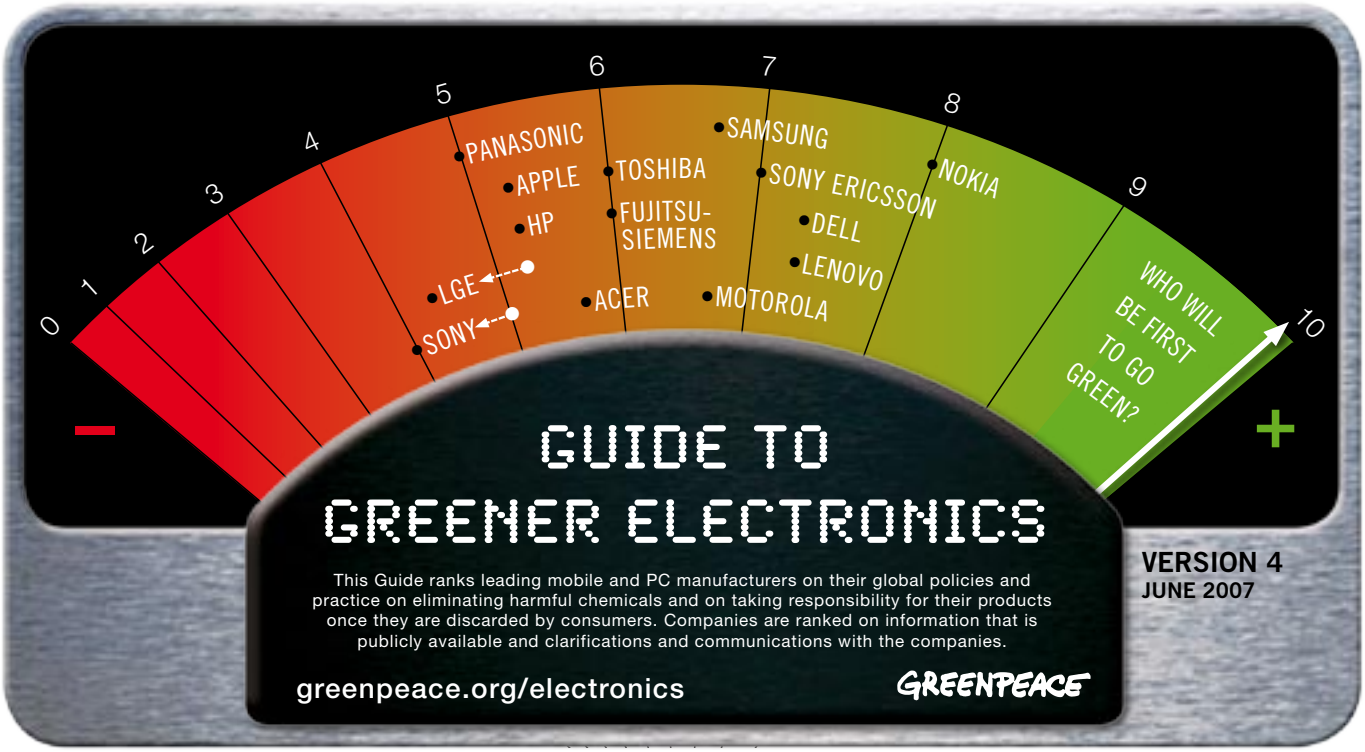

Ranking criteria explained

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

- clean up their products by eliminating hazardous substances;
- takeback and recycle their products responsibly once they become obsolete.

The two issues are connected. The use of harmful chemicals in electronics prevents their safe recycling when the products are discarded. Companies score marks out of 30, which are then re-calculated to give a mark out of 10 for simplicity.

Toxic chemicals criteria

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.

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 (five criteria, double points for PVC – and BFR-free models) are weighted more heavily than criteria on recycling, because until the use of harmful substances is eliminated in products, it is impossible to secure 'safe', toxic-free recycling.

Where two companies score the same number of total points, the company with the higher score on the chemicals criteria will be ranked higher.

The electronics scorecard ranks companies on:

Chemicals policy and practice (5 criteria)

1. A chemicals policy based on the Precautionary Principle
2. Chemicals Management: supply chain management of chemicals via e.g. banned/restricted substance lists, policy to identify problematic substances for future elimination/substitution
3. Timeline for phasing out all use of vinyl plastic (PVC)
4. Timeline for phasing out all use of brominated flame retardants (not just those banned by EU's RoHS Directive)
5. PVC- and BFR-free models of electronic products on the market.

