



## NOKIA Ranking = 7.5/10

Nokia stays in 1<sup>st</sup> place with the same score of 7.5.

Overall, Nokia does best on the toxic chemicals criteria, followed by energy, and does least well on e-waste issues. Nokia scores very well on toxic chemical issues; all its new models have been free of PVC since the end of 2005, and all new models of mobile phones and accessories launched in 2010 are on track to be free of brominated compounds, chlorinated flame retardants and antimony trioxide, therefore achieving its goal to phase out these substances. However, despite Nokia's support for further restrictions for chlorinated and brominated substances in legislation, it fails to score for its position on the RoHS (Restriction of Hazardous Substances in electronics) Directive, as it does not openly support restrictions on at least PVC vinyl plastic, chlorinated flame retardants (CFRs) and brominated flame retardants (BFRs) in the next 3-5 years i.e. in RoHS 2.0.

Nokia scores maximum points for its comprehensive voluntary take-back programme, which spans 85 countries providing almost 5,000 collection points for end-of-life mobile phones. It also scores top marks for the information it provides to customers on what to do with their discarded products. However, its recycling rate of 3 to 5 percent is very poor; more information is needed on how Nokia calculates these figures; it also needs to start using recycled plastics beyond just for packaging.

Nokia is one of the top scorers on the energy criteria. Nokia scores points for sourcing 25 percent of its total energy needs from renewable sources in 2007 and has a target to increase its use of renewable energy to 50 percent by 2010. Top marks (doubled) are given for product energy efficiency as all but one of its mobile phone chargers exceed the Energy Star requirements by between 30 and 90 percent. It also scores full marks for committing to reduce its own absolute CO<sub>2</sub> emissions by a minimum of 10 percent in 2009 and 18 percent in 2010, from a baseline year of 2006. Nokia provides a third party verification certificate for its disclosed CO<sub>2</sub> emissions and it scores a point for its CEO's statement in support of 30 percent cuts in greenhouse gas emissions in industrialised countries by 2020.

## NOKIA Overall Score

	<b>BAD (0)</b>	<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>
Precautionary Principle and support for revision of RoHS Directive.				
Chemicals Management				
Timeline for PVC & BFR phaseout				
Timeline for additional substances phaseout				
PVC-free and/or BFR-free models <small>(companies score double on this criterion)</small>				
Individual producer responsibility				
Voluntary take-back				
Information to individual customers				
Amounts recycled				
Use of recycled plastic content				
Global GHG emissions reduction support				
Carbon Footprint disclosure				
Own GHG emissions reduction commitment				
Amounts of renewable energy used				
Energy efficiency of new models <small>(companies score double on this criterion)</small>				

# NOKIA Detailed Scoring

## Chemicals

Precautionary Principle and support for revision of RoHS Directive.	Chemicals Management	Timeline for PVC & BFR phaseout	Timeline for additional substances phaseout	PVC-free and/or BFR-free models (double points)
<b>PARTIALLY BAD (1+)</b>	<b>GOOD (3+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>
Nokia's definition of the precautionary principle supports taking voluntary steps to eliminate potential hazardous substances despite lack of full scientific certainty. <b>More information.</b> Nokia states that it supports a methodology for further restrictions in RoHS, where restriction criteria are based on <i>potential</i> risk in the <i>full</i> product life cycle. Nokia only scores one point as although it supports further restrictions for chlorinated and brominated substances it does not openly support restrictions on at least PVC, CFRs and BFRs in the next 3-5 years in RoHS 2.0.	Nokia has already phased out some harmful chemicals and identified future substances for elimination. <b>More information. New version (2010) of Nokia's substance list.</b>	Nokia states that all new mobile phones and accessories to be launched during 2010 are on track to become fully free of bromine, chlorine and antimony trioxide. <b>More information.</b> Nokia eliminated remaining uses of PVC in 2006. See PVC elimination case study. <b>More information. Nokia's approach.</b>	Nokia has banned the use of beryllium oxide since 2004 and it is working to restrict beryllium and its compounds in the near future with the exemption of use as gold dopant. The intentional addition of 8 types of phthalates is also banned in new products. <b>More information.</b> All products from 2010 will be free of antimony trioxide. However, there is no target to phase out other antimony compounds. <b>More information.</b>	Nokia gets maximum points as it has achieved its goal to phase out brominated compounds, chlorinated flame retardants and antimony trioxide; Nokia eliminated remaining uses of PVC in 2006. Today a total of 33 new Nokia products are free from these substances; all new models of mobile phones and accessories launched in 2010 are on track to be free of these substances. <b>More information. Eco-declarations provided for all Nokia products. Product details.</b>

