmental matters are taken into account in everything we do. Sustainability issues are reviewed regularly at all levels, up to the highest decision making bodies of the company. The structure of the managerial sustainability governance levels can be seen in the graphic on the following page. The highest decision-making levels at Nokia are the Board of Directors and ultimately the General Meeting of Shareholders (GM). The Board provides the supervision of Nokia’s sustainability performance, and annually reviews sustainability and related topics at their meetings. In recent years, questions related to sustainability have also been discussed at the GM.

HIGHEST DECISION-MAKING, STRATEGIC DIRECTION AND SUPERVISION:

THE CEO AND THE NOKIA LEADERSHIP TEAM

The CEO and the Nokia Leadership Team review sustainability issues at least twice a year and agree strategy, priorities, resourcing, organization, key targets and measures for Nokia’s main sustainability initiatives.

Executive Vice President Juha Putkiranta is responsible for the sustainability portfolio within the Nokia Leadership Team. He is also the head of the Nokia Operations Leadership Team which regularly reviews sustainability-related issues, makes decisions and, when needed, escalates matters to the Nokia Leadership Team or to other Nokia business units.

OPERATIVE LEADERSHIP AND IMPLEMENTATION OF NOKIA’S SUSTAINABILITY ACTIVITIES.

The Nokia Sustainability Leadership Team, led by Markus Terho, develops the company’s sustainability framework. This framework outlines our strategic targets and priorities. This team acts as the operative leadership team of Nokia’s sustainability unit, which in turn drives sustainability initiatives within the business. Our sustainability unit is responsible for building and implementing processes to achieve our environmental and social targets.

At Nokia, sustainability is part of everyone’s job. It’s in everything we do.

More information on Nokia corporate governance is available in Nokia’s Form 20-F 2012 and on Nokia.com

OUR POLICIES AND MANAGEMENT SYSTEMS RELATED TO ISSUES OF SUSTAINABILITY INCLUDE:

- Nokia Code of Conduct
- Nokia Global Employment Guidelines
- Nokia Labor Conditions Standard
- Nokia Occupational Health And Safety Policy
- Nokia Environmental Policy
- Nokia Supplier Requirements
- Nokia Natural Resources Policy and Conflict Minerals
- Nokia Human Rights Approach
- Nokia Privacy Policy
- Environmental management systems
- Risk and opportunity management process
1.0 ABOUT THIS REPORT

1.7.1 Sustainability Governance (cont.)

SUSTAINABILITY ORGANIZATION
GOVERNANCE AT NOKIA

Highest level of decision making, strategic direction and supervision.

Operative leadership and implementation of Nokia’s sustainability activities.

Sustainability is part of everyone’s job at Nokia. It’s in everything we do.

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1.4 KEY SUSTAINABILITY TOPICS
1.5 SUSTAINABILITY STRATEGY, TARGETS & PERFORMANCE
1.6 ACHIEVEMENTS & CHALLENGES IN 2012
1.7 NOKIA’S SUSTAINABILITY MANAGEMENT
1.7.1 SUSTAINABILITY GOVERNANCE
1.8 RISK & OPPORTUNITY MANAGEMENT

2.0 NOKIA & PEOPLE
3.0 NOKIA & THE PLANET
4.0 INDEPENDENT ASSURANCE
5.0 GLOBAL REPORTING INITIATIVE
6.0 NOKIA KEY DATA
6.2 NOKIA GROUP KEY DATA
1.8 RISK & OPPORTUNITY MANAGEMENT
1.8 Risk and Opportunity Management

Nokia has a common and systematic approach to risk management across business operations and processes. Material risks and opportunities are identified, analyzed, managed and monitored as part of business performance management. Relevant key risks are identified against business targets either in business operations or as an integral part of long- and short-term planning. Nokia’s overall risk management concept is based on visibility of the key risks preventing Nokia from reaching its business objectives rather than solely focusing on eliminating risks.

The principles documented in Nokia’s Risk Policy and accepted by the Audit Committee of the Board of Directors require risk management and its elements to be integrated into business processes. One of the main principles is that the business, function or category owner is also the risk owner, but it is everyone’s responsibility at Nokia to identify risks that prevent Nokia from reaching its objectives. Risk management covers strategic, operational, financial and hazard risks.

Key risks are reported to the Group level management to create assurance on business risks as well as to enable prioritization of risk management activities at Nokia.

In the sustainability area, we monitor primarily social, political, human rights, and environmental risks. We follow the precautionary principle, especially in the areas involving environmental risks. The most important risk factors as well as the principal factors and trends affecting our operations are discussed in our 2012 annual report in Form 20-F.

These include sustainability related risks such as:

- Risks related to privacy, product safety, health and security as well as to environment.
- Risk of non-compliance with regulations or our supplier and customer requirements.
- Violation of code of conduct and related regulations.
- Regulations that can increase the total cost of mobile product ownership.
- Reduced employee motivation, difficulties to recruit, and loss of key personnel.
- Labor unrest and strikes.
- Purchasing boycotts, public harm to our reputation and Nokia brand due to actual or alleged reasons.

Sustainability is part of our business strategy and we systematically analyze sustainability related opportunities. Our innovations hold the potential for changing the way we live, from improving livelihoods to embracing more sustainable lifestyles. More than a billion people use Nokia mobile devices, and we believe that even small changes can make a big difference. Our vision is to further realize the potential of mobility by extending access to mobile communications. Various examples of sustainability-related opportunities are described in the sections where we talk about the potential of mobile technology.
knowledge is the door to infinite possibility
In this section, we report on the impact of our business activities on the lives of our stakeholders.
Increased access to information and communications technologies (ICT) has brought tremendous benefits for an ever-increasing number of people around the world. At the same time, however, people are divided by their access to technologies and information, and their ability to use it. Understanding and resolving issues that prevent equal access is by far the most important goal in building a truly global information society.
2.1 Providing the Next Billion with Access to the Internet and Information

With over 1.3 billion people using Nokia devices, we have both an opportunity and a responsibility to make a real difference in their lives. A key pillar of our strategy is to bring access to the internet and information to a billion people who currently don’t have it. By extending the power of mobile technology, we’re helping to address global sustainability challenges like education, health, livelihoods, and accessibility. This includes new opportunities for a vast number of people to create and use locally relevant apps and content.

“Nokia aims to provide the next billion with the best access to the internet and information, with products that offer the most compelling experiences.”

There are three main interconnected barriers contributing to the digital divide: cost, a lack of skills and education, and disabilities. Overcoming them and finding innovative solutions requires a broad collaboration between corporations, governments and civil society. Nokia participates in solving these challenges and creating shared value and opportunities in societies around the world.

THE NOKIA ASHA PRODUCT RANGE DESIGNED FOR THE CHALLENGES OF THE NEXT BILLION

Nokia Asha products are affordable yet very powerful smartphones. They include innovations that help people in emerging markets cope with the typical challenges of internet connectivity: cost and speed. Dual SIM and Data Control features provide options for selecting and controlling data usage. A variety of connectivity options - GPRS, 3G and WiFi - give people the ability to choose the best and most affordable way of accessing the online world. Nokia Xpress Browser is up to three times as fast as other mobile browsers. It compresses data up to 90%, using less of the bandwidth than other mobile browsers. This makes using the Nokia Xpress Browser less expensive for people to use.

2.1.2 Improving Lives with Mobile Technology

Nokia focuses its social investments on programs where mobile technology and new services can bring sustainable improvement to people’s lives. We make many of our solutions in this area open source, so that local developers and organizations all over the world can utilize our technologies, tailor them, and make a living for themselves.

“We believe that investing in mobile technology can bring social benefits, which have a large scale impact at a low cost.”
2.1.2 Improving Lives with Mobile Technology

EDUCATION FOR EVERYONE
Everyone should have the right to learn and to develop themselves. Yet it’s estimated that more than 750 million adults around the world are still illiterate. Literacy, good quality of education and life-long learning should be the norm, not the exception. As a first phase, mobile technology can provide access to quality learning and services that people can use when and where they need them.

Nokia is committed to helping make education available to everyone. We have partnered with UNESCO to support individuals, organizations, and governments who are working to achieve the six goals of the global Education for All (EFA) agreement. The EFA movement is a global commitment to provide quality basic education for all children, youth and adults. We respond to these needs with solutions like Nokia Life, Nokia Mobile Mathematics, Nokia Education Delivery, and Nokia Flashcards.

NOKIA MOBILE MATHEMATICS EXPANDED FURTHER IN 2012
To date, 50,000 students, 700 teachers and 200 schools in South Africa have benefited from Nokia Mobile Mathematics, compared with 4,000 students and 30 schools in 2010.

Plans are now in place to offer Nokia Mobile Mathematics in new countries. In 2012 we partnered with UNESCO to take it to Senegal, where it is used for teacher competence development. The learning content was translated into French for Senegal.

Currently Nokia Mobile Mathematics combines official, localizable math curricula with mobile learning capabilities, such as collaboration, tutoring and peer-to-peer support, for grades 10, 11, and 12. Students have access to a database with thousands of practice exercises, as well as theory, tutoring, tips and hints, and competitions. Students gain a better awareness of their own abilities, and can compare their skills with others, nationally and globally. For teachers, it offers tools for communicating with their students, motivating them, monitoring their activities and scores, analyzing their progress and skill level, as well as enriching classroom activities.

Analysis of academic results of nearly 2,000 students over one year, 2010, showed that, on average, the final Grade 10 math marks of people using Nokia Mobile Mathematics were 7% better than their peers who did not use the service. (Active users of the service actually showed a 14% improvement in their math grades.)

NOKIA BRINGS MOBILE LEARNING CONTENT TO KENYA
The Government of Kenya and Nokia signed a partnership agreement in 2012 to grow the country’s IT sector through development of mobile solutions that address socio-economic challenges.

In the first instance, Nokia Education Delivery has been employed to improve the quality of learning in underserved schools in Kenya.

Since its launch in 2003, the Nokia Education Delivery program has helped improve the quality of education in many countries across Africa, Asia, and South America. It enables the uploading of high-quality educational content to mobile phones. It’s used in many different ways. For example, in-field personnel use it to deliver teacher-training, and in-class teachers use it to provide more visually-stimulating learning content in classrooms. Within the agreement with the Government of Kenya’s ICT Board, Nokia will also extend monetary and technical support to Kenyan mobile start-ups to create mobile and web-based platforms in agriculture, education, enterprise, health and religion.

LIFELONG LEARNING
Nokia helps people build better livelihoods in several ways, from professional skills development to the creation of software to support local entrepreneurs. We create software that can be adapted and sold by local software developers to
2.1.2 Improving Lives with Mobile Technology

their customers. In doing so, we’re subsidizing the investment required to help those small businesses grow, while creating a platform for local technology innovation.

As an example, the Nokia MyShop application helps small entrepreneurs with basic bookkeeping and stock management. It works even on basic phone models. It launched in the Nokia Store towards the end of 2012.

**NOKIA LIFE – EMPOWERING MILLIONS TO MAKE INFORMED DECISIONS**

IN 2012, THE NUMBER OF PEOPLE WHO USED NOKIA LIFE MORE THAN DOUBLED IN A YEAR TO 90 MILLION.

Nokia Life (formerly Nokia Life Tools) is the world’s largest mobile information services suite, delivering education, health, agriculture and entertainment services to over 90 million people in India, China, Indonesia, Nigeria and Kenya (beta launch). We work with over 90 knowledge and content partners - universities, NGOs, government agencies and private enterprises - to provide personalized and localized services in 18 languages.

Nokia Life is a subscription-based service, supported by 18 network operator partnerships. Kenya became the most recent addition December 2012 when a beta version of the service was introduced there.

September 2012 saw the global launch of Nokia Life+, a cloud-powered web application that provides education, health and entertainment information to millions of Nokia phone owners.

Nokia Life+ offers life-enhancing information services designed for the specific needs of young people in emerging economies. The global, English-language, version of Nokia Life+ is currently available in 18 countries, and there are local versions in China, India and Indonesia.

For more information about Nokia Life and Nokia Life+, visit www.nokia.com

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**CASE STUDY: NOKIA LIFE HELPING WOMEN WITH BUSINESSES**

Nokia Life and the Cherie Blair foundation for Women jointly launched the Business Women Service in Nigeria and Indonesia.

The Business Women service was announced in Nigeria and Indonesia in 2012, as an addition to the Nokia Life portfolio in these countries. The service is a partnership between Nokia, the Cherie Blair Foundation for Women, and leading mobile operators MTN Nigeria and Indosat. It offers female entrepreneurs essential tips and practical advice on starting and running a successful business.

The service is delivered via mobile phone. With micro- and small businesses accounting for a large portion of employment in these countries, helping more women in Nigeria and Indonesia run successful businesses is a great way to empower them, and support their personal development in ways that benefit not just the individual, but their children, their family, and society as a whole.

In Indonesia the service is called Usaha Wanita (Business Woman in the Indonesian language Bahasa).
2.1.2 Improving Lives with Mobile Technology

NOKIA LIFE IN 2012

OVER
90,000,000

PEOPLE HAD EXPERIENCED
NOKIA LIFE SERVICES

5
ACROSS
OF THE MOST POPULOUS
EMERGING ECONOMIES

SERVICES
- EDUCATION
- HEALTH
- AGRICULTURE
- WOMEN
- ENTREPRENEURSHIP
- ENTERTAINMENT

AVAILABLE ON
50+
NOKIA PHONE MODELS

18
DIFFERENT LANGUAGES

90+
KNOWLEDGE PARTNERS

OVER
90,000,000

PEOPLE HAD EXPERIENCED
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- ENTERTAINMENT

AVAILABLE ON
50+
NOKIA PHONE MODELS

18
DIFFERENT LANGUAGES

90+
KNOWLEDGE PARTNERS
At Nokia, we’ve been improving the accessibility of our devices for well over a decade. It’s an integral part of our design process. We now offer dozens of features and applications for people with disabilities: screen magnification, voice dialing, text-to-speech processing and enhanced personalization options.
2.1.3 Accessibility of Nokia Products

NOKIA SCREEN READER MADE AVAILABLE FOR ALL NOKIA SYMBIAN DEVICES DURING 2012

During 2012, we made the Nokia Screen Reader, a key application for the visually impaired, freely downloadable for all Nokia devices using the Symbian operating system. There were more than 100,000 downloads in the first few months. We also added 20 language sets, bringing the total to 28 languages.

FUTURE DEVELOPMENT PRIORITIES IDENTIFIED AT THE NOKIA ACCESSIBILITY UPDATE

In October of 2012, we brought together representatives from a number of disability organizations, operators, developers, and other stakeholders for the Nokia Accessibility Update. The purpose of this event was to discuss future directions in the development of accessible mobile technology. Participants identified key priorities for improving accessibility of future Nokia products and services:

• Offer the widest range of features and compatibilities for accessibility in smartphones with full compliance with US legislation.
• Bring accessibility to feature phones.
• Provide an accessibility application programming interface (API) for all mobile platforms, open to third party applications.
• Continue to provide superior access to mobile technology for the hard-of-hearing.
• Ensure accessibility of Nokia’s business and leisure applications, web content, and user manuals.
• Ensure a means for downloading software for blind people.
• Communicate progress in accessibility transparently and on a regular basis.
• Promote innovations for accessibility solutions in future devices.

PHONES WITH IMPROVED ACCESSIBILITY FEATURES LAUNCHED IN 2012

In October, we launched the Nokia Lumia 820 and 920 smartphones with the new Windows 8 operating system. These new phones provide excellent features for people with partial sight. To make it easier to read text, there are four text sizes, a screen magnifier, and a high contrast display mode. There are also voice commands and limited screen reading options. However, a full-blown screen reader that would make these phones usable by blind people is still missing.

Late in 2012, we launched the Nokia 206. It’s a basic mobile phone with a traditional (ITU-T) keypad. As such, the Nokia 206 is a good choice for the elderly.

For people with hearing impairment, we developed a new version of the Nokia Wireless Loopset (Nokia LPS-6) to help those with a t-coil equipped cochlear implant or a hearing instrument use any mobile phone with Bluetooth connectivity.

ALL PEOPLE, WITHOUT DISCRIMINATION, SHOULD BE ABLE TO COMMUNICATE AND CONNECT TO THE INTERNET

Worldwide there are about 600 million people with a recognized disability or a need for improved accessibility in terms of vision, hearing, speech, mobility or cognition. Accessibility is about making products and services usable for the greatest possible number of people, including the elderly and those with disabilities.

Much still remains to be done in making the full range of accessibility features available on all Nokia phones, including those using the Windows Phone operating system. But at Nokia we will continue to engage our stakeholders and partners in looking for new ways to improve access to the potential of mobile technology for all people.
people matter
As a global company, our activities have an impact on people and communities around the world. In this chapter, we discuss our responsibility to our employees, customers, shareholders, partners and other stakeholders. Supplier-related issues are discussed in the ‘Nokia and Suppliers’ section, chapter 3.4.
2.2.1
Human Rights

Our core business – connecting people with mobile technology – contributes to the promotion of human rights by enabling and enhancing communication and facilitating economic development. Improved communications provide better opportunities for freedom of expression, and therefore promote civil and political rights as well as economic and social rights. At the same time, we have specific human rights responsibilities toward our employees, our customers, the communities where we work, and within our supply chain.

PROTECT. RESPECT. REMEDY.

Nokia has been at the forefront in applying UN Human Rights Special Representative John Ruggie’s framework in its business practices. The framework consists of three pillars: protect-respect-remedy. We’ve had all of the elements of Ruggie’s framework in place since 2011.

Nokia constantly conducts due diligence to fulfill its responsibility to respect human rights and assess any human rights risks that may be associated with our operations and products. Human rights challenges and opportunities are different at different stages of the Nokia value chain. For example, in R&D, these may include aspects of accessibility and privacy. In manufacturing, including our supply chain, the main human rights issues are labor rights, and health and safety. In sales and marketing, issues such as anti-corruption are the most likely human rights issues to be addressed.

NOKIA’S APPROACH TO HUMAN RIGHTS

The Nokia Human Rights Approach articulates our commitment to human rights. It was developed in 2011 in cooperation with our key stakeholders including NGOs, investors and operator customers. It draws on the analysis of the challenges identified in the due diligence process and our assessment of international best practices. The Nokia Human Rights Approach is available on our website.

On top of defining our human rights policy, we monitor key performance indicators, including the number of times people have contacted us via grievance channels.
2.2.2 The Nokia Code of Conduct

As a global company, we recognize our responsibility to fight actively against improper business practices, including corruption. We also see this as an important competitive advantage, with customers demanding high ethical standards in their supply chain.

At Nokia, we focus our efforts on providing our employees and suppliers with tools to help them deal with the ethical issues they face in their day-to-day work.

MAKING THE RIGHT CHOICES

In 2012, we introduced “Right Choices”, an ethics newsletter that features actual cases involving misconduct. It also includes regular features on areas such as corruption, security, competition law and privacy. The readership is strong across the company, and has sparked employee discussion about ethics on our internal blogs.

UPDATED AND EXPANDED CODE OF CONDUCT

During 2012, we updated our employee code of conduct, expanding the topics we cover and introducing examples, frequently asked questions and checklists that help our employees apply the code to their everyday work lives. We will publish this new code of conduct during 2013.

The Nokia Code of Conduct is currently available in 34 languages. It is published on our website.

In 2013, we will also update our ethics training to help employees understand how to apply our refreshed code of conduct. The revised training program will help employees identify and solve ethical dilemmas they may face, locate resources to help them, and explain how and where to report concerns.

Since 2009, we have conducted a program to train all employees using e-learning (in 14 languages) as well as classroom training. The training covers topics such as bribery and corruption, health and safety, labor conditions as well as how to report concerns about unethical conduct, corruption or any suspected violations of Nokia’s code of conduct.

By the end of 2012, 95% of eligible non-manufacturing employees and 98% of eligible employees in our manufacturing facilities had completed the training. For the first time, our Location and Commerce (formerly Navteq, HERE from early 2013) employees were included in this training.

We have established several communications channels for employees and others to get help in understanding and applying our code of conduct, or to report concerns of violations. This includes a “Contact the Board” channel where employees and others can raise concerns regarding fraud or misconduct under our code.

We have also introduced two questions in our annual global employee survey to target employee perceptions of ethics at Nokia. The questions ask whether “Nokia shows a commitment to ethical business decisions and conduct” and whether “it is easy to speak up about any issue”. We are pleased with our results and believe we can continue to improve them.
2.2.2
The Nokia Code of Conduct

SUPPLIER CODE OF CONDUCT

In 2012, we augmented our long-established Nokia Supplier Requirements program by creating and implementing a new Supplier Code of Conduct. This outlines our approach and our commitment to ethical and sustainable business practices. It describes our commitment to human rights, environmentally sustainable business activities, and our zero-tolerance policy towards bribery and corruption. We expect all of our suppliers to commit to the principles contained in the Nokia Supplier Code of Conduct, and to apply the same standards throughout their own supply chains. By combining the new Supplier Code of Conduct with our existing Nokia Supplier Requirements, our goal is to help our supply chain understand what is required of them and to ensure compliance.

MONITORING COMPLIANCE

Our Internal Audit and Internal Controls teams are key partners of the ethics and compliance program at Nokia. We work with Internal Audit on financial investigations and with Internal Controls to continuously improve our business procedures. In addition, our Internal Audit teams regularly review the corruption risks of our business units during routine audits.
2.2.3

EMPLOYEES
2.0 NOKIA & PEOPLE

2.2.3 Employees

2012 EMPLOYEE SNAPSHOT

At the end of 2012, Nokia employed 39,387 people.

The figures below are based on the financial release figures as at the end of 2012 and include 33,201 Nokia employees and 6,186 HERE employees. HERE is the new name for our former Location & Commerce business and reportable segment as of 2013. D&S refers to our Devices & Services business unit.

AS OF 31 DECEMBER, 2012:

• 17,972 employees were working directly in production, including manufacturing, packaging and shipping.
• 14% of senior management positions within Nokia were held by women.
• 50% of senior management positions were held by people of non-Finnish nationality. (This figure includes Nokia D&S only.)

DURING 2012:

• The rate of voluntary attrition (the percentage of the workforce leaving the company voluntarily) was 10.8%*.
• We invested over €23 million in training and development, an average of €1,100 per employee working in areas other than production. The majority of the investment was to develop the competence and skills of our workforce. Part of the 2012 investment included training for employees in outplacement. (This figure includes Nokia D&S only.)
• 92% of Nokia employees had permanent work contracts, and 8% had fixed term contracts with Nokia.
• Most of Nokia’s employees worked full time, with less than 1% working part time.

*In 2012 the calculation methodology was changed; the figure does not include employees accepting a severance package related to Nokia’s restructuring. If these people are included the total figure is 21.4%.

NOKIA VALUES

Nokia’s values have been articulated by our employees around the world. They act as a foundation for our evolving business culture, and form the basis for how we operate as a company.

The values were refined at the end of 2012 and in the beginning of 2013. They have evolved from

‘Achieving together’
‘Very human’
‘Engaging you’
‘Passion for innovation’

...
2.0 NOKIA & PEOPLE

2.2.3 Employees

DIVERSITY AND INCLUSION

At the end of 2012, 60% of Nokia’s workforce were men and 40% were women. (These figures include Nokia D&S only.) 14% of senior management positions within Nokia were held by women; 50% of senior management positions were held by people of non-Finnish nationality. Both figures are slightly down compared to 2011. (The figure 50% includes Nokia D&S only.)

We’re constantly developing the flexibility of our working conditions and policies, to foster an inclusive work environment. A key element is our focus on establishing “inclusive leadership”. We have several initiatives to maximize diversity within our leadership, such as our Asia Talent Program and Women in Nokia. We also have an active gay, lesbian, bisexual and transgender (LGBT) network.

At the end of 2012, Nokia received a 100% rating in the Human Rights Campaign’s Corporate Equality Index 2013, which is the main benchmarking tool in the United States for corporate policies and practices related to gay, lesbian, bisexual and transgender employees.

WE VALUE OUR DIVERSITY

Nokia is committed to promoting diversity and inclusion in the workplace and providing rewarding career development opportunities for all employees. We strive to create an inclusive workplace that welcomes men and women of different cultural or ethnic backgrounds, skills and abilities, lifestyles, generations and perspectives. This has helped us to build the diverse and robust community that Nokia is today. We also recognize that this diverse workforce is the best way to understand customer expectations around the world.

Having a plan for actively managing equality and diversity has shown us that employees stay longer in the company, have greater company loyalty and maintain higher levels of satisfaction toward their work in general.

TRAINING AND DEVELOPMENT

In 2012, we invested over €23 million in training, an average of €1,100 per employee working in areas other than production. We encourage e-learning opportunities where possible, as these are more cost-effective and environmentally-responsible. (This figure includes Nokia D&S only.)

We provide a variety of mandatory and voluntary training opportunities for our employees to help them develop a broad range of skills for the workplace, as well as competencies specific to their roles. We have thousands of internal training courses, as well as many options for external training. To match local needs, training may be tailored and may also be available in local languages. For factory workers we arrange onsite/classroom training sessions.

Nokia is committed to training and development, and to supporting career growth. We understand that a dedicated, progressive approach to both personal and professional development optimizes the interests of our employees and of Nokia.
2.2.3 Employees

PERFORMANCE AND REWARDS
RECOGNIZING OUTSTANDING PERFORMANCE

At the beginning of 2012, we introduced a new performance management and rewards approach, to highlight the importance of good quality dialog between our managers and our employees, and to give greater rewards for individual contribution.

EQUITY PROGRAMS

A large number of employees are nominated for our equity programs, which are based on recognizing those who make a significant difference to the business. Our broad-based equity compensation programs include performance shares, restricted shares and stock options. All are linked to the company’s performance over a longer-term perspective.

Our incentive programs include:

- A plan for our corporate and R&D roles, which is focused on both individual and company performance
- A sales incentive plan, which focuses on sales achievements against targets, and
- A production incentive plan, which is a quarterly plan designed to support results primarily in areas of production where the nature of the work and the measurement of results are mainly team-focused.

We communicate with employees about the effect of business results on their incentives after each quarterly announcement through articles and video messages on our internal news channel. We encourage managers to coach employees continually and to hold quarterly performance discussions. Additionally, we communicate through regular manager newsletters, blogs, webcasts and face-to-face meetings, and related information is available on our intranet for people to access at any time.

More information about the reward framework, including our top management, is covered in our 2012 Form 20-F Report filed with the United States Securities and Exchange Commission (SEC).

A TRIO OF REWARD PROGRAMS

Positive feedback is a powerful tool for reinforcing behaviors critical to our success. By focusing on positive recognition we can create a culture of appreciation, a culture where positive behaviors are recognized daily, not just at the end of an incentive cycle or during the annual performance review. We have three global recognition programs: the Achievement Award, Kudos, and Peer-to-Peer.