Policy and practice on Producer Responsibility for taking back their discarded products and recycling (4 criteria)

1. Support for individual (financial) producer responsibility – that producers finance the end-of-life management of their products, by taking back and reusing/recycling their own-brand discarded products.
2. Provides voluntary takeback and recycling in every country where its products are sold, even in the absence of national laws requiring Producer Responsibility for electronic waste.
3. Provides clear information for individual customers on takeback and recycling services in all countries where there are sales of its products.
4. Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled.

Click here to see more detailed information on the ranking

Ranking regrading: Companies have the opportunity to move towards a greener ranking as the guide will be updated every quarter. However penalty points will be deducted from overall scores if Greenpeace finds a company lying, practising 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. The guide does not rank companies on labour standards, energy use or any other issues, but recognises that these are important in the production and use of electronics products.

For the latest version **greenpeace.org/greenerelectronics**

Sony and LGE continue to lose one penalty point from their overall scores for corporate double standards on Individual Producer Responsibility (IPR) for products discarded by consumers.

Sony is a founding member of the European Recycling Platform which supports IPR; however, in the US, Sony is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

While LGE's global website states that the company believes that the producer (not consumer) should be responsible for financing the waste management of its own brand products when they are discarded; in the US, LGE is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

NOKIA Ranking = 8/10

Nokia has reclaimed its position at the top of the ranking. The front-runner has already eliminated PVC from new models of mobiles and is now eliminating BFRs from the remaining applications of BFRs – in new flexible circuits.

Nokia gets top marks for its support for Individual Producer Responsibility, (each company should take care of the electronic waste from its own-branded discarded products). But, it loses points for poor reporting on the amounts of discarded mobiles that it recycles as a percentage of past sales.

NOKIA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

NOKIA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				**Nokia's definition of the precautionary principle earns them top points.**
Chemicals Management				Nokia has already phased out some harmful chemicals and identified future substances for elimination, including beryllium, nonyl phenols and NPEs (nonyl phenol ethoxylates) and antimony. **Nokia substance list.**
Timeline for PVC phaseout				Nokia has now eliminated remaining uses of PVC. **PVC elimination case study.**
Timeline for BFR phaseout				Nokia is now eliminating BFRs from the remaining application of BFRs – in new flexible circuits. **More information.**
PVC-free and/or BFR-free models (companies score double on this criterion)			**New models are PVC-free since the end of 2005.** From January 2007, Nokia will launch the first products without components containing BFRs, although some models will still contain components with BFRs. Eco-declarations are provided for all Nokia products. **More information.**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Nokia scores top marks for supporting IPR. **More information.**
Provides voluntary takeback where no EPR laws exist			Still many gaps on Nokia's global takeback map of the world especially in Latin America (e.g. Bolivia, Peru and Venezuela) and Africa – only North and South Africa. **More information.**	
Provides info for individual customers on takeback in all countries where products are sold			**No information in countries where no takeback services.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled		Nokia now provides a figure of 2% for mobiles recycled, but it unclear if this is as a percentage of all Nokia sales, or all brands of mobiles returned – and over which period. Nokia provides data on production waste, but the Guide ranks on end-of-life product waste. **More information here** and **here.**		

DELL Ranking = 7.3/10

Dell's strong position near the top of this scorecard is due to its strong definition of the precautionary principle, timelines for substituting toxic polyvinyl chloride (PVC) and brominated flame retardants (BFRs) and explicit support for Individual Producer Responsibility. Dell has announced its intention to provide global free takeback and recycling services to individual consumers wherever its products are sold. Dell loses points for having no models free of PVC and BFRs on the market. Dell now scores top marks for reporting its recycling rate as a percentage of sales.

DELL Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

DELL Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Definition of precautionary principle reflects need to eliminate potentially harmful chemicals even without full scientific certainty of cause and effect and earns Dell top marks. **More information.**
Chemicals Management				Dell's chemicals management programme lists substances targeted for substitution and provides a good description of how it manages its supply chain to achieve its substitution goals. **Guidance Document on Restricted Materials. More information.**
Timeline for PVC phaseout				Dell has **committed to eliminate all remaining uses of PVC** in new products by 2009.
Timeline for BFR phaseout				Dell has **committed to eliminate all remaining uses of BFRs** in new products by 2009. Dell shows the R&D they are doing on halogen-free materials, including a joint industry database of halogen free materials listed by suppliers to assist designers. **More information.**
PVC-free and/or BFR-free models (companies score double on this criterion)	**No PVC-free or BFR-free products on the market. More information.**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				**Strong support for IPR** and legislation embracing IPR. **More information on policy.**
Provides voluntary takeback where no EPR laws exist			Voluntary takeback service is planned to be virtually global, with timeline of end of 2007 for additional countries in Latin America. **More information here** and **here.** **Links to various countries and regions.**	
Provides info for individual customers on takeback in all countries where products are sold			Information provided to Dell's individual customers, but not yet worldwide: **Dell Recycling Program. Asset Recovery Service. Links to various countries and regions.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				Dell scores top marks for reporting its recycling rate based on sales 7 years ago. In 2006, this recycling rate was over 12%. **More information here.**

