

What is e-waste?

E-waste (electronic waste) includes anything with plugs, cords and electronic components. Common sources of e-waste include televisions, computers, mobile phones and any type of home appliance, from air conditioners to children's toys.

Current e-waste recycling solutions are just exporting the problem

Recycling is a preferable option to sending valuable componentry to landfill, but it comes with its own ethical considerations.

Processes are slow and inefficient, and nations are exporting the challenge to countries where labour laws and safety don't protect those doing the meticulous and dangerous work of processing e-waste for metal and mineral extraction.

'Whole computers are sent to China, Africa or India, where entire villages including children just sort components,' says Richard.

How to recycle mobile phones, computers and other electronics

Trying to work out what to do with unwanted or broken electronics? Take these four steps to give them a new lease on life and keep as much as possible out of landfill.

1. Postpone upgrading for as long as you can

Think twice about getting your phone or other devices upgraded. Do you really need a new device to do your job or communicate effectively with others?

2. Find opportunities for reuse

If the item is still in good working order or requires only minor repairs, think about giving it to someone else. If friends or family don't want it, there are a number of charities that will take them and get value from old items, especially mobile phones.

3. Try returning the item to the manufacturer

If the item is broken or unusable, a first port of call should be the manufacturer. Ask if they have a process for returning old electronics and their materials for credit. Most won't take back goods at the end of their working life, but some will, and the only way market practice and accountability will change is if enough consumers advocate for it.

4. Take them to a dedicated e-waste recycling facility

If there really is no way to reuse or return the item, find a reliable local organisation who will recycle it. There are plenty of places that will take old electronics - you can easily search for one in your area at [**Recycle Now**](#).

A challenge to manufacturers and consumers

When considering buying another piece of technology, the cheapest deal might not be the best for you or the planet. If you can afford it, take your business to companies that have gone to efforts to source their materials sustainably and have a clear process for the end of life of the product.

Richard says, 'Most companies are driven by wanting to sell you a new product. They want you to get rid of your old phone or computer and upgrade, but I would like to see more modular approaches to electronic designs where you can replace or upgrade sections as needed.'

'I think any type of built-in obsolescence that creates waste is really very bad. Electronics contain precious natural resources like precious metals and minerals that we really shouldn't be thinking of as disposable.'

'It might be that we start demanding products that we know can be recycled and we should not accept a product that can't be. They shouldn't be selling something that can't be recycled or repurposed.'

Tapping the urban mine

Richard is also directly involved in a European project looking at the potential of urban mining - using stockpiles of e-waste to recover precious metals and minerals (like cobalt) for reuse.

He says, 'I'm involved in a project called **CROCODILE** which looks at cobalt recycling. We know humans are creating huge amounts of waste from old batteries, and our plan is to develop a secondary supply chain from those waste materials.

'The goal of the project is that once metals are mined they don't end up in landfill - they go back into the production cycle for the next device that needs them and are recycled and reused.'