

# GLOBAL INFORMATION SOCIETY WATCH 2010

*Focus on ICTs and environmental sustainability*



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS (APC)  
AND HUMANIST INSTITUTE FOR COOPERATION WITH DEVELOPING COUNTRIES (HIVOS)

# Global Information Society Watch

## 2010



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## Introduction

Efforts in the collection and treatment of electronic waste (e-waste) have been ongoing in France for the past two years. This has been in an effort to catch up with other European countries. However, the national waste management policy does not significantly address issues such as the short life span of equipment, or how to reduce e-waste. Instead it is mostly influenced by the interests of telecommunications and computing manufacturers, who present information and communications technologies (ICTs) as a clean growth and energy-saving opportunity, and motivate the collection of used devices in terms of its social and digital inclusion effects rather than the environmental urgency. A number of cooperatives are involved in the field of e-waste treatment and the social enterprise sector is an historical actor in waste treatment. With them, international solidarity and environmental NGOs have developed alternatives. They are involved in the discussion of e-waste policy at the national and international level.

The management of e-waste and the environmental consequences of the use of ICTs are rarely singled out by French organisations combating the digital divide. Most information society activists ignore this face of ICTs. As a result it seems quite clear that greater awareness of the environmental consequences of ICT use among activists of ICT appropriation could contribute to a change in behaviour and in public policies related to e-waste.

## WEEE, RoHS and EuP in the French context

As in all countries of the European Community, French legislation rests on a set of European directives, including the WEEE Directive<sup>1</sup> (dealing with e-waste) and RoHS Directive<sup>2</sup> (dealing with restrictions on the use of hazardous substances), both from 2002, and the EuP Directive<sup>3</sup> of 2005, which deals with energy-using devices. These directives will apply up until February 2011, and are under revision until then. Through extended producer responsibility (EPR), the WEEE Directive places selective collection and processing of e-waste under the responsibility of producers of devices. The RoHS Directive aims at limiting the use of hazardous substances (lead, mercury, hexavalent chromium, brominated flame retardants and cadmium) in the manufacturing of devices. Finally, the EuP Directive establishes a framework for fixing standards of eco-design of devices consuming energy.

In late 2006, the transferral of these directives into French legislation<sup>4</sup> gave rise to the establishment of two e-waste management sectors: the household sector, concerning devices used in the private context (for example, PCs, mobile phones, household appliances), and the professional sector, for industrial electrical and electronic devices. ICTs (a scope not easy to define) do not come under a specific heading. The French system is founded on an “eco-cost”<sup>5</sup> on every electric or electronic product put on sale since 2005. The eco-cost is the price of the treatment at the end of life of a device, and is reflected in the sale price of equipment. It is paid by the producer to one of the four “eco-agencies” approved by the government in exchange for the promise to process their waste at the end of the equipment’s life cycle. The four eco-agencies are companies whose shareholders are primarily the producers themselves. An e-waste logo – a crossed-out rubbish bin – aims to allow users to recognise that the device in their hands falls under the e-waste category.

Following the national negotiation on environmental policy called “*Grenelle de l’environnement*” in 2008, an August 2009 law and its decree marked a step forward in relation to e-waste management:

- Collection targets increased sharply (up to 7 and 8 kg/inhabitant/year<sup>6</sup> for 2010 and 2011).
- Four types of e-waste, including one relating to computers, had their “eco-cost” adjusted according to the eco-design effort.
- Pilot collection projects that do not entail the condition to buy something are running in some parts of France with volunteer chain stores. These replace the “one-for-one” exchange rule (an obligation for traders to collect one item for disposal when a client buys a new piece of equipment).
- A “harmonisation of sectors” commission attached to the National Council on Waste (CND) was created.

## The impact of ICTs on the environment

The amount of waste (including pollution) produced by the use of ICTs is higher than usually imagined. Their impact on the environment is very diverse. A computer for example is a

1 Directive 2002/96/CE on waste electrical and electronic equipment.

2 Directive 2002/95/CE on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

3 Directive 2005/32/CE establishing a framework for the setting of ecodesign requirements for energy-using products.

4 Decree No, 2005-829 of 20 July 2005.

5 [www.ecologic-france.com/communication-green/texte-loi-doc-deee/bareme-deee-menagers.html](http://www.ecologic-france.com/communication-green/texte-loi-doc-deee/bareme-deee-menagers.html)

6 Ministry of Ecology, Energy, Sustainable Development and the Sea (2010) Chantal Jouanno, Secretary of State for Ecology, presents report for the sector for the 2006-2009 period and new challenges set for 2010-2014, press release, 22 February.

vehicle for the production of waste all through its life cycle. It is usually assumed that its manufacturing necessitates the use of 1,500 litres of water, 240 kg of fossil energy, and 22 kg of chemical material. The use of ICTs represents 13-15% of the French energy bill<sup>7</sup> and therefore produces CO<sub>2</sub>. This pollutant factor rose by approximately 6% a year between 2005 and 2008, and at this time, it has not been offset by savings in energy resulting from the use of ICTs. After two to three years of use, the more than 10.5 million computers<sup>8</sup> and the 20 to 25 million mobile phones<sup>9</sup> put on the market every year in France represent almost as much equipment that enters the waste stream. This waste has the distinctive feature of containing a large quantity of hazardous materials.