LENOVO Ranking = 7.3/10

Lenovo has dropped to joint second place, which still compares well with the bottom position it graced when the Guide was first launched in August 2006. Reasons for Lenovo's rise up the ranking are improvements in its policy positions. Closer examination of Lenovo's takeback and recycling services has revealed some weaknesses e.g. time-limited takeback in Thailand, therefore Lenovo loses points on that criteria. Lenovo also still fails to score any points for providing models on the market that are free of PVC and BFRs.

LENOVO Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

LENOVO Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Lenovo scores top marks for its definition of Precautionary Principle. **More information.**
Chemicals Management				Lenovo's Engineering Specification 41A7731 reflects its commitments on eliminating PVC and BFRs. **More information.**
Timeline for PVC phaseout				Lenovo's target for elimination of all uses of PVC by 2009 earns the company top marks. **More information.**
Timeline for BFR phaseout				Lenovo's target for elimination of all BFRs by 2009 earns the company top marks. **More information.**
PVC-free and/or BFR-free models (companies score double on this criterion)	Although Lenovo has added Product Environmental Data Sheets, no products are entirely free of PVC or BFRs. **More information.**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Lenovo scores top marks for strengthening their IPR position and for their support for legislation. **More information.**
Provides voluntary takeback where no EPR laws exist			Voluntary takeback is now offered in all countries where Lenovo sells products directly, but not in countries where re-sellers sell its products. Moreover, some takeback services are time-limited **e.g. Thailand. More information here** and **here.**	
Provides info for individual customers on takeback in all countries where products are sold			Lenovo provides takeback information to both business and individual customers in countries where the company sells its products directly. **More information.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				Lenovo provides figures of e-waste recycled based on past sales, but is hampered by many of its business customers selling their e-waste to other companies and the fact that Lenovo's global sales operations is only a year old. **More information.**

SONY ERICSSON Ranking = 7.0/10

Sony Ericsson maintains its position near the top of the ranking, by stating strong support for Individual Producer Responsibility. The company has now set a timeline of 1st January 2008 for eliminating the use of BFRs in two remaining applications, and the same timeline for substituting phthalates, beryllium and some uses of antimony compounds. All new models of mobile put on the market from 2006 are free of the worst chemicals like PVC. On the down side, Sony Ericsson loses points for failing to report on the amounts of discarded mobile phones it takes back and recycles.

SONY ERICSSON Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SONY ERICSSON Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle		Sony Ericsson gets just one point for referring to the Precautionary Principle, but failing to define what it means. **More information.**		
Chemicals Management				Sony Ericsson is ahead of many companies in already setting timelines to eliminate substances that others have only identified for future action. The company is to eliminate phthalates, beryllium and some uses of antimony compounds by 1st January 2008. **SE's pdf List of Banned & Restricted Substances.**
Timeline for PVC phaseout				All SE products are PVC free – except for cables in a few early models of chargers and accessories, and these are being phased out. **More information. Banned & Restricted Substances.**
Timeline for BFR phaseout				The SE List of Banned and Restricted Substances sets a deadline of 1st January 2008 for the phase out of two remaining uses, otherwise all products are BFR-free. **More information. SE's List of Banned & Restricted Substances.**
PVC-free and/or BFR-free models (companies score double on this criterion)			All SE products are now PVC-free, with the exception of cables in early models of chargers; and BFR-free with two exemptions until 1st January 2008. **More information. Environmental product declaration W300 example.**	

SONY ERICSSON Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Sony Ericsson has a strong statement in support of Individual Producer Responsibility. **More information.**
Provides voluntary takeback where no EPR laws exist			Voluntary takeback services provided in many locations globally product-by-product E.g. for W300: **More information here** and **here** and **here for US consumers.**	
Provides info for individual customers on takeback in all countries where products are sold			Information on what customers should do with their discarded mobiles is supplied product-by-product but contacts for local SE representatives should be provided E.g. for W300. **More information here** and **here.** E.g. for W300	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled	No information on amounts of WEEE collected and recycled.			

SAMSUNG Ranking = 6.7/10

Samsung remains in 5th place, with top marks on most chemicals criteria apart from the availability of products free of PVC and brominated flame retardants (BFRs). The company has improved their information to consumers on what to do with their discarded products. Samsung loses points for providing voluntary product take back of its electronic waste only in a few countries and only for some product groups. Samsung has still to report on its recycling rate as a percentage of past sales.