## E-Waste

Support for Individual Producer Responsibility	Provides voluntary take-back where no EPR laws exist	Provides info for individual customers on take-back in all countries where products are sold	Reports on amount of e-waste collected and recycled	Use of recycled plastic content in products - and timelines for increasing content
<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY BAD (1+)</b>	<b>BAD (0)</b>
Nokia has consistently supported and lobbied for IPR. Its current commitment to IPR is unclear and needs to be updated to maintain these points. It should clarify that support for IPR means full internalisation and transparent feedback of its products real end-of-life costs. It also needs to explore options for operationalising IPR and to lobby for IPR, inter alia to ensure the revised EU WEEE legislation sets clearer requirements (enforcement criteria) for the implementation of IPR by enforcing differentiated financing for own-brand real end-of-life costs. <b>More information. See also p.98 of Sustainability Report 2009.</b>	Take-back is offered in 85 countries, including in Africa and Latin America, with almost 5000 Nokia collection points globally, see p 74. <b>More information here and here.</b> Although Nokia has a programme in Argentina this isn't listed on its global website. <b>More information. Take-back points.</b>	The information provided is very good, with addresses, phone numbers and directions to Nokia Care Centres and updates about the development of new take-back programmes, most recently those launched in 10 Middle Eastern countries and 11 African countries. <b>More information.</b>	Nokia collected 373 tonnes of e-waste in 2009 including 4.7 million mobile phones, compared to 316 tonnes in 2008. <b>See p 90 Sustainability Report.</b> Nokia reports on its collection and recycling achievements in China, Finland, North America, Chile & Peru and Malaysia. <b>More information.</b>	Nokia is still actively researching the use of recycled plastics, which are currently used only in packaging. It's about time Nokia started using recycled plastics in its mobile phones, as its competitors are doing. <b>More information.</b>

## Energy

Support for global mandatory reduction of GHG emissions	Company carbon footprint disclosure	Commitment to reduce own direct GHG emissions	Amount of renewable energy used	Energy efficiency of New Models (double points)
<b>PARTIALLY BAD (1+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>	<b>PARTIALLY GOOD (2+)</b>	<b>GOOD (3+)</b>
Nokia has signed the <b>Bali Communiqué</b> and its CEO states that 'By working together even the goal of achieving 30% cuts in CO <sub>2</sub> emissions from 1990 levels in industrialized countries by 2020 is possible'. For full marks, Nokia needs to call for global GHG emissions to peak by 2015. <b>More information.</b> For full marks, Nokia needs to call for global GHG emissions to peak by 2015.	Nokia reports on its 2009 GHG emissions as 227,100 tonnes compared to 244,700 tonnes in 2008 in its Sustainability Report, p121, 125 & 126. Independent assurance report p.134 – 137, refers to Ecofys verification of 2008 GHG data. In future, Nokia needs to provide verification of its 2009 GHG emissions according to the GHG protocol. <b>More information.</b> Nokia has published a <b>verification statement</b> of its 2008 data. Nokia provides a <b>life cycle analysis</b> of a typical Nokia device. <b>Also see p 120 Sustainability Report.</b>	Nokia is committed to reducing CO <sub>2</sub> emissions by a minimum of 10% in 2009 and 18% in 2010, from a baseline year of 2006. Nokia is to ensure that its key suppliers set energy efficiency and CO <sub>2</sub> emission reduction targets. <b>More information.</b>	In 2009 35% of Nokia's electricity use was provided by renewable energy, compared to 26% in 2008. Most of this is made up of RES-E Guarantee of Origin certificates in Europe and Greenpower certificates in Australia. <b>See Sustainability Report, p 122 &amp; 129.</b> Nokia's target for renewable electricity is to increase its use to cover 50% of its total needs in 2010. <b>See p.49 here.</b> Although Nokia provides details of the various renewable energy certificates that it purchases, it remains on two points because it fails to address concerns about additionality and to provide more information about the EU RECs it is buying.	All Nokia's new models of chargers meet or exceed the EPA's Energy Star requirements. All except one of the currently available chargers exceed the requirements in no load mode by between 30 and 90%. <b>More information and here.</b>

## Criteria on Toxic Chemicals

Greenpeace wants to see electronics companies clean up their act.

Substituting harmful chemicals in the production of electronics will prevent worker exposure to these substances and contamination of communities that neighbour production facilities. Eliminating harmful substances will also prevent leaching/off-gassing of chemicals like brominated flame retardants (BFR) during use, and enable electronic scrap to be safely recycled. The presence of toxic substances in electronics perpetuates the toxic cycle – during reprocessing of electronic waste and by using contaminated secondary materials to make new products.

The issue of toxicity is overarching. Until the use of toxic substances is eliminated, it is impossible to secure 'safe' recycling. For this reason, the points awarded to corporate practice on chemicals are weighted more heavily than criteria on recycling.