Achievement Awards are given to individuals and/or teams to recognize outstanding contributions. In 2012, Achievement Awards were used 1,185 times.

Kudos is a personal award used by line managers to instantly recognize employee achievements with a personal note and a small monetary bonus. In 2012, Kudos was used 7,924 times. Peer-to-Peer is a recognition method introduced in 2011 for demonstrating the new ways of working and behaviors we support. It is an instant recognition of one peer to another with a personalized email to the receiver. Once an employee receives six Peer-to-Peer awards, he or she receives a small monetary Kudos award. In 2012 Peer-to-Peer awards were converted into Kudos awards 1,441 times.

OUR GLOBAL APPROACH TO SETTING SALARIES

We use a global framework to set salary bands, which are applied to people regardless of gender, age or background. Levels of compensation are determined by local labor markets, and take into account both individual contribution and company performance. In countries and sites where we have collective agreements in place, salaries are set according to those agreements.
2.2.3 Employees

EMPLOYEE COMPETITION TO RECOGNIZE INNOVATION

The Nokia Excellence Award is an annual competition to recognize and reward employees for outstanding work, persistence, and a pioneering attitude. The award has included a sustainability category for over ten years.

In 2012 the winners in the sustainability category included the Nokia Transport (now HERE Transport) application, Nokia Education Delivery, Nokia Mobile Mathematics, as well as a solution related to environmentally-friendly production technology.

In past years, teams have been recognized in the Sustainability category for their work in such areas as sales package optimization, collaboration with suppliers to reduce waste, and development of innovative recycling solutions.

ENCOURAGING VOLUNTEERING

Volunteering is an important part of employee engagement. It helps us make meaningful contributions to the communities in which we operate. Through volunteering, employees can learn new skills and gain new perspectives. Volunteering can also contribute to a better balance between personal convictions and professional lives.

In many countries where Nokia is present, Nokia Helping Hands operates as a local volunteer program. Thousands of our employees contribute their time and effort to worthy causes in their communities. For us, it’s important to encourage and support employees who want to contribute. In recognition of this, our employees can take two working days a year to go into their local communities and volunteer for a good cause. In early 2013 Nokia will finalize a policy to better clarify the principles of our Helping Hands initiative to our employees.
2.2.3 Employees

THE HEALTH, SAFETY AND WELLBEING OF OUR EMPLOYEES

During 2012, we worked on strengthening our performance in matters of occupational health and safety (OHS), focusing on expanding our reporting capabilities and implementing new performance capabilities, to become more proactive in our approach to OHS within our factories.

NEW PERFORMANCE CAPABILITIES IMPLEMENTED

In 2012, we introduced two leading metrics for all Nokia factories globally that we monitor internally. The intent of these two metrics is to ensure that programs are in place to transition our culture to a proactive versus reactive environment. As well, we successfully implemented two new programs: the Near Miss Program and the Safety Leadership Walk Thru Program.

The health, safety and wellbeing of our employees are vital to our business. Wellbeing can make a difference in employee engagement and productivity, for example by reducing absenteeism, which in turn saves costs.

A NEW GLOBAL OHS POLICY INTRODUCED DURING 2012

In 2012, Nokia introduced a new Occupational Health and Safety (OHS) policy, renewing our commitment to providing safe and healthy working conditions for all our employees and partners, and to promoting wellbeing at work. We expanded our global OHS Injury and Illness Reporting to include not only internal Nokia employees, but our external contractors and service providers as well. In 2012, our Total Incident Frequency Rate for all of our major manufacturing facilities was 0.2, down from 0.5 in 2011. This was despite the expanded scope. In other words, for every 100 employees, contractors and service providers, there were only 0.2 incidents of occupational injury or illness. This figure includes external contractors and service providers from June 2012 onwards. Since 2011, our global Occupational Health and Safety Injury and Illness Reporting has included all cases that require some type of medical treatment, not just those that result in absence from work. We have selected the Occupational Safety and Health Administration (OSHA) guidelines for accident and illness reporting.

BUILDING A CULTURE OF WORKPLACE SAFETY

In 2012, we finalized a project, begun in 2011, to create a culture within Nokia factories that supports safe work practices. We’ve had many successes with this project, and learned important lessons for creating a sustainable culture of workplace safety. The project focused on four important areas:

- Adopting a robust management system approach in our OHS operations.
- Defining and developing meaningful safety metrics together with relevant reporting systems.
- Reducing our injury and illness rate.
- Building stronger OHS competencies.

ACCOMPLISHMENTS FROM THE OHS PROJECT

The first accomplishment of the OHS project was to share our safety performance indicators with Human Resources and factory leadership on a monthly basis. This both increased the visibility of our safety performance and improved internal interest in OHS-related topics.

With this increased interest, we were able to build programs to engage our factory leaders and increase leadership involvement in OHS issues. One of the programs we successfully implemented was the Safety Leadership Walk Thru program, where the leadership team walks through Nokia’s factories to engage with employees about OHS topics.
2.0 NOKIA & PEOPLE

2.2.3 Employees

Another success in 2012 was the internal compliance of all Nokia factories with the Occupational Health and Safety Administration System (OHSAS).

We introduced global communications to our employees about our global OHS policy, and training for the factory leadership team on the core components of occupational health and safety.

LESSONS LEARNED FROM THE OHS PROJECT

Overall the project was a success, but we also learned some important lessons which are helping us to further develop a culture of workplace safety. One example is the importance of defining a culture of safety at a local level. Both the maturity of the OHS programs within the factories as well as site-specific needs must be taken into account. In 2013, we will continue to focus on developing our culture of health and safety, putting more focus on the specific local situation at each factory.

The OHS team also introduced an online IIR reporting tool for all Nokia factories to ensure that the incident investigation process is fully implemented. This tool allows us to increase our metrics capability and to strengthen the quality of our data.
ENSURING THE HIGHEST STANDARD FOR LABOR CONDITIONS

At Nokia, all factory workers have the right to work in a safe and supportive environment. Compliance with local law is naturally the foundation for all our activities. On top of this, we aim to comply with global practices that often go above and beyond scope of the local legislation. Since 2006, the Nokia Labor Conditions Requirements have outlined our commitment to responsible work practices, and have been used as a framework to monitor and assess labor conditions in a consistent manner at our factories. The Nokia Labor Conditions Requirements follow the Nokia Code of Conduct and are based on international standards such as UN human rights declarations, International Labor Organization (ILO) conventions, international ethical standards and international labor laws. They have also been benchmarked against SA8000 and EICC.

A revision of the Nokia Labor Conditions Requirements was launched at our factories in 2012, including updates on health and safety, working hours, compensation, and prevention of child labor. The purpose of this revision is to reflect changes in the world today, including new global requirements and the progression of social accountability. The Nokia Labor Conditions Requirements are universally applied to all of our factories and include:

- Prevention of child labor
- Non-discrimination
- Disciplinary practices
- Working hours
- Freedom of association
- Compensation
- Freely chosen employment
- Occupational safety
- Occupational health

The content of this document is provided to all factory workers during induction or through campaigns. E-learning is available in English for non-production employees.

ASSESSING LABOR CONDITIONS AT OUR FACTORIES

We carry out in-depth assessments of our major production facilities every second year to monitor labor conditions and ensure compliance with local laws and Nokia Labor Conditions Requirements. These assessments are always conducted by a professional external assessment company. Factories must conduct a root cause analysis and develop a corrective action plan for any instance of major or minor non-conformity. During the intervening period, we carry out internal assessments based on a risk analysis to ensure that necessary corrective actions have taken place.

2012 LABOR CONDITIONS ASSESSMENT RESULTS

The latest third party labor conditions assessment round started in 2012. Six of seven Nokia factories in Beijing, Dongguan, Chennai, Komarom, Manaus and Reynosa were assessed by the end of February 2013. The seventh factory, located in Masan, is undergoing constructional changes and will be assessed later in 2013. Our focus this round has been on proper root cause analysis and a continuous improvement process, in order to sustain our high level of compliance in terms of social responsibility.

The third party assessments indicated that labor, health and safety were properly managed at all six factories. For example, the fundamental rights at work as set out by the ILO, including the elimination of forced or compulsory labor, prevention of child labor, and non-discrimination, are well respected at our factories.

The fourth fundamental right set out by the ILO is the freedom of association and the right to collective bargaining. This right is fully implemented at all of our operations, with the exception of our factory in Reynosa, Mexico. While our practice there is in accordance with local laws and industry practices, and is part of a collective agreement, currently there is only one union to which employees can belong. However, we have ensured that employees have the right to democratically choose their union representatives through free elections, and there is also a
2.2.3 Employees

freely negotiated collective bargaining agreement in place. We recognize the right of employees to join unions and to enter into collective bargaining agreements. As of December 31, 2012, around 60% of our production employees were covered by collective bargaining agreements. The results of the 2012 assessment are presented in the table on this page.

**Fully compliant** – Complies with local laws and Nokia Labor Conditions Requirements.

**Minor non-conformity** – Complies with local laws, but is a partial violation of the Nokia Labor Conditions Requirements. A minor non-conformity is usually an isolated case of violation where the violation causes a low risk to employee safety or employee rights. A minor non-conformity is often due to lack of attention or oversight.

**Major non-conformity** – Not fully in compliance with local laws, and/or clear breaches of the Nokia Labor Conditions Requirements. A major non-conformity is a systematic violation that poses a danger, or indicates a high risk to employee safety or employee rights. A major non-conformity is often due to a lack of control.

Some problems were found relating to working hours in three of our factories. In China, we have a comprehensive working hours system in place. We comply with local laws, and with the six month working hour limits set out in this system. On top of this, we also have a maximum 60-hour work week requirement in place. The assessment indicated that, while the requirements of the comprehensive working hour system were fulfilled, the 60 hour limit was occasionally exceeded. A similar finding was reported at our factory in Mexico. These infractions seemed to be related to production ramp-up for a new product, and to increased demand for some other products. This problem had already been identified by the factories themselves, and corrective actions are ongoing.

<table>
<thead>
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<th>CONDITIONS</th>
<th>FULLY COMPLIANT</th>
<th>MINOR NON-CONFORMITY</th>
<th>MAJOR NON-CONFORMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention of child labor</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>Non-discrimination</td>
<td>100%</td>
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<td>67%</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Freely chosen employment</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Occupational safety</td>
<td>0%</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Occupational health</td>
<td>50%</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>Implementation</td>
<td>83%</td>
<td>17%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Some problems were also identified at each factory in the area of occupational health and safety practices. The manufacturing process itself does not pose safety risks. Rather, the issues arose from bad habits or from deficiencies in the management systems. However, none of the assessment findings indicated that there is a high risk to employee safety. The problems were mostly isolated cases, such as a missing fire extinguisher sign, an outdated evacuation route map, a few emergency lights that were not working, an incomplete first aid kit, and so on.

This assessment round also identified some positive findings. Besides the overall good level of corporate social responsibility at our factories, we received acknowledgement for the ergonomic improvements that we’ve made, such as adjustable chairs and ergonomic mats for workers to stand on. Our well-equipped break areas designed to provide effective rest and health care measurements for all employees, including round-the-clock presence of nurses, were also mentioned.
2.2.3 Employees

EXTERNAL DIRECT LABOR
The percentage of external temporary labor at our factories fluctuates throughout the year. These workers help us meet demand during peak production periods, and provide cover when our permanent employees are absent. Our global policy on external direct labor at our factories determines how our sites manage external staff. External temporary labor is hired through agencies for limited time periods. When selecting agencies, we ensure that they comply with all applicable labor practices. These labor agencies are also in the scope of our social audits.

CASE STUDY
NOKIA CHENNAI WOMEN’S FORUM

The Nokia Chennai women’s forum, called Women of Worth, is a network of all female employees at Nokia’s Chennai factory.

It offers female employees an opportunity to share, to have collective representation, and to take affirmative action. It enhances collaboration and friendly conduct, and ultimately celebrates womanhood.

Women of Worth aims to identify and address the needs of female employees at Nokia’s Chennai factory, and to empower them through economic freedom. The forum has organized workshops on equality and diversity around various interests and cultures. It has also provided entrepreneurial and life skills training to enhance leadership abilities and confidence levels. Women of Worth has organized training on skills such as fabric dyeing, beauty care services, and bridal henna tattooing.

This initiative is especially important for women who will stay home after getting married and having children, as the families often depend only on the husband’s income. Having the possibility to earn money while staying at home and taking care of the family improves women’s confidence and autonomy, and increases the family’s income. And this in turn helps prevent child labor.
2.2.3 Employees

Nokia’s New Strategy and Our Employees

Our success depends on our employees. They are a vital stakeholder group, and we value their feedback on how we run our business.

In 2010, we reported on how we expected critical challenges to our business and the way we work, and started a fundamental transformation. This transformation has continued throughout 2011 and 2012.

Changing Culture and Behaviors

Nokia’s change in strategy, announced in February 2011, required its employees to adopt the mindset of a challenger. This new philosophy placed a heavy emphasis on results, speed and accountability. It meant adopting new attitudes and new ways to satisfy our customers. To accelerate our speed of execution we’re also developing new ways of working, with a focus on faster decision making, reducing complexity, and improving our responsiveness to customer needs and market trends.

Strong Leadership is Vital in Times of Change

Leaders must stay connected with employees and provide updates on progress. A successful Nokia leader is able to demonstrate empathy, show accountability, have a sense of urgency, and engage in continuous quality dialog with employees.

According to our annual employee survey ‘Listening to You’, people at Nokia saw these critical leadership behaviors demonstrated in practice, and improving year-on-year:

- 85% of employees felt they are ‘being treated with respect and dignity’
- 71% felt that, in their work environment, ‘it is easy to speak up about any issue without concern’
- 69% of employees felt their ‘immediate manager inspires the best in people’

All are clearly above the global norm.

We Use Employee Feedback to Drive Change and Support Our Transformation

The Listening to You survey is one tool to request feedback, act on, and monitor progress on how we are doing with our strategy, new ways of working, and employee engagement. Listening to You traditionally has a high response rate. In 2012, 75% (82% in 2011) of our production and non-production employees in more than 50 countries participated. We measure and monitor inspired people, leaders as role models, and how visible the culture change is for them.

The following numbers relate to responses collected from non-production staff working in the Devices & Services and HERE businesses.

- 64% thought that we have inspired people, a positive trend.
- 71% felt that our leaders act as role models, an increase from previously and above the global norm
- 70% felt the culture change is visible, again showing a strong positive trend

“Nokia is socially and environmentally responsible.” In 2012, 77% of our employees thought that it is, which was a one percentage point decline from the previous year.
2.2.3 Employees

EMPLOYEES IDENTIFIED AREAS FOR IMPROVEMENT

According to the satisfaction survey results, our employees say that there is still too much bureaucracy, complexity and slowness.

To complement the annual Listening to You survey, we follow our change progress by conducting a similar quarterly employee survey called Pulse. It has questions around the same topics as the full Listening to You survey, but is shorter.

Additionally, we encourage open discussion and debate within our business. Employees can ask questions and comment on our business at any time through the company intranet or internal social network and receive a prompt and openly published response. Our internal news is also open for our employees to comment on. Nokia employees actively discuss topical matters and exchange ideas on our internal social network.

NOKIA’S STRATEGY AND OPERATIONAL STRUCTURE:
REDUCTIONS IN OUR GLOBAL HEADCOUNT

To deliver on our new strategy meant that we had to make some painful decisions.

In June 2012, Nokia outlined a range of actions aimed at sharpening our strategy, improving our operating model and returning the company to profitable growth. Nokia announced plans to rescale the company by making additional reductions in Devices & Services, as well as a number of other measures, including:

- Reductions within certain research and development projects, resulting in the planned closure of the facilities in Ulm, Germany and Burnaby, Canada.
- Consolidation of certain manufacturing operations, resulting in the planned closure of the manufacturing facility in Salo, Finland (although research and development in Salo continues).
- Focusing of marketing and sales activities, including prioritizing key markets.
- Streamlining of IT, corporate and support functions.

As part of our new, focused strategy, we have also divested of our Vertu and Qt businesses. To support our smartphone strategy we announced the acquisition of Scalado in June 2012.

Earlier in the year, we had announced a change to our global smartphone manufacturing strategy, which would impact an estimated 4,000 employees in factories at Finland, Hungary and Mexico.

As a result of the planned changes announced in June 2012, Nokia will reduce up to 10,000 positions globally by the end of 2013.

The implementation of the reductions announced in June has proceeded to plan with the majority carried out during 2012, though there are some transition activities which will continue into 2013.
2.2.3 Employees

HOW WE'RE HELPING OUR PEOPLE FIND A NEW FUTURE

We fully recognize the pain and difficulty we’ve caused those of our employees affected by the reductions, and our responsibility to help them build a new future for themselves. In 2011, Nokia established Bridge, an extensive support program for employees affected by Nokia’s restructuring plans. The priorities of the Bridge program are, in order of importance:

1. To assist impacted individuals
2. To provide support to the local economies where Nokia plays a significant role
3. To support Nokia’s new strategy and ecosystem.

The Bridge program offers a wide variety of possibilities to help:

- **A NEW JOB WITHIN NOKIA:** We want to retain as much talent as possible. We provide career counseling, and help employees identify new job opportunities at Nokia.

- **A NEW JOB OUTSIDE THE COMPANY:** We offer career coaching, resume writing and job search support. Furthermore, we work with our extensive network to link employees directly with local companies looking for new employees.

- **ENTREPRENEURSHIP:** We offer training in collaboration with local incubators, as well as funding and other help for those interested in starting a new business, which could also fuel new growth for impacted communities. We have arranged coaching in business planning and establishing startups. We give grants of up to €25,000 to new entrepreneurs. The final grant size is based on an evaluation of a business plan, investment need, growth opportunities and local cost levels.

- **TRAINING:** We fund training that helps affected employees in finding a new job quickly. In Finland, we have planned and implemented training programs jointly with local employment offices. The Finnish government offers significant funding for training programs, which is normal practice in Finland.

In addition, employees losing their jobs at Nokia are entitled to severance packages which are typically higher than local minimum practice.

HOW WE'RE HELPING AFFECTED COMMUNITIES

A second priority of the Bridge program is to support communities where Nokia has played a major role. We’ve made major efforts to attract new companies to cities where Nokia has downsized or closed its operations. We have focused on ICT and other high growth companies with significant employment needs. New businesses, which former Nokia employees may have set up, also contribute to the economies of these communities.

BRIDGE PROGRAM ADAPTED TO MEET LOCAL NEEDS

The framework of the Bridge program is consistent around the world, but it’s implemented at a local level and adapted to suit local needs and culture. We’ve established Bridge centers in Finland (the capital city area, Salo, Tampere and Oulu), the UK, Copenhagen in Denmark, several sites in the US, Bangalore in India, the Cluj factory and R&D sites in Romania, Ratingen, Ulm and Berlin in Germany, Komarom in Hungary, Reynosa in Mexico, Masan in South Korea, Vancouver in Canada, Beijing in China, and Singapore.

In addition to these Bridge centers, we’ve set up Bridge Globe, a virtual Bridge center, to support Nokia employees located in countries where Nokia doesn’t have a local Bridge team. By the end of 2012, 17,000 employees had participated in the Bridge program. 15,500 employees had completed the Bridge program, and about 1,500 were still in the program in early 2013.

At the end of their employment we check on the status of the employees leaving Nokia. Support may continue even after they have left. At the end of 2012, of all employees leaving Nokia 57% had responded that they knew their next step after leaving Nokia, even before their employment with Nokia had formally ended.
2.2.3
Employees

This breaks down as follows:

- 6% had found a new job at Nokia
- 36% had found a new job outside of Nokia
- 8% became entrepreneurs
- 4% selected full-time education
- 3% intentionally selected their own path, for example, family leave, sabbatical or charity work

We conduct the survey when we have our last contact with the employee. In many countries this is a significant time before the formal end to their employment with Nokia. In some countries it is at the beginning of the notice period.

The figures vary greatly between countries. For instance, larger job markets, such as India or the UK, are able to absorb job seekers faster than smaller countries. The global average percentage is also a worst case scenario, as it is assumed that if employees do not respond to the survey, they have not found a new job after leaving Nokia.

Nokia announced in early 2011, that it will discontinue Symbian software platform based products. Approximately 2,300 jobs would have been affected worldwide, most of them in the UK, Finland and India. To ensure the continuity of Symbian development and support activities during the transition, Nokia and Accenture agreed that the Symbian organization would be transferred from Nokia to Accenture. Nokia's Symbian-related workload gradually declined and Accenture rebalanced its workforce to meet changes in it clients' needs.
working together we create better
CUSTOMER ENGAGEMENT
2.2.4 Customer Engagement

CUSTOMER SATISFACTION THROUGH SUSTAINABILITY

Delivering customer satisfaction is first and foremost about creating value for our trade customers and the people who use our products. One aspect of this is increasing the sustainability of our devices throughout the product lifecycle. We continuously survey our customers’ views to understand where we are succeeding and how we can do better.

SUPPORTING OUR TRADE CUSTOMERS’ SUSTAINABILITY AGENDA

Each year an independent market research company helps us research trade customers’ views about Nokia through our Listening to Trade Customers (LTC) survey. A sample of executive and operational contacts from companies that make up about 80% of Nokia’s revenues are invited to take part. Feedback from the survey is used to drive action planning at the local and global levels. At a local level, Nokia account managers discuss the survey findings with their customers and take relevant actions. The consolidated feedback is used to understand where improvements are needed. Participants receive a letter from Nokia’s CEO highlighting the survey’s overall findings.

To support our trade customers’ sustainability agenda, we focus on providing the greenest portfolio of mobile devices. We also work together on initiatives such as joint takeback and recycling campaigns. Sustainability provides a wide array of opportunities for collaboration, which differentiates Nokia from our competitors.

Nokia continues to receive and respond to inquiries and assessment requests from our customers about social and environmental performance. One way we respond to these requests is through the joint industry initiative E-TASC (Electronics - Tools for Accountable Supply Chains). E-TASC is a common approach for assessing and managing companies’ supply chain risk. It aims to drive performance improvement related to labor practices, health and safety, ethics, and environmental activity. We also continue to supply data to additional operator-specific product sustainability rankings, where Nokia products continue to perform well.
Customer Engagement

PROTECTING PEOPLE’S PRIVACY

Nokia continued to increase the maturity of our privacy program during 2012.

We strengthened our privacy governance model by nominating Chief Legal Officer Louise Pentland as accountable owner for the privacy program. Chief Ethics and Compliance Officer Chad Fentress was nominated as the senior privacy executive responsible for the program on a day-to-day basis. Our program is based on the accountability principle. It consists of:

- Executive oversight
- Policies and their implementation
- Staffing and delegation
- Training and awareness program
- Ongoing risk assessment and mitigation
- Provision of remedies and procedures for responding to inquiries, complaints and privacy breaches
- Monitoring and auditing compliance and internal enforcement

Nokia’s units have privacy owners and privacy officers tasked with implementing the program within their respective unit’s operations. This includes implementing privacy early on in our operations through appropriate privacy engineering. On average, we conduct approximately 100 privacy reviews a month.

The Nokia Privacy Leadership Team (PLT), chaired by the senior privacy executive, consists of privacy owners, privacy legal and representatives of industry and regulatory relations. The PLT defines the objectives for privacy work across Nokia and tracks its progress. The privacy program interlocks with security and data teams at Nokia.

FOCUS ON TRAINING AND AWARENESS IN 2012

We placed special emphasis in 2012 on training our staff and raising awareness of privacy across our units to reach all relevant groups.

We created the role of a training and awareness officer, who is responsible for defining Nokia’s approach to privacy training and implementing this approach across our units.

The approach addresses three groups of employees:

1. All Nokia employees must take our Code of Conduct training, which also includes a section on privacy. In addition, we publish privacy-related articles on our corporate intranet, and provide privacy-related information in the ethics and compliance newsletter sent to all Nokia employees.

2. We provide tailored face-to-face trainings to key people in research and development, as well as other operations in Nokia’s units. Privacy officers organize these trainings. We also offer tailored e-learning to this target group.

3. Nokia’s privacy experts maintain their expertise through a variety of measures. In 2012, we launched Privacy Academy, an information-sharing event for Nokia’s privacy experts and selected external speakers. It is organized twice a year. We organize monthly privacy briefings to share and discuss important information, and have a privacy newsletter to quickly share information on privacy news. Finally, our privacy experts continue to obtain and maintain professional certifications, such as those by the International Association of Privacy Professionals.

Progress on these ongoing activities is reported quarterly to the Privacy Leadership Team.
2.2.4 Customer Engagement

PRIVACY CONSIDERATIONS FOR TECHNOLOGY STANDARDIZATION

Nokia recognizes the importance of technology standardization in creating a sustainable technology infrastructure for an information society. Accordingly, we introduced a model for transforming privacy principles into actual privacy considerations in technology standardization. According to this model, technology standards should have a privacy considerations section to assess the impact of the standard on privacy. We have introduced this model to a number of technology standardization bodies, namely ISO, W3C and OASIS.

STAKEHOLDER ENGAGEMENT

Throughout 2012, Nokia was actively engaged with external stakeholders on issues of privacy. We were in discussions with NGOs in Europe and in the US about proposed data protection regulation and other current topics. We collaborated with NGOs and industry groups on developing best practice guidance for mobile application privacy design. We participated in work to define an accountable privacy management framework. Our privacy team offered security and privacy training to application developers through AppCampus, a joint project of Aalto University, Microsoft and Nokia for Windows Phone developers.

STUDYING ATTITUDES TOWARD PRIVACY

Nokia also conducted a global study on consumer attitudes toward privacy. We gained valuable insight on what they think about data privacy and how we can continue to help them understand the relationship between data privacy and our products and services.

PRIVATE IS NOT JUST A WORD FOR US

We believe that people have a right to know what happens to their personal data, and we are committed to fulfilling the privacy expectations of our customers.

Respecting customer privacy has always been important to Nokia. And its importance grows as we develop new services and bring more people online through the internet and mobile technologies. Through these services, people are using and sharing their personal information in new contexts, and it’s important that they understand the implications.

CASE STUDY

Nokia Store Privacy Improvements

Improvements to privacy information in the Nokia store

Nokia has continued to improve the availability of privacy-related information in the Nokia Store. In addition to our earlier-published privacy requirements for application developers, for any content item with privacy implications, developers can upload a privacy policy directly to the Nokia Store, where it is readily available on the details page of an application.
2.2.4 Customer Engagement

PRODUCT SAFETY

Product safety is a top priority at Nokia. All Nokia products operate below the relevant international exposure guidelines and limits set by public health authorities and expert international bodies, such as the International Commission on Non-Ionizing Protection (ICNIRP) and the US Federal Communications Commission (FCC).

REPORTING PRODUCT SAFETY INFORMATION

We are committed to transparency and responding to our customers’ questions about mobile phone safety. Our website contains information and links to other sources at nokia.com/emf. Since October 2001, Nokia has voluntarily made specific absorption rate (SAR) information available to help people make informed choices. SAR information is included in our product user guides and can also be found at www.nokia.com/sar.