SAMSUNG Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SAMSUNG Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Samsung scores top marks on its support for and understanding of the Precautionary Principle. **More information.**
Chemicals Management				Samsung scores full marks on this criterion, by identifying future chemicals to be targeted for elimination. **Identification and management of targeted substances.** **Eco-Partner Certification Program (pdf).**
Timeline for PVC phaseout				Full marks for providing a timeline of 2010 for phasing out PVC. **More information here** and **here.**
Timeline for BFR phaseout				Samsung scores a yes for providing a timeline of 2010 for phasing out BFRs in all applications. **More information.**
PVC-free and/or BFR-free models (companies score double on this criterion)	No BFR-free or PVC-free models on the market – so far only assemblies and peripherals but not product systems. **More information here** and **here.**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Samsung scores top marks for its support for IPR. **More information.**
Provides voluntary takeback where no EPR laws exist		Despite new webpages on a mobile takeback programme, Samsung provides voluntary takeback only in a few countries and only for some product groups **New website on mobile recycling.** **Global recycling.** **Domestic (Korean) recycling**		
Provides info for individual customers on takeback in all countries where products are sold			Samsung scores an extra point for providing accessible information to consumers on what to do with their discarded products. **More information.** **New pages on mobile take-back.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Samsung has updated its Global Recycling volumes, providing some data for Korea, Japan and China, EU and US. **More information here** and **here.**	

MOTOROLA Ranking = 6.7/10

Motorola stays in 6th place. Although the company offers its customers an increasing number of models that are free from brominated flame retardants (BFRs), it has still to provide information on PVC-free models and to commit to timelines for eliminating all BFRs and PVC from their entire product portfolio. Motorola provides voluntary take-back/recycling services in 41 countries, accounting for more than 80 % of global mobile phone sales – with a goal in 2007 of 90%. Top marks to Motorola for reporting its recycling rate of 3.32%, as a percentage of sales 12-24 months before.

MOTOROLA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

MOTOROLA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Motorola has a definition of the precautionary principle which identifies precautionary measures to be taken. **More information.**
Chemicals Management				Motorola provides a list of banned and reportable substances in its Global Common Specification No. 12G02897W18 **More information. As a pdf. Training and resources provided to suppliers.**
Timeline for PVC phaseout	No commitment to eliminating all uses of PVC. **More information.**			
Timeline for BFR phaseout	No commitment to eliminating all uses of BFRs. **More infomation.**			
PVC-free and/or BFR-free models (companies score double on this criterion)			Motorola now lists 54 models that are free of BFRs' in their printed wiring boards. They have developed PVC-free products, but have not yet provided potential customers with the information to choose PVC-free. **More information.**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Motorola makes a clear statement in support Individual Producer Responsibility. **More information.**
Provides voluntary takeback where no EPR laws exist			Several countries have been added to the list (from 35 to 41) where Motorola provides a takeback service. This accounts for more than 80 % of global mobile phone sales eg. Philippines, Malaysia, Indonesia, India. **More information.** In addition, Motorola's goal for 2007 is to provide take-back in 90% of countries where they have sales. **2006 Corporate Responsibility Report.**	
Provides info for individual customers on takeback in all countries where products are sold			Information is provided to individual customers in the countries where they have voluntary programmes, including in the additional countries to which Motorola has extended their takeback programme. **More information.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				Motorola is now reporting its recycling rate of 3.32%, as a percentage of sales, comparing them with sales 12-24 months prior. **More information.**

TOSHIBA Ranking = 6/10

Toshiba has forged ahead, moving from 10th to 7th place. The company has committed to eliminate PVC and BFRs in all its products and has set a timeline of 2009 by which to remove these toxic substances from PCs and mobiles – a fraction of their entire product portfolio. The company offers models of laptops whose circuit boards are free of brominated flame retardants (BFRs) and EcoMark-certified products without polyvinyl chloride (PVC). The company loses points for its lack of support for Individual Producer Responsibility, but has improved on geographical coverage of its voluntary takeback programme and information to customers on what to do with their discarded products. Toshiba has yet to report on its recycling rate as a percentage of past sales.

