



**NOKIA**

3<sup>rd</sup> position, 5.4/10

**Nokia moves up to 3<sup>rd</sup> position in this edition of the Greenpeace Guide to Greener Electronics.**

Even with a stronger performance on the **Energy** criteria, the company stays behind both HP and Wipro. Nokia met a renewable energy target of 40%, a strong number but still below its original 2010 target of 50%. The company falls short in other areas as well, including lacking a robust clean electricity plan, an ambitious greenhouse gas (GHG) emissions reduction target of 30% by 2015, and a renewable energy target of 100% by 2020. However, Nokia does receive top points for disclosing externally verified GHG emissions from its own operations.

Nokia's **Products** scores do not change in the latest edition. Although the company has released new information on warranties, it fails to provide similar data on spare parts to increase the life of its products. Nokia fails to score on the use of recycled plastics, although the Nokia 700 is its first smartphone made with 33% recycled plastics. The company is just shy of maximum points on hazardous substances, do to its lack of a target for eliminating all antimony compounds. It continues to score maximum points for the energy efficiency of its products for setting a new target to reduce no-load power used by its chargers.

Nokia scores highest marks on the **Sustainable Operations** criteria. The company has a comprehensive voluntary take-back programme, which spans 100 countries providing nearly 6,000 collection points for end-of-life mobile phones, with accessible information provided to customers. Nokia was also one of the first global brands to offer a take-back programme in India. However, it fails to score maximum points, as the quantities are still small and are not reported as a percentage of past sales. Nokia needs to improve its chemicals management programme, further developing its policies and programme to address conflict minerals as well as a paper procurement policy that excludes suppliers involved in deforestation and illegal logging.

		ZERO	LOW	MEDIUM	HIGH
<b>ENERGY</b>	Disclose and set targets for operational GHG emissions and RE supply			YELLOW	
	Disclose and set targets for supply chain GHG emissions and RE supply			YELLOW	
	Clean Electricity Plan (CEP)			YELLOW	
	Clean Energy Policy Advocacy		ORANGE		
<b>PRODUCTS</b>	Product energy efficiency				GREEN
	Avoidance of hazardous substances in products			YELLOW	
	Use of recycled plastic in products	RED			
	Product life cycle	RED			
<b>OPERATIONS</b>	Chemicals management and advocacy			YELLOW	
	Policy and practice on sustainable sourcing of fibres for paper		ORANGE		
	Policy and practice on avoidance of conflict minerals			YELLOW	
	Provides effective voluntary take-back where there are no EPR laws			YELLOW	

<b>Energy</b>		<b>15/32</b>
<b>Disclose and set targets for operational GHG emissions and RE supply</b>	<p>Nokia reports that the energy consumption by its facilities resulted in 18,600 tonnes of direct and 197,700 tonnes of indirect GHG emissions in 2011 (p. 125-132 key data, <b>Sustainability Report 2010</b>). Nokia provides a detailed breakdown and analysis of its GHG emissions. Verification of the data is provided by PricewaterhouseCoopers (p.98-100).</p> <p>In 2012 Nokia was rated by CDP among the world's top 10 companies (sharing 6<sup>th</sup> position) in terms of climate change disclosure and performance being also the highest ranked electronics company in <b>the list</b>. Nokia is committed to reduce GHG emissions in its offices, R&amp;D sites and manufacturing facilities by a minimum of 30% by 2020 (2006 baseline). It also has <b>a relative target to reduce GHG emissions per person</b> working in Nokia offices and R&amp;D by a minimum 15% by the end of 2012 and 28% by the end of 2015, 15% by 2012, and 28% by the end of 2015, compared to 2006.</p> <p>In 2011, Nokia facilities' greenhouse gas emissions were 17% lower than in base year 2006, meaning it is on track towards its 2020 target. CO<sub>2</sub> emissions from offices and R&amp;D premises were reduced by 15% CO<sub>2</sub>/person, in line with its 2011 target, compared to 2006. On renewable energy, <b>Nokia aims to maintain the purchase of renewable energy</b> via grid and via renewable energy certificates at least in the current level of 35-40% as well as study possibilities to increase on-site generation of renewable energy.</p> <p>Nokia needs to set new targets to cut its operational GHG emissions by at least 30% by 2015 and to increase its use of renewable energy to 100% by 2020.</p>	<b>5/8</b>
<b>Disclose and set targets for supply chain GHG emissions and RE supply</b>	<p>Nokia reports its supply chain emissions of CO<sub>2</sub>-e as 1,870,000 tonnes in 2011, down from 6,880,000 tonnes in 2010. (<b>Sustainability Report p.125</b>). Nokia conducts product life cycle analysis which shows that the greatest proportion of GHG emissions from a typical product are from raw materials and component manufacture, at 54%.(p.50). <b>More information.</b></p> <p>Nokia states that it has identified the most energy intensive component types and processes and that suppliers of these components or processes are required to set targets, measure and monitor their energy consumption and GHG emissions. Nokia evaluates whether reduction targets have been set and met. In 2011, 66% of hardware suppliers that account for the highest environmental impact or are strategically important had company-level reduction targets for energy and GHG emissions (which have also been externally verified – see p.98 Sustainability Report). All other direct suppliers are encouraged to monitor and measure their energy and GHG emissions, and many are <b>already voluntarily reporting</b>.</p>	<b>5/8</b>
<b>Clean Electricity Plan (CEP)</b>	<p>Concern about the availability of RE is raised by Nokia's CEO introducing its 2011 <b>Sustainability Report (p.6)</b>: "unfortunately the renewable energy market has developed more slowly than expected. That said, Nokia still showed progress on this front in 2011, installing fuel cells at our facility in Sunnyvale in the US and a small biofuel station in Chennai, India. Nokia has increasingly purchased green electricity since 2006, and altogether, in 2011 our renewable electricity share was equal to 40%, which reduced our CO<sub>2</sub> emissions by 54,500 tonnes."</p> <p>Nokia intends to maintain this level of 35-40% as well as study possibilities to increase on-site generation of renewable energy. However, this is less than its original target of 50%. <b>Sustainability Report 2010 (p.81)</b></p> <p>Nokia's <b>climate strategy</b> looks at the energy consumption and greenhouse gas emissions of its products and operations and sets reduction targets accordingly (see targets in E1). Nokia's original ambitious target was 23% reduction of GHG emissions per person working in Nokia offices and R&amp;D for 2012, but this had to be revised due to the new Nokia strategy, which significantly changed the number of sites and employees during 2012. The longer term targets however remain unchanged. It aims to "continue the development of our <b>Green Data Center strategy</b> that is already implemented in Finland, delivering targeted cooling, environmentally friendly backup power and power-efficient server racks". Nokia's approach to greener buildings involves a combination of standards, local energy efficiency initiatives and new ways of thinking about how we to use space effectively. Nokia gives examples for its offices, factories and data centres (p.72 – 76) and renewable energy (p.77 – 78). <b>See Sustainability Report.</b></p>	<b>4/8</b>
<b>Clean Energy Policy Advocacy</b>	<p>Nokia, together with Intel, Lenovo and HP, has prepared a report, ICT and Low Carbon Growth in China, and worked on a number of initiatives to demonstrate <b>the benefits of ICT solutions in greening the society</b>. Nokia lists the international organisations driving sustainability that it works with, such as the Global e-Sustainability Initiative and the ICT for energy efficiency forum. <b>More information</b> – see Industry Co-operation.</p> <p>More specific details about Nokia's advocacy for clean energy are not provided.</p>	<b>1/8</b>