We support the World Health Organization (WHO) in its efforts to coordinate global regulations on electromagnetic fields. These regulations are based on the widely recognized guidelines issued by the ICNIRP.

RESEARCH INTO THE HEALTH EFFECTS OF MOBILE PHONES

From time to time, there are reports in the media of individual research studies that suggest that there may be adverse effects related to mobile phone use.

Since 1995, expert panels and government agencies around the world have performed more than 110 reviews and studies of the scientific evidence regarding health effects from radio frequency (RF) exposure. For example, the WHO notes that ‘A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use.’ This position was confirmed after the International Agency for Research on Cancer, a WHO specialist agency, classified the electromagnetic fields produced by mobile phones as possibly carcinogenic to humans in 2011. The WHO identified areas for further research and is currently in the process of conducting a health risk assessment of electric and magnetic fields (EMF).

Nokia has funded research on mobile telephony and health, principally through the Mobile Manufacturers Forum (MMF), an international association of telecommunications equipment manufacturers with an interest in mobile and wireless communications. These programs and projects, listed on the MMF website at www.mmfai.org, are jointly funded with governmental organizations and other industry forums. Importantly, neither the MMF nor its individual member companies have any editorial influence on the publication of the research results. Nokia continues to be a member of the MMF.
2.2.5

STAKEHOLDER ENGAGEMENT
2.0 NOKIA & PEOPLE

2.2.5 Stakeholder Engagement

Most of our stakeholder dialog takes place as part of our normal business practice. From a responsible business point of view, our most important stakeholders are our employees, suppliers and customers. We also rely upon good relationships with our shareholders, governments and other policymakers, universities, NGOs and the wider community.

Our main channels for dialog with stakeholders are both internal and external, small and large group engagement, campaigns, and specific and attitudinal surveys and feedback. In this chapter, we discuss our engagement with regulatory and industry partners as well as NGOs. We cover specific stakeholder activities that occurred in 2012 in relevant parts of this report. For employees, please see chapter 2.2.3, for customers, chapter 2.2.4, for suppliers, chapter 3.4. Stakeholders are also discussed in relation to defining our key sustainability topics in chapter 1.4.1.

Listening to stakeholders and translating their expectations into business value is an important activity at Nokia. We are an active participant in many industry and sector organizations, not only those specifically concerned with sustainability. This helps us to be better informed about issues and trends and to share our learning with others for the greater good of all. We regularly contribute to working groups and committees of various industry organizations. We also participate in a number of public policy development initiatives around the world in areas that are close to our business, including telecommunications, trade, technology, industry, education and the environment.

We constantly strive to activate new channels concerning the ways in which we meet our existing expectations. At the same time we continue to identify emerging trends. This window into the future is an important part of our ongoing success as it allows us to understand where we can make improvements. To further improve our understanding of our stakeholders’ expectations and to better align our sustainability efforts and reporting with their priorities, we conducted an online stakeholder survey in time for our previous sustainability report. A couple hundred external stakeholders were invited to participate. They represented NGOs, operators, consumers, investors, analysts, media, developers, retailers and governmental authorities, reflecting the whole scope of Nokia’s operations. The survey confirmed the importance of the topics we cover in our reports. Respondents were most interested in our sustainability approach, our practice of design for the environment - including lifecycle assessment, and our substance and materials management.

COLLABORATION WITH POLICYMAKERS

Nokia actively works with governments and other policymakers in the development of meaningful and transparent policies. Some of the key areas where Nokia is involved include requirements regarding waste, chemicals and energy management.

When communicating with policymakers, we typically work through industry associations and sustainability organizations. These include, for example, Digital Europe, Information Technology Industry Council, Global e-Sustainability Initiative, European Roundtable of Industrialists, and Digital Energy and Sustainability Solutions Campaign.

Raw materials and resource efficiency have also emerged as important areas for policymakers, as well as for Nokia. We have been chosen to participate in the European Innovation Partnership on Raw Materials, which aims to:

- Provide Europe with enough flexibility and alternatives in the supply of important raw materials, and
- Mitigate the adverse environmental impacts of applications of certain raw materials during their lifecycle.

Juha Putkiranta, Nokia’s Executive Vice President for Operations, is a member of the High Level Steering Group of this important initiative.
2.2.5 Stakeholder Engagement

Additionally, Nokia has actively contributed to EU Commission pilot projects that aim to assess the applicability of different standards and methodologies for telecommunications products and services. As this is a key requirement for better policy-making, Nokia, together with other relevant stakeholders, has dedicated much effort to developing clear guidance and case examples in order to be able to highlight the key areas for improvement.

**ENVIRONMENTAL IMPACT OF ICT**

During 2012, Nokia, together with Ericsson, Nokia Siemens Networks, TeliaSonera and GSMA, formed a consortium called TENNG. TENNG participated in an EU Commission pilot on the usability of different standards and methodologies for assessing the environmental performance of ICT.

The main results of the TENNG consortium are summarized below:

**COMPATIBILITY:** The standards and methodologies studied are compatible, but the following points need to be taken into account:
- **Complementary:** the standards follow the same principles but give different degrees of freedom to the practitioner in assessing the lifecycle impact.
- **Non-conflicting:** the standards do not conflict with each other and allow a practitioner to come to the same results when using the same assumptions and data sets.
- **Consistent:** The same person using different standards but the same assumptions, same data, etc., is likely to come to the same conclusions. However, two practitioners using the same standards are likely to get different results.

**WORKABILITY:** The standards and methodologies studied are workable at least for the companies in the consortium, though they still present challenges:
- **High and specific level of skills and knowledge required**
- **Large amounts of resources required, both financial and people**
- **Data collection is difficult for highly complex products in a global and highly complicated supply chain.**

**POLICY INITIATIVES:** The standards and methodologies studied can be used as a basis for policy measures that do not require a high degree of accuracy, for example:
- Identification of the key stages in a product’s lifecycle
- High level aggregation of sector environmental data

However, the accuracy achieved is not sufficient to justify their use as a basis for policy measures that influence issues such as market access and competition.

While this may sound very technical and process-oriented, the ultimate goal is to reduce the environmental burden of ICT. When completed, we hope that these tools can be used as the basis for improved impact assessments and policy-making.

More information on our views on Product Lifecycle Assessment (LCA) in chapter 3.1.2 on page 81.
2.2.5 Stakeholder Engagement

COLLABORATION WITH UNIVERSITIES

Nokia’s collaboration with academic institutions is broadly split into two types of activities: the Nokia Research Center (NRC) university collaborations and the Nokia Donations Program.

The NRC focuses on engaging the world’s leading academic institutions in driving global intellectual vision and insight, and building global test beds to learn from broader audiences, thereby multiplying Nokia’s own efforts. In 2012, we had nine strategic partners: Aalto University of Helsinki, University of Tampere and Tampere University of Technology in Finland, University of Cambridge in the United Kingdom, Tsinghua University and Beijing University of Posts and Telecommunications in China, Massachusetts Institute of Technology, University of California, Berkeley, and Stanford University in the United States.

The Nokia Donation Program granted donations to universities in Africa, the Americas, the Asia-Pacific region and Europe. We look for topics that have a high potential in terms of both technology and social impact.

CASE STUDY MLABS

Nokia, together with infoDev (World Bank), continues to implement the ’Creating Sustainable Businesses in the Knowledge Economy’ (CSBKE) program, funded by the Finnish Ministry of Foreign Affairs, in five target countries: Kenya, South Africa, Vietnam, Armenia and Pakistan. The purpose of this program is to strengthen the productive capacity of small and medium enterprises (SMEs) in the agribusiness and ICT sectors in developing countries.

After the inauguration of the first two mLabs in 2011 in Kenya and South Africa, new mLabs were opened in Vietnam and Armenia in 2012. There were also plans to open one in Pakistan last year, however we have faced some challenges in setting it up, and its opening has been delayed.

mLabs focus on supporting innovators and emerging entrepreneurs who develop applications and content with positive socio-economic impact and which expand the reach of mobile innovations to low-income people. The objective is to speed up the narrowing of the digital divide, and to work towards providing access to high-quality content and services for all people around the world.

Nokia collaborates with the mLab in each country by providing in-kind contributions in the form of technical assistance, training material, devices and online tools for the testing laboratories, and mentoring of mobile entrepreneurs. We also help organize developer events and competitions, and we purchase services, such as locally-relevant applications, localized content and potential research projects from the entrepreneurs that the mLabs have incubated.

In addition to the infoDev collaboration to establish mLabs around the world, Nokia has established its own proprietary mobile innovation laboratories in Nigeria and Egypt, and announced plans to expand the network to cover Brazil and Mexico as well. Just like the mLabs, these laboratories provide support for local entrepreneurs and innovators in refining their ideas and in taking them to market.
2.2.5 Stakeholder Engagement

PARTNERING WITH NON-GOVERNMENTAL ORGANIZATIONS
Nokia works with other organizations to help in the ongoing struggle to achieve a more sustainable, equitable world. Our main objective when cooperating with NGOs is to invest in projects that can be self-sustaining, and ones that focus on prevention rather than ones that are reactive in nature. We believe in projects that bring together expertise from all sectors – private, public and civil – to help empower communities and individuals to drive their own development.

Nokia looks beyond traditional NGO cooperation, and seeks projects that bring value to communities and improves the environment with mobile technology.

Nokia’s Global Partnerships
Nokia has local partnerships or one-off projects in most countries where it operates. We also have a number of global partnerships in place with NGOs.

OXFAM
Oxfam is an international confederation of 15 organizations working together to find lasting solutions to poverty and injustice. The aim of our collaboration with them is to help poor people’s voices be heard within their communities and countries, and around the world. We’re also trying to enhance their decision-making abilities by developing tools that address their immediate needs. Our partnership with Oxfam has inspired a range of projects, such as using Nokia Data Gathering for mapping water points in Kenya, to reduce the threat of drought in Eastern Africa, as well as leveraging Oxfam’s expertise in the field for Nokia’s solar charger pilot in Nigeria.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)
Nokia has had an ongoing partnership with UNESCO since 2010. This partnership harnesses mobile technology to support individuals, organizations and governments as they strive to achieve the six goals of the Global Education for All agenda. During the initial phase of this collaboration in 2011-2012, we developed mobile learning policy guidelines for governments, and mobile competence for teachers in Mexico, Senegal, Nigeria and Pakistan.

UNITED NATIONS CHILDREN’S FUND (UNICEF)
Nokia and UNICEF initiated a partnership in 2012 with the goal of improving the understanding of opportunities and risks for young people as digital access increases in many developing countries. Nokia supported two UNICEF initiatives which strengthen digital literacy and cross-cultural interaction skills, while ensuring the optimal and safe use of digital tools by adolescents. These two initiatives are part of Voices of Youth, UNICEF’s flagship digital engagement community for children and young people. The digital revolution has fundamentally changed the way people communicate, offering faster and easier access to services and knowledge, but also opening potential pitfalls in the area of privacy and safety online.

WORLD WIDE FUND FOR NATURE (WWF)
Nokia and WWF have had a global partnership agreement in place since 2003. Our work with WWF aims to further improve our environmental performance, raise environmental awareness, and develop mutually beneficial activities that promote sustainable development.

We support WWF’s extensive conservation work, including projects like the Living Himalayas Network Initiative and Tiger Conservation in the Corbett National Park in India. With the help of WWF, we have also created downloadable content to encourage people to make sustainable choices in their everyday
2.2.5
Stakeholder Engagement

lives. In turn, WWF helps us further improve our environmental performance by, for example, coaching us on reducing our environmental impact in different areas. Our device takeback campaigns in various markets are also organized in cooperation with WWF. At the end of 2012, Nokia’s headquarters in Espoo, Finland, were certified as a WWF Green Office. Within this program Nokia has committed to reducing its carbon dioxide emissions and ecological footprint at this site.

THE INTERNATIONAL UNION FOR CONSERVATION OF NATURE (IUCN)

IUCN helps find and develop workable solutions to the world’s most pressing environmental and development challenges. In 2012, we continued our partnership with IUCN, which works in nature conservation and raising awareness of the importance of biodiversity. Within the partnership we continued to support the SOS (Save Our Species) initiative, and support IUCN’s conservation and climate resilience project in the Indian Himalayas.
2.2.6

As a global company, Nokia has a significant economic impact, both directly and indirectly.
2.2.6 Our Economic Impact

DIRECT ECONOMIC IMPACT

Our direct economic impact to different stakeholder groups is summarized in the table on the following page.

INDIRECT ECONOMIC IMPACT

In addition to our direct impact, Nokia contributes to economic development indirectly in various ways. For example, we contribute through our products, used by over one billion people, by making information gathering and sharing easy, effective and accessible, and enhancing the ability to make real-time decisions. This is useful for creating new business opportunities, expanding market reach and making better tools and skills available to more people across the world. Various examples of how Nokia products help people to improve their livelihoods are described throughout this report.

Our indirect economic impact also includes things like creating business opportunities and jobs along our supply chain, competence development for our employees, and our impact on communities.

Overall, mobile technology facilitates positive change on a scale greater than ever before, and at a time when we need rapid change the most. The links are astonishing. Research shows that GDP increases by 0.6% in emerging markets when ten more mobile phones are added per 100 inhabitants. The impact of increased internet access almost doubles that. The technology industry also has major global role to play in technology transfer and human capital development.

CASE STUDY

One of the topics in global corporate responsibility discussions in 2012 was around the issue of corporate tax payments overall and from the point of view of the countries where companies operate.

Nokia’s direct income tax payments between 2008 and 2012 are listed in the table on the next page. In addition to the direct income tax Nokia also contributes to society in the form of pension contributions, social security contributions, payroll taxes, value-added taxes, sales taxes, customs duties, excise taxes, environmental taxes, and similar duties and fees.

As a good corporate citizen Nokia pays the amount of tax legally due and observes all applicable rules and regulations in each country where it operates. As for the allocation of Nokia Group’s taxable income, i.e. revenue and expenses, across the jurisdictions we operate in, it should be noted that this has been done consistently throughout the years according to the centralized business model Nokia has operated in its mobile device business since the early 1990s. The Finnish parent company, Nokia Corporation, is responsible for all key business risks of our devices business and for funding related global R&D work, marketing and brand development. This in turn means that intangible assets and know-how resulting from these activities are owned by our Finnish parent company.

This also means that our foreign subsidiaries operate mainly at limited risk, and are remunerated by our Finnish parent company for their manufacturing, and contract R&D and marketing activities on an arm’s length basis. Because of this centralized business model, our Finnish parent company earns a proportionally higher portion of the global profit when overall profitability is good. Correspondingly, when overall profitability is lower, a proportionally smaller portion of the profit is recognized in Finland. The profitability of our overseas operations varies proportionally less, but is naturally not immune, for example, to changes in volumes, cost structure or the nature of local Nokia activities.
2.2.6 Our Economic Impact

ECONOMIC IMPACT DATA TABLE (NOKIA GROUP)

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<tbody>
<tr>
<td>Customers</td>
<td>Net sales, EUR million</td>
<td>30,176</td>
<td>38,659</td>
<td>42,446</td>
<td>40,984</td>
<td>50,710</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Total purchases of goods and services, EUR million</td>
<td>21,125</td>
<td>27,572</td>
<td>30,500</td>
<td>29,100</td>
<td>34,600</td>
</tr>
<tr>
<td>Shareholders</td>
<td>Dividends paid, EUR million</td>
<td>755</td>
<td>1,536</td>
<td>1,519</td>
<td>1,546</td>
<td>2,048</td>
</tr>
<tr>
<td>Employees</td>
<td>Wages and benefits, EUR million¹</td>
<td>7,183</td>
<td>7,534</td>
<td>6,995</td>
<td>6,747</td>
<td>6,914</td>
</tr>
<tr>
<td>Creditors</td>
<td>Net financial expenses, EUR million</td>
<td>340</td>
<td>102</td>
<td>285</td>
<td>265</td>
<td>2</td>
</tr>
<tr>
<td>Public Sector</td>
<td>Paid direct income taxes, EUR million²</td>
<td>478</td>
<td>718</td>
<td>905</td>
<td>915</td>
<td>1,780</td>
</tr>
</tbody>
</table>

1) Include termination benefits.
2) This indicator has changed from the previous year when we disclosed the amount of gross taxes during 2007-2011. Previous years’ figures have been restated.

More Nokia and Nokia Group data is available in the Key Data section of this report. Details on our financial performance are published in quarterly interim reports, in our Form 20-F, and Nokia’s Annual Accounts, which are available on our website.
there's just one earth
Nokia has long been a frontrunner in environmental performance, and we continue to lead in this field. We work to find new ways of reducing our impact by reducing emissions and managing waste across our factories, facilities and offices.

On top of these efforts, we help drive positive change by unleashing the potential of mobile technology for good.

In this section, we report on Nokia’s initiatives to minimize potential negative impacts on the environment, as well as the positive contributions that mobile devices can make to the planet.
3.1 A Leading Environmentally-Responsible Product Range

At Nokia, we think every device should be made with the environment in mind. We continuously improve the environmental credentials of all our products, both in the high-end smart device portfolio, as well as in the more affordable feature phone range. We’ve long been a pioneer in phasing out substances of concern from our products. But it doesn’t stop there. We also look at:

- Improving energy-efficiency
- Using renewable materials and smart packaging
- Creating environmental services that encourage people to adopt more sustainable lifestyles.

Effective end-of-life practices close the lifecycle loop, putting energy and valuable materials back into circulation. Our environmental services and applications, together with our environmentally-friendly and energy efficient devices and accessories, can inspire and help people to live more sustainably. Our accomplishments have been recognized by several organizations.

We are proud to produce a highly environmentally-responsible product range.

SHOWCASING ECO INNOVATION

In 2012 we introduced hero eco devices which showcase our widest range of environmental features and innovations. Examples include the Nokia Lumia 820 within the high-end smart devices, and the Nokia Asha 311 in the feature phone end of the spectrum.

We’ve also developed services and applications aimed at improving the ecological footprints of people using our devices.

- The ecologically themed Nokia Climate Mission 3D game comes with eco hero devices. It combines the fun of gaming with the discovery of how to reduce your own ecological footprint and learn about climate change.
- HERE Drive helps put the environment top-of-mind by selecting the most optimum route while driving.
- HERE Transport application offers public transportation route planning, raising awareness of environmentally sound public transportation as a journey option and making it easier to use. Pedestrian navigation and bicycling is made easy with HERE Maps.
3.1.1 Our ‘Design for the Environment’ Process

A dedicated design for the environment (DfE) specialist works actively throughout every product development project at Nokia. During the project, the DfE specialist

- Verifies the implementation of both legal environmental requirements and our own internal voluntary requirements.
- Promotes the most sustainable alternatives for material choices and other design considerations.

Part of the output of the DfE specialist’s work is an eco profile for all Nokia devices, published on www.nokia.com. These profiles contain information on our products’ environmental impact, material use, energy-efficiency, packaging, disassembly and recycling. We have been publishing these profiles (previously known as eco declarations) since 2001.

3.1.2 Product Lifecycle Assessment (LCA)

We take a proactive approach when considering how our activities might impact the environment. Our product creation is guided by lifecycle thinking to minimize environmental impacts across the entire life of a product. We use an externally-audited lifecycle assessment methodology to calculate the environmental impact of our products and processes. We have been conducting lifecycle assessments for a long time. And we’ve been carrying out environmental impact assessments since the mid-1990s.

Lifecycle thinking and assessments help us identify environmental impacts throughout the life of a product - from raw material acquisition to end-of-life. They also help us understand the relative importance of the different activities and stages. From this, we can determine where to focus our efforts to improve the overall environmental performance of our products, which lets us monitor how the performance changes over time.

Over the last decade, we have reduced the greenhouse gas footprint of our phones by up to 50%.

You can read more about our activities regarding developing and evaluating lifecycle assessment standards in chapter 2.2.5 Case Study: Environmental impact of ICT.
3.1.2. Product Lifecycle Assessment (LCA)

LIFECYCLE THINKING AND IMPACT

The lifecycle assessment of a typical Nokia mobile device was first published externally in 2009. Based on these assessments, the greenhouse gas emissions across the entire lifecycle of the device are presented in the diagram below. The amount of energy consumed during the entire lifecycle is around 210 megajoules (MJ), and the total greenhouse gas emissions are 12kg of CO₂e. This is equal to driving 71km in a typical family car. The results of a lifecycle assessment depend on the calculation method, scope and assumptions used, and reflect our understanding at the time of publication.

GREENHOUSE GAS EMISSIONS ACROSS THE ENTIRE LIFECYCLE OF A NOKIA DEVICE

- **54%** OF TOTAL GREENHOUSE GAS EMISSIONS
  - RAW MATERIALS AND COMPONENT MANUFACTURE

- **4%** OF TOTAL GREENHOUSE GAS EMISSIONS
  - OUR OPERATIONS

- **16%** OF TOTAL GREENHOUSE GAS EMISSIONS
  - TRANSPORTATION

- **25%** OF TOTAL GREENHOUSE GAS EMISSIONS
  - USE PHASE OF PRODUCTS

- **1%** OF TOTAL GREENHOUSE GAS EMISSIONS
  - RECYCLE, REUSE AND RECOVERY OF MATERIALS
green thinking in everything we make
3.0 NOKIA & THE PLANET

3.1 NOKIA & THE PLANET

3.1.3

Nokia is an industry leader in substance and materials management. And we’re the first mobile phone manufacturer to fully declare the materials in our mobile devices. Our main objective is to know all the substances in our products, not just those that raise concerns. This way, we can respond swiftly if new concerns arise about the materials we use.
3.1.3 Substance and Materials Management

TAking Extra Precautions to Protect Human Health and the Environment

A lack of scientific proof is not a reason to avoid taking action. Along with meeting the basic regulatory health and environmental requirements, Nokia also follows the precautionary principle. We may, for example, ban a material from our products when we have reasonable grounds for concern over the possibility of severe or irreversible damage to health or to the environment. In such an instance, we may decide to act voluntarily, for example, by substituting substances of concern with safer alternatives, where feasible alternatives are available.

We go beyond current legal compliance, not merely taking it a baseline but as a starting point for further improvement. Our goal is for our devices to contain no substances of concern. We continuously review and update our substance list to comply with any new requirements or restrictions. Moreover, we continuously explore and introduce new environmentally-friendly materials.

Annual Publication of the Substances We Use

Each year, we publish the Nokia Substance List (NSL) in which both the legislative and voluntary material restrictions are documented. The list is available at www.nokia.com/substances. We implement substance and material phase-outs in collaboration with our entire supply chain.

EU ROHS and EU Reach Compliance

All our mobile devices and accessories, worldwide, are compliant with the EU RoHS\(^1\), and all national requirements of the same type as RoHS.

Our approach is that Nokia’s mobile devices and accessories comply with the EU Reach\(^2\). EU Reach compliance requires suppliers to notify recipients of their products if any substance included in the Candidate List of Substances of Very High Concern (SVHC) is present in their product above 0.1% by weight. During December 2012 and January 2013 it was noticed that two different substances that had been added to the Candidate List of SVHC (19.12.2011 and 19.12.2012) were found over the 0.1% limit in three of our older products. The recipients of those products had not been notified before the delivery of those products from Nokia’s storage. As soon as we discovered this, we took immediate corrective action regarding our processes, including notification of the recipients that those products contained the substances in question. Due to the small amount of SVHC substances (below 3 grams altogether) no notification obligations to ECHA\(^3\) were needed. Excluding the incidents described above, our mobile devices and accessories were compliant with the EU Reach during 2012.

Since 2009, all our new products must be free of BFR (brominated flame retardants) and RFR (restricted flame retardants), as defined in the NSL.

USE OF ECO-FRIENDLY MATERIALS

During the last few years, we have been active in introducing new, more sustainable materials into our devices, like bioplastics, bio-paints, recycled metals and recycled plastics. In 2012 we continued on this path, introducing the Nokia Asha 311 and the Nokia Lumia 820. Such innovations in materials help us.

- Reduce our dependency on fossil-based raw materials and the need for virgin metals.
- Use less energy in raw material acquisition.
- Introduce more sustainable industry practices.
### 3.1.3 Substance and Materials Management

#### Nokia’s Phaseouts of Substances of Concern

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<tbody>
<tr>
<td>Restriction of Hazardous Substances (ROHS) Directive</td>
<td>EU RoHS directive requirements introduced to NSL</td>
<td>First EU RoHS compliant product, April 2005</td>
<td>All products RoHS compliant globally, EU RoHS directive came into force on 1 July 2006</td>
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<td>RoHS recast introduced to NSL</td>
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<tr>
<td>Restricted Flame Retardants (RFP) &amp; Other Bromine &amp; Chlorine Compounds</td>
<td></td>
<td>5b203, BFR, CFR restricted for certain product categories</td>
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<tr>
<td>Beryllium Compounds</td>
<td></td>
<td>Beryllium oxide restricted</td>
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<tr>
<td>Polyvinyl Chloride (PVC)</td>
<td></td>
<td>PVC restricted for certain product categories</td>
<td>All products free of PVC</td>
<td></td>
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<tr>
<td>Phthalates</td>
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<td>Phthalates restricted</td>
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<td>PFOSs restricted</td>
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<tr>
<td>Perfluorooctane Sulfonates (PFOS)</td>
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<td>Organic Tin Compounds</td>
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<td>Perfluorooctanoic Acid (PFOA)</td>
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</table>
| Radioactive substances | | | | | | | | | | For all Nokia products, packaging and Nokia internal production processes: Banned in all uses.
3.0 Nokia & The Planet

3.1.4 Packaging

**Toward Sustainable Packaging Materials**

In 2011, we set ourselves a challenging and progressive long-term vision for our packaging material: by 2020, we will use only 100% certified renewable or recycled materials. And by 2015, we’ll achieve this goal for all fiber-based packaging materials, with 70% from recycled fibers. We are currently at 66%. Roughly 97% of our total global packaging materials is fiber-based.

Throughout 2012 we’ve been relentlessly working on, and improving, our material recipes, and by the end of the year a majority of the materials we use in mass volumes already meet our long-term vision.

We’re working with all of our suppliers to get them accredited with the FSC (Forest Stewardship Council) and/or PEFC (Programme for the Endorsement of Forest Certification).