TOSHIBA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

TOSHIBA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Toshiba is committed to the total eradication of specified chemical substances, regardless of lack of full scientific certainty, in accordance with the precautionary principles outlined in the Rio Declaration (1992). **More information here** and **here.** **See commitment #4.**
Chemicals Management				Toshiba has Green **Procurement Guidelines** for suppliers and ranks suppliers. **More information here** and **here.**
Timeline for PVC phaseout			Toshiba is committed to phasing out PVC from all its products, with a time of 2009 for eliminating the remaining uses of PVC from their notebook PCs and mobiles. **More information here** and **here.**	
Timeline for BFR phaseout			Toshiba is committed to phasing out all BFRs from its whole product range, with a timeline of 2009 for eliminating the remaining uses of BFRs from its notebook PCs and mobile phones. **More information here** and **here.**	
PVC-free and/or BFR-free models (companies score double on this criterion)		Toshiba makes a range of notebook PCs including the 'Dynabook', 'Qosmio', 'Satellite', 'Tecra' and 'Portege' models which have circuit boards free of halogens and antimony. Toshiba also makes EcoMark-certified products, some of which do not contain PVC. The information is difficult to access, but can be found in **'Factor T' brochure or pdf here.** **More information in Japanese.** **PVC-free and BFR-free models.**		

TOSHIBA Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	Toshiba's only reference to producer responsibility is with respect to fulfilling its obligation under EU's WEEE Directive. **More information**.			
Provides voluntary takeback where no EPR laws exist			Voluntary takeback of PCs and TVs as well as (B2B) business equipment is offered in US. PC takeback is also provided in Canada, South Korea and Australia. Toshiba claims to have "recycling programs in regions that cover 80% of total sales volume." **More information here** and **here.**	
Provides info for individual customers on takeback in all countries where products are sold			Improved geographical coverage and comprehensive information to customers in those countries with takeback programmes in place. **More information.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Toshiba reports on the weight of commercial, home appliances (Japan) TVs and PCs recycled globally. It also reports on the weight of TVs, PCs, commercial and medical equipment where collection is "systematized' – presumably where there is accounting of weight recycled to individual producers. **More information here** and **here.**	

FUJITSU-SIEMENS Ranking = 6/10

Fujitsu Siemens (FSC) moves down one place from 7th to 8th. Although FSC sells PCs which do not use BFRs, it has not yet set timelines for the phase out of polyvinyl chloride (PVC) and all brominated flame retardants (BFRs) in all its products. The company also needs to improve the coverage of its voluntary takeback programme – the only country without Producer Responsibility legislation where FSC voluntarily takes back its waste products is South Africa. FSC has yet to report on recycling rate as a percentage of past sales

Fujitsu-Siemens Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle			■	
Chemicals Management				■
Timeline for PVC phaseout		■		
Timeline for BFR phaseout		■		
PVC-free and/or BFR-free models (companies score double on this criterion)			■	
Individual producer responsibility				■
Voluntary takeback		■		
Information to individual customers		■		
Amounts recycled			■	

FUJITSU-SIEMENS Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			FSC's definition of the Precautionary principle has still to fully address the issue of suspect substances currently in use (just stating that they avoid their use). For top marks, the company should clearly state that they aim to substitute or eliminate these potentially harmful substances with safer alternatives. **More information.**	
Chemicals Management				Fujitsu Siemens provides comprehensive lists of banned and restricted substances, materials specifications and associated documents and gets top marks. **More information.**
Timeline for PVC phaseout		No final timeline for complete PVC elimination. **More information.**		
Timeline for BFR phaseout		No final timeline for complete elimination of all BFRs. **More information.**		
PVC-free and/or BFR-free models (companies score double on this criterion)			The presentation of information on 'Green Products' has improved and the number of products has increased. 'Green Products' use halogen-free flame retarded plastics and halogen-free circuit boards for mainboard and power supply. They include e.g. FUTRO thin clients, ESPRIMO professional PCs and CELSIUS workstations. **More information.** **History of green products.**	

FUJITSU-SIEMENS Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				FSC makes a **clear statement** in support of Individual Producer Responsibility.
Provides voluntary takeback where no EPR laws exist		Although Fujitsu Siemens is planning to provide takeback and recycling in countries where there are no EPR laws, the only country with where FSC offers voluntary takeback is in South Africa. NOTE, the FSC brand is only marketed in EMEA. **More information here** and **here.**		
Provides info for individual customers on takeback in all countries where products are sold		Apart from South Africa, information for individual customers is provided only in countries with EPR laws, namely EU, Switzerland and Norway. **More information here** and **here.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Information about recycling in FSC's recycling centre where the company claims a reuse & recycling rate of over 75%. But, data provided only for the one recycling centre in Germany and not as a percentage of previous sales. **More information here** and **here in German. 2005-06 Environmental Report.**	

ACER Ranking = 5.7/10

Acer stays in 9th place. It scores top marks on chemicals, but has yet to start selling products free of PVC and brominated flame retardants (BFRs). Acer has also improved communication of its waste policy and practice, but still needs to do more on providing voluntary takeback and recycling of its end-of-life products. For example consumers in India are requested to pay 1000 Rupees (about 24 Euro) for the return of their PC for recycling. Acer has yet to report on recycling rates as a percentage of past sales.

