Series for SRI engagement
E-waste

SOMO

About this electronics sector sheet

In a series of three electronics sector sheets, three high-risk phases in the electronics supply chain are discussed: metal mining, the manual production in low-wage countries, and the disposal of electronic products ('e-waste'). This sheet is devoted to e-waste.

The electronics sector as a whole is characterised by long and global supply chains with high levels of outsourcing. These sector sheets aim to provide information to socially responsible investors about the environmental and social risks present in these supply chains.

The series is an additional tool to support their engagement with electronics companies.

The electronics sector sheets are produced by SOMO, the Netherlands-based Centre for Research on Multinational Corporations. SOMO aims to improve social and environmental conditions in the electronics sector. Among other activities, SOMO is involved in the makeITfair and Procure IT Fair projects, and hosts the worldwide GoodElectronics network.

Supply chain responsibility

Brand name companies, also known as Original Equipment Manufacturers (OEMs), influence their supply chains to a great extent, as they control the design of their products and decide what materials and which suppliers to use. Supply chain responsibility is the idea that a company's Corporate Social Responsibility (CSR) extends beyond its own business activities. Key elements of supply chain responsibility are: identification of social and environmental problems throughout the entire supply chain; the use of influence to control and mitigate these risks; transparency towards stakeholders (including socially responsible investors), allowing them to evaluate the CSR efforts of the company.

With regard to the waste phase of electronic products, OEMs bear the (financial) responsibility for the proper treatment of their own products at their end of life. This responsibility is referred to as Individual Producer Responsibility (IPR), and is set down in e-waste regulations. IPR is meant to create a financial incentive for OEMs to stop using toxic materials in the design of their products and make them more durable and recyclable in order to decrease recycling costs.

Issues

E-waste can cause severe environmental and social problems when it is not disposed of properly. Most problems can be traced back to the contents of electronics products: valuable metals (eg, gold, platinum, tin) or toxic chemicals (eg, bromine and chlorine). Although policies have been adopted all over the world to counter them, the following problems are still associated with e-waste:

- ☐ (Illegal) export of e-waste to third world countries. For the EU, the European Commission states that 80% of the electrical and electronic equipment put on the market the previous year becomes WEEE. The 80% are broken down as such: 26% are reported as properly collected and treated, 2% are re-used, 10% landfilled and 42% separately collected but not accounted for. For the USA, the Environmental Protection Agency (EPA) states that of all the TVs, cell phones and computer products ready for end-of-life management in the USA, 18% were collected for recycling and 82% were disposed of, primarily in landfills. The figure for collection however includes exports of e-waste to developing countries.
- ☐ Export of second-hand electronics to developing countries. These second-hand goods will soon become e-waste in the developing countries.
- ☐ Water and land pollution at e-waste landfills and dump sites, when toxic substances from the waste leak into soil and water. Communities surrounding dump sites may experience negative health effects.
- ☐ Negative health effects for informal recycling workers in developing countries that scavenge e-waste dump sites; these workers often dismantle electronics without protection, exposing themselves to toxic chemicals.
- ☐ Continued demand for the extraction of valuable and scarce metals, when metals are not (fully) retrieved from e-waste. Irresponsible mining is associated with a whole range of other social and environmental effects (see 'mining of metals' sheet).

Norms and rules

The e-waste related regulation of the European Union is often considered one of the most advanced. Several policies are in place: the Waste Electric and Electronic Equipment (WEEE) directive, the Restriction of Hazardous Substances (RoHS) directive and the waste shipment regulation (EU implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal). The WEEE directive attempts to increase recycling and recyclability of e-waste, by setting targets for collection and recycling of e-waste and making electronic brand companies responsible for reaching these targets (IPR).

The RoHS bans several toxic substances from electronic products. The waste shipment regulation prohibits the export of toxic waste from EU to third world countries.

Like Europe, Japan also requires electronics companies by law to take back e-waste and pay for its responsible treatment. In the USA, more and more states have adopted such producer take-back laws as well. However, the USA has not yet ratified the Basel Convention, which hampers the curbing of the e-waste exporting trend. Finally, India, Ghana and China are in the process of developing e-waste regulations.

Questions for socially responsible investors

The electronics sector should increase its efforts towards ecological design of electronics (ecodesign). Ecological electronics: a) are free from materials that pose environmental and health risks, b) contain a minimum of scarce and non-renewable materials (eg, metals), c) allow for a long service life (repair, upgrade etc.), d) are energy efficient, and e) enable more sustainable lifestyles for their users.

Ecodesign is stimulated when electronics brand companies are responsible for the costs related to the collection and treatment of their own waste (Individual Producer Responsibility - IPR). Electronics companies should thus support IPR, set up voluntary systems for collection and recycling in unregulated regions, and lobby for (better) IPR in regulation.

To increase collection figures, electronics companies should also provide consumers with incentives to hand in old electronics, for instance, via educational campaigns, take-back campaigns and refund systems.

The following questions may be raised by socially responsible investors, when engaging with electronics companies regarding e-waste:

- ☐ Which ecodesign efforts does your company undertake?
- ☐ To what extent does your company support and implement IPR, particularly in unregulated regions?
- ☐ What are your company's current e-waste collection rates, and what efforts does your company make to increase collection rates?

Industry efforts

Although e-waste may be considered quite heavily regulated, the problems are far from being solved as many electronics still include toxics and scarce metals, and considerable portions of e-waste still 'leak' away from the official collection streams. In response to these remaining problems, some electronics companies have developed programmes to phase out additional toxic substances beyond the scope of the RoHS list, and have developed voluntary take-back and recycling systems also in regions where this is not mandated. Furthermore, a coalition of electronics companies and NGOs (the 'IPR works' coalition) has been set up to promote a better transposition of IPR in European legislation and to harmonise implementation of IPR across Europe.

Some initiatives are also undertaken within the collaborative industry sustainability initiatives EICC (Electronic Industry Citizen Coalition) and GeSI (Global e-Sustainability Initiative). In the EICC code of conduct, proactive management of hazardous substances is prescribed (point C3). GeSI has developed an end-of-life management tool, covering collection, recycling, reuse and disposal. It plans to publish an end-of-life questionnaire and to promote take-back schemes to reclaim more e-waste from consumers for reuse and recycling.

Links

- http://www.greenpeace.org (Guide to Greener Electronics)
- www.makeitfair.org
- www.goodelectronics.org (specifically: see 'Reset' report under publications tab)
- www.eicc.info
- www.gesi.org
- www.somo.nl