

Facing up to

disposal responsibilities

The pace of technology development solves many problems, but inevitably creates others. Investment in new technology is a big priority for many organisations, but what happens to the obsolete equipment? **Gemma Fisher** reports on a problem that won't go away



The issue of eWaste is rapidly manifesting into a significant area of concern affecting countries worldwide. Discarded equipment – from mobile phones to computers – represent an increasing proportion of the material filling landfills, incinerators and dumped in waterways and the problem is becoming more acute as upgrades occur more frequently to keep up with the pace of technological change.

While Europe has toughened its laws and the European Union Waste Electrical and Electronic Equipment (WEEE) directive ensures Individual Producer Responsibility (IPR), countries outside of the EU often find themselves the destination for such

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waste and all of the environmental and health problems it may bring.

Many countries around the world do not have the capacity to deal with the sheer quantity of eWaste they generate. Invariably, they export the problem to Asian countries in which legislation to ensure takeback and safe and environmentally sustainable recycling and disposal practices is lacking. Here the products are dismantled, with some materials recovered for reuse and the remainder disposed of to land or water courses.

In many parts of Asia, few controls are in place and dismantling and recycling of electronic wastes is frequently carried out in small workshops and industrial units with little in the way of exposure or emission controls for hazardous constituents of the waste stream.

The United Nations Environment Program (UNEP) has recently proposed establishing a network of policy makers and experts to help deal with the problem of electrical/electronic waste in Asia and the Pacific (UNEP 2004).

For the present, however, the electronic waste recycling sector in many parts of Asia remains largely unregulated. It is also poorly studied with regard to its impacts on the environment and on the health of recycling workers and surrounding communities.

There are no specific guidelines or regulations governing eWaste, and lack of investment in recycling facilities has resulted in a mass accumulation of dumped electronic and electrical equipment. As noted by the United Nations Environment Programme (2005): "Every year, 20 to 50 million tonnes of electrical and electronic equipment waste are generated worldwide, which could bring serious risks to human health and the environment. While 4 million PCs are discarded per year in China alone."

In Europe, the WEEE directive places responsibility on the manufacturer, however, elsewhere the laws remain slack. A lack of importing regulations means that large technology-using countries such as America, South Korea and some European countries see India as a dumping ground.

Meanwhile, within the recipient countries, there are individuals who perceive the mountains of eWaste to be a profitable business venture from which they can make a living by breaking down computers in order to extract valuable component materials such as gold and platinum. By crushing and boiling parts of computers, toxic chemicals are also extracted, damaging both the environment and, potentially, a citizen's health. Indian hospitals continue to treat patients with a high level of lead in their bloodstream which is ultimately affecting their nervous system, having the potential to decrease IQ and can effectively bring about DNA aberrations. Human health is at risk as is the environment. The high toxic levels being exposed to the environment in these regions is also a cause for concern.

There are a number of potential solutions which could help to decrease the amount of eWaste in India. Campaign groups say that, ultimately, the solution lies with both government and manufacturers and that laws need

to be tightened to regulate importing and dumping. In the meantime, large IT companies have developed an awareness of their responsibility and the affect that their IPR can have both on the environmental welfare of the country but also on their business. Klaus Hieronymi, General Manager, Environmental Business Management, HP, told eStrategies: "Customers are increasingly requiring their suppliers to include corporate, social and environmental responsibility (CSER) performance data as part of their proposals. In 2004, we received more than \$US 6 billion in requests for quotations (RFQs) that required this information – an increase of 95 per cent on 2003. This means that for more



and more companies it makes good business sense to incorporate CSER as part of their business strategy.”

Indeed, if customers are asking manufactures directly about their product recycling schemes and expressing their requirements for a way of disposing of their old electronic commodities in an environmentally friendly way then evidentially there is a need for the manufactures to respond to customers’ needs. Hieronymi emphasises the correlation between environmental issues and business productivity: “Admittedly, these days it’s clear that environmental performance is also closely linked to business success. Recycling continues to be the number one topic of stakeholder questions, which means that it is important for HP to continue to engage them and communicate about our success in this field.”

While HP is addressing its customers’ needs, other larger IT companies are also heading down the same route. In 2002, HP, Sony, Braun and Electrolux co-founded The European Recycling Platform (ERP), the first ever pan-European system for customers to return their electrical and electronic equipment. The rationale behind ERP is to ensure a cost effective method of both carrying out and encouraging national implementation of the WEEE Directive for the benefit of the participating companies and their customers through innovative waste management strategies. The scheme is a step towards promoting shared responsibility between manufacturers, government, customers, and other stakeholders.