ACER Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

ACER Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Acer scores a 'yes' on its statement on the precautionary principle that recognises the need for preventive action, even if scientific evidence is not conclusive. **Precautionary principle.**
Chemicals Management				Top marks for describing the mechanisms for identifying **future substances of concern.** **Supply chain management HSF Plan.**
Timeline for PVC phaseout				Acer pledges to prohibit PVC from use in new products by 2009, in their **Hazardous Substances Free (HSF) plan.** **HSF implementation report.**
Timeline for BFR phaseout				Acer pledges to prohibit BFR from use in new products by 2009, in their **Hazardous Substances Free (HSF) plan.** **HSF implementation report.**
PVC-free and/or BFR-free models (companies score double on this criterion)	No PVC-free or BFR-free models on the market **More information.**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Acer scores top marks for supporting IPR. **More information.**
Provides voluntary takeback where no EPR laws exist		Acer provides takeback services where required to do so by national EPR laws. Exceptions are US where Acer provides contacts to SVTC and India, but in India the takeback service is expensive for customers. **More information.**		
Provides info for individual customers on takeback in all countries where products are sold		Recycling information provided for EU, Japanese, Taiwanese, Indian and US customers only. **More information here** and **here** and **here for India.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled	No information on the amounts of e-waste collected and recycled.			

APPLE Ranking = 5.3/10

Apple has finally moved off the bottom of the scorecard and is now in 10th position with improvements on many criteria. The company has committed to eliminate all uses of PVC and brominated flame retardants (BFRs) in their products by the end of 2008. They now provide examples of additional substances that they plan to eliminate with timelines, such as arsenic in LCDs and mercury, and Material Safety Data Sheets for all their products. But, Apple has yet to give consumers products free of PVC and BFRs.

Top marks to Apple for reporting on its recycling rate as a percentage (9.5%) of sales 7 years ago and for setting goals to recycle nearly 30% by 2010. It could score better by supporting the principle of individual producer responsibility for its end of life products globally.

APPLE Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

APPLE Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle		Definition of precautionary principle reflects poor understanding of this principle in chemical policy. **More information.**		
Chemicals Management			Apple now provides examples of additional substances that they plan to eliminate with timelines e.g. arsenic in LCDs and mercury by moving to LEDs. It also provides Material Safety Data Sheets for its product portfolio. However Apple still fails to disclose it Substance Specification 069-0135. **More information.**	
Timeline for PVC phaseout				Apple plans to completely eliminate the use of PVC in its products by the end of 2008. **More information here** and **here.**
Timeline for BFR phaseout				Apple plans to completely eliminate the use of brominated flame retardants by the end of 2008. **More information here** and **here.**
PVC-free and/or BFR-free models (companies score double on this criterion)	No product systems free of BFRs and PVC.			

APPLE Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility		Apple refers to its "individually responsible approach" to recycling through its own takeback initiatives and national collective take-back programmes. The definition of IPR needs to be more explicit. **More information.**		
Provides voluntary takeback where no EPR laws exist			Apple has extended its recycling programme - it now operates or participates in recycling programs in regions where more than 82% of Macs are sold (previously 75%) although the only countries where takeback is voluntary is US and Canada. **More information here** and **here.**	
Provides info for individual customers on takeback in all countries where products are sold		Information to customers is only in US, Canada, Japan, Taiwan and 15 EU countries. **More information.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				Apple scores top marks for reporting its recycling rate as a percentage of sales 7 years ago. In 2006, Apple recycled 9.5% of the weight of all products sold seven years earlier and has set goals to recycle 13% in 2007, 20% in 2008 and nearly 30% in 2010. **More information.**

HP Ranking = 5.3/10

HP continues to slip down the ranking – now in 11th place. It loses points for weakening its support for Individual Producer Responsibility. HP scores top points for providing a substitution timeline for future substances and was the first company to devise an electronic waste take back / recycling metric based on percent of sales. HP fails to provide timelines for the complete elimination of toxic polyvinyl chloride (PVC) and all brominated flame retardants (BFRs) and therefore loses points.