**Retail packaging material used during 2012:**
- **Paper:** 18,875 tonnes; on average 52% recycled
- **Plastic:** including bags and protective foils: 611 tonnes; more than 2.5% recycled, (valid average not known due to missing data)

**Transport packaging material used during 2012:**
- **Paper:** 9,569 tonnes; on average 89% recycled

**Combined retail and transport material used during 2012:**
- **Paper:** 25,444 tonnes; certified virgin material: 20%; not certified virgin material: 14%, recycled material: 66%
- **Plastic:** including bags and protective foils: 611 tonnes; more than 2.5% recycled, (valid average not known due to missing data)

**Years of Packaging Optimization**

For years, we’ve been working on reducing the sizes of our product packaging. Not only are we designing packages with fewer and lighter parts, but the contents of the packages are getting smaller and lighter as well. Smaller chargers, shorter user manuals and fewer language variants per package, fewer components in the average box, and tighter wrapping of cabled accessories all allow for smaller packages. Opportunities for further reductions in the sizes of our packages are increasingly harder to find. These days, our Packaging Design team focuses on maintaining the efficiencies we’ve already achieved, and on sourcing truly sustainable materials.

Nokia’s packaging portfolio is closely tied to the product portfolio. The majority of our devices are feature phones shipped in highly-optimized packaging, in terms of both choice of material and size. But even in the packaging for our smart devices - where competitive pressures require a more ‘premium’ presentation - we use the best, most sustainable materials we can.

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**Total Packaging Material Usage**

3.1.5

When our products can no longer be used, they should be taken for responsible recycling, where the materials they contain can be recovered and used for new products.
3.1.5 Takeback and Recycling

We build our recycling programs by identifying safe and reliable recyclers, developing the infrastructure for reverse logistics, offering a variety of our own takeback options, and partnering with others to increase our capacity. In addition, people also return products for recycling through many other channels, for example national collection schemes, refurbishment and second-hand sales, mobile operators, and other collection schemes.

Nokia takes part in collective recycling schemes with other equipment manufacturers in Europe, Canada, China and Australia. We engage in local recycling programs with retailers, operators, other manufacturers, and authorities around the world. Our takeback and recycling programs continue to expand into new markets, assuring that mobile devices end up in environmentally-safe recycling processes.

We measure the success of our takeback and recycling efforts by the number of countries covered, and the weight of mobile devices and accessories recycled.

During 2012, Nokia ran recycling campaigns in over 20 countries, partnering with mobile operators, retailers, universities and schools. We offered mail-in recycling programs in five countries, and participated in national recycling programs in 30 countries.

During the year we collected 431 tonnes of used mobile phones, batteries and accessories through our own campaigns and recycling channels. Collection needs to be taken close to the consumer and made easy, and so we’re expanding our reach through new cooperations.

CASE STUDY

RECYCLING CAMPAIGN HIGHLIGHTS

Nokia runs campaigns all around the world to encourage mobile phone recycling and raise awareness of takeback schemes. In many of these campaigns we partner with the World Wildlife Fund for Nature (WWF) to support particular conservation or environmental programs in various countries.

RECYCLE A PHONE TO ADOPT A TREE IN VIETNAM

Nokia and WWF joined forces in Vietnam to replant mangrove trees to preserve mangrove forests. The project involves the building of a nursery and the preparations of the first 15,000 mangrove seedlings for planting. It also included training for local farmers on producing and sowing the seeds, and information on the importance of the mangrove forests. At least 23,000 mangrove trees will be planted in the first two years of the project, which supports all public takeback and recycling activities in Vietnam under the theme ‘Recycle A Phone. Adopt A Tree.’

MARINE TURTLE SWIMMING RACE TO RAISE AWARENESS OF WILDLIFE CONSERVATION IN THE PERSIAN GULF

Marine turtle populations around the globe are threatened with extinction, as they have been heavily over-harvested and their habitats have been increasingly destroyed by humans. Compounded by increased coastal development, urbanization and industrialization, the global population of marine turtles is in decline. Measures are urgently needed to safeguard the few remaining turtle nesting, feeding and breeding sites, as well as their migratory pathways.

Nokia joined the Marine Turtle Conservation Project organized by the Emirates Wildlife Society (EWS) in association with WWF, to sponsor three tagged endangered Hawksbill turtles in the Great Gulf Turtle Race of 2012. In this symbolic race, the turtles were “competing” for the titles of most popular and furthest-traveled turtles, and on the side contributed to raising awareness of their plight within the wider audience in the Gulf region.
3.0 Nokia & the Planet

3.1.5 Takeback and Recycling

RAISING AWARENESS AND CREATING A RECYCLING CULTURE

Nokia continues to work toward creating a recycling culture in every country we operate in. We want to achieve this not just by raising awareness with our own customers, but also by working together with authorities, recyclers and other stakeholders to support national solutions. We know from experience that developing a solid foundation that supports a wider set of recycling behaviors will result in more mobile phone recycling.

Steady progress has been made to establish and develop a national legislative framework in various countries to support responsible recycling practices and collect and treat all electronic waste from households. This is a big step toward making e-waste recycling the rule, not the exception.

Within the European Union, Nokia has actively participated in the update of the Waste Electrical and Electronic Equipment (WEEE) directive. Since 2005, the WEEE directive has required EU member states to set up collection systems for waste from household electrical and electronic equipment. The various schemes managing this collection and recycling are operated and financed by the equipment producers. Municipal collections, specified waste management sites, and shops selling equipment manage most of the collection. The update was approved in 2012 and sets even more ambitious collection targets. In the EU context, a challenge for reaching higher collection targets is leakage, that is waste equipment that isn’t monitored by existing national collection channels. Leakage occurs because much of household electronic waste still has value at the time of disposal, and is sold for second-hand use (often abroad) or for recovery of its components after collection.

Similar legislation for e-waste collection is in force in many other countries around the world, and more discussions and developments have started. We have participated in these discussions, including in India, China, Kenya, Peru and Thailand just to name a few.

MANAGING OUR RECYCLING NETWORK

Though collection is the more visible part of our efforts, getting the recycling process right is equally important. We’ve been working with recyclers for over ten years to ensure that our selection and requirements management process is world-class, and to get the most accurate information on developments in recycling processes. We work globally with a select number of recyclers, and assess their processes with respect to both environmental and social requirements.

Our biggest challenge during 2012 was to expand good recycling practices within Africa. This work continues, but progress is being made, and the issue of e-waste is gaining more interest from local governments as well.

Nokia participated in the E-waste Academy in Ghana in the summer of 2012 to contribute to global collaboration on identifying local solutions to the e-waste problem. www.step-initiative.org
3.2

Traditionally, environmental activities have focused on minimizing the environmental impact of business operations. Today, we’re also looking at how using Nokia products can have a net positive impact, by offering our customers devices and services that promote sustainable living and help them reduce their environmental footprint. We’re doing this by:

- Developing services that help people reduce their daily environmental impact, in particular in transport.
- Creating awareness and coaching people through applications and ‘games for good’.
- Developing functionally-rich smartphones that can replace several other products.
- Helping to save energy with energy-efficient solutions and by utilizing renewable energy.
3.2.1 Enabling Sustainable Lifestyle

DEVELOPING SERVICES THAT HELP PEOPLE REDUCE THEIR DAILY ENVIRONMENTAL IMPACT, IN PARTICULAR IN TRANSPORTATION

People take their mobile phones everywhere. They’ve become an indispensible part of life today. The latest advances in both smartphones and feature phones can help people better see the world around them, and their place in it. And at Nokia, we see an opportunity to help people become more aware of the footprint they’re leaving. And even change it.

In 2012, Nokia participated in the preparation of the SMARTer 2020 report, undertaken by the Global e-Sustainability Initiative (GeSI). The report identifies the role of ICT in driving a sustainable future and decreasing global greenhouse gas emissions. According to the report, ICT offers the potential to help people reduce their greenhouse gas emissions by 16.5%, an amount seven times the size of the ICT sectors’ own carbon footprint - a fact that has been under-estimated until now.

At Nokia, we see the largest potential for helping people reduce their carbon emissions in the area of transportation. The SMARTer 2020 report identifies a number of applications and technologies that can help, including real-time traffic alerts and assistance in using alternative modes of transportation. The potential for emissions abatement is estimated to be about 25 times the total global emissions from mobile devices.

Nokia’s suite of location applications - HERE Transport, HERE Maps and HERE Drive - help people optimize their travel, thereby reducing emissions. HERE Transport makes using public transportation easier, offering route planning in hundreds of cities around the world. HERE Maps and HERE Drive help people in cars plot the most optimal route to their destination, making it possible to cut down on travel time and carbon emissions.

CREATING AWARENESS AND COACHING PEOPLE THROUGH APPLICATIONS AND ‘GAMES FOR GOOD’

GAMES FOR GOOD

Games are by far the most downloaded applications. They’re powerful tools for drawing attention to an important topic like sustainability. Indirectly, in the course of play, they can both raise awareness and teach new skills that gamers can use in their daily lives.

Several years ago, Nokia created the Climate Mission mobile game to show how climate change proceeds and how it can be mitigated. Since its introduction, we’ve developed further versions for different platforms. During 2012, Nokia launched Climate Mission 3D for Nokia Lumia phones. Since its launch, it’s been among the top downloads for Lumia devices in the Windows Phone Store, and has received very good reviews from players.

DEVELOPER ACTIVATION

In 2012 we started systematically harnessing developer creativity towards applications for sustainability. We arranged the first Nokia Do Good Hackathon in Helsinki in October. The event gathered ten international teams for 25 hours to explore ways to use mobile technology to help make the world a better place. Participants produced remarkable demos. The winner was enrolled in the AppCampus program, which will help build a working application that will be available in the Windows Phone Store. We plan to organize additional Nokia Do Good Hackathons during 2013.
Replacing Several Products with One Smartphone

**CASE STUDY**  
**SMALL CHANGES ADD UP TO BIG DIFFERENCES**

Using the full capabilities of today’s mobile devices can significantly reduce CO₂ emissions.

If only 10% of the over one billion people using Nokia devices used their mobile phone instead of buying a separate music player, camera, video camera, PC, fixed-line phone and car navigator, there would be a reduction of about 73 million tonnes of CO₂ emissions each year. That’s equal to the emissions of flying 15 million people once around the world. A recent study shows that many people have already done this:

- 17% have replaced their car navigator
- 12% have replaced their music player
- 7% have replaced their camera
- 6% have replaced their video camera
- 3% have replaced their game console

This means that the 1,454 people who participated in the study have saved over 43,000 kg of CO₂ emissions.

Nokia provides excellent solutions for these, most notably the PureView camera technology, with impressive results even in low-light conditions, as well as HERE Drive for in-car navigation.

**USING MOBILE DEVICE TO AVOID UNNECESSARY BUSINESS TRAVEL**

If only 1% of people using Nokia devices used their mobile phone for a meeting instead of traveling there by plane, even once a year, there would be a reduction of about 8.8 million tonnes of CO₂ emissions.

This roughly equals the average fossil fuel-based emissions of two million people in one year.

**USING MOBILE DEVICES TO WORK REMOTELY**

If only 10% of people using Nokia devices used their mobile phone to work remotely once a week instead of driving to work, there would be a reduction of about 62 million tonnes of CO₂ emissions each year.

This is more than the annual fossil fuel-based emissions of countries like Portugal, Colombia or Nigeria.

**USING MOBILE DEVICES FOR IN-CAR NAVIGATION**

Several studies show that using car navigation services can result in fuel savings of 5% to 15%. The NAVTEQ Navigation Benefits Study (2009) showed that, with regular use, people actually drive shorter distances and spend less time driving. As a result, fuel efficiency increased by 12% and saved about 375 liters of fuel, a reduction of close to one tonne of CO₂ emissions annually. People also drove nearly 2,500 km less, which would save 1.19 million tires in Germany alone.

If 10% of people using Nokia devices reduced their driving-related CO₂ emissions by 5% with the help of navigation, that would result in a reduction of CO₂ emissions of over 22 million tonnes per year. This equals the annual CO₂ emissions of about 6.5 million cars.
Replacing Several Products with One Smartphone

Helping consumers reduce their CO2 emissions

One of the key ways Nokia can make a positive impact through our core technologies is by helping consumers reduce their own carbon footprints. Assume, for example, that just 10% of the people using Nokia devices would do the following with Nokia devices and services for one year:

- Use their mobile device for attending a meeting once instead of traveling to the meeting by plane.
- Use their mobile device to work remotely once a week instead of driving to work.
- Use their mobile device instead of buying a separate music player, camera, video camera, PC, fixed line telephone and in-car navigator.

The combined impact of these actions could reduce global CO2 emissions by over 220 million tonnes. That represents nearly the same amount as the annual fossil fuel-based CO2 emissions of the countries of Sweden, Chile, and Vietnam combined.

BROWSE THE INTERNET USING YOUR MOBILE DEVICE

With the same amount of energy used for one Facebook status update with a desktop computer, you can post over 100 updates with your mobile.

If 10% of the over 1 billion people using Nokia devices used their mobile instead of their desktop computer for internet surfing half an hour a day, we could avoid over 1.9 million tonnes of CO2 emissions per year.

This equals the annual greenhouse gas emissions of around 374,000 cars.

USING MOBILE DEVICES FOR VIDEO CALLS

With the same amount of energy used for a ten minute webcam conversation using a desktop computer and large LCD screen, you can have a mobile video call for over 18 hours.

And with a mobile, you can have your video call wherever you want.
3.2.2 Helping Save Energy with Energy-Efficient Solutions

We are also continuously improving the energy-saving features throughout our product portfolio, including energy-efficient chargers, to help our customers save energy. With over a billion people using Nokia phones around the world, small steps like these make a really big difference. In addition to our work on the energy-efficiency of our chargers, Nokia was the first mobile manufacturer, already in 2007, to put alerts into mobile phones to remind people to unplug their chargers once their phones were fully charged. We’ve also introduced features to reduce the energy use of our devices. All our devices come with power-saving standby settings, and our Lumia smartphones have a battery-saving feature. Browsing the internet and making video calls is more energy-efficient with a mobile device, compared to a laptop or desktop computer.

HOW TO REDUCE THE ENERGY YOUR HANDSET USES

- **REDUCE BACKLIGHT BRIGHTNESS**
- **SWITCH OFF UNUSED APPS**
- **REDUCE BROWSER UPDATE INTERVAL**
- **REDUCE EMAIL UPDATE INTERVAL**
- **TURN OFF WI-FI WHEN NOT IN USE**
- **TURN OFF BLUETOOTH WHEN NOT IN USE**
3.2.2 Helping Save Energy with Energy-Efficient Solutions

ENERGY-EFFICIENT CHARGERS

At the end of 2008, Nokia, together with other manufacturers, created and began using a Mobile Device Charger Energy Rating. The rating is based on the charger’s no-load energy consumption. This is the amount of energy a charger will continue to consume if it’s not unplugged from the outlet after the phone is fully charged. The rating is displayed on a unique label, which is featured in the product’s eco profiles and on the packaging of our AC-charger products.

Over the last decade, we have reduced the no-load consumption of our chargers by over 73%, and in our best-in-class chargers by over 90%. During 2012, we introduced two new energy-efficient USB chargers, the AC-20 and AC-50, to expand the USB charger offering. Today, all new Nokia devices are being shipped with four- or five-star chargers.

Although we have moved to more energy-efficient chargers in lower price points, we did not fully meet our reduction target for 2012. Our target for the average no-load was 0.07W and we reached 0.098W which is a reduction of 13% from last year. The charger no-load power consumption values are calculated as volume weighted average charger no-load power consumption for phone products per year.

SOLAR CHARGERS

In 2011 we conducted a study on the integration of a solar panel to the backside of a basic mobile phone. The key finding of that study was that the panel should be larger than the size of the phone itself.

Based on this, we developed the Nokia Portable Solar Charger DC-40. This charger uses a thin film panel, and can provide energy for two minutes of talk time with just one minute of charging.

Development of the Nokia Portable Solar Charger DC-40 is driven mainly by the need to provide a way of charging for those people who don’t have access to an electricity grid. We piloted the charger in Kenya and Nigeria, where only 16% and 51% of the respective populations of those countries have access to electricity, according to a World Bank report.

Thousands of people in Nigeria and Kenya participated in the pilot. We’ll be studying the results carefully to determine the business potential, usage patterns, and environmental and social impacts, and whether it can be put into full commercial production.
3.3 OUR ENVIRONMENTAL IMPACT

3.3.1 CLIMATE TARGETS
3.3.2 ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)
3.3.3 GREEN OPERATIONS AND FACILITIES
3.4 NOKIA AND SUPPLIERS

4.0 INDEPENDENT ASSURANCE

5.0 GLOBAL REPORTING INITIATIVE

6.0 NOKIA KEY DATA
6.2 NOKIA GROUP KEY DATA
3.3.1 Climate Targets

MINIMIZING GREENHOUSE GAS EMISSIONS

Nokia is not an energy-intensive company. Most of the greenhouse gas emissions occur in component manufacturing by our suppliers or in the usage of our products. We want to show leadership in this area. We do that by reducing our own energy consumption and greenhouse gas emissions, and by taking responsibility in raising awareness and promoting best practices in our value chain and industry.

Our climate work addresses the energy consumption and greenhouse gas emissions of our products and operations. We set energy and greenhouse gas emission reduction targets for the most important activities that contribute to our direct and indirect greenhouse gas emissions. We created our first climate strategy in 2006, revised it in 2010. In 2012, we started developing new, longer-term reduction targets, concentrating on:

- Products
- Manufacturing, facilities and ways of working
- Logistics and suppliers
- Helping our customers to decrease their own greenhouse gas footprint

According to the SMARTer2020 report, which identifies the role of ICT in driving a sustainable future and decreasing global greenhouse gas emissions, the ICT sector has the potential to help others decrease their emissions by seven times the size of its own carbon footprint. With 1.3 billion people using our devices, we’re in a unique position to effect positive environmental change. That’s why we aim to help people who use Nokia phones to reduce their greenhouse gas emissions several times more than is caused during the lifecycle of their devices. The main activity areas are:

- Develop applications for sustainable lifestyle and services that replace physical products
- Develop mobile devices that help replace other products
- Help save energy with energy-efficient solutions

Over the years, we have reduced the environmental impact of our products significantly. The greenhouse gas footprint of our phones declined by up to 50% between 2000 and 2010. We’ve also introduced new features and capabilities that allow our devices to be used in various new ways.

The targets we have set for specific areas of the device lifecycle are listed below.

PRODUCTS

- Continue our efforts to reach the average no-load consumption of 0.07W in our chargers. In 2012 we reached 0.098W, which is a reduction of 13% from the previous year.
- Develop solutions that enhance the energy-efficiency of our products, and continue to study new technologies which will use renewable energy.

MANUFACTURING AND OUR FACILITIES

- Reduce greenhouse gas emissions in our offices, R&D sites and manufacturing facilities by a minimum of 30% by 2020 (2006 baseline)
- Reduce CO2 emissions per person working at Nokia offices and R&D sites by 20% by the end of 2013, and 28% by the end of 2015 (2006 baseline)
- Reduce energy used in production by 10% per unit produced by the end of 2013, and 15% by the end of 2015 (second half of 2010 - first half of 2011 baseline)
3.3.1
Climate Targets

- All laptops, desktop computers, workstations and monitors purchased by Nokia to have Energy Star or Electronic Product Environmental Assessment Tool (EPEAT) Gold or Silver rating.
- In addition to studying ways to increase our onsite renewable energy production, our intention is to maintain our purchase of renewable energy via grid and renewable energy certificates at least at the current level of 35-40%. Opportunities to increase the use of clean energy depend to large extent on the energy production structure of the countries where we operate. Nokia has made efforts to purchase renewable energy wherever available, but the slow development of renewable energy markets in some of the countries in which we operate continues to be a challenge.

WAYS OF WORKING

- Maintain annual air travel-related CO₂ emissions, both total and per employee, significantly below 2008 levels by limiting unnecessary travel and providing alternatives such as videoconferencing
- Renew the Nokia remote working framework and increase the number of countries where public transport options are offered for employees, and car lease policies are tied to lower emissions limits

LOGISTICS

- Reduce CO₂ emissions from logistics per product sold by 5% by the end of 2013 and 15% by the end of 2015 (2010 baseline)

SUPPLIERS

We’ve been using lifecycle assessment calculations for years to quantify the upstream indirect emissions taking place in our supply chain. These calculations indicate that around 50% of the energy consumption and greenhouse gas emissions a Nokia product generates occur in the supply chain before the components reach our factories. Since 2007, we have been working closely with our suppliers to estimate, and reduce this impact.

In the future, our goal is to drive impact reductions even further, to enable a longer-run positive impact. In the coming years our efforts will focus on:

- Establishing a baseline for the impact of Nokia’s first tier supply chain (hardware and mechanics suppliers) in accordance with GHG Scope 3, and based on high-quality primary data. This will help us to set a holistic reduction target across this tier.
- Driving significant emission reductions with suppliers of key component or high impact areas (for example with integrated circuit, printed wired board and flex printed circuit suppliers). The reduction target percentages will be component-type specific and developed in close collaboration with our suppliers.
- Go beyond the first tier
- Working with our data centers and cloud service suppliers on a continuous improvement of the energy-efficiency and transparency of energy and emissions reporting of these services. This is particularly important as our internet presence continues to grow.
3.3.1 Climate Targets

A CHALLENGING YEAR MATCHING WORKSPACE WITH REDUCING AMOUNT OF PERSONNEL TURNED OUR METRIC TO THE WRONG DIRECTION

<table>
<thead>
<tr>
<th>Year</th>
<th>CO2e/office persons</th>
<th>Target for end 2012</th>
<th>Target for end 2013</th>
<th>Target for end 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2.50</td>
<td>2.00</td>
<td>1.50</td>
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<tr>
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<tr>
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<td>0.00</td>
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<tr>
<td>2009</td>
<td>1.00</td>
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</tbody>
</table>

ON TRACK TOWARDS OUR FACILITIES 2020 GHG REDUCTION

<table>
<thead>
<tr>
<th>Year</th>
<th>CO2e Emissions, Net</th>
<th>CO2e Emissions, Gross</th>
<th>Target 2010, Net (-18%)</th>
<th>Target 2020, Net (-30%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>350,000</td>
<td>350,000</td>
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<td>2015</td>
<td>0</td>
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</tr>
</tbody>
</table>
3.3.2 Environmental Management Systems

Our environmental management system (EMS) is an integral part of our overall global management structure. Its goal is to improve our environmental performance, focusing on energy-efficiency, waste management, water management and air emissions. The international ISO 14001 standard has been the foundation for our certified EMS for more than 15 years. It covers all of our manufacturing facilities.

In accordance with the ISO 14001 standard, we require a certified EMS from our contract manufacturers, and a certified EMS from all of our direct suppliers.

Our EMS is integrated with our quality management system. We use our overall management processes to address both issues in our production. We have set global guidance and reporting to follow up on these agreed activities.

AUDITING OUR EMS

To ensure we continuously improve and maintain our EMS, we run ISO 14001 audits through external auditing organizations. In previous years Det Norske Veritas has conducted the auditing. In 2012, we changed our certification partner to TÜV SÜD.

Our research and development is audited against the ISO 9001 standard; factories are audited against the ISO 9001:2008 and ISO 14001:2004 standards.

About 50% of our factories are audited each year. During 2012, our Manaus, Masan and Reynosa factories were audited.

Our global management process is audited every year. Nokia Corporation’s ISO 14001 certificate was renewed on January 4th, 2012 for the next three-year period.

SETTING TARGETS AT OUR FactORIES

We’re working to reduce our environmental impact by setting global and local targets at our factories. We verify improvements to our processes through internal assessments and external verifications. Any deviations are followed up, corrected and monitored until they are resolved.

Our main environmental focus areas at our factories are:

- Increasing the energy-efficiency of our production processes and factory premises
- Reducing CO₂ emissions
- Improving material management, thereby reducing waste
- Decreasing water usage
- Monitoring proper waste water treatment
- Optimizing the use of production and maintenance chemicals with respect to emissions, such as volatile organic compounds
3.3.2 Environmental Management Systems

ENERGY USED IN PRODUCTION AND UTILIZATION OF WASTE

Achieving these targets was helped by awareness raising campaigns, such as:

EMS REQUIREMENTS FOR SUPPLIERS

We require our suppliers to have an EMS in place. Already in 2011, 91% of our direct hardware suppliers’ sites which serve Nokia were certified to the ISO 14001 standard. Nokia’s direct hardware suppliers have maintained a high level of certification since 2008. Read more about our progress on ‘Nokia Supplier Requirements’ in chapter 3.4.1.

CONTINUING TO MANAGE OUR OFFICE SITES

We have combined all of our large office sites under one internally-verified EMS. In our offices we concentrate on workplace solutions and building infrastructure. In 2012, the system covered more than 75% of our total office and R&D areas.

CASE STUDY

REDUCE, REUSE, RECYCLE

On your marks... Get set... Reduce, reuse, recycle!

One of the key targets for Nokia factories in 2012 was reducing the amount of waste sent to landfills, and we wanted to raise awareness of this target by encouraging our production employees to adopt the ‘three R principle’ - reduce, reuse, recycle.

The symbol of the campaign was the ‘green torch’, a wooden baton with the words reduce, reuse, recycle engraved on its sides, which traveled around the world from one Nokia factory to the next. The campaign was kicked off and the torch sent on its way at the Nokia head office in Finland in September 2012. Its journey continued to the Reynosa factory in Mexico, back to Europe again to the Komarom factory in Hungary, and on again to Dongguan in China.

Some of the events organized at the production facilities as part of the campaign were competitive recycling of various types of waste, and target throwing with recycling materials.

This was a fun way of combining the building of team spirit and highlighting the importance and ease of recycling among production employees.
we can do more with less
3.3.3 Green Operations and Facilities

ENERGY EFFICIENCY AND EMISSIONS

Although Nokia is not part of an energy-intensive industry, our operations do have an environmental impact through energy consumption and the resulting emissions. We continuously work to reduce and control our environmental footprint.

[Graph showing total facilities energy consumption decreased by 14% over years]
3.3.3 Green Operations and Facilities

GREENHOUSE GAS EMISSIONS AT OUR FACILITIES

In 2012, we occupied more than 450 facilities around the world, including nine production sites. About 20% of these buildings result in 90% of the total environmental impact, so these sites are where we focus on improving our performance. Our approach involves a combination of standards, local energy-efficiency initiatives, and new ways of thinking about how we can use space effectively.

In 2012, the energy we used at our facilities resulted in 10,600 tonnes of gross direct and 224,800 tonnes of gross indirect greenhouse gas (CO\(_2\)e) emissions. Direct energy involves our use of gas and oil while indirect energy involves our use of electricity, district heating and district cooling. Our purchase of certified green energy reduced our indirect emissions by 53,100 tonnes. Our net emissions were 171,700 tonnes.

Compared to 2011, CO\(_2\) emissions from our facilities decreased by 14%, and compared with 2006, the base year level, emissions decreased by 29%. We achieved these reductions through the energy-efficiency measures at our buildings, and through the purchase of renewable energy. Lower production volumes and headcount reductions influenced the result. We estimate that 20% of the emissions reduction from 2011 levels was achieved through our new facility energy savings, which were around 9,000 MWh. We estimate that these investments and optimizations in technical systems have helped us save around €700,000. Added together, our energy savings between 2007 and 2012 have been more than 74,000 MWh.

