Gadget growth fuels eco concerns

Technology firms and gadget lovers are being urged to think more about the environment when buying and disposing of the latest hi-tech products.

At the Consumer Electronics Show in Las Vegas earlier this month, several hi-tech firms were recognised for their strategies to help the environment. Ebay also announced the Rethink project bringing together Intel, Apple, and IBM among others to promote recycling. The US consumer electronics market is set to grow by over 11% in 2005. But more awareness is needed about how and where old gadgets can be recycled as well as how to be more energy efficient, said the US Environmental Protection Agency (EPA). Of particular growing concern is how much energy it takes to recharge portable devices, one of the fastest growing markets in technology. The Consumer Electronics Association (CEA) has predicted that shipments of consumer technologies in 2005 will reach more than $125.73 billion (nearly £68 billion).

Ebay's initiative pulls together major technology firms, environment groups, government agencies and eBay users to give information about what to do with old computers and where to send them. The online auction house thinks that its already-established community of loyal users could be influential. "We really became aware of the e-waste issue and we saw that our 125 million users can be a powerful force for good," eBay's David Stern told the BBC News website.

"We saw the opportunity to meet the additional demand we have on the site for used computers and saw the opportunity too to good some good for the environment." But it is not just computers that cause a problem for the environment. Teenagers get a new mobile every 11 months, adults every 18 months and a 15 million handsets are replaced in total each year. Yet, only 15% are actually recycled. This year, a predicted two billion people worldwide will own a mobile, according to a

Deloitte report. Schemes in the US, like RIPMobile, could help in targeting younger generations with recycling messages. The initiative, which was also launched at CES, rewards 10 to 28-year-olds for returning unused phones. "This system allows for the transformation of a drawer full of unused mobile phones into anything from music to clothes to electronics or games," said Seth Heine from RIPMobile.

One group of students collected 1,000 mobiles for recycling in just three months. Mr Heine told the BBC News website that what was important was to raise awareness amongst the young so that recycling becomes "learned behaviour". Europe is undoubtedly more advanced than the US in terms of recycling awareness and robust "end of life" programmes, although there is a tide change happening in the rest of the world too. Intel showcased some its motherboards and chips at CES which are entirely lead free.

"There is more and more awareness on the consumer side, but the whole industry is moving towards being lead free," Intel's Allen Wilson told the BBC News website. "There is still low-level awareness right now, but it is on the rise - the highest level of awareness is in Europe." A European Union (EU) directive, WEEE (Waste Electronic and Electrical Equipment), comes into effect in August. It puts the responsibility on electrical manufacturers to recycle items that are returned to them. But developments are also being made to design better technologies which are more energy efficient and which do not contain harmful substances. Elements like chromium, lead, and cadmium - common in consumer electronics goods - will be prohibited in all products in the EU by 2006.

But it is not just about recycling either. The predicted huge growth in the gadget market means the amount of energy used to power them up is on the rise too. The biggest culprit, according to the EPA, is the innocuous power adaptor, nicknamed "energy vampires". They provide vital juice for billions of mobile phones, PDAs (personal digital assistants), digital cameras, camcorders, and

digital music players.

Although there is a focus on developing efficient and improved circuits in the devices themselves, the technologies inside rechargers are still outdated and so eat up more energy than is needed to power a gadget. On 1 January, new efficiency standards for external power supplies came into effect as part of the European Commission Code of Conduct. But at CES, the EPA also unveiled new guidelines for its latest Energy Star initiative which targets external power adapters. These map out the framework for developing better adaptors that can be labelled with an Energy Star logo, meaning they are about 35% more efficient. The initiative is a global effort and more manufacturers' adaptors are being brought on board. Most are made in China. About two billion are shipped global every year, and about three billion are in use in the US alone. The EPA is already working with several companies which make more than 22% of power supplies on the market. "We are increasingly finding companies that not only want to provide neat, hi-tech devices, but also bundle with it a hi-tech, efficient power supply," the EPA's Andrew Fanara said. Initiatives like this are critical; if power adaptors continue to be made and used as they are now, consumer electronics and other small appliances will be responsible for more than 40% of electricity used in US homes, said the EPA.