HP Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

HP Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				HP's definition of Precautionary Principle reflects the need to eliminate potentially harmful chemicals even without full scientific certainty of harm . **More information.**
Chemicals Management				HP scores top marks on its chemical management. **More information. General Specification for the Environment.**
Timeline for PVC phaseout		Still no timeline for eliminating all uses of PVC in HP products. **More information here** and **here.**		
Timeline for BFR phaseout		Still no timeline for eliminating uses of all BFRs in HP products . **More information here** and **here.**		
PVC-free and/or BFR-free models (companies score double on this criterion)	No BFR-free or PVC-free models on the market. **More information here** and **here.**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility		**HP's statement on e-waste** recycling now makes no explicit reference to support for Individual Producer Responsibility, even though the spirit of IPR is still there.		
Provides voluntary takeback where no EPR laws exist			Voluntary takeback - not for all products and not in every region of the world. For PC hardware takeback, major gaps in Africa and South America. **More information here** and **here.** **Global map of recycling programs, return and recycling choices.** Byteback programme in **Victoria Australia, China, Thailand.**	
Provides info for individual customers on takeback in all countries where products are sold			No information for HP's individual customers in Latin America or Africa. **More information here** and **here.** **Still no info for customers in LA or Africa, HP Planet Partners in India , New Zealand.** **Asset recovery, donation. HP Planet Partners** for many (non-EPR) countries but not all (e.g. not Latin America or Africa).	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				HP reports a reuse and recycling rate in 2006 of 10% of relevant sales, but this metric includes consumable items like printer cartridges. **More information.**

PANASONIC Ranking = 5/10

Panasonic moved up from 13th to 12th largely due in large to providing a list of products on the market that are free of PVC. They include DVD players and recorders, home cinemas, video players and lighting equipment. Panasonic has now committed to eliminating all uses of PVC in their products – starting with internal wiring, as this hampers recycling – and have set a timeline of 2011 for getting PVC out of its notebooks. But, on brominated flame retardants (BFRs), the company has yet to commit to their elimination in all products, although a timeline of 2011 has been set for getting BFRs out of notebooks and mobiles – a fraction of Panasonic's large product range.

Panasonic scores poorly for its lack of support for Individual Producer Responsibility and its limited voluntary take-back programmes. Panasonic has yet to report on its recycling rate as a percentage of past sales.

PANASONIC Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

PANASONIC Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Panasonic endorses the Precautionary Principle as defined in the 1992 Rio Declaration. **More information.**
Chemicals Management				Pansonic's web pages on chemicals management contain a lot of detailed of information. Managed substances include: antimony, beryllium, bismuth and phthalate esters. **More information.** 'Chemical Substances Management rank guidelines Ver. 4 for products' 'Green Procurement Standards'. **More information here** and **here.** **Chemical Substances Management Rank Guidelines for Factories. Chemicals substituted.**
Timeline for PVC phaseout			Panasonic has committed to eliminating PVC in internal wiring of all products for the Japanese market by end of March 2009 and globally by end of March 2011. No timelines yet for substitution of PVC external cables, except for notebooks which should be globally PVC-free (including AC power cords) by 2011. **More information.**	
Timeline for BFR phaseout		All new models of mobile phones and computers should be free of BFRs by 2011, but there is no commitment to eliminate BFRs from Panasonic's whole product portfolio. **More information.**		
PVC-free and/or BFR-free models (companies score double on this criterion)		As of March 2007, Panasonic has many examples of PVC-free products, including DVD players and recorders, home cinemas, video players and lighting equipment. **The PVC free models are listed here.**		

PANASONIC Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	Although Panasonic has clarified its support for recycling, the company fails to embrace Individual Producer Responsibility. **More information.**			
Provides voluntary takeback where no EPR laws exist		Voluntary takeback programmes are not worldwide and do not cover all Panasonic's product groups, mainly mobiles and toner cartridges. **More information.** **Information on the different regions.** **B2B takeback systems in EU and US.**		
Provides info for individual customers on takeback in all countries where products are sold		Information to customers is available in European countries with EPR laws and for batteries and toner cartridges in US. For the US, there is information on takeback events and promotion of the Advanced Recovery Fee approach, which is the antithesis of IPR **More information here** and **here.** **US toner recycling.** **US battery recycling here** and **here.** **EU customers.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Panasonic provides data on home appliances and PCs recycled in Japan (2007) and recycling quantities for the Americas and Korea; information for Europe is in its infancy. **More information here.** **New data for Japan here** and **here.** **Recycling PCs in Japan.**	

LG ELECTRONICS Ranking = 4.3/10

LGE has tumbled further down the ranking from 12th to 13th – second to last. This descent is due in part to a penalty point for corporate double standards on Individual Producer Responsibility. While LGE's global website states that the company believes that the producer (not consumer) should be responsible for financing the waste management of its own brand products when they are discarded; in the US, LGE is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

On the positive side, LGE gains points for launching models of mobile phones free of brominated flame retardants (BFRs) and there is improvement in their voluntary product take back and recycling efforts. LGE has yet to report on its recycling rate as a percentage of past sales.