Our methodology for calculating CO\(_2\) emissions from our operations was validated in 2008, and since then the annual results have been verified by a third party.
3.3.3 Green Operations and Facilities

**Reducing Energy Consumption at Our Factories**

We reduced the total energy consumption of our factories by 45,900 MWh last year, which is 16% lower than 2011. In addition to our total energy consumption, we also track energy consumption in relation to our production volumes and completed energy-efficiency investments, in order to better assess the impact of our actions.

During 2012, we invested in roof deck insulation at our Reynosa factory and lighting improvements at our Dongguan and Beijing factories. We implemented compressed air leak prevention programs throughout our factories.

In 2008, we set an energy-saving target for our factories to achieve energy savings of 5% per manufacturing unit annually until the end of 2012. During the past five years we have implemented a manufacturing improvement project at our factories, which has focused on smart energy consumption.

In 2007-2008 we conducted energy audits at all of our factories. These audits resulted in various energy improvements, including investments in air conditioning, lighting and building management systems. During 2009 and 2010, we met our target to maintain our total energy consumption at the same level despite increased production volumes. In 2010 we changed the production process radically, which resulted in a change in the calculation of our performance metrics. Despite this, we were able to commit to the existing energy reduction target.

In 2012, our biggest challenge was to optimize the energy usage needed for our factory buildings, as the production processes themselves consume only around a third of our factories’ total electricity usage. Air conditioning accounts for our largest energy consumption activity, followed by production line consumption, lighting, and generating compressed air. Despite our daily energy management and completed investments, we were not able to reduce energy usage to align with our decreased production volumes. Because of this, we did not meet our reduction target in 2012. Instead, we had a per unit increase of 16%.
3.3.3 Green Operations and Facilities

Energy-efficiency is one of our key environmental goals. We continue to monitor the per unit energy consumption at our factories. We have extended our target until 2015, and are now committed to achieving a 15% reduction of factory energy consumption per unit, from 2010 levels. This is not quite as challenging as our previous five year target, but we have already achieved all of the easy wins. In addition to investments in improving the lighting and air conditioning systems at our factories, our focus lies on improving our energy management and monitoring, as we see data gathering on a more detailed level as key to success.

ENERGY-EFFICIENCY IN OUR OFFICES

Since 2007, we have included LEED (Leadership in Energy and Environmental Design) Gold level certification in the specifications of our key real estate projects for both new constructions and major renovations. Our aim is to have energy-efficient solutions in use at all of our premises and in the design of all building projects. In 2012 we achieved LEED Gold certification for our office refurbishments project in Chennai, India.

In addition to our own certification projects, we also prefer to lease space that is certified to be green. Our new Berlin office and R&D site has LEED Gold certification, our new London office has BREEM (Building Research Establishment Environmental Assessment Method) Excellent certification. Furthermore, our sustainable practices and processes at our head office in Espoo, Finland has earned Green Office certification from WWF. (See page 108 for details.)

Altogether, 32% of our total office and R&D space was LEED Gold, BREEM Excellent or WWF Green Office certified by the end of 2012, around 90% of which was certified at Nokia’s initiative. During 2012, we continued work on our three year emissions reduction roadmaps for our larger office and R&D premises. We replaced more fluorescent lighting with LED lighting at our Beijing site and one of our London offices.

In Finland, we have been implementing low- and no-cost energy savings for years. As well, our mobile office concept helps us utilize office space more effectively, thereby reducing our per occupant energy usage.

In 2012, we developed a holistic, long-term facility maintenance plan covering all of our Finnish sites, identifying dozens of activities. Proposals range from equipment replacement to smart space management and increased building automation. During 2013, we will prioritize these activities based on a lifecycle costing model.

Despite these initiatives, our CO2 emissions from offices and R&D premises, measured as CO2 per person, were 4% higher in 2012 than in our 2006 base year. This is due to various challenges caused by employee layoffs, including an increase in the number of vacant workspaces in buildings that still consumed the same levels of energy. We will slowly regain normal efficiencies once we’ve renegotiated leases and subleased unused space.

USING ENERGY-EFFICIENT OFFICE HARDWARE

We take the energy-efficiency of IT equipment into account during procurement. All laptops, desktop computers, workstations and monitors purchased by Nokia must have Energy Star or Electronic Product Environmental Assessment Tool (EPEAT) Gold or Silver rating.
3.3.3 Green Operations and Facilities

ENERGY CONSUMPTION OF OUR DATA CENTERS

As we deliver more applications and services to people around the world, our internet presence increases and, as a result, so too does our total energy consumption. We are focused on ensuring that we continue to be as efficient as possible in our energy consumption. It will require ongoing effort to balance our business performance with the resulting carbon impact.

GREEN ENERGY

In 2012, we generated 2,500 MWh of renewable electricity onsite, and bought 165,800 MWh of renewable electricity certificates, lifting our total renewable electricity share to an all-time high of 41%. We have fuel cells in California and biogas in Chennai. We bought renewable electricity certificates for 100% of our consumption in the United States (Green-e wind), Canada (Clean Source wind), Finland, as well as at our Komarom factory in Hungary and the big offices and R&D sites in Germany (RES-E Guarantee of Origin hydro power and biomass). What’s more, we covered a quarter of our consumption in Sydney and Brisbane, Australia with GreenPower.

Going forward, we are looking into ways of increase our onsite renewable energy production. In addition to this, we will continue to maintain the purchase of renewable energy via grid and renewable energy certificates, at least at the current level of 35-40%. Opportunities to increase the use of clean energy depend to a large extent on the energy production structure of the countries where we operate. National carbon accounting rules may change how companies’ CO₂ reporting develops in the future. Based on today’s knowledge we continue to purchase renewable energy while the slow development of renewable energy markets in some countries continues to be a challenge.

CASE STUDY

WWF GREEN OFFICE CERTIFICATION

We started to work towards Green Office certification with WWF Finland in May 2012, and achieved the certification for our head office in Espoo already in December 2012.

The aim of the program is to reduce carbon dioxide emissions and the ecological footprint of offices. New actions introduced at the head office in Espoo in 2012 include giving employees a chance to grow their own vegetables in a rooftop garden and adding easy-to-use videoconferencing equipment to large meeting rooms, in addition to the videoconferencing facilities we have been using since 2008. At the end of the year we introduced durable plastic coffee mugs to replace our annual consumption of around half a million disposable cups.

The WWF has verified our existing environmental management systems in this office. Our plan is to continue with energy saving actions, recycling, and a number of other inspiring improvements, to continue to engage employees to do their bit towards a greener office environment.

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3.3.3 Green Operations and Facilities

GREEN LOGISTICS

We estimate that our logistics activities represent 16% of the total energy consumption of one of our mobile devices during its lifecycle. This includes transportation from component manufacturers to Nokia sites (inbound), transportation of finished products from Nokia manufacturing sites to customers (outbound), as well as logistics activities for repair, reuse and recycling. As logistics operations are conducted by third-party operators, the greenhouse gas emissions from logistics belong to Greenhouse Gas scope 3, i.e. indirect impact for Nokia. Our approach to green logistics has two parts: measuring and minimizing. We collect data from our logistics providers, though this is a challenge because of the lack of standardization for measuring greenhouse gas emissions in the logistics industry. The interconnected, extensive reach of the logistics network also complicates efforts by individual service providers to measure their own emissions.

PROGRESS IN DEVELOPING GREEN LOGISTICS

Since 2011, we have been focusing on improving the quality of our logistics data. Much work with our logistics service providers has gone into refining our data collection process, and internally integrating emissions into existing logistics processes. This will fully align with the anticipated greenhouse gas protocol for Scope 3 emissions.

In 2012 we were already at full speed, and logistics service providers now provide us with their CO2 emissions figures per shipment on a monthly basis. These figures are now embedded into existing logistics processes and reporting, a significant step towards more reliable data and the full traceability of figures. Given the extensive size of our network, data quality continues to be a challenge that we are working on.

We’re also working on ways to streamline logistics and reduce our impact through packaging efficiency, in-transport packaging efficiency, alternative transportation modes and engagement with our operator customers. We aim to use ocean transport
3.3.3 Green Operations and Facilities

Instead of air whenever possible, taking into account the need to protect quality and ensure availability. In general, we achieve an estimated 80% reduction in CO2 emissions when shifting transportation from air to ocean. In 2012, ocean transportation represented about 17% (in weight). We have also transferred transportation from air to road for internal shipping in Asia, reducing CO2 emission levels there. In some areas, our logistics service providers are minimizing their environmental impact by consolidating inbound shipments into large containers.

In customer logistics we have been focusing on optimizing order sizes and loose carton management to avoid shipping incomplete pallets. In addition, by making pallets higher we ensure the efficient use of space in air shipments. All of these actions reduce our CO2 emissions from transportation.

Data on our logistics-related CO2 emissions can be found in the Nokia Key Data table at the end of this report.

AIR TRAVEL

Since 2008, Nokia has taken a stricter approach to business travel. Travel reduction efforts have included a new travel policy, travel awareness campaigns, improved availability of videoconferencing facilities globally, and direct travel consultancy to Nokia business units on better ways of working, with the aim of reducing both costs and emissions.

Nokia’s CO2 emissions from air travel were 38,514 tonnes in 2012 which is a 54% reduction from 2011. The reduction per employee was around 39%. In comparison to our 2008 base level, total CO2 emissions from air travel have reduced by 71%.

* The figure has been calculated with Nokia’s average annual headcount for 2012. The 2012 HR data comes from a different source than older HR data, but the difference is not significant and therefore does not have a notable impact on emissions per employee.

The significant decrease in air travel between 2011 and 2012 resulted from strict cost control and significant organizational restructuring. During 2012 new videoconferencing devices were also installed in practically all larger meeting rooms (over 20 m² in size) in Nokia offices globally.

This emissions figure covers 99% of Nokia’s air travel, and has been calculated with a conservative interpretation of greenhouse gas protocol emissions factors.

Nokia’s travel figure includes travel by externals in cases where travel cost is covered by Nokia and bookings are made through Nokia’s designated travel agencies.

Nokia also continued to allow voluntary carbon offsets for business flights.

COMMUTING

Nokia arranges shuttle services for employees, which reduces emissions from commuting. In Finland, Nokia has a car leasing policy which promotes cars with lower CO2 emissions. The average CO2 emissions of Nokia’s leased cars during 2012 was 139g/km. A new policy with stricter limits was introduced in 2012. Additionally, to support public transportation, Nokia directly reimburses employees for a portion of their public transportation costs.

Data on CO2 emissions related to Nokia employee commuting can be found from the Nokia Key Data table at the end of this report.
3.0 Nokia & the Planet

3.3 Green Operations and Facilities

Reducing Waste

We keep detailed reports of the amounts of both hazardous and non-hazardous waste from our factories. Our goal is to reduce all waste to a minimum and to find alternative ways to reuse it. This goal extends to waste produced at all Nokia workplaces, including offices, factories and R&D facilities.

We’ve made great improvements in increasing the utilization of waste, meaning reuse, recycling and energy recovery.

For the past five years, our goal has been to halve the amount of non-utilized waste annually. In 2008, our utilization rate was 89%. In 2012, seven out of our nine factories met their target, or were within 1% of it. Globally, we have reached a 98% utilization rate.

Key to our improvement in this has been the selection of vendors with good solutions for waste utilization. Additionally, we’ve increased internal awareness of waste segregation among our employees.

Last year we focused on three factories that were behind their target: Brazil, Mexico and Hungary. In Hungary we found a new partner to recycle more waste. However, our factories in Brazil and Mexico have not yet met their targets, due mainly to challenges in the local infrastructure for utilization of biowaste from cafeterias, as well as some mixed waste components.

We have now turned our attention from waste treatment to waste reduction.

In 2012, we reduced our total waste by 30% from 2011, resulting in 31,400 tonnes of waste in total. If we remove reused waste from the equation, such as packages reused several times by us and our suppliers, and the recyclable total material for which we were paid a refund, our total waste drops to approximately 7,300 tonnes. Although our production volumes were lower in 2012, the amount of waste per mobile device decreased by 22%, when comparing the last quarters of 2011 and 2012. We have set ourselves a target to reduce our total waste amount by 15% by the end of 2015 from 2010 levels.

Case Study: Incoming Packaging Waste at Factories

Incoming packaging material is the biggest proportion of the waste at our factories, around 60-70% of total waste. This includes wooden and plastic pallets, plastic trays, cartons, plastic wrapping, etc. During our first pilot at our Salo factory in 2011 we concentrated on cooperating with our suppliers to improve packaging design. Last year, we implemented this project at our Chennai factory. This time we looked at ways to further reuse incoming packaging material, without introducing any investments. We concentrated on our domestic suppliers at the industrial park where our factory is located, but also looked at other domestic suppliers. We succeeded in improving the reuse of wooden pallets and plastic trays.
3.3.3
Green Operations and Facilities

### TOTAL AND PER DEVICE WASTE AMOUNT DECREASED

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilised Waste</th>
<th>Non-utilised Waste</th>
<th>Nokia Total Waste/device</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>60,000</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>50,000</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>40,000</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>30,000</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>20,000</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

### 98% OF FACTORY WASTE UTILISED AS MATERIAL OR ENERGY

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilised Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>100%</td>
</tr>
<tr>
<td>2009</td>
<td>98%</td>
</tr>
<tr>
<td>2010</td>
<td>96%</td>
</tr>
<tr>
<td>2011</td>
<td>94%</td>
</tr>
<tr>
<td>2012</td>
<td>92%</td>
</tr>
</tbody>
</table>
3.3.3 Green Operations and Facilities

FACTORY WASTE IS MOSTLY COMPONENT PACKAGING MATERIAL

- Cardboard and paper, 34%
- Plastic, 26%
- Mixed waste, 21%
- Wood, 14%
- Metal, 2%
- Electronic Waste, 2%
- Biowaste, 1%
- Hazardous waste, 0.5%
- Rest of categories less than 0.5%
3.3.3 Green Operations and Facilities

NOKIA’S OPERATIONS ARE NOT WATER INTENSIVE

Even though Nokia’s operations are not water intensive, water has strategic importance in our supply chain and is a necessity for the communities we operate in. So, we’ve taken action to ensure our operations cause minimal burden to the environment.

We also work with our suppliers to increase awareness, set water reduction targets and support best practices in water management.

At our own sites, most of our water usage occurs from sanitary and catering activities, and to a lesser extent in gardening and facilities management, such as cooling towers. Our manufacturing production processes use less than 1,000 liters of water annually at each factory, typically in equipment such as stencil washers or reflow ovens that require small amounts of water in self-contained tanks.

In 2012, Nokia withdrew 1,092,000m³ water for use at our facilities, of which 92% was withdrawn from municipal, and 8% from ground water sources. We recycled 11% of water we used, thereby reducing the withdrawal of clean water. 93% of waste water went for municipal off-site water treatment and the rest was treated onsite.

![Production Processes Water Usage Chart](chart.png)

- Production processes: 0.00%
- Sanitary and landscaping: 44%
- Cooling and air conditioning: 29%
- Canteens: 27%
3.3.3 Green Operations and Facilities

SUPPORTING WATER CONSERVATION INITIATIVES, ESPECIALLY IN WATER SCARCE AREAS

We work with expert organizations to identify the best ways to use mobile technology in issues such as water efficiency, awareness raising, and improved water management. We have, for instance, helped the United Nations Food and Agriculture Organization (FAO) use Nokia Data Gathering to tag water points. And we supported WWF International’s China Water Platform.

Nokia also participated in the World Business Council on Sustainable Development’s water group, through which we follow relevant water-related initiatives.

CONTINUING TO REDUCE OUR WATER USAGE

As most of our water use relates to people, not to processes or building areas, our key performance indicator is water use per person. Our target was to continue our downward trend from 2008-2011. With the result of 16 m³/person/year, we were at approximately the same level as in our 2008 base year, but above our 2011 level. However, our absolute withdrawal dropped 17%. People in this indicator include both Nokia employees and other people working at Nokia premises, like service providers’ personnel. Our target for 2013 is to get back to the good level we achieved in 2011.
FOCUSING OUR ACTIONS ON SITES IN WATER SCARCE AREAS

In 2012, we continued to implement actions identified in our 2011-2014 water roadmap.

We held water conservation information workshops at our sites in Beijing, China and Chennai, India, as both of these sites are located in water scarce basins.

Based on the knowledge gained at the workshop, our Beijing sites set a 5% water reduction target for 2012. Our Beijing factory achieved a 12% reduction through five main activities, from the replacement of water faucet aerators to changing shower heads and toilet water displacers. All of these actions were also financially viable, as we saw a return on investment within one to 14 months.

At our Beijing offices, water use levels were lower from the outset because of a smaller amount of employees and smaller building areas to cool. Nevertheless, by increasing employee awareness and copying applicable technical improvements done at the factory, the water withdrawal amount decreased by 1% from 2011.

Our Chennai factory has set a best practice water target of 38 liters/occupant/day. The same metric is also followed on the Nokia SEZ business park level. During 2013, we plan to create water action plans for all of our factories, though our priority remains those factories located in at-risk water basins.

For more information on these workshops, please see the ‘Supply Chain section’.
3.3.3 Green Operations and Facilities

VOLATILE ORGANIC COMPOUNDS AND OZONE-DEPLETING SUBSTANCES

VOLATILE ORGANIC COMPOUNDS

During our assembly process, some volatile organic compounds (VOCs) are released. VOC emissions arise from the use of solvents in the soldering and cleaning processes. In 2012, our emissions were 20 tonnes, a 46% reduction from 2011.

OZONE-DEPLETING SUBSTANCES

We do not use ozone-depleting substances in our products or production. Nokia facilities only use HCFC- and HFC-type refrigerants in cooling and air conditioning systems. These systems are sealed, and we take care to prevent leaks during operations and maintenance. Some trace amounts do evaporate from all of the systems; the amount of annual emissions vary due to changing refill needs. HFC refrigerants are not dangerous for the ozone layer, but they are greenhouse gases.

PROTECTING BIODIVERSITY

Protecting our ecosystem is crucial for life on Earth, and scarcity of natural resources poses risks to business. Safeguarding biodiversity provides an opportunity to create new value and contribute to sustainable development. We believe that halting biodiversity loss requires a multi-stakeholder effort, and we want to ensure we do our part.

Our main impact upon biodiversity takes place in our supply chain. During raw material extraction and component manufacturing, for example, some activities can cause hydrological changes and pollution if not handled properly. We aim to reduce our environmental impact throughout all product lifecycle phases through different activities described in other parts of this report.

In 2012, our research and development site in Vancouver, British Columbia, was located in an area protected by the provincial government under a “land, wetlands, and animals” program.

Nokia cooperates with NGOs on biodiversity issues, and supports different nature conservation programs. These include water management projects in Nepal, India, China and Kenya, tiger protection in India, as well as Baltic Sea and Saimaa seal protection in Finland. We were also the first company to support the Save Our Species (SOS) initiative, covered in chapter 2.2.5 in ‘Partnering with Non-Governmental Organizations’.
we hold ourselves and our suppliers to the same standards
3.4.1 Nokia Supplier Requirements

**OUR SUPPLIER CODE OF CONDUCT SETS OUT HOW WE EXPECT OUR SUPPLIERS TO OPERATE**

The Nokia Supplier Requirements has been in place for over a decade. Our requirements are based on international standards such as ISO 14001, SA 8000, OHSAS 18001, and ILO and UN conventions. These requirements are enforced through contractual agreements and verified by assessments.

We regularly review the Nokia Supplier Requirements, a document that outlines the performance standard we expect from our suppliers. In 2011, we updated the requirements, adding more emphasis on the environment, labor conditions, occupational health and safety, and ethics. We included new requirements such as our policy on conflict minerals and conflict mineral due diligence, which came into force in January 2012.

In 2012, we published a new document for our suppliers - the Nokia Supplier Code of Conduct. It establishes the basic principles for business conduct that we expect from our suppliers. There are no new requirements in it, but it communicates in a clear and understandable way the fundamental principles of ethical and sustainable business practices set out in the Nokia Supplier Requirements. All Nokia suppliers must comply with this code of conduct regardless of location or size. If a contract between Nokia and an individual supplier contains stricter or more detailed requirements, then that supplier must meet the stricter requirements.

We have integrated environmental, ethical, health and safety, and labor practices into our regular business dealings with suppliers, including supplier selection and contracting, relationship development, procurement decisions, and steering meetings.

Our aim is to ensure that suppliers provide a safe work environment, exercise good labor practices, use environmentally-responsible manufacturing processes, and reduce the environmental impact of their operations.

As part of our supplier requirements, we prohibit the use of child labor, do not tolerate excessive working hours or discrimination. Factory workers at supplier facilities must have the right to join a labor union and to bargain collectively if they so choose.

### SNAPSHOT OF OUR SUPPLY CHAIN

- As we operate our own global manufacturing network, most manufacturing is done in-house complying with our strict internal social and environmental requirements. The first tier of our supplier network starts after our own manufacturing network.
- Our supply chain consists of around a hundred direct suppliers for hardware, components and parts, as well as hundreds of software suppliers. We also work with thousands of indirect suppliers who provide services and equipment needed for our daily operations.
- Our global supply chain begins with raw material extraction and processing, and ends with the manufacturing of components and final product assembly and distribution.
- There are typically four to eight supplier layers between the mining of minerals used in components and Nokia’s assembly factories.
- Our supply chain is a network of companies in multiple tiers spread around the world. It delivers goods and services to our own production sites as well as to our offices worldwide.
3.0 NOKIA & THE PLANET

3.4.1 Nokia Supplier Requirements

IDENTIFYING CHALLENGES TO SUSTAINABILITY IN OUR SUPPLY CHAIN

There are many sustainability challenges that might arise from a global supply chain consisting of thousands of suppliers. Some risks are related to our industry, some to the countries where we or our suppliers operate, some are supplier-specific, and some are related to Nokia’s internal systems. For the sake of a sustainable and continuous business development it is essential to identify the risks and introduce practices to minimize or completely eliminate them. We use external and internal expertise to gain a good understanding of the sustainability risks in the countries where we or our suppliers operate and take proactive steps to address them.

INDUSTRY-RELATED RISKS: The electronics industry is still quite a labor-intensive industry, dependent on a skilled workforce. High employee attrition, excessive working hours and deficient personal identification are some of the possible risks in a factory that employs thousands of workers. In addition to this, a variety of process chemicals are used during the manufacturing of electronic equipment.

COUNTRY-RELATED RISKS: In some countries, certain ethical, social or environmental risks are more common than in others. For example, freedom of expression and association, business integrity and corruption, and law enforcement and judicial independence are higher risks in some countries than in others.

SUPPLIER-RELATED RISKS: Many suppliers are already well on the way to managing their operations ethically and sustainably. Supplier risks can relate, for example, to the efficiency of their management systems or the extent or quality of training programs they provide to their workforce.

INTERNAL RISKS: Some of our own practices might impact the sustainability performance of our suppliers. For example, a fluctuation in demand may present challenges for suppliers to plan resources according to sustainable practices.

We have recently focused on improving our planning accuracy. This facilitates our suppliers’ ability to better predict their own resourcing needs, and makes it easier for them to comply with the human resources management requirements we expect from them.

Additionally, during our recent internal organizational changes, we needed to ensure that we retained a good level of sustainability expertise among our sourcing teams and buyers. We organized several training sessions for purchase managers, quality technology managers and the leadership of Nokia’s sourcing department, to increase the understanding of our environmental, ethical, labor, and health and safety requirements and how to enforce them. In China and India, we arranged a number of environmental and ethical lead assessor training sessions to extend our pool of internal professional assessors.

3.4.2 Supplier Assessments

ASSESSING SUPPLIER PERFORMANCE

In 2012, we conducted 23 Nokia Supplier Requirements assessments, and ten in-depth environmental and ethical assessments.

At the end of 2012, 345 supplier facilities supporting Nokia business had been risk self-assessed through E-TASC, in relation to labor, ethics, health and safety, and environmental topics (292 in 2011 and 26 in 2010). This accounts for around 90% of our estimated hardware and mechanics business value, based on the estimated volume of year 2012. The remaining 10% constitutes mainly suppliers without their own production facilities.

- ENVIRONMENT – low risk 90% (89% in 2011)
- LABOR – low risk 90% (89% in 2011)
- HEALTH AND SAFETY – low risk 93% (92% in 2011)
- ETHICS – low risk 89% (86% in 2011) low risk
3.4.2 Supplier Assessments

SUPPLIER SELF-ASSESSMENTS

We usually ask new suppliers to conduct a self-assessment in regards to the Nokia Supplier Requirements, as part of the onboarding process. This provides us with an indication of the supplier’s own understanding of their compliance level before conducting an onsite assessment.

In addition to these self-assessments, we use the web-based E-TASC (Electronics - Tool for Accountable Supply Chains) risk tool to get an indication of potential environmental, ethical, health and safety and labor risks. Suppliers are asked to answer a comprehensive set of questions and, based on their answers, the tool calculates a risk level. This risk assessment tool is used across our industry. It was developed as a joint initiative of the Global e-Sustainability Initiative (GeSi).

In 2012, we focused on addressing the high- and medium-risk areas of our suppliers’ risk assessment results. After further investigation, where we identified areas of non-compliance against Nokia Supplier Requirements, we asked those suppliers to analyze the root causes and start working on corrective actions. During 2012, the main areas for improvements identified were related to sub-supplier management, resource reduction, insufficient risk assessment processes as well as a lack of performance objectives for labor practices, including metrics and targets.

ONSITE ASSESSMENTS OF SUPPLIER SITES

Onsite assessments of supplier sites are one of the tools we use to monitor supplier compliance with the Nokia Supplier Requirements. The assessment provides us with a snapshot of a supplier’s performance which we use as a basis for understanding the root causes of any non-compliance, and for driving corrective actions.

An assessment usually involves a review of the supplier’s complete processes and management systems. It is usually conducted by assessors trained by Nokia. All new hardware suppliers must undergo a system assessment, as well as suppliers who have undergone significant organizational changes, and suppliers considered to be at the highest risk of non-compliance or with the greatest need of development. Key suppliers are generally assessed every two years.

ONSITE ENVIRONMENTAL AND ETHICAL IN-DEPTH ASSESSMENTS

We also conduct onsite environmental and ethical in-depth assessments. These assessments provide us with more insight into how a supplier is managing and performing against our ethical, environmental, labor, and health and safety requirements. Suppliers undergo in-depth assessments for a variety of reasons, including identified risks, non-compliance, and strategic importance. During an in-depth assessment, we review a large amount of a supplier’s policies, procedures and documents. We physically inspect the manufacturing facilities – including dormitories and canteens –, and interview senior management and facility workers. When we find instances of non-compliance, we ask suppliers to analyze the root causes and take corrective actions. We follow up on this to review their progress.