Greener Products		9/16
<b>Product energy efficiency</b>	<p>Five of Nokia's chargers have 5 stars and two have 4 stars, according to the voluntary agreement EU &amp; industry IPP project rating system. Between 2000 and 2009 Nokia has reduced the average no-load power consumption of its chargers by over 80%, and in its best in class chargers by over 95%, this percentage will increase with the introduction of new 4 and 5 star chargers.</p> <p>Nokia also has a Solar Power Charging Project as part of its long term research into energy efficiency.</p> <p>Products also feature power saving standby mode and other applications, features and technologies to reduce energy use. <b>More information.</b></p> <p>Nokia is a member of the ICT for energy efficiency forum. <b>More information.</b></p>	5/5
<b>Avoidance of hazardous substances in products</b>	<p>Nokia sits close to maximum points having already phased out brominated compounds, chlorinated flame retardants and antimony trioxide; however, there is no target to phase out other antimony compounds.</p> <p>Nokia eliminated remaining uses of PVC in 2006 and the use of phthalates has been restricted since 2005. It banned the use of beryllium oxide in 2004 and the use of all other beryllium compounds has been restricted since 2010, for all new products. More information – see <b>Phasing out restricted substances.</b></p> <p>From the beginning of 2010, all new Nokia products must be free of bromine, chlorine and antimony trioxide as defined in the <b>Nokia Substance List.</b></p> <p><b>Eco-declarations provided for all Nokia products.</b></p> <p><b>PVC elimination case study.</b></p> <p><b>Case study on phasing out brominated and chlorinated compounds and antimony trioxide.</b></p>	4/5
<b>Use of recycled plastic in products</b>	<p>Nokia has made no progress on its use of post-consumer recycled plastics. Nokia continues to research recycled plastic, working on ways to overcome durability issues. Nokia 700 is the first Nokia smartphone to introduce the use of recycled plastics. See <b>Sustainable Futures with Innovative Materials.</b></p> <p>The total amount of eco plastics – including recycled plastics and bio plastics – <b>in this device</b> is 33% of all plastics used, and 11% of the total mass of the device.</p> <p>To score points it will need to add more examples of products using recycled plastics and publish overall figures on the overall quantities of recycled plastics used as a percentage of total plastics use.</p>	0/3
<b>Product life cycle</b>	<p><b>Information on limited warranties</b> within the EU, Iceland, Norway, Switzerland and Turkey is provided: 24 months for the mobile device, 12 months for accessories, 6 months for the consumable parts and accessories: batteries, chargers, desk stands, headsets, cables and covers; and 90 days for the software media. Warranty terms depend on the device and the country of purchase.</p> <p><b>Software updates can increase the life-span of a phone.</b></p> <p>Nokia provides <b>eco profiles</b> for all its products.</p> <p>Nokia needs to publicly disclose the spare parts availability for its main product lines. For maximum points it also needs to show some innovative measures that increase lifespan and durability of whole product systems.</p>	0/3