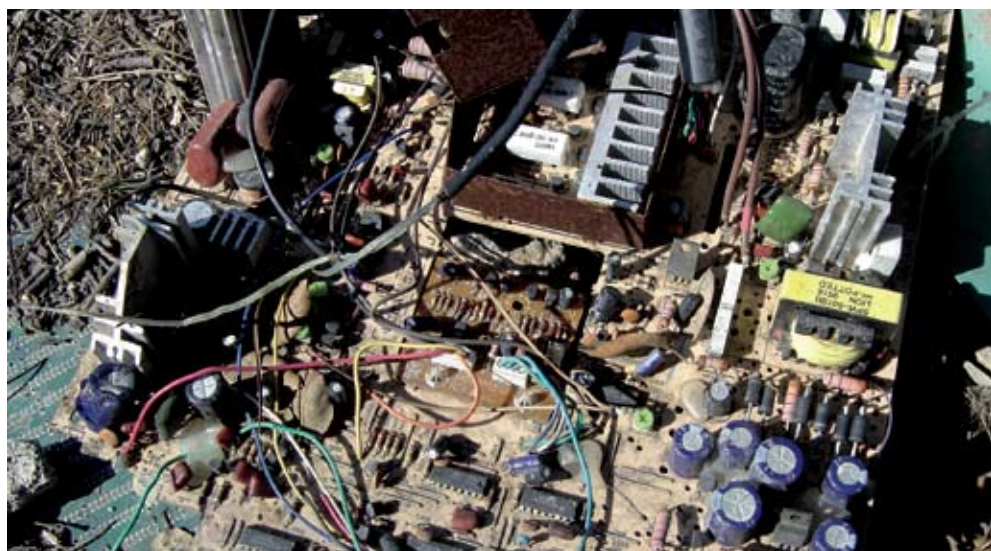
Commenting on HP’s involvement, Hieronymi said: “We also work with more than ten recycling vendors across Europe, and regional and local recycling vendors throughout Asia Pacific. In the just ended fiscal year, we recycled approximately 140 million pounds (63.5 million kg) of hardware and HP print cartridges globally – the equivalent weight of 280 jumbo airliners. HP provides recycling services in more than 40 countries today and we see the global trends – whether market driven or regulatory

– impacting the industry in such a way that many companies would eventually put in place similar schemes to HP.”

For any company to participate in this scheme there are obvious cost implications. However, they are not a great as some may perceive. Hieronymi added: “Generally speaking the recycling costs differ between products as the material content and the treatment required are different. For example, some products (e.g. CRT monitors) require specialised treatment and are currently more costly to recycle, while with some other products, the recycler may be able to recover some of the costs as he may be able to extract valuable materials. The logistics of collecting

and efficient recycling systems. This includes the reform of existing laws or regulations that can discourage recycling and to support policies that encourage ecologically sound product development.

Another key factor to managing eWaste is to create products and service that are responsible. Increasingly, larger IT companies are offering a service by which existing customers can return their products once they no longer have use for them. There is evidence to suggest that people do not want to discard their old computers in landfills, and they want to have the option to return their computer to be appropriately recycled. You just need to appreciate the scale of HP’s operation



and sorting products for recycling typically forms the biggest proportion of the cost associated to product recovery and recycling.”

Managing eWaste not only requires a shift in prioritising but also a willingness to embrace initial costs with a view to formulating a business ethic that is necessary to ensure environmental stability. By ignoring eWaste the problem, like the landfills, just gets bigger and bigger. With large IT companies like HP, Sony, Braun and Electrolux taking the responsibility to encourage recycling there maybe hope for tackling problematic areas such as India, whereby working closely with the government to develop recycling approaches will ensure consistent

to see the impact of recycling.

“To date, HP has recycled more than 750 million pounds (340 million kg) of hardware and HP print cartridges globally, well on the way to meeting its goal to recycle 1 billion cumulative pounds by the end of 2007,” Hieronymi explains.

The sheer quantity of HP’s recycled equipment, and the increasing size of the recycling operation, speaks volumes and suggests, against much conventional thinking, that it is possible to mix business with environmental care.

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