TYPICAL CHALLENGES THAT ARISE DURING SUPPLIER ASSESSMENTS

OVERTIME HOURS

Suppliers must ensure that work weeks do not exceed the maximum working hours as defined by local labor laws, or be more than 60 hours including overtime, whichever limit is the stricter. Overtime work must be voluntary.

Some of our suppliers face challenges in this area, with their overtime levels exceeding our specifications. To help address this, we provide support to them in finding lasting solutions for controlling and reducing overtime. We help them analyze the adequacy of their corrective actions, looking at their work-hour practices and systems, work shifts, and hiring. We offer benchmarking against the human resources practices we have in place at our factories, and we provide consultancy with our in-house subject matter experts.
3.4.2 Supplier Assessments

FREEDOM OF ASSOCIATION

Employees must be free to form and join trade unions of their choice and to bargain collectively to raise concerns to the attention of the management. In cases where this is restricted by law or unions have not been established, suppliers must ensure that an effective alternative exists.

During our assessments, we have come across instances where the workers’ right to choose and join a union has been limited, or where an alternative for ensuring effective dialogue with management to enable collective bargaining does not operate sufficiently well. In such cases, corrective actions can take many forms. They can involve working with the supplier’s management to develop an understanding of the importance of freedom of association and the benefits of a functioning, balanced dialog in the workplace. It can also involve addressing election mechanisms of employee representation, development of negotiation and representation skills, or it can involve focusing on the topics that the employee representatives are trying to raise with the management.

MONITORING SUB-CONTRACTING

Nokia requires its suppliers to set environmental, ethical, labor conditions, and health and safety requirements for their sub-contractors. Based on the findings of our assessments, we have discovered that some suppliers are still in the process of establishing these requirements, and that others do not regularly monitor the environmental, ethical, labor, and health and safety performance of their sub-contractors. In these instances, we get actively involved to ensure that suppliers take corrective actions. We offer whatever help they might need in this, including sub-contractor training, performance monitoring and risk mapping.

CHEMICAL AND WASTE MANAGEMENT

Our findings indicate that proper management of chemicals can still be improved, particularly with regards to consistent use of protective equipment by personnel, and implementation of first-aid measures and emergency response.

3.4.3 The Environmental Impact of Our Supply Chain

MAKING PROGRESS ON REDUCING GREENHOUSE GAS EMISSIONS

We have been using lifecycle assessment calculations for many years to quantify the upstream indirect emissions generated in our supply chain. Our latest calculations indicate that roughly 50% of the energy consumption and greenhouse gas emissions an average Nokia product generates during its lifecycle occur in the supply chain before the components reach our factories.

Since 2007, our direct hardware suppliers have been asked to measure and set reduction targets on their greenhouse gas emissions. The scope of suppliers reporting on their emissions has expanded over the years, and we have focused our efforts especially on the component types that are energy-intensive during production.

One of our focus areas has been the printed wired and flex printed circuit suppliers. Environmental indicators measuring the impact of manufacturing these components are monitored on a monthly basis and reduction targets for each indicator are in place. Between 2010 and 2012, the flex printed circuit suppliers have been able to make significant reductions in their CO2 emissions. The reduction varies between 20% and 60% depending on the supplier. For the printed wired board production, the positive reduction trend started in 2011. Between 2011 and 2012 all printed wired board suppliers were able to reduce their CO2 emissions, whereas in the previous year, between 2010 and 2011, only half of the suppliers succeeded in reducing their emissions.
3.4.3 The Environmental Impact of Our Supply Chain

In terms of other environmental indicators, the suppliers have also made good progress in minimizing the amount of hazardous waste. Since 2010 almost all suppliers have been able to reduce the amount of hazardous waste.

PROGRESS ON OUR WATER ACTION PLAN

During 2012, we carried out extensive water risk assessments to identify industry-level water risks of the various materials and components used in our products, and to determine whether any of our suppliers have factories situated in areas of water stress. Normal industry water risks can usually be reduced through internal improvements and efficiency programs. But companies with factories in areas of water stress usually need to work with other stakeholders in those areas to improve the state of the water basin, for example a river.

In January 2012 Nokia arranged its first water workshop in Beijing’s Xingwang Business Park. The Xingwang Business Park is located in the high-risk Hai He water basin. Both Nokia and some of our partners have factories in this business park. We brought together our suppliers and NGOs to share best practices and to develop a local water improvement action plan. Nokia developed a water strategy for the entire company in 2011. In regard to the supply chain, we set a goal to increase awareness of water scarcity in the Nokia supply chain through workshops and training. We’ll also be working toward improved water efficiency in the years to come by cooperating with suppliers operating in water scarce areas.

ENSURING ENVIRONMENTALLY-RESPONSIBLE MANUFACTURING BY OUR SUPPLIERS

In order to produce environmentally sound products, we need to ensure that our holistic approach to environmental management extends throughout our supply chain. We require our suppliers to have an environmental policy and a well-established environmental management system in place. Their systems must include a tracking system to identify and monitor environmental laws and regulations, environmental risk analyses, improvement targets and programs, employee training and communications, internal audits, and management reviews.

The majority of our suppliers have had environmental management systems in place for years, satisfying the requirements of the ISO 14001 standard. In 2011 already, 91% of our hardware suppliers’ sites were ISO 14001 certified. Some of our suppliers still have improvements to make in this area, but we’re satisfied with the overall progress so far. Moving forward, we will support our suppliers in ensuring the efficient operation of their management systems.

Suppliers must also ensure that they monitor, control, and properly treat energy consumption, air emissions, waste, wastewater, hazardous substances, and chemicals generated from operations. This helps us ensure effective planning, operation, and control of environmental matters at the facilities where components and parts are made for us.

In 2011, 66% of our hardware suppliers that are either strategically important or account for the highest environmental impact had established company-level reduction targets for energy, greenhouse gas emissions, water, and waste. In 2012, Nokia followed up on whether suppliers have reduction targets in place and whether they’ve met their targets.

TRAINING ON NOKIA’S ENVIRONMENTAL REQUIREMENTS

In 2012, we held a number of training sessions for suppliers on our environmental requirements such as the Nokia Substance List and Material Data Collection. We also held training sessions on our environmental impact metrics, focusing on annual consumption figures for energy, waste, water and greenhouse gas emissions. The aim of these sessions was to provide suppliers with a clear understanding of Nokia’s requirements, as well as guidance on implementing them. We also sought to improve the quality of environmental impact data reported to us by our suppliers.
Improving Social Conditions in Our Supply Chain

In 2012, we focused our efforts on ensuring that our suppliers’ code of conduct policies have been efficiently implemented and communicated to workers. A code of conduct policy is a Nokia Supplier Requirement and must cover key ethics and sustainability topics including corruption, general business routines, health and safety, human rights, working conditions, social rights and environmental standards. Since 2011, 98% of our direct hardware suppliers have such a code in place.

At the end of 2012 our active mechanics and hardware suppliers were requested to report on our social metrics related to injury and illness rate, employee attrition and supplier employee satisfaction survey. The reporting response represented around 80% of our estimated business value for 2011 (the corresponding figure was 97% in 2010 but covered only strategically important suppliers, and between 2010 and 2011 reporting period, we more than doubled the reporting scope). We also facilitated a number of training sessions to ensure the suppliers properly understood the metrics and our expectations.

In 2011, the average reportable occupational illness and injury incidence rate (IIR) was 0.5 for the supplier sites supporting Nokia business, meaning that for every 100 employees there were 0.5 reportable occupational injuries or illnesses during the calendar year (0.34 in 2010).

In 2011 the average rate of employee attrition at supplier sites supporting Nokia business was 17.8% (compared with 21% in 2010). Employee attrition rate is calculated by dividing the number of employees that leave an organization by the total number of employees.

The average response regarding employee satisfaction survey practices at our supplier sites in 2011 was 3.1 on a scale from 1 to 4 (2.8 in 2010), which indicates that at supplier sites in general, around 60% of all employees are covered by an annual employee satisfaction survey.

HOW WE MONITOR SUPPLIERS’ PERFORMANCE ON SOCIAL ISSUES

In accordance with the Nokia Supplier Requirements, our suppliers must have in place policies, risk assessments, improvement programs, procedures and management reviews, to assure effective management of labor conditions and health and safety hazards. It’s important to us that our suppliers properly manage their labor practices, and that their workers know their rights with regards to working hours, compensation and benefits, humane treatment, non-discrimination, company rules and disciplinary procedures, grievance procedures, and freedom of association.

It’s equally important that our suppliers provide a safe and hazard-free workplace for their workers. This means eliminating potential hazards wherever possible and minimizing other risks through process design, controls, and the proper use of protective equipment. Workers must be provided and wear the proper protective gear, and be trained on the safety aspects of their work, such as the safe use of machines and chemicals. Suppliers must conduct regular safety exercises, and workers at suppliers’ sites must have the right to refuse to work in unsafe conditions, and to remove themselves immediately from an unsafe workplace.

We combine a variety of approaches to monitor supplier performance against our requirements and to promote sustainability improvements. These include assessments, development programs, training, performance metrics and targets, as well as supplier-focused events. We use the performance metrics and target-setting to follow up on how our suppliers are performing, and provide support to them to help them improve further.
3.4.5 Ethical Sourcing of Raw Materials

We take continuous action to ensure that our products are manufactured from ethically-sourced materials. Nokia believes that activities that fuel conflict, violate human rights or lead to serious environmental degradation are unacceptable. The issue is currently especially acute with the extraction and trade of minerals in the Democratic Republic of Congo and surrounding countries. During 2012, we focused on evaluating our suppliers’ due diligence activities towards conflict-free sourcing, and ensuring that our own due diligence process is in line with international requirements.

EVALUATING RAW MATERIAL SOURCING DURING 2012

In 2012, we continued efforts to evaluate our suppliers’ due diligence activities with regards to conflict-free sourcing. We used the standard industry template to collect smelter and due diligence information from all of our direct hardware suppliers.

In 2012, we have received and analyzed information from the majority of our suppliers having tantalum, tin, tungsten or gold in their products, and agreed on corrective actions as necessary. This work carries over to 2013. We also identified hundreds of smelters in our supply chain.

ALIGNING OUR DUE DILIGENCE PROCESSES WITH INTERNATIONAL GUIDANCE

In 2012 we also focused on ensuring that our due diligence processes are in line with international guidelines.

The first, and currently the only, such guidance on responsible sourcing of minerals is the OECD (Organization for Economic Cooperation and Development) Due Diligence Guidelines for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Nokia was an active participant in the implementation pilot of the OECD guidance on tantalum, tin and tungsten. This pilot provided a forum for discussion about challenges and best practices and helped us in preparing for the US Dodd-Frank legislation.

SUPPORTING RESPONSIBLE MINERALS TRADE FROM CENTRAL AFRICA

Nokia participates in several initiatives that support responsible trade from Central Africa. In January 2012, we joined the Solutions for Hope program, a pilot initiative to source conflict-free tantalum from the Democratic Republic of Congo. We also support the Public-Private Alliance for Responsible Minerals Trade, a joint initiative between governments, companies, and civil society, to support the development of conflict-free supply chains in the Great Lakes Region of Central Africa.

RESPONSIBLE SOURCING REQUIRES JOINT EFFORTS

We do not purchase any metals directly. There are typically four to eight supplier layers between Nokia and mining activities. Traceability and responsible sourcing are issues that concern the entire electronics industry, and any industry using metals and minerals that are potentially derived from conflict areas. Individual due diligence actions by companies are needed at all layers of metal supply chains. However, due to the complexity of metal supply chains, collaborative efforts with industry peers and other stakeholders are essential in validating conflict-free sources of raw materials.

Nokia has been working on identifying the origins of minerals and ensuring ethical sourcing since we first heard about the issue years ago. In recent years progress in validating conflict-free sources has accelerated, as more companies and stakeholders have joined forces in this area. One example of this is the Conflict Free Smelter audit program by EICC and GeSI.
3.4.5
Ethical Sourcing of Raw Materials

Nokia’s conflict minerals due diligence activities include:

• Our conflict minerals policy (part of our Natural Resources Policy) and its communication to suppliers.
• Conflict minerals requirements in the Nokia Substance List, Nokia Supplier Requirements and related assessments.
• Inquiry into our suppliers’ due diligence activities, and taking action accordingly.
• Establishing long-term relationships with suppliers and working with them to drive improvements.
• Identification of smelters in our supply chain with the EICC-GeSi reporting template.
• Contribution to, and reliance on, industry activities (such as the Conflict Free Smelter program) via the EICC-GeSi Extractives working group.
• Participation in multi-stakeholder initiatives to support legitimate and responsible trade from Central Africa (for example Public-Private Alliance, Solutions for Hope).

More information about our approach to responsible sourcing of minerals can be found on our website and in our conflict minerals policy.
don’t take our word for it
Selected key corporate responsibility indicators have been assured by an independent third party, PricewaterhouseCoopers Oy (Nokia’s statutory auditor).

Their assurance report can be found in the following pages.
Independent Assurance Report

To the Management of Nokia Corporation

We have been engaged by the Management of Nokia Corporation (hereinafter also “Nokia”) to perform a limited assurance engagement on selected Nokia Corporation’s sustainability information for the reporting period of 1 January 2012 to 31 December 2012 included in Nokia Corporation’s Sustainability Report 2012, as disclosed on Nokia’s website (hereinafter the “Selected sustainability information”).

SELECTED SUSTAINABILITY INFORMATION IN THE ASSURANCE SCOPE

The Selected sustainability information consists of performance indicators in the areas of Environment, HR and Supply Chain as listed below. “Nokia” means Nokia Group excluding Nokia Siemens Networks. Unless otherwise stated, the reporting boundary is Nokia.

Environment:
- Facility related direct and indirect energy consumption and related greenhouse gas emissions (also Nokia Group) and comparison of year 2012 GHG emissions to base year 2006 emissions. CO2 emissions in base year 2006 have originally been assured by Ecofys Germany GmbH, and for that part PricewaterhouseCoopers Oy has relied on their assurance work.
- Energy used in production per unit produced in 2012 compared to year 2010 and greenhouse gas emissions per person working in Nokia offices and R&D in 2012 compared to year 2006.
- Water usage in facilities (withdrawal amount and source, recycling, discharge destination) (also Nokia Group).
- Green electrical energy portion of total electricity consumption (also Nokia Group).
- VOC (Volatile Organic Compound) emissions from factories.
- Waste amounts, treatment and recycling refunds.
- RoHS and REACH compliance of products.
- Charger no-load power consumption (average sold p.a.).
- Air travel emissions.
- GHG reduction impact of Nokia Devices & Services (cases).

HR:
- Employees in production.
- Total training cost and Training cost/employee (Devices & Services).
- Total incident frequency rate (TIFR) in production.
- Women in senior management.
- Non-Finnish nationalities in senior management (Devices & Services).
- Total workforce by employment type, employment contract and gender.
4.0 INDEPENDENT ASSURANCE

- Rate of employee turnover (Voluntary attrition).
- Number of monetary employee recognition given (number of Achievement Awards and Kudos given).
- Percentage of production employees covered by collective bargaining agreements.
- LtY (Listening to You) results on strategic goals for Nokia’s transformation.
- Number of Nokia factories that have completed third party Intertek assessment as per the management system.

Supply Chain: The indicators cover Nokia’s direct hardware supply chain.
- Suppliers’ compliance with Nokia Supplier Requirements: number of supplier assessments during 2012.
- Percentage of suppliers reporting on health, safety and labor metrics and average metrics results.
- Suppliers’ compliance with Nokia Supplier Requirements: number of supplier facilities under E-TASC and percentage average supplier facility E-TASC self assessment score.
- Reduction of CO2 emissions and hazardous waste in printed circuit board suppliers’ production.

MANAGEMENT’S RESPONSIBILITY

The Management of Nokia is responsible for preparing the Selected sustainability information in accordance with the reporting criteria as set out in Nokia’s documented standards and GHG Protocol (hereinafter the “Reporting criteria”).

PRACTITIONER’S RESPONSIBILITY

Our responsibility is to express a conclusion on the Selected sustainability information based on our work performed. Our assurance report has been made in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Nokia for our work, for this report, or for the conclusions that we have reached.

Within Nokia Group, Nokia Siemens Networks sustainability information for 2012 has been assured by another service provider. For those performance indicators in our assurance scope, which include Nokia Siemens Networks data, we have relied on the other service provider’s assurance work, and hence we have not performed any assurance work separately on Nokia Siemens Networks data.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 “Assurance Engagements Other than Audits or Reviews of Historical Financial
Information”. This Standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance whether any matters come to our attention that cause us to believe that the Selected sustainability information has not been prepared, in all material respects, in accordance with the Reporting criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other disclosures in the Selected sustainability information. The procedures selected depend on the practitioner’s judgement, including an assessment of the risks of material misstatement of the Selected sustainability information. Our work consisted of, amongst others, the following procedures:

- Interviewing relevant management of Nokia.
- Interviewing employees responsible for collection and reporting of the Selected sustainability information.
- Testing the accuracy and completeness of the Selected sustainability information from original documents and systems on a sample basis.
- Testing the consolidation of the Selected sustainability information and performing recalculations on a sample basis.

**CONCLUSION**

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that Nokia Corporation’s Selected sustainability information has not been prepared, in all material respects, in accordance with the Reporting criteria. Our assurance report should be read in conjunction with the inherent limitations of accuracy and completeness for sustainability information. This independent assurance report should not be used for interpreting Nokia Corporation’s performance in relation to its principles of sustainability.

Helsinki, 30 April 2013

PricewaterhouseCoopers Oy

Sirpa Juutinen  
Partner  
Sustainability & Climate Change

Maj-Lis Steiner  
Director, Authorised Public Accountant  
Sustainability & Climate Change
In compiling the 2012 sustainability report, Nokia used the Global Reporting Initiative's (GRI) G3 Sustainability Reporting Guidelines (version 3.0).

A third-party GRI Application Level check conducted by PricewaterhouseCoopers Oy has confirmed Nokia’s self-declaration that this report meets the requirements for GRI Application Level A+.
### 5.1 GRI Index Table

#### STANDARD DISCLOSURES PART 1: PROFILE DISCLOSURES

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
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<tbody>
<tr>
<td>1. Strategy and Analysis</td>
<td>Statement from the most senior decision-maker of the organization.</td>
<td>Fully</td>
<td>1.2 Greetings from Nokia’s CEO</td>
<td></td>
<td>3D. Risk Factors (p. 12 -); Corporate Responsibility: Nokia (p. 71-)</td>
</tr>
<tr>
<td>1.2</td>
<td>Description of key impacts, risks, and opportunities.</td>
<td>Fully</td>
<td>1.4 Key Sustainability Topics; 1.6 Achievements &amp; Challenges in 2012; 1.8 Risk &amp; Opportunity Management</td>
<td></td>
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</tr>
<tr>
<td>2. Organizational Profile</td>
<td>Name of the organization.</td>
<td>Fully</td>
<td>First page</td>
<td></td>
<td>Title Page</td>
</tr>
<tr>
<td>2.2 Primary brands, products, and/or services.</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td></td>
<td>4B. Business overview (p. 50-)</td>
<td></td>
</tr>
<tr>
<td>2.3 Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td>4. Information on the company / Organizational Structure and Reportable Segments (p. 49-50) 4C. Organizational structure (p. 80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 Location of organization’s headquarters.</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td>20-F, Title page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td>4D. Property, Plants and Equipment (p. 81)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6 Nature of ownership and legal form.</td>
<td>Fully</td>
<td></td>
<td>Introduction and use of certain terms (p. 4); 7A. Major shareholders (p. 175)</td>
<td></td>
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<tr>
<td>2.7 Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td>5A. Operating results (p. 81-), Net sales (p. 109)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8 Scale of the reporting organization.</td>
<td>Fully</td>
<td>1.3 Nokia in 2012</td>
<td>3A. Selected Financial Data (p. 8); Results of operations (p. 106-); 5A. Operating Results (p. 81-82); 6D. Employees (p. 165)</td>
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</table>
## 5.1 GRI Index Table

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
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<tr>
<td>2. Organizational Profile</td>
<td>Significant changes during the reporting period regarding size, structure, or ownership.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>5A. Operating results (p. 81-); 8B. Significant changes (p. 182)</td>
</tr>
<tr>
<td>2.9</td>
<td>Awards received in the reporting period.</td>
<td>Fully</td>
<td>1.6.1 Sustainability Rankings 2012</td>
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<tr>
<td>3. Report Parameters</td>
<td>Reporting period (e.g., fiscal/calendar year) for information provided.</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
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<tr>
<td>3.1</td>
<td>Date of most recent previous report (if any).</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
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<tr>
<td>3.2</td>
<td>Reporting cycle (annual, biennial, etc.)</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
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</tr>
<tr>
<td>3.3</td>
<td>Contact point for questions regarding the report or its contents.</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
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<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Process for defining report content.</td>
<td>Fully</td>
<td>1.4.1 Identifying Key Sustainability Topics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
<td></td>
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<tr>
<td>3.6</td>
<td>State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
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<tr>
<td>3.7</td>
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</tr>
</tbody>
</table>

1.0 ABOUT THIS REPORT  
2.0 NOKIA & PEOPLE  
3.0 NOKIA & THE PLANET  
4.0 INDEPENDENT ASSURANCE  
5.0 GLOBAL REPORTING INITIATIVE  
6.0 NOKIA KEY DATA  
6.2 NOKIA GROUP KEY DATA
## 5.0 Global Reporting Initiative

### 5.1 GRI Index Table

<table>
<thead>
<tr>
<th>Profile Disclosure</th>
<th>Description</th>
<th>Reported 2012</th>
<th>2012: Sustainability Report</th>
<th>2012: 20-F</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td><strong>3. Report Parameters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.8</td>
<td>Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.</td>
<td>Fully</td>
<td>1.1 The Scope of This Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.9</td>
<td>Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.</td>
<td>Fully</td>
<td>6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td>This is reported in connection with each indicator as relevant.</td>
</tr>
<tr>
<td>3.10</td>
<td>Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).</td>
<td>Fully</td>
<td></td>
<td>5A. Operating Results (p. 81-83)</td>
<td>This is reported in connection with each indicator as relevant.</td>
</tr>
<tr>
<td>3.11</td>
<td>Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.</td>
<td>Fully</td>
<td></td>
<td>5A. Operating Results (p. 81-83); 8B. Significant changes (p. 182)</td>
<td></td>
</tr>
<tr>
<td>3.12</td>
<td>Table identifying the location of the Standard Disclosures in the report.</td>
<td>Fully</td>
<td>5.0 Global Reporting Initiative; This index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.13</td>
<td>Policy and current practice with regard to seeking external assurance for the report.</td>
<td>Fully</td>
<td>4.0 Independent Assurance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4. Governance, Commitments, and Engagement

| | | | | | |
|---|---|---|---|---|
| **4.1** | Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight. | Fully | | 6A. Directors and Senior Management (p. 133); 6C. Board Practices (p. 159-) | |
## 5.1 GRI Index Table

### STANDARD DISCLOSURES PART 1: PROFILE DISCLOSURES

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
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</thead>
<tbody>
<tr>
<td>4. Governance, Commitments, and Engagement</td>
<td>Indicate whether the Chair of the highest governance body is also an executive officer.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>6C. Board Practices (p. 160)</td>
</tr>
<tr>
<td>4.2</td>
<td>For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>6C. Board Practices (p. 160)</td>
</tr>
<tr>
<td>4.3</td>
<td>Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.</td>
<td>Fully</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization’s performance (including social and environmental performance).</td>
<td>Fully</td>
<td></td>
<td></td>
<td>6B. Compensation (p. 142)</td>
</tr>
<tr>
<td>4.5</td>
<td>Processes in place for the highest governance body to ensure conflicts of interest are avoided.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>6C. Board practices (p. 159)</td>
</tr>
</tbody>
</table>

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All shareholders have the right to submit agenda items or proposals to the agenda of our Annual General Meeting (AGM) provided that the item or proposal belongs to the scope of the general meeting of the shareholders, and the request is made to the Board in writing well in advance to be included in the notice of the meeting. The Finnish Corporate Governance Code recommends attendance by the Board Chairman and a sufficient number of directors to allow the shareholders to exercise their right to present questions to the Board and management. All the directors attended Nokia’s Annual General Meeting held on May 3, 2012.
### Standard Disclosures Part 1: Profile Disclosures

<table>
<thead>
<tr>
<th>Profile Disclosure</th>
<th>Description</th>
<th>Reported 2012</th>
<th>2012: Sustainability Report</th>
<th>2012: 20-F</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Governance, Commitments, and Engagement</td>
<td>Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization’s strategy on economic, environmental, and social topics.</td>
<td>Fully</td>
<td></td>
<td>6A. Directors and senior management (p. 133-)</td>
<td></td>
</tr>
<tr>
<td>4.7</td>
<td></td>
<td></td>
<td>2.2.2 The Nokia Code of Conduct; 2.2.3 Employees (The Nokia Way and values; Labor Conditions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.</td>
<td>Fully</td>
<td></td>
<td>4B. Business overview (Corporate responsibility) (p. 71-)</td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>Procedures of the highest governance body for overseeing the organization’s identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.</td>
<td>Fully</td>
<td>1.7.1 Sustainability Governance</td>
<td>4B. Business overview (Corporate responsibility) (p. 71-)</td>
<td></td>
</tr>
<tr>
<td>4.10</td>
<td>Processes for evaluating the highest governance body’s own performance, particularly with respect to economic, environmental, and social performance.</td>
<td>Fully</td>
<td></td>
<td>6C. Board Practices (p. 159)</td>
<td></td>
</tr>
<tr>
<td>4.11</td>
<td>Explanation of whether and how the precautionary approach or principle is addressed by the organization.</td>
<td>Fully</td>
<td>1.8 Risk &amp; Opportunity Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.12</td>
<td>Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# GRI Index Table