<b>Sustainable Operations</b>		13/21
<b>Chemicals management and advocacy</b>	<p>Nokia has already phased out some harmful chemicals and identified future substances for elimination. It follows the precautionary principle and aims to go beyond legislation and compliance. Nokia states that it “is actively contributing to the development of systematic criteria and processes for improved RoHS legislation.” Nokia does not provide any evidence of advocacy for strong chemicals legislation. Although it has case studies demonstrating the substitution of hazardous chemicals of concern such as chlorinated and brominated substances, this information not been submitted to the Substitution Support Portal (Subsport). <b>More information.</b></p> <p><b>New version (2012) of Nokia’s substance list.</b> The list also specifies a ban on use of certain restricted substances by suppliers but is not to be generally applied to raw materials and process chemicals. Nokia’s requirements for the control of materials and substances used by suppliers in their processes are defined in the Nokia Supplier Requirements for Environmental Management; see <b>Supplier Requirements and Assessments.</b></p> <p><b>Excerpts from the Supplier Requirements</b> relating to management, human resources and environment are now published. Suppliers are required to “consider environmental aspects in all phases of product development ... Choices made during these product development phases shall, whenever possible, reduce or eliminate negative environmental impacts. All reasonable attempts shall be made to reduce or eliminate hazardous constituents from the product ....” Preventing emissions of hazardous substances from manufacturing is implied but not specified.</p>	<b>3/5</b>
<b>Policy and practice on sustainable sourcing of fibres for paper</b>	<p>For fibre-based <b>printing and packaging materials</b>, Nokia aims to use 100% certified renewable or recycled materials by 2015. Certification by FSC and / or PEFC is acceptable, with priority on the former. Nokia’s target is to use at least 70% of recycled fibers on average across all packaging. Nokia states that “More than 95% of our packaging is made from renewable, paper-based materials, of which up to 60% is recycled content”.</p> <p>Nokia has a new <b>Natural Resources Policy</b>, concerned with the link between the illegal extraction and trade of natural resources and environmental degradation, which states that it does not “tolerate nor by any means profit from, contribute to, assist with or facilitate any activity that .....leads to serious environmental degradation”. Nokia needs to create a more robust policy that includes procurement language that prevents buying from companies involved in deforestation.</p>	<b>1/3</b>
<b>Policy and practice on avoidance of conflict minerals</b>	<p>Nokia requires its <b>suppliers</b> to follow the principles outlined in its <b>Natural Resources Policy</b> and conflict minerals. From 2012, Nokia is using the standardised EICC-GeSI Conflict Minerals Reporting Template to continue mapping and monitoring its suppliers’ commitment and activities; the pilot phase of this mapping will continue till the end of 2012. The principles of the policy are incorporated in the contractually binding Nokia Supplier Requirements (NSR) and Nokia works with its suppliers to increase transparency in the supply chain. Nokia supports and contributes to industry initiatives such as the Conflict Free Minerals programme to validate its supplies of metals and has joined Solutions For Hope initiative for sourcing validated tantalum. Also see p.94 &amp; 95, <b>Sustainability Report.</b></p> <p>Nokia is active in the EICC conflict-free smelter programme but has not yet published smelters or suppliers, as several companies have already done. It has a new internal policy for suppliers on conflict minerals, but does not yet have third party monitoring. Although it has signed up to the Public Private Alliance it has not made statements on the need for a multi-stakeholder certification process or made a public commitment to implement the OECD due diligence guidelines.</p> <p>Nokia did not issue a statement against the Chamber of Commerce lawsuit and did not join the multi-stakeholder submission to the SEC on conflict minerals. Nokia participated in the OECD due diligence drafting and has actively reached out to NGOs after the movie “Blood in the Mobile.”</p>	<b>3/5</b>
<b>Provides effective voluntary take-back where there are no EPR laws</b>	<p>Nokia has around 6,000 recycling points in almost 100 countries around the world. The information provided is very good, with addresses, phone numbers and directions to <b>Nokia Care Centres</b>. Details of recycling are provided under each country – the information is currently being localised in product information pages, <b>see UK for example</b>. Details of recycling information can also be found in the product user manual, see for example <b>Nokia 808 page 126.</b></p> <p>In India, Nokia started its take-back and recycling activities in 2008 and has since been running over 1400 permanent recycling points at Care and Retail outlets. <b>60 tons of phones and accessories were collected in 2011.</b> Nokia provides updates on its recycling programmes in India, China, Brazil, SE Asia, Egypt, Africa, Middle East and North America in its Sustainability Report (p.56-57). Nokia has collected 661 tonnes of e-waste from the market in 2011. This is an increase of 60% compared to the previous year but does not include recycling through other channels, therefore Nokia states it is unable to report the recycling rate as a percentage of sales. See p.54 – 57, p.127, <b>Sustainability Report 2011.</b></p>	<b>6/8</b>