LG ELECTRONICS Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

LG ELECTRONICS Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				LGE provides a strong definition of the precautionary principle reflecting the need to take action to eliminate harmful chemicals even though their effects may not be scientifically proven. **More information.**
Chemicals Management			LGE provides a substance list that includes future substances to be reduced, including beryllium and antimony. **More information.**	
Timeline for PVC phaseout				The first PVC-free products are to be launched in 2008; the remaining uses of PVC are to be phased out by the end of 2010. **More information.**
Timeline for BFR phaseout				All new models released in 2010 are to be BFR- free. **More information.**
PVC-free and/or BFR-free models (companies score double on this criterion)		LGE's mobile phone division now has some BFR free models, with more models being put on the market soon. **More information.**		

LG ELECTRONICS Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	LGE lost 3 points (in support of IPR) in December 2006 due to double standards. LGE claims to support IPR on its **global website.** But in the US, LGE is part of the Electronic Manufacturers' Coalition for Responsible Recycling which does not support EPR, but is demanding that consumers pay ARFs (Advanced Recycling Fees) **More information.** LGE keeps the penalty for double standards: accepting its responsibility for financing the recycling of its own-brand discarded products in Europe, but in the US expecting the consumer to pay these costs.			
Provides voluntary takeback where no EPR laws exist		LGE now provides voluntary takeback of its discarded mobile phones in US (Plug in to eCycling), Australia (MobileMuster) and China (Green Box). **More information.**		
Provides info for individual customers on takeback in all countries where products are sold		LGE now provides contact details for customers on what to do with their discarded e-products . **More information.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled		LGE provides information on its recycling rates only in Japan, Korea and Maine (US). **More information.**		

SONY Ranking = 4.0/10

Sony has been free falling down the ranking and is now at the bottom. When the Guide was first launched the company was in 5th place. This is due in part to the penalty point for corporate double standards on Individual Producer Responsibility. Sony is a founding member of the European Recycling Platform which supports IPR; however, in the US, Sony is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

On chemicals, Sony has yet to provide timelines for eliminating PVC and BFRs from all their products. On the positive side, Sony scores well for having some models that are free of the worst chemicals on the market. Sony has yet to report on its recycling rate as a percentage of past sales.

SONY Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SONY Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Sony scores 2 points for stating that they will take steps to reduce, substitute and eliminate the use of substances that are potentially hazardous to the environment. **More information.**	
Chemicals Management				Information on SS-00259 (6th edition, March 2007) Management Regulations and Green Partner programme to ensure implementation of the Regulations **More information.**
Timeline for PVC phaseout		Sony has already phased out some applications of PVC, but no timelines on some applications and many exemptions.. **More information here** and **here.**		
Timeline for BFR phaseout		Some applications of BFRs already phased out, but no timelines for applications such as circuit boards. **More information here.**		
PVC-free and/or BFR-free models (companies score double on this criterion)			Sony has a range of environmentally-conscious products and "Eco-Info" mark products which are free of BFRs in housings and circuit boards. Sony is also reducing use of PVC in some applications . **More information here** and **here on BFR-free laptops and reducing PVC usage.**	

SONY Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	Sony gets no points for IPR, after having lost the one point it had for its support of Extended Producer Responsibility in December 2006, due to double standards. In Europe, Sony is a founding member of the European Recycling Platform and claims to support IPR. **More information.** However, in the US, Sony is a member of the Electronic Manufacturers' Coalition for Responsible Recycling which does not support EPR, but is demanding that consumers pay ARFs (Advanced Recycling Fees) **More information.** Sony keeps the penalty point for double standards: accepting its responsibility for financing the recycling of its own-brand discarded products in Europe, but in the US expecting the consumer to pay these costs. **More information.**			
Provides voluntary takeback where no EPR laws exist		Sony provides voluntary takeback in North America and Japan, as well as takeback of batteries in Taiwan and Australia. **More information. Voluntary takeback of batteries in Taiwan. Voluntary takeback of batteries in Australia.**		
Provides info for individual customers on takeback in all countries where products are sold		Sony provides information for individual consumers (for PC monitors) but only in US and gives links to websites of PROs (Producer Responsibility Organisations) in some European countries. **More information. Japanese Sony consumer recycling information pages. Recycling of Computer Displays & PCs.**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Sony reports on the amounts of WEEE and batteries collected in N. America, recycling rates for TVs and PCs in Japan and recycling rates for batteries in Asia & Australia. **More information. Figures for recycling of TVs and PCs in Japan.**	