Although there are five criteria on both chemicals and waste, the top score on chemicals is 18 points, as double points are awarded for vinyl plastic-free (PVC) and BFR-free models on the market, whereas the top score on e-waste is 15 points.

The first criterion has been sharpened to require companies not only to have a chemicals policy underpinned by the Precautionary Principle, but also to support a revision of the RoHS Directive that bans further harmful substances, specifically BFRs, chlorinated flame retardants (CFRs) and PVC. The criterion on Chemicals Management remains the same. The criterion: BFR-free and PVC-free models on the market, also remains the same and continues to score double points.

The two former criteria: Commitment to eliminating PVC with timeline and Commitment to eliminating all BFRs with timeline, have been merged into one criterion, with the lower level of commitment to PVC or BFR elimination determining the score on this criterion.

A new criterion has been added, namely Phase out of additional substances with timeline(s). The additional substances, many of which have already been identified by the brands as suspect substances for potential future elimination are:

- (1) all phthalates,
- (2) beryllium, including alloys and compounds and
- (3) antimony/antimony compounds

## Criteria on e-waste

Greenpeace expects companies to take financial responsibility for dealing with the electronic waste (e-waste) generated by their products, to take back discarded products in all countries with sales of their products and to re-use or recycle them responsibly. Individual Producer Responsibility (IPR) provides a feedback loop to the product designers of the end-of-life costs of treating discarded electronic products and thus an incentive to design out those costs.

An additional e-waste criterion has been added and most of the existing criteria have been sharpened, with additional demands. The new e-waste criterion requires the brands to report on the use of recycled plastic content across all products and provide timelines for increasing content.

## Criteria on energy

The five new energy criteria address key expectations that Greenpeace has of responsible companies that are serious about tackling climate change. They are:

- (1) Support for global mandatory reduction of greenhouse gas (GHG) emissions;
- (2) Disclosure of the company's own GHG emissions plus emissions from two stages of the supply chain;
- (3) Commitment to reduce the company's own GHG emissions with timelines;
- (4) Amount of renewable energy used
- (5) Energy efficiency of new models (companies score double on this criterion)

**Click here to see more detailed information on the ranking**

## Ranking criteria explained

As of the 8th edition of the Guide to Greener Electronics, Greenpeace scores electronics brands on a tightened set of chemicals and e-waste criteria, (which include new criteria) and on new energy criteria.

The ranking criteria reflect the demands of the Toxic Tech campaign to electronics companies. Our two demands are that companies should:

- (1) clean up their products by eliminating hazardous substances; and
- (2) take-back and recycle their products responsibly once they become obsolete.

The two issues are connected: the use of harmful chemicals in electronic products prevents their safe recycling once the products are discarded.

Given the increasing evidence of climate change and the urgency of addressing this issue, Greenpeace has added new energy criteria to encourage electronics companies to:

- (3) improve their corporate policies and practices with respect to Climate and Energy

**Ranking regrading:** Companies have the opportunity to move towards a greener ranking as the guide will continue to be updated every quarter. However penalty points will be deducted from overall scores if Greenpeace finds a company lying, practicing double standards or other corporate misconduct.

**Disclaimer:** Greenpeace's 'Guide to Greener Electronics' aims to clean up the electronics sector and get manufacturers to take responsibility for the full life cycle of their products, including the electronic waste that their products generate and the energy used by their products and operations.

The guide does not rank companies on labour standards, social responsibility or any other issues, but recognises that these are important in the production and use of electronics products.

**Changes in ranking guide:** We first released our 'Guide to Greener Electronics' in August 2006, which ranked the 14 top manufacturers of personal computers and mobile phones according to their policies on toxic chemicals and recycling.

In the sixth issue of the Guide, we added the leading manufacturers of TVs – namely, Philips and Sharp – and the game console producers Nintendo and Microsoft. The other market leaders for TVs and game consoles are already included in the Guide.

In the eighth edition, we sharpened some of the existing ranking criteria on toxic chemicals and e-waste and added a criterion on each issue. We also added five new energy criteria. In the fourteenth edition the criteria for the Precautionary Principle was made more challenging.

For the latest version [greenpeace.org/greenelectronics](http://greenpeace.org/greenelectronics)

Toshiba, Samsung, LGE, Dell and Lenovo continue to be penalised in this latest version of the Guide for backtracking on their commitments to phase out vinyl plastic (PVC) and brominated flame retardants (BFRs). Toshiba is served with a further penalty point for misleading its customers and Greenpeace by not admitting that it would not meet its commitment. In addition, Microsoft is served with a penalty point for the first time for backtracking on its commitment to phase out PVC and BFRs by the end of 2010.