### The collection of e-waste is making progress...

The collection of e-waste (all electronic and electrical appliances) from households has made remarkable progress since the WEEE Directive came into force in November 2006. Taken as a whole, 1.3 million tonnes of e-waste<sup>10</sup> is produced each year in the household sector, and this figure increases by 2-3% a year.<sup>11</sup> According to the French Environment and Energy Management Agency (ADEME), the tonnage collected has risen from 157,000 tonnes in 2007 to 284,000 tonnes in 2008, and should represent 371,000 tonnes in 2009. Collection therefore represents approximately 28% of e-waste generated by households. Over 70% of this waste will be buried, incinerated, stored or will “disappear” in the informal economy.<sup>12</sup> The rate of e-waste collected per inhabitant should reach 5.7 kg in 2009.<sup>13</sup> This increase represents a success, but it remains below that of other European countries. Already in 2006, the United Kingdom’s rate was 10 kg/inhabitant/year, Germany 8 kg/year and the Scandinavian countries 15 kg/year.

### ... but remains small for ICT waste specifically

ICT equipment in the household sector only represents approximately 15% of the collected tonnage of e-waste overall; and this time the rate of recovery of potential ICT e-waste is estimated at less than 10%.<sup>14</sup> For instance, manufacturers consider that only about 8% of the 25 million telephones distributed in France each year are collected.<sup>15</sup>

Processing companies have long alleged that it is complicated to collect e-waste from private individuals. Unlike household appliances (e.g. refrigerators, gas cookers, washing machines), the replacement of a computer does not necessitate getting rid of the old one. This is even truer for phones, which will be passed on among family and even friends. It is therefore estimated that on average each household possesses four to six unused mobile phones.

Collectors, paid by the weight of the collected equipment, are also encouraged to seek out the bigger devices for recycling. These are usually cheaper and less complex to process than ICT devices.

At this time, we lack specialised studies of the collecting of ICT waste in France to know more about how to improve it.

Unlike the household sector, the professional sector does not fare well in terms of recycling because of an absence of an effective and binding plan. According to the information given by the Ministry of Ecology, e-waste collected in the professional sector represents only 12,900 tonnes of the 198,000 tonnes sold into the market in 2008 (or 6%). This year, 82% of this collected e-waste was ICT waste,<sup>16</sup> and it is usually assumed that the estimated tonnage of discarded ICT waste in the professional sector is higher than all the e-waste generated in the household sector. Nevertheless, this situation should change following the overhaul of this sector’s regulations in 2010.

### Flowering of initiatives with a variety of intentions

E-waste collection initiatives have been growing in numbers. For instance, the mobilisation of the social enterprise sector is on the rise. These are businesses that are concerned with the potential of social inclusion and employment opportunities in recovery and reuse of second-hand ICTs. Some 200 collection points in 2009 gathered approximately 800 tonnes of waste per month.

Alongside the social enterprise sector, a myriad of small initiatives have been launched, many of them by civil society. These aim at reducing the digital divide by allowing access to second-hand equipment for the poor, often by exporting this equipment to countries in the South.

The Internet Usage Delegation (DUI) has launched a label called Ordi 2.0 (short for “ordinateur”, the French word for computer) with the cooperation of the World Digital Solidarity Agency, a few local authorities and telecommunication and computing manufacturers.<sup>17</sup> The Ordi 2.0 programme claims to offer a national label of quality for e-waste collection schemes and the operators of reused ICTs. Actually, the criteria of this label are very low. Just registering and providing a list of activities in this field at the end of the year is enough to use the label.

7 A DETIC report stipulates 13.5% and the OECD 15%.

8 Greenpeace International (2008) *Toxic Tech: Not In Our Backyard*.

9 The figure of 25 million is cited in CGEDD and CGTI (2008) *ICT and sustainable development*.

10 For approximately 1.45 million tonnes (550,000 units) of material on the market each year.

11 Here we repeat the figures from the Ministry of Ecology press release quoted earlier, which are confirmed by ADEME and the other studies cited.

12 [cniid.org/index.php?option=com\\_content&view=article&id=108&catid=3&itemid=20](http://cniid.org/index.php?option=com_content&view=article&id=108&catid=3&itemid=20)

13 Ministry of Ecology, Energy, Sustainable Development and the Sea (2010) op. cit.

14 CGEDD and CGTI (2008) *ICT and sustainable development*, p. 30; ADEME (2009) Performance indicators for the household electric and electronic equipment waste (WEEE) sector, October.

15 [greenit.fr/article/materiel/telephone/telecoms-73-de-la-facture-electrique-francaise](http://greenit.fr/article/materiel/telephone/telecoms-73-de-la-facture-electrique-francaise)

16 Ministry of Ecology, Energy, Sustainable Development and the Sea (2010) op. cit.

17 In particular, through the association Renaissance Numérique, initiated by the white paper “Reconditioning: Long life for computers, long life for net surfers”. The majority of the members of Renaissance Numérique are managers of telecommunications and computing manufacturers.