## STANDARD DISCLOSURES PART 1: PROFILE DISCLOSURES

<table>
<thead>
<tr>
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<th>2012: 20-F</th>
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</thead>
<tbody>
<tr>
<td>4.13</td>
<td>Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.14</td>
<td>List of stakeholder groups engaged by the organization.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.15</td>
<td>Basis for identification and selection of stakeholders with whom to engage.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement</td>
<td></td>
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</tr>
<tr>
<td>4.16</td>
<td>Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.</td>
<td>Fully</td>
<td>1.4.1 Identifying Key Sustainability Topics, 2.2.5 Stakeholder Engagement, 2.2.3 Employees (Nokia’s new strategy and our employees); 2.2.4 Customer engagement</td>
<td></td>
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<tr>
<td>4.17</td>
<td>Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement, 2.2.3 Employees (Nokia’s new strategy and our employees); 2.2.4 Customer engagement</td>
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<tr>
<td>PROFILE DISCLOSURE</td>
<td>DESCRIPTION</td>
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<tr>
<td>Disclosure on Management Approach EC</td>
<td>Aspects</td>
<td>Fully</td>
<td>1.8 Risk &amp; Opportunity Management; 2.1 Unleashing the Potential of Mobile Technology; 2.2.3 Employees (Diversity and Inclusion), 2.2.5 Stakeholder Engagement; 2.2.6 Our Economic Impact; 3.4 Nokia and Suppliers</td>
<td></td>
<td>Management approach disclosed in conjunction with information on each aspect.</td>
</tr>
<tr>
<td>Disclosure on Management Approach EN</td>
<td>Aspects</td>
<td>Fully</td>
<td>1.5. Sustainability Targets and Performance; 3.3.1 Climate targets; 3.1.2 Product Lifecycle Assessment (LCA); 3.1.3 Substance and Materials Management; 3.1.4 Packaging; 3.2 Enabling Sustainable Lifestyle; 3.3.2 Environmental management systems; 3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions, Focusing Actions on Sites in Water Scarce Areas, Protecting Biodiversity, Green logistics, Air Travel); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td>Management approach disclosed in conjunction with information on each aspect.</td>
</tr>
<tr>
<td>Disclosure on Management Approach LA</td>
<td>Aspects</td>
<td>Fully</td>
<td>1.5. Sustainability Targets and Performance; 2.2.3 Employees (Diversity and Inclusion; Labor Conditions; The Health, Safety and Wellbeing of Our Employees; Training and Development; Performance and Rewards); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
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<td>Management approach disclosed in conjunction with information on each aspect.</td>
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<td>Disclosure on Management Approach HR</td>
<td>Aspects</td>
<td>Fully</td>
<td>1.5. Sustainability Targets and Performance; 2.2.1 Human Rights; 2.2.2 The Nokia Code of Conduct; 2.2.3 Employees (Labor Conditions); 3.4 Nokia and Suppliers, 3.4.4 Improving Social Conditions in Our Supply Chain</td>
<td></td>
<td>Management approach disclosed in conjunction with information on each aspect.</td>
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<tr>
<td>PROFILE DISCLOSURE</td>
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<td>Disclosure on Management Approach SO</td>
<td>Fully</td>
<td>1.5. Sustainability Targets and Performance; 2.1 Unleashing the Potential of Mobile Technology; 2.2.2 The Nokia Code of Conduct; 2.2.3 Employees (Labor Conditions), 2.2.5 Stakeholder Engagement</td>
<td></td>
<td></td>
<td>Management approach disclosed in conjunction with information on each aspect.</td>
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</table>

| Disclosure on Management Approach PR | Fully | 1.5. Sustainability Targets and Performance; 2.2.4 Customer Engagement (Product Safety, 3.1.3 Substance and Materials Management | | | Management approach disclosed in conjunction with information on each aspect. |
### 5.1 GRI Index Table

<table>
<thead>
<tr>
<th>ECONOMIC</th>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
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<th>2012: 20-F</th>
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<tr>
<td><strong>Economic Performance</strong></td>
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<tr>
<td>EC1</td>
<td>Partially</td>
<td>2.2.5 Stakeholder Engagement; 2.2.6 Our Economic Impact (Direct economic impact)</td>
<td>F-2</td>
<td>Data disclosed for other parts, not for Community Investments. Amounts are not material in relation to Nokia's overall business volumes. Our social investment projects are explained in chapters 2.1.1 Providing the next billion with access to the internet and information and 2.1.2 Improving Lives with Mobile Technology.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC2</td>
<td>Partially</td>
<td>1.8 Risk &amp; Opportunity Management 3.3.1. Climate targets</td>
<td></td>
<td></td>
<td></td>
<td>Not expected to cause material financial implications in the near term.</td>
</tr>
<tr>
<td>EC3</td>
<td>Partially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>We have disclosed the financials of defined benefit schemes and country headcount and do not consider the actual participation numbers to be material.</td>
</tr>
<tr>
<td>EC4</td>
<td>Fully</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nokia has received some funding from governmental organizations such as research and development financing from Tekes, the Finnish Funding Agency for Technology and Innovation. During 2012, Nokia received around 7 million EUR which was mainly used for cooperation projects with universities and Finnish business partners.</td>
</tr>
<tr>
<td><strong>Market Presence</strong></td>
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<tr>
<td>EC6</td>
<td>Partially</td>
<td>3.4 Nokia and Suppliers</td>
<td></td>
<td></td>
<td></td>
<td>Proportion of spending on locally-based suppliers not disclosed. As Nokia is a global company and to ensure material availability, we mainly use global suppliers. Many of these suppliers often operate near our locations of operations.</td>
</tr>
</tbody>
</table>
### 5.0 GLOBAL REPORTING INITIATIVE

#### 5.1 GRI Index Table

<table>
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<tbody>
<tr>
<td>Market Presence</td>
<td>EC7</td>
<td>Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.</td>
<td>Partially</td>
<td>2.2.3 Employees (Diversity and Inclusion)</td>
<td></td>
<td>Our policy is to employ local people wherever we work. Proportion of local senior management not reported. Data not available.</td>
</tr>
<tr>
<td>Indirect Economic Impacts</td>
<td>EC8</td>
<td>Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.</td>
<td>Fully</td>
<td>2.1.2 Improving Lives with Mobile Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC9 (Add)</td>
<td>Understanding and describing significant indirect economic impacts, including the extent of impacts.</td>
<td>Fully</td>
<td>2.1.2 Improving Lives with Mobile Technology; 2.2.6 Our Economic Impact</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL

| Materials | EN1 | Materials used by weight or volume. | Partially | 3.1.3 Substance and Materials Management; 3.1.4 Packaging | | The packaging materials are disclosed. Nokia requires all parts and components manufacturers to notify all substances used in manufacturing and thus we are able to provide a detailed disclosure of our devices. Also our annual device volume is disclosed publicly. For consumers we publish the used materials categorized in a chart, due to the thorough breakdown of the materials: http://www.nokia.com/global/about-nokia/people-and-planet/sustainable-devices/eco/eco-profiles/. Nokia Substance List is the material requirement specification for parts and components delivered by the suppliers to Nokia: http://www.nokia.com/global/about-nokia/people-and-planet/strategy/management/substance-management/. The total materials used are not reported in GRI terms because part of the materials is Nokia suppliers’ trade-secret information. |
### 5.1 GRI Index Table

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>EN2</td>
<td>Percentage of materials used that are recycled input materials.</td>
<td>Partially</td>
<td>3.1.4 Packaging</td>
<td>Nokia does not calculate percentage of materials used in products that are recycled input materials as these are not material to our operations, only the amount used in packaging materials is calculated.</td>
</tr>
<tr>
<td></td>
<td>EN3</td>
<td>Direct energy consumption by primary energy source.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN4</td>
<td>Indirect energy consumption by primary source.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN5 (Add)</td>
<td>Energy saved due to conservation and efficiency improvements.</td>
<td>Partially</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN6 (Add)</td>
<td>Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.</td>
<td>Partially</td>
<td>3.2 Enabling Sustainable Lifestyle 3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN7 (Add)</td>
<td>Initiatives to reduce indirect energy consumption and reductions achieved.</td>
<td>Partially</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions)</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>EN8</td>
<td>Total water withdrawal by source.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Focusing Actions on Sites in Water Scarce Areas); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN10 (Add)</td>
<td>Percentage and total volume of water recycled and reused.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Focusing Actions on Sites in Water Scarce Areas); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
</tr>
</tbody>
</table>
## 5.1 GRI Index Table

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biodiversity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN11</td>
<td>Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Protecting Biodiversity)</td>
<td></td>
<td>Size of land is altogether around 100,000 m²</td>
</tr>
<tr>
<td>EN12</td>
<td>Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.</td>
<td>Partially</td>
<td>3.3.3 Green operations and facilities (Protecting biodiversity)</td>
<td></td>
<td>Information on significant indirect biodiversity impacts not possible to report as required by GRI.</td>
</tr>
<tr>
<td><strong>Emissions, Effluents and Waste</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN16</td>
<td>Total direct and indirect greenhouse gas emissions by weight.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN17</td>
<td>Other relevant indirect greenhouse gas emissions by weight.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN18 (Add)</td>
<td>Initiatives to reduce greenhouse gas emissions and reductions achieved.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN19</td>
<td>Emissions of ozone-depleting substances by weight.</td>
<td>Fully</td>
<td>6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN20</td>
<td>NOx, SOx, and other significant air emissions by type and weight.</td>
<td>Fully</td>
<td>6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN21</td>
<td>Total water discharge by quality and destination.</td>
<td>Fully</td>
<td>6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN22</td>
<td>Total weight of waste by type and disposal method.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Energy-efficiency and Emissions); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN23</td>
<td>Total number and volume of significant spills.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>There were no significant spills from Nokia facilities in 2012.</td>
</tr>
</tbody>
</table>
### GRI Index Table

#### ENVIRONMENTAL

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and Services</td>
<td>Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.</td>
<td>Fully</td>
<td>3.2 Enabling Sustainable Lifestyle 3.1.2 Product Lifecycle Assessment (LCA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN26</td>
<td>Percentage of products sold and their packaging materials that are reclaimed by category.</td>
<td>Partially</td>
<td>3.1.4 Packaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN27</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.</td>
<td>Fully</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.</td>
<td>Fully</td>
<td>3.3.3 Green Operations and Facilities (Green logistics; Air Travel); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- EN26: 2012: SUSTAINABILITY REPORT
- EN27: 2012: 20-F
- EN28: ADDITIONAL INFORMATION
- EN29 (Add): ADDITIONAL INFORMATION
### SOCIAL: LABOR PRACTICES AND DECENT WORK

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
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</tr>
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<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA1</td>
<td>Total workforce by employment type, employment contract, and region.</td>
<td>Fully</td>
<td>2.2.3 Employees (2012 Employee Snapshot, External direct labor)</td>
<td>6D. Employees (p. 165)</td>
<td></td>
</tr>
<tr>
<td>LA2</td>
<td>Total number and rate of employee turnover by age group, gender, and region.</td>
<td>Partially</td>
<td>2.2.3 Employees</td>
<td>6D. Employees (p. 165)</td>
<td>Voluntary attrition rate of permanent employees disclosed. Nokia does not follow employee turnover by age group, gender or region and due that the data for this disclosure is not reported.</td>
</tr>
</tbody>
</table>

#### Labor/Management Relations

| LA4                | Percentage of employees covered by collective bargaining agreements. | Partially | 2.2.3 Employees (Labor Conditions) | | Nokia recognizes the right of employees to join unions and enter collective bargaining agreements. However, practicalities vary according to country laws and practices. Percentage for production employees available. |
| LA5                | Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements. | Fully | 2.2.3 Employees (Labor Conditions) | | As part of the human rights approach, discussed in chapter 2.2.1, we follow up and take action on operations identified as having risks related to freedom of association, child labor, forced and compulsory labor, and business units at risk from corruption. We monitor actions and the number of incidents of discrimination and corruption through our internal grievance mechanisms and assessment processes. When making operational changes, we always follow local legislation. |
## SOCIAL: LABOR PRACTICES AND DECENT WORK

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Occupational Health and Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA7</td>
<td>Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.</td>
<td>Partially</td>
<td>2.2.3 Employees (The Health, Safety and Wellbeing of Our Employees); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td>For 2012, the following information was reported for Nokia employees and external for all Nokia factories. There were no occupational diseases reported for 2012 (NOTE: Nokia excludes ergonomic incidents in this category). There were no fatalities. 635 lost work days were reported for employees and externals as a result of a work related injuries or illness. Absenteeism information is not available.</td>
</tr>
<tr>
<td>LA8</td>
<td>Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.</td>
<td>Fully</td>
<td>2.2.3 Employees (The Health, Safety and Wellbeing of Our Employees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA10</td>
<td>Average hours of training per year per employee by employee category.</td>
<td>Partially</td>
<td>2.2.3 Employees (Training and Development); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td></td>
<td>Nokia does not track training hours, only the cost of training.</td>
</tr>
<tr>
<td>LA11 (Add)</td>
<td>Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.</td>
<td>Fully</td>
<td>2.2.3 Employees (Training and Development); Nokia’s strategy and operational structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA12 (Add)</td>
<td>Percentage of employees receiving regular performance and career development reviews.</td>
<td>Partially</td>
<td>2.2.3 Employees (Performance and Rewards)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 5.1 GRI Index Table

### SOCIAL: LABOR PRACTICES AND DECENT WORK

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
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<th>2012: 20-F</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Diversity and Equal Opportunity</td>
<td>Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.</td>
<td>Partially</td>
<td>2.2.3 Employees (Diversity and Inclusion); 6.1 Nokia Key Data; 6.2 Nokia Group Key Data</td>
<td>6A. Directors and Senior Management (p.133 - 142)</td>
<td>Nokia does not track breakdown of employees by minority group memberships and according to age group. Number of women (3) / men (8) in board, and total number (11) of board members. Number of women (2) / men (8) in leadership team, and total number (10) of leadership team members.</td>
</tr>
<tr>
<td>Equal Remuneration for Women and Men</td>
<td>Ratio of basic salary of men to women by employee category.</td>
<td>Partially</td>
<td>2.2.3 Employees (Performance and Rewards)</td>
<td></td>
<td>Gender demographics vary greatly both between the many countries where we operate and employee categories. For our indirect (non-production staff) we use a global framework to set salary bands which are applied to people regardless of gender/age, etc. We also regularly benchmark with other companies in the industry to ensure we are paying competitively. For our production staff, we have agreements which specify the salary for each role and experience level. These are applied consistently irrespective of gender.</td>
</tr>
</tbody>
</table>
### GRI Index Table

#### SOCIAL: HUMAN RIGHTS

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment and Procurement Practices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR1</td>
<td>Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.</td>
<td>Partially</td>
<td>2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>Nokia conducts human rights/social impact assessment for all major new investments e.g. new factories.</td>
</tr>
<tr>
<td>HR2</td>
<td>Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.</td>
<td>Partially</td>
<td>3.4 Nokia and Suppliers, 3.4.4 Improving Social Conditions in Our Supply Chain</td>
<td></td>
<td>All new suppliers must undergo a system assessment, together with suppliers who have undergone significant organizational changes and suppliers considered at highest risk of non-compliance or with the greatest need of development. Key suppliers are generally assessed every two years.</td>
</tr>
<tr>
<td>HR3 (Add)</td>
<td>Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.</td>
<td>Partially</td>
<td>2.2.2 The Nokia Code of Conduct</td>
<td></td>
<td>Nokia does not track training hours.</td>
</tr>
<tr>
<td><strong>Non-Discrimination</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR4</td>
<td>Total number of incidents of discrimination and actions taken.</td>
<td>Partially</td>
<td>2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>In Nokia we have a well-established Ethics and Compliance Office and Internal Investigation Committee who oversee our Discrimination &amp; Harassment Policy. At present we do not maintain an incident database, but rather deal with incidents confidentially on a case-by-case basis. Employees can access the full Discrimination &amp; Harassment Policy from the intranet, are free to contact their Manager, HR Central, or the ethics office either personally or anonymously with mediation and appropriate action being conducted and escalated based on the severity of each case. HR Central has established a consultancy forum which is to set out a process by which the number of grievance incidents of all employment matters, including incidents of discrimination are recorded. The planned implementation of this process and incident database is late 2013. The full Discrimination &amp; Harassment Policy is available for Nokia employees. At present we do not maintain an incident database, but rather deal with incidents confidentially on a case-by-case basis. Thus information in GRI format not available.</td>
</tr>
</tbody>
</table>
### GRI Index Table

#### SOCIAL: HUMAN RIGHTS

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<tbody>
<tr>
<td>Freedom of Association and Collective Bargaining</td>
<td>Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.</td>
<td>Partially</td>
<td>2.2.1 Human Rights 2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>The risks have been recognized but they are not significant in our operations. Mitigation activities for these risks are implemented.</td>
</tr>
<tr>
<td>Child Labor</td>
<td>Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.</td>
<td>Partially</td>
<td>2.2.1 Human Rights 2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>The risks have been recognized but they are not significant in our operations. We review official documentation at hire. Mitigation activities for these risks are implemented.</td>
</tr>
<tr>
<td>Forced and Compulsory Labor</td>
<td>Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.</td>
<td>Partially</td>
<td>2.2.1 Human Rights 2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>The risks have been recognized but they are not significant in our operations. Mitigation activities for these risks are implemented.</td>
</tr>
</tbody>
</table>
## 5.1 GRI Index Table

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Local Communities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO1</td>
<td></td>
<td>Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.</td>
<td>Fully</td>
<td>2.1.2 Improving Lives with Mobile Technology; 2.2.3 Employees (Nokia’s strategy and operational structure)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SO2</td>
<td></td>
<td>Percentage and total number of business units analyzed for risks related to corruption.</td>
<td>Partially</td>
<td>2.2.2 The Nokia Code of Conduct; 2.2.3 Employees (Labor Conditions)</td>
<td></td>
<td>We audit our business units on a periodic and risk adjusted basis to examine risks related to corruption as well as general financial integrity. The number of units we audit in any given year vary due, but in general we cover all own factories i.e. our first tier supply every second year.</td>
</tr>
<tr>
<td>SO3</td>
<td></td>
<td>Percentage of employees trained in organization’s anti-corruption policies and procedures.</td>
<td>Partially</td>
<td>2.2.2 The Nokia Code of Conduct</td>
<td></td>
<td>Nokia does not calculate percentages separately for management and non-management employees.</td>
</tr>
<tr>
<td>SO4</td>
<td></td>
<td>Actions taken in response to incidents of corruption.</td>
<td>Partially</td>
<td>2.2.2 The Nokia Code of Conduct</td>
<td></td>
<td>Nokia has no governmental investigations or litigation involving corruption. However, from time to time we find that our internal standards have not be followed. In those situations we take corrective action, including disciplinary action, as appropriate.</td>
</tr>
<tr>
<td>Public Policy</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SO5</td>
<td></td>
<td>Public policy positions and participation in public policy development and lobbying.</td>
<td>Fully</td>
<td>2.2.5 Stakeholder Engagement</td>
<td></td>
<td>We are in active dialog with different kinds of stakeholder groups presented in report (in chapter 2.2.5 Stakeholder Engagement) through which we often operate.</td>
</tr>
<tr>
<td>SO6 (Add)</td>
<td></td>
<td>Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.</td>
<td>Fully</td>
<td>2.2.2 The Nokia Code of Conduct</td>
<td></td>
<td>Nokia does not contribute to political parties or politicians.</td>
</tr>
</tbody>
</table>
## GRI Index Table

<table>
<thead>
<tr>
<th>Profile Disclosure</th>
<th>Description</th>
<th>2012: Sustainability Report</th>
<th>2012: 20-F</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anti-competitive Behavior</strong></td>
<td>SO7 (Add) Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.</td>
<td>Fully</td>
<td></td>
<td>There were no significant legal actions against Nokia for anti-competitive behavior, anti-trust, and monopoly practices in 2012.</td>
</tr>
<tr>
<td><strong>Compliance</strong></td>
<td>SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.</td>
<td>Fully</td>
<td></td>
<td>There were no significant fines or non-monetary sanctions for non-compliance with laws and regulations during 2012.</td>
</tr>
</tbody>
</table>
### 5.1 GRI Index Table

#### SOCIAL: PRODUCT RESPONSIBILITY

<table>
<thead>
<tr>
<th>PROFILE DISCLOSURE</th>
<th>DESCRIPTION</th>
<th>REPORTED 2012</th>
<th>2012: SUSTAINABILITY REPORT</th>
<th>2012: 20-F</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Health and Safety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product and Service Labelling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR3</td>
<td>Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.</td>
<td>Fully</td>
<td>2.2.4 Customer Engagement (Product Safety)</td>
<td></td>
<td>Applicable to all Nokia products.</td>
</tr>
<tr>
<td>PR5 (Add)</td>
<td>Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</td>
<td>Fully</td>
<td>2.2.4 Customer Engagement (Product Safety)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing Communication</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR6</td>
<td>Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.</td>
<td>Fully</td>
<td>3.1.3 Substance and Materials Management</td>
<td></td>
<td>Nokia wants to ensure that it complies with the laws and regulations set by each market’s individual regulatory bodies. Typically, our requirements meet or go beyond the strictest stipulations set by any regulations in the world and are rooted in our global standards and requirements. E.g. RoHS and REACH compliance.</td>
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<tr>
<td>PROFILE DISCLOSURE</td>
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<td>2012: SUSTAINABILITY REPORT</td>
<td>2012: 20-F</td>
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<td>--------------------</td>
<td>-------------</td>
<td>---------------</td>
<td>----------------------------</td>
<td>-------------</td>
<td>-----------------------</td>
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<tr>
<td>Compliance</td>
<td>Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.</td>
<td>Fully</td>
<td></td>
<td></td>
<td>There were no significant fines or non-monetary sanctions for noncompliance with laws and regulations during 2012.</td>
</tr>
</tbody>
</table>
nokia sustainability
by the numbers
These figures cover Nokia sustainability data and exclude Nokia Siemens Networks (NSN), a company approximately 50% owned by Nokia, which publishes its own sustainability report and figures. In addition to separate data tables of Nokia and NSN we have consolidated some key figures in a Nokia group key figure table which can be found after the notes part of this table. See footnotes for more information about the reporting scope and boundaries.

We acquired NAVTEQ in July 2008 which was a separate reportable segment until the end of the third quarter of 2011. As of October 1, 2011, the Location & Commerce business was formed as a new operating and reportable segment by combining NAVTEQ and our Devices & Services social location services operations. In November 2012, we introduced HERE as the new brand for Nokia’s location-based products and services. As of January 1, 2013 our Location & Commerce business and reportable segment was renamed as the HERE reportable segment.

This report covers last 5 years – if you are interested in longer term historical development, please see Nokia’s older reports.
## Environmental Key Data

**Greenhouse Gas Emissions (Tonnes)**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GHG Scope 1 (Direct facility and car fleet) (^1)</td>
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<tr>
<td>Direct CO(_2) emissions from facilities total</td>
<td>16,100</td>
<td>17,500</td>
<td>19,500</td>
<td>18,600</td>
<td>17,600</td>
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<tr>
<td>Hydro-Fluoro-Carbon (HFC)</td>
<td>10,600</td>
<td>13,200</td>
<td>14,200</td>
<td>14,400</td>
<td>13,600</td>
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<td>CH(_4)</td>
<td>2,500</td>
<td>1,400</td>
<td>1,800</td>
<td>1,600</td>
<td>1,700</td>
</tr>
<tr>
<td>N(_2)O</td>
<td>21</td>
<td>26</td>
<td>28</td>
<td>29</td>
<td>27</td>
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<tr>
<td>CO(_2) emissions from car fleet (^3)</td>
<td>3,000</td>
<td>2,900</td>
<td>3,500</td>
<td>2,600</td>
<td>2,300</td>
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<tr>
<td>GHG Scope 2 (Purchased electricity and heat), net amount (^4)</td>
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<tr>
<td>Indirect CO(_2) from facilities, gross amount</td>
<td>171,700</td>
<td>197,700</td>
<td>193,800</td>
<td>211,100</td>
<td>229,400</td>
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<tr>
<td>CO(_2) avoided due to purchased renewable energy (tonnes)</td>
<td>-53,100</td>
<td>-54,100</td>
<td>-60,100</td>
<td>-69,500</td>
<td>-46,700</td>
</tr>
<tr>
<td>CO(_2) avoided due to Gold Standard offsets (tonnes)</td>
<td>0</td>
<td>0</td>
<td>-32,500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GHG Scope 3 (See below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO(_2) emissions from air travel (tonnes) (^5)</td>
<td>38,500</td>
<td>84,200</td>
<td>81,865</td>
<td>77,524</td>
<td>131,080</td>
</tr>
<tr>
<td>CO(_2) emissions from employee commuting (tonnes) (^5)</td>
<td>53,100</td>
<td>72,100</td>
<td>74,600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO(_2) emissions from the use of devices (tonnes) (^7)</td>
<td>920,000</td>
<td>1,200,000</td>
<td>1,470,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO(_2) emissions from supply chain (tonnes) (^7)</td>
<td>1,440,000</td>
<td>1,870,000</td>
<td>6,880,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO(_2) emissions from logistics (tonnes) (^8)</td>
<td>464,700</td>
<td>500,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO(_2) Key Performance Indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logistics: CO(_2)/sales package, kg (^8)</td>
<td>1.39</td>
<td>1.68</td>
<td>3.50</td>
<td>3.06</td>
<td>2.23</td>
</tr>
<tr>
<td>Offices: CO(_2)/office headcount, gross, (tonnes) (^8)</td>
<td>3.22</td>
<td>2.68</td>
<td>2.83</td>
<td>3.10</td>
<td>3.13</td>
</tr>
<tr>
<td>Factories: CO(_2)/device, net, (grams) (^8)</td>
<td>379</td>
<td>342</td>
<td>276</td>
<td>377</td>
<td>358</td>
</tr>
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</table>
## 6.1 Nokia Key Data Table

### Environmental Key Data

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Nokia facilities</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity, total (GWh)</td>
<td>411</td>
<td>485</td>
<td>538</td>
<td>537</td>
<td>560</td>
</tr>
<tr>
<td>District heating, total (GWh)</td>
<td>41</td>
<td>43</td>
<td>57</td>
<td>56</td>
<td>50</td>
</tr>
<tr>
<td>District cooling, total (GWh)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fossil gas, total (GWh)</td>
<td>56</td>
<td>66</td>
<td>68</td>
<td>72</td>
<td>66</td>
</tr>
<tr>
<td>Biogas, total (GWh)</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oil, total (GWh)</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Energy, total (GWh)</td>
<td>518</td>
<td>602</td>
<td>672</td>
<td>672</td>
<td>684</td>
</tr>
<tr>
<td>Direct energy, total (GWh)</td>
<td>64</td>
<td>72</td>
<td>75</td>
<td>77</td>
<td>72</td>
</tr>
<tr>
<td>Indirect energy, total (GWh)</td>
<td>454</td>
<td>530</td>
<td>597</td>
<td>595</td>
<td>612</td>
</tr>
<tr>
<td>Renewable energy (GWh)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>169</td>
<td>193</td>
<td>196</td>
<td>189</td>
<td>147</td>
</tr>
<tr>
<td>Renewable electricity share of total electricity&lt;sup&gt;3&lt;/sup&gt;</td>
<td>41%</td>
<td>40%</td>
<td>36%</td>
<td>35%</td>
<td>26%</td>
</tr>
<tr>
<td>Energy, total kWh/m²&lt;sup&gt;4&lt;/sup&gt;</td>
<td>438</td>
<td>489</td>
<td>485</td>
<td>486</td>
<td>450</td>
</tr>
<tr>
<td><strong>Nokia device chargers’ no-load power consumption (average sold per annum in W)</strong></td>
<td>0.098</td>
<td>0.112</td>
<td>0.114</td>
<td>0.145</td>
<td>0.185</td>
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</table>
### ENVIRONMENTAL KEY DATA