Nevertheless, this initiative motivates a lot of non-profit actors in the ICT sector, like local internet access points and local free and open source software associations, as it allows them to find new income sources both through the sale of equipment and from their participation in the programme. These organisations welcome these new financial resources as their public grants are decreasing. The committee of the Ordi 2.0 programme is now considering the possibility of using CO<sub>2</sub> market funds (EUR 100-150 per machine) to finance the recycling of computers.

Companies such as Electricité de France (EdF) and supermarket chains such as Auchan have put in place mobile phone collection points. These initiatives are still too new to be able to assess them, but they do reflect a change.

More and more industries are addressing this problem. They are benefiting from the funds collected through the eco-contribution accumulated for several years – through the eco-agencies in which they are sometimes shareholders. Their initiatives permit them to improve their image at a low cost, while ensuring that the government does not impose targets that are too binding. The voluntary charter of the telecommunications sector of the French Federation of Telecommunications<sup>18</sup> illustrates this strategy. This is a list of commitments that allows these actors to show a wide range of actions for sustainable development, which actually correspond to activities already up and running, and to hide the weakness of their commitments “which shall be defined by each operator”<sup>19</sup> in the sensitive area of recycling mobile phones.

## New trends

In the ICT world, there is talk of “Green IT 2.0” and “greening with ICTs” – that is, the idea that using new technologies contributes to resolving environmental issues. The General Council for Industry, Energy and Technologies (CGIET)<sup>20</sup> admits that the results of “greening with ICTs” initiatives are rarely quantified and assessable, and this is confirmed by Organisation for Economic Co-operation and Development (OECD) studies.<sup>21</sup> These ideas are strongly supported by ICT industry actors, with little opposition.

Environmental associations lack capacity. One example is France Nature Environment, one of the organisations in the forefront of this issue, which has no more than one full-time worker for all waste sectors. ICT appropriation activists usually ignore the e-waste issue and trust the regulatory system. The involvement of Enda Diapol, an international solidarity organisation with an office in France, seems to be an exception.

Facing all these obstacles, environmental organisations congratulate themselves for having secured the “eco-cost”, including eco-design criteria in their rates, and the completion of studies on the life cycle of equipment (entrusted to the ADEME) paid for by the eco-agencies. In ICT waste, the eco-design criteria will favour the development of a universal adaptor.<sup>22</sup> But continuation and improvement of such initiatives depends to a large degree on their capacity to expand awareness of the consequences of the use of ICTs amongst civil society. So, one of the challenges faced by the international solidarity and environmental organisations seems to be to overthrow the involuntary alliance between activists for the appropriation of ICTs and e-waste producers, in particular those involved in Ordi 2.0, in favour of more effective public policies.

## Action steps

For French environmental organisations, one of the action steps is to put in place a campaign or a programme of popular education, which will promote the lengthening of the life span of devices to at least five years, advocate for removing the artificial distinction between household and professional waste when the devices and their use are similar (mobile phones, personal computers, etc.), and ensure that authorities set an example by integrating environmental and social considerations into invitations to tender and acquisitions of ICTs.<sup>23</sup>

This campaign could also reinforce the capacity of the social economy actors to place greater importance on criteria of environmental and human justice rather than equipment renewal and digital consumerism. Such a programme could be financed by money generated by the “eco-cost” system. ■

18 Charte d'engagement volontaire du secteur des télécoms pour le développement durable, 7 June 2010.

19 Ibid.

20 Presentation by CCI Metz, 31 March 2009, Conseil Général de l'Industrie, de l'énergie et des technologies (CGIET).

21 OECD (2009) *Towards Green ICT Strategies: Assessing Policies and Programmes on ICT and the Environment*.

22 Implemented on 1 July 2010.

23 Based on an e-waste proposal by Enda Diapol.

**GLOBAL INFORMATION SOCIETY WATCH 2010** investigates the impact that information and communications technologies (ICTs) have on the environment – both good and bad.

Written from a civil society perspective, **GISWatch 2010** covers some 50 countries and six regions, with the key issues of ICTs and environmental sustainability, including climate change response and electronic waste (e-waste), explored in seven expert thematic reports. It also contains an institutional overview and a consideration of green indicators, as well as a mapping section offering a comparative analysis of “green” media spheres on the web.

While supporting the positive role that technology can play in sustaining the environment, many of these reports challenge the perception that ICTs will automatically be a panacea for critical issues such as climate change – and argue that for technology to really benefit everyone, consumption and production patterns have to change. In order to build a sustainable future, it cannot be “business as usual”.

**GISWatch 2010** is a rallying cry to electronics producers and consumers, policy makers and development organisations to pay urgent attention to the sustainability of the environment. It spells out the impact that the production, consumption and disposal of computers, mobile phones and other technology are having on the earth’s natural resources, on political conflict and social rights, and the massive global carbon footprint produced.

**GISWatch 2010** is the fourth in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

**GISWatch** is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

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