#### WATER (NOKIA FACILITIES)

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Water withdrawal total (thousands m³)</td>
<td>1,092</td>
<td>1,309</td>
<td>1,422</td>
<td>1,340</td>
<td>1,434</td>
</tr>
<tr>
<td>Water withdrawal by source (%)</td>
<td>92%</td>
<td>95%</td>
<td>95%</td>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Municipal water supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground water</td>
<td>8%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Discharges to Water, Total (tonnes)</td>
<td>16</td>
<td>22</td>
<td>25</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>BOD5</td>
<td>399</td>
<td>549</td>
<td>619</td>
<td>548</td>
<td>526</td>
</tr>
<tr>
<td>TSS</td>
<td>527</td>
<td>724</td>
<td>817</td>
<td>723</td>
<td>695</td>
</tr>
<tr>
<td>N</td>
<td>64</td>
<td>88</td>
<td>99</td>
<td>88</td>
<td>84</td>
</tr>
<tr>
<td>P</td>
<td>16</td>
<td>22</td>
<td>25</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Water discharge destination (%)</td>
<td>93%</td>
<td>92%</td>
<td>87%</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>Municipal treatment facility, %</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Piped to surface water after treatment, %</td>
<td>3%</td>
<td>5%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Used for irrigation after treatment, %</td>
<td>125</td>
<td>133</td>
<td>178</td>
<td>141</td>
<td>130</td>
</tr>
<tr>
<td>Recycled/reused water (thousands m³)</td>
<td>11%</td>
<td>10%</td>
<td>12%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Recycled/reuse % of total withdrawal</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

#### WASTE FROM NOKIA FACILITIES (TONNES)

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<tbody>
<tr>
<td>TOTAL</td>
<td>31,400</td>
<td>45,900</td>
<td>59,800</td>
<td>53,200</td>
<td>49,100</td>
</tr>
<tr>
<td>Reuse</td>
<td>3,400</td>
<td>7,500</td>
<td>10,300</td>
<td>8,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Recycle</td>
<td>24,600</td>
<td>34,100</td>
<td>43,900</td>
<td>38,700</td>
<td>39,000</td>
</tr>
<tr>
<td>Energy recovery</td>
<td>2,500</td>
<td>2,500</td>
<td>2,200</td>
<td>1,900</td>
<td>2,200</td>
</tr>
<tr>
<td>Incineration without energy recovery</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>Landfill</td>
<td>800</td>
<td>1,700</td>
<td>3,200</td>
<td>4,400</td>
<td>5,500</td>
</tr>
<tr>
<td>Utilisation rate %</td>
<td>97%</td>
<td>96%</td>
<td>94%</td>
<td>91%</td>
<td>88%</td>
</tr>
<tr>
<td>Non-hazardous waste</td>
<td>31,200</td>
<td>45,700</td>
<td>59,400</td>
<td>52,900</td>
<td>48,800</td>
</tr>
<tr>
<td>Hazardous waste</td>
<td>230</td>
<td>240</td>
<td>420</td>
<td>300</td>
<td>270</td>
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<tr>
<td>E-waste collected outside own facilities (tonnes)</td>
<td>431</td>
<td>661</td>
<td>415</td>
<td>373</td>
<td>316</td>
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### 6.1 Nokia Key Data Table

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<tbody>
<tr>
<td>Average number of employees</td>
<td>48,204</td>
<td>56,714</td>
<td>58,642</td>
<td>56,462</td>
<td>57,443</td>
</tr>
<tr>
<td>Employees in production</td>
<td>17,972</td>
<td>25,428</td>
<td>29,234</td>
<td>22,935</td>
<td>25,576</td>
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<tr>
<td>Total employee training cost for non production staff, EUR million 23</td>
<td>24</td>
<td>29</td>
<td>28</td>
<td>25</td>
<td>55</td>
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<tr>
<td>Average cost of training per employee, EUR 25</td>
<td>1,100</td>
<td>980</td>
<td>850</td>
<td>748</td>
<td>1,721</td>
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<tr>
<td>Injury/illness rate within production, TIFR 26</td>
<td>0.20</td>
<td>0.53</td>
<td>0.32</td>
<td>0.49</td>
<td>0.6</td>
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<tr>
<td>Women in senior management, % 27</td>
<td>14.5</td>
<td>15.2</td>
<td>14.5</td>
<td>13.8</td>
<td>13.7</td>
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<tr>
<td>Non-Finnish nationalities in senior management, % 28</td>
<td>50.1</td>
<td>53.6</td>
<td>53.2</td>
<td>50.7</td>
<td>47.4</td>
</tr>
<tr>
<td>Voluntary attrition, % 27</td>
<td>10.8</td>
<td>14.2</td>
<td>12</td>
<td>12.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Countries with community involvement programs</td>
<td>40</td>
<td>33</td>
<td>42</td>
<td>40</td>
<td>57</td>
</tr>
<tr>
<td>Employee Code of Conduct awareness, %</td>
<td>95</td>
<td>98</td>
<td>98</td>
<td>85</td>
<td>86</td>
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<tr>
<td>Languages of the Code of Conduct</td>
<td>34</td>
<td>34</td>
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<td>34</td>
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### 6.1 Nokia Key Data Table

#### SUPPLY CHAIN

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<tbody>
<tr>
<td>Number of onsite assessments to supplier sites</td>
<td>33</td>
<td>43</td>
<td>37</td>
<td>63</td>
<td>70</td>
</tr>
<tr>
<td>Number of supplier risk self-assessments</td>
<td>345</td>
<td>292</td>
<td>26</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Illness and injury incidence rate (IIR)</td>
<td></td>
<td>0.50</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee attrition</td>
<td></td>
<td>17.8%</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee satisfaction survey practices at supplier sites</td>
<td></td>
<td>3.11</td>
<td>2.80</td>
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</table>

#### ECONOMIC

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</thead>
<tbody>
<tr>
<td>Net sales, EUR million</td>
<td>16,397</td>
<td>24,618</td>
<td>29,785</td>
<td>28,410</td>
<td>35,401</td>
</tr>
<tr>
<td>Operating profit, EUR million</td>
<td>-1,504</td>
<td>-773</td>
<td>2,756</td>
<td>2,836</td>
<td>5,267</td>
</tr>
<tr>
<td>Research and development, EUR million</td>
<td>2,736</td>
<td>3,399</td>
<td>3,707</td>
<td>3,638</td>
<td>3,468</td>
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</tbody>
</table>
Nokia Key Data Table Notes

Data covers 100% of square meters occupied by Nokia; data collection coverage has been 90-93% of all square meters, including all production sites and other sites greater than 3000 sqm. Data from smaller than 3000 sqm sites has been estimated based on Nokia averages.

1

Our approach to measuring greenhouse gas emissions follows the Greenhouse Gas (GHG) Protocol (www.ghgprotocol.org) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The GHG Protocol defines three scopes of CO₂ emissions:

- **Scope 1** - direct emissions, from sources owned or controlled by the company
- **Scope 2** - indirect emissions, from the consumption of purchased electricity, heat, and/or steam
- **Scope 3** - indirect emissions, as a consequence of the activities of the company, but from sources not owned or controlled by the company.

**ORGANISATIONAL BOUNDARIES**

We use the “operational control” approach (instead of equity share approach), which means we include entities based on whether we can introduce and implement operating policies rather than on the basis of financial control or economic interest. As Nokia Siemens Networks’ (NSN) operations are separate, detailed data management and reporting are done separately: www.nokiasiemensnetworks.com/about-us/sustainability/reporting. Thus, NSN energy consumption and emissions are not included in this Nokia Key Data table but are reported separately by NSN and are also consolidated in Nokia Group’s summary tables which can be found after the notes part of this table.

Our GHG measurements have been assured by third party since 2003 and assurance will continue on an annual basis. Read our assurance statement starting from page 129.

Direct CO₂e emissions from Nokia facilities include emissions from gas and oil usage in Nokia facilities and HFC emissions. Emissions are calculated by using the values embedded in WRI/WB CSD GHG Protocol Initiative calculation tool: “Calculation Tool for Direct Emissions from Stationary Combustion, version 4.0”, by using Higher heating values. The effect of greenhouse gases CH₄ and N₂O produced during burning process have been included in CO₂e emissions (CH₄ and N₂O effect being 0.3% of direct CO₂ emissions). HFCs are refrigerants and emissions are minor fugitive emissions from facilities’ cooling systems. Nokia uses also some HCFCs as refrigerants, but they are not included in the inventory because the are not covered by the Kyoto Protocol. These refrigerants are anyhow included in the published Ozone Depleting Potential -figure. Out of Kyoto protocol greenhouse gases Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF₆) are not applicable for Nokia.

Indirect CO₂-emissions (Scope 2 emissions) include emissions from purchased electricity and district heating and cooling. Emissions are calculated by principles of a WRI/WB CSD GHG Protocol Initiative calculation tool: “Indirect CO₂ Emissions from the Consumption of Purchased Electricity, Heat, and/ or Steam”. Despite delay on IEA country statistics, data from previous years has not been updated with new factors. The year 2006 emissions are calculated with tool worksheet version 1.2 and 2007 & 2008 with version 2.0 and 2009 with version “GHG emissions from purchased energy, version 21”. Year 2010 emission factors are IEA country statistics from year 2007 (published in October 2009) and 2011 factors from year 2008, and 2012 from year 2009. For USA latest EPA eGrid factors are used, e.g. 2007 statistics for 2011 and 2012 calculations. As an exception to get more specific district heating emission factor for Finland, which uses around 90% of Nokia total district heating, Finland year 2008 emission factor is based on energy production data from year 2007 (Statistics Finland, Environment and Energy), calculation method being “benefit sharing” (in stead of alternative “energy method”) and the year 2007 factor is based on Finnish Environmental Institute publication. As no update for “benefit sharing” value was available for 2009 calculation
Nokia Key Data Table Notes

and for simplicity, Finland figure was calculated since 2009 with the GHG-tool value for purchased energy. As CO2 typically represents over 99% of the GHG emissions in electricity and heat production, IEA indirect emission factors include CO2 only. EPA factors are for CO2e.

2 TOTAL NET CO2 EMISSIONS IN NOKIA FACILITIES BY REGIONS

<table>
<thead>
<tr>
<th>Region</th>
<th>2012 Tonnes</th>
<th>2011 Tonnes</th>
<th>2010 Tonnes</th>
<th>2009 Tonnes</th>
<th>2008 Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>182,300</td>
<td>210,900</td>
<td>208,000</td>
<td>225,500</td>
<td>243,000</td>
</tr>
<tr>
<td>Americas</td>
<td>7,500</td>
<td>19,000</td>
<td>34,200</td>
<td>14,200</td>
<td>26,400</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>147,900</td>
<td>157,700</td>
<td>127,500</td>
<td>157,400</td>
<td>151,900</td>
</tr>
<tr>
<td>Europe &amp; Africa</td>
<td>26,900</td>
<td>34,200</td>
<td>46,300</td>
<td>53,900</td>
<td>64,700</td>
</tr>
</tbody>
</table>

3 The figure represents CO2 emissions from digital mapping operations by Nokia’s Location & Commerce division. Calculation of the emissions from cars is based on the distance driven and fuel type. Part of the data is based on vehicle-specific conversion factors. Some errors were found in conversion and hence 2008-2011 car fleet and “Total Scope 1” data is updated in the 2012 report.

4 Net and gross indirect CO2 emissions: Gross emissions are emissions from purchased electricity and heat calculated with IEA (Internal Energy Agency) country emission factors. Net emissions are gross emissions reduced with CO2 avoided due to purchase of renewable energy (certificates) and carbon offsets. Onsite renewable energy reduces also gross emissions.

5 Nokia’s and L&C’s (NAVTEQ’s) air travel reporting has been consolidated in 2011, and 2008-2010 emissions have been updated based on historical travel data. The emissions figure covers over 99% of Nokia’s air travel. The figure includes travel by externals in cases where travel cost is covered by Nokia and bookings made through Nokia’s designated travel agencies. Emissions have been calculated with a conservative interpretation of GHG Protocol 2006 emission factors.

6 In 2010 Nokia conducted an employee commuting survey in order to calculate the corresponding CO2 emissions. The following information was required: country, how many days one works at the office/home, commuting distance, time and means of transport. 3,455 employees participated in the survey from 58 different countries. The emissions were then extrapolated to correspond with all Nokia employees for years 2010-2012.

7 ISO 14040 and ISO 14044 standards have been used as a framework in Lifecycle Assessments (LCAs) that are the basis of the greenhouse gas emissions figures. These calculations take into account the raw materials acquisition, component manufacturing, Nokia’s own factory processes, inbound & outbound logistics, usage (3 years) and recycling of the mobile devices. The results of an LCA always depend on the calculation method, scoping, assumptions and Lifecycle Inventory (LCI) data used. The changes in calculation methodology and LCI database and to smaller extent reduction in volumes cause the reduction in CO2e emissions from supply chain. GHG emissions from the use of devices reflect the annual product volumes and portfolio. Impact from Nokia Gear & Vertu is excluded from both supply chain and use of devices GHG figures.

8 This covers component and customer shipments. The year 2010 and 2011 has been a transition period when we have moved onto a second development phase of CO2 calculation and data gathering from logistics service providers system wise, which means that the basis for our calculations has changed from previous years.
Nokia Key Data Table Notes

9 Gross CO₂ emissions from Nokia office and R&D buildings in metric tonnes, per Nokia employees and externals working in Nokia Offices and R&D. Ex-NAVTEQ sites were included in the metric in 2012, changing our 2006 baseline. In addition, to 2006 and 2012, we recalculated year 2009 indicator but not the rest.

10 Net CO₂ emissions (i.e. green energy and offsets taken into account) from Nokia factory sites (including emissions from all energy use in the sites) in grams, per Nokia device volume as published in Nokia annual report.

11 Volatile organic compounds (VOC’s) are released during the soldering process and when using solvents in the cleaning process. At Nokia, we monitor and control the use of solvents with the aim to reduce the consumption. In general, the consumption is on a low level and no environmental VOC permits or declarations are required by authorities.

12 Nokia uses no Ozone Depleting Substances (ODS) in its products or production. The reported ODS figures are due to minor leakage of ODS contained in cooling systems in facilities. Annual emissions vary due to changing annual maintenance needs. ODP (Ozone Depleting Potential) = emission in kg of CFC-11 equivalent.

13 Energy consumption in Nokia facilities by regions. Direct energy means fuel (gas and oil) used on site and indirect energy purchased electricity and heat, in case of Nokia district heating and district cooling.
Over years, major part of the renewable ("green") electricity has been from the purchase of RES-E Guarantee of Origin certificates in Nordic countries and Green-e wind certificates in USA. In addition smaller amount of other certificates (RECS, GreenContract, Greenpower, EcoLogo) have been purchased in Europe, Australia and Americas. Green certificates have been bought also in United Kingdom in 2006-2008: the amounts are included as renewable energy in the table, but due to UK governmental guidance in 2008, no CO2 reduction has been calculated to result from the purchase in 2008.

Water withdrawal is reported according to Global Reporting Initiative (GRI) definitions.

Discharges to water are coming from sanitary waste water and are calculated based on the headcount. BOD5 (Biological Oxygen Demand for 5 days) measures the amount of oxygen required or consumed for the microbiological decomposition (oxidation) of organic material in water. TSS means Total Suspended Solids, N stands for Nitrogen and P for Phosphorus. In 2011 report headcount definition changed to include for this calculation also external persons working in Nokia premises and all years were recalculated. Also, more detailed information on water discharge destinations caused recalculation for past years destination percentages.

Recycled/reused water amount includes water recycled both for sanitary purposes (water recycled many times) and for irrigation.

Accuracy of waste data is not as high as with energy and water, as waste vendors often report amounts based on number of waste bins emptied and average weight for waste type, instead of weighing each container. In factories and biggest offices most of the reporting is based on actual weighed amounts.

Utilised waste includes waste that has been either reused, recycled or energy of it has been utilised. Remaining waste has been either sent to landfill or incinerated without energy recovery. Composting of biowaste is recorded under recycling.

The definitions for what is reported under hazardous and non-hazardous waste have been done on global level to keep simplicity in corporate reporting. E.g. all discarded batteries are reported globally under hazardous waste, although several battery types are not defined hazardous in many countries. On the other hand all electronic waste is reported under non-hazardous waste, although different sub-categories of it are defined hazardous in different countries. The actual waste treatment is always done according to local legal requirements.

E-waste figure includes electronics waste collected by Nokia outside of own offices, R&D and production, for example as part of phone and accessories takeback campaigns.

For 2011-2008, figures do not include employees in Nokia Location & Commerce (HERE since January 1, 2013) who were previously employed by NAVTEQ. The figures for 2012 are based on the financial release figures as at the end of 2012. For 2011-2008, figures were based on HR data.

Figures for total training cost and training cost per employee were calculated based on employees working in Devices & Services only.

TIFR = Total Incident Frequency Rate which includes also non-lost time incidents in addition to lost time incidents. Previous to 2011 Nokia reported IIR = injuries and illnesses rate, without non loss time incidents.
Nokia Key Data Table Notes

25 The calculation rule was changed for the 2009 report from an average for the year to be year-end figure. This was done to enable a direct comparison with NSN data.

26 The figure for 2012 was calculated based on employees working in Devices & Services only. The calculation rule was changed for the 2009 report from an average for the year to be year-end figure. This was done to enable a direct comparison with NSN data.

27 In 2012, the calculation methodology has been changed and the figure does not include employees accepting a severance package related Nokia’s restructuring. If these people are included, the total figure is 21.4%. Figures 2008-2011 have not been restated.

28 2008 figure is including Nokia direct sourcing supplier system assessments and in-depth assessments. 2009 onwards figures are including Nokia direct and indirect sourcing system assessments including in-depth assessments.

29 Number of hardware supplier facilities that have been risk self-assessed by using E-TASC. E-TASC is an industry-wide risk self-assessment tool created by GeSI (Global e-Sustainability Initiative). The tool is used to gain an indication of potential environmental, ethical, health and safety and labor risk areas. Suppliers are requested to answer a comprehensive set of questions and based on their answers the tool calculates a risk level.

30 Injury and illness incidence rate IIR describes the total amount of reportable occupational injury and illness incidents for every 100 employees during a calendar year. Both internal employees and contract workers are included. Between 2010 and 2011 scope of suppliers reporting was expanded. 2012 data will be received later on during 2013.

31 Employee attritition (%) describes staff turnover, percentage of employees that leave the organization within a year. Both voluntary attrition and involuntary attrition is included.

32 The average response regarding employee satisfaction survey practices at our supplier sites on a scale from 1 to 4.4 indicates that at supplier sites in general, nearly or over 80% of total employees are covered by an annual employee satisfaction survey and number 1 indicates that no employee satisfaction survey conducted. 2012 data will be received later on during 2013.
6.2 NOKIA GROUP KEY DATA

This data table consolidates some key sustainability performance related figures of Nokia and Nokia Siemens Networks (NSN - a company approximately 50% owned by Nokia). More detailed company specific data can be found in Nokia data table (above) and in Nokia Siemens Networks Corporate Responsibility Report.

This report covers last 5 years – if you are interested in longer term historical development, please see Nokia’s older reports.
### Nokia Group Table

#### Economic Key Data, Nokia Group

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<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales, EUR million</td>
<td>30,176</td>
<td>38,659</td>
<td>42,446</td>
<td>40,984</td>
<td>50,710</td>
</tr>
<tr>
<td>Operating profit, EUR million</td>
<td>-2,303</td>
<td>-1,073</td>
<td>2,070</td>
<td>1,197</td>
<td>4,966</td>
</tr>
<tr>
<td>Earnings/share diluted, EUR</td>
<td>-0.84</td>
<td>-0.31</td>
<td>0.50</td>
<td>0.24</td>
<td>1.05</td>
</tr>
<tr>
<td>Market capitalization at year-end, EUR million</td>
<td>10,873</td>
<td>13,987</td>
<td>28,709</td>
<td>33,078</td>
<td>41,046</td>
</tr>
<tr>
<td>Research &amp; development, EUR million</td>
<td>4,782</td>
<td>5,584</td>
<td>5,844</td>
<td>5,909</td>
<td>5,968</td>
</tr>
<tr>
<td>Paid direct income taxes, EUR million</td>
<td>478</td>
<td>718</td>
<td>905</td>
<td>915</td>
<td>1,780</td>
</tr>
<tr>
<td>Interests paid, EUR million</td>
<td>277</td>
<td>283</td>
<td>235</td>
<td>256</td>
<td>155</td>
</tr>
<tr>
<td>Dividends paid, EUR million</td>
<td>755</td>
<td>1,536</td>
<td>1,519</td>
<td>1,546</td>
<td>2,048</td>
</tr>
<tr>
<td>Total purchases of goods and services, EUR million</td>
<td>21,125</td>
<td>27,572</td>
<td>30,500</td>
<td>29,100</td>
<td>34,600</td>
</tr>
<tr>
<td>Liquid assets at year-end, EUR million</td>
<td>9,909</td>
<td>10,902</td>
<td>12,275</td>
<td>8,873</td>
<td>6,820</td>
</tr>
<tr>
<td>Total liabilities at year-end, EUR million</td>
<td>20,502</td>
<td>22,289</td>
<td>22,892</td>
<td>20,989</td>
<td>23,072</td>
</tr>
<tr>
<td>Retained earnings at year-end, EUR million</td>
<td>3,995</td>
<td>7,836</td>
<td>10,500</td>
<td>10,132</td>
<td>11,692</td>
</tr>
</tbody>
</table>
## 6.3 Nokia Group Table

### ENVIRONMENTAL KEY DATA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy consumption, GWh</td>
<td>1,074</td>
<td>1,143</td>
<td>1,190</td>
<td>1,223</td>
<td>1,285</td>
</tr>
<tr>
<td>Direct CO2e from facilities, tonnes (^a)</td>
<td>22,200</td>
<td>23,900</td>
<td>23,800</td>
<td>22,700</td>
<td>25,000</td>
</tr>
<tr>
<td>Indirect CO2e from facilities energy consumption, tonnes, net (^b)</td>
<td>387,900</td>
<td>401,900</td>
<td>363,500</td>
<td>413,500</td>
<td>434,500</td>
</tr>
<tr>
<td>Indirect CO2e from facilities energy consumption, tonnes, gross (^a)</td>
<td>498,400</td>
<td>516,300</td>
<td>523,000</td>
<td>520,800</td>
<td>496,700</td>
</tr>
<tr>
<td>C02 avoided due to renewable energy, tonnes</td>
<td>-110,500</td>
<td>-114,400</td>
<td>-127,000</td>
<td>-107,300</td>
<td>-62,200</td>
</tr>
<tr>
<td>C02 avoided due to Gold Standard offsets, tonnes</td>
<td>0</td>
<td>0</td>
<td>-32,500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Water withdrawal, thousands m(^3) (^a)</td>
<td>1,674</td>
<td>1,906</td>
<td>2,197</td>
<td>2,167</td>
<td>2,293</td>
</tr>
<tr>
<td>Total waste, tonnes</td>
<td>38,500</td>
<td>58,500</td>
<td>69,100</td>
<td>58,930</td>
<td>55,200</td>
</tr>
<tr>
<td>Total waste utilisation, %</td>
<td>96%</td>
<td>94%</td>
<td>93%</td>
<td>91%</td>
<td>88%</td>
</tr>
<tr>
<td>Emissions of ODS, kg of CFC-11 equivalent (^c)</td>
<td>157</td>
<td>200</td>
<td>187</td>
<td>186</td>
<td>42</td>
</tr>
<tr>
<td>Data reported from Facility area, 1000m(^2) (^a)</td>
<td>2,002</td>
<td>2,445</td>
<td>2,489</td>
<td>2,641</td>
<td>2,743</td>
</tr>
</tbody>
</table>

### EMPLOYEES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employees at year-end</td>
<td>97,798</td>
<td>130,050</td>
<td>132,427</td>
<td>123,553</td>
<td>125,829</td>
</tr>
<tr>
<td>Wages &amp; benefits, EUR million (^d)</td>
<td>7,183</td>
<td>7,534</td>
<td>6,995</td>
<td>6,747</td>
<td>6,914</td>
</tr>
<tr>
<td>Pension expenses net, EUR million</td>
<td>375</td>
<td>445</td>
<td>431</td>
<td>427</td>
<td>478</td>
</tr>
</tbody>
</table>
Nokia Group Table Notes

1. Figures are consolidated Nokia group data that include Nokia Siemens Networks and L&C (previously called NAVTEQ). The years are not directly compatible largely because of following reasons:

• Year 2008 Nokia Siemens Networks data was consolidated in Nokia Group data for 12 months and NAVTEQ for less than 6 months.
• Years 2009-2012 Nokia Siemens Networks and NAVTEQ data were both consolidated in Nokia Group data for 12 months.
• In April 2011, Nokia Siemens Networks acquired the majority of the wireless network assets of Motorola Solutions. From April 30, 2011, certain of Motorola Solutions’ products and services and approximately 6,900 employees were transferred to Nokia Siemens Networks.
• As of October 1, 2011, Location & Commerce was formed by combining the NAVTEQ business with Devices & Services social location services operations. As of January 1, 2013, Location & Commerce business and reportable segment has been renamed as the HERE business and reportable segment.

2. The presentation of Nokia Siemens Networks’ restructuring and other associated expenses has been aligned with other Nokia businesses and included within other expenses instead of impacting functions. This has caused the historical data of years 2010 and 2011 for R&D expenses to change from what was disclosed last year.

3. “Direct CO2e from facilities” -data was updated in 2012 to include also minor fugitive HFC emissions from cooling systems, when earlier published values included only direct emissions from use of energy.

4. Net and gross indirect CO2 emissions: Gross emissions are emissions from purchased electricity and heat calculated with IEA (Internal Energy Agency) country emission factors. Net emissions are gross emissions reduced with CO2 avoided due to purchase of renewable energy (certificates) and carbon offsets.

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

6. For NSN share of Group data, environmental data only covers buildings that are larger than 3,000 m², and these sites represent around 80% of NSN’s overall real estate portfolio. In 2007-2009 waste data is covering only 71-83% of over 3000 m² buildings. In 2012, energy data represent facilities which were >3000m² at the beginning of the year 2012, totaling 819049 m² (NIA sqm and closed NIA sqm) which is 72% of the entire RE portfolio. Some facilities’ Nov and Dec consumption has been estimated as the invoices detailing actual usage remain outstanding at the time of reporting. Due to similar estimations 2011 figures are slightly updated from values published in 2011 report. NSN’s 2011 water value changed from 711 Mega liters to 597 Mega liters due to estimations replaced with measured data (8% effect to change) and a reporting error noticed in one site.

7. The figures consist of Personnel expenses as per income statement. The figures include termination benefits.
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thank you