

E-Waste Management Trends Around the World

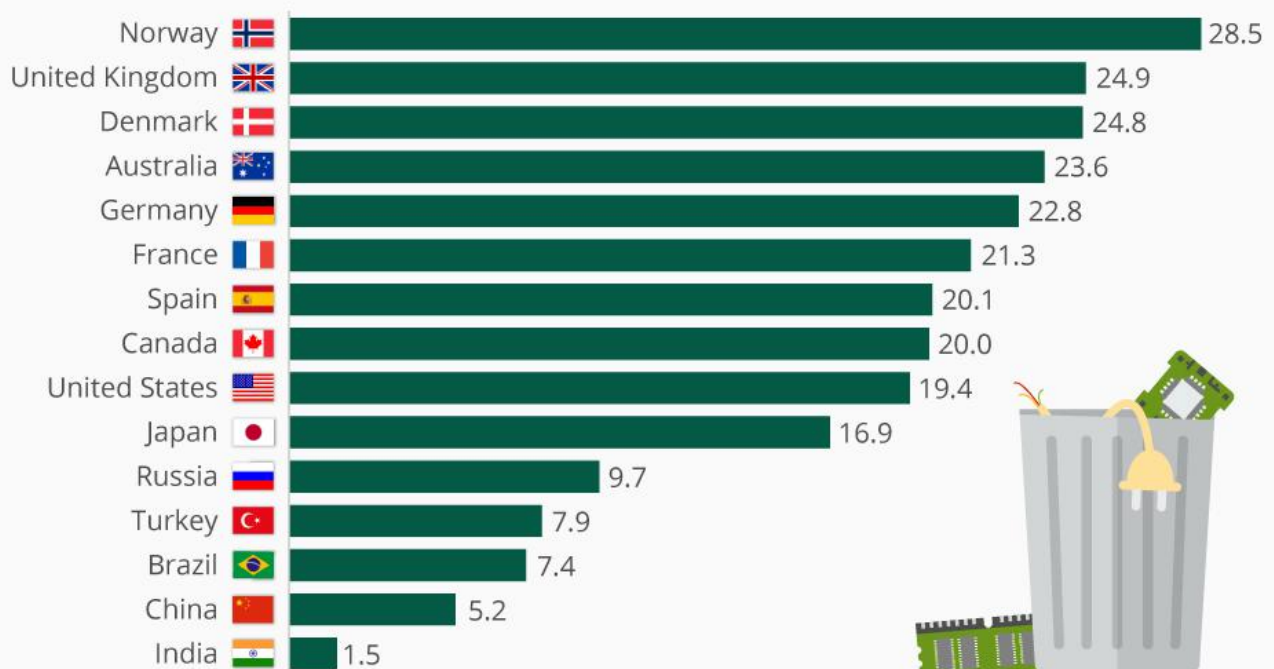
When you buy a new phone, a new fridge, or replace a broken monitor, what happens to the old one?

With so many electronics around today, we need to think seriously about 'e-waste'. This type of waste includes all [discarded](#) appliances. For example, mobile phones, laptops, tablets, televisions, and even ovens and fridges.

That's because e-waste is one of the [fastest-growing waste streams](#) on the planet. We make about 50 million tonnes of the stuff every year. By 2030, that number will likely hit 70 million. These products are basically unsustainable. They're putting pressure on Earth's limited resources.

The World's Worst Electronic Waste Offenders

E-waste generated per inhabitant in selected countries in 2016 (kg)



Source: The Global E-waste Monitor, United Nations University via OECD

Forbes **statista**

[Electronic waste generated per person in selected countries in 2016](#)

So Why do we Produce so much E-Waste?

As prices come down, we are buying more devices. On top of that, new devices [date more quickly](#). A [shorter lifespan](#) and cheaper prices is creating [huge volumes](#) of e-waste.



E-waste is becoming a critical issue for the world.

Why Do We Need E-waste Management?

E-waste, without [proper treatment](#), harms the environment and human health. Dumping it in landfill pollutes the soil, air and water. It leaks large amounts of heavy metals like lead and mercury.

However, it also contains [valuable metals](#) like copper and gold. Unfortunately, many countries use informal or 'backyard' recycling to reclaim it. Here, untrained workers [shred, burn, and dismantle](#) devices by hand.

In addition, [open-air burning](#) releases toxins into the air. So, informal recycling exposes workers and nearby residents to risk of serious [disease](#).

Instead, proper e-waste control manages the whole [life cycle of a device](#). That means, firstly, building [eco-friendly products](#), and then safely recycling their elements. It also means limiting pollution. As a result, we create a [safer and more sustainable industry](#).



[A Chinese child sitting among cables and e-waste, Guiyu, China.](#)

4 Top Methods for E-waste Management

So, cutting e-waste means smart design, proper recovery, and safe disposal. It means not sending discarded devices to poorer countries for recycling, and making people aware of its impacts.

As a result, there are several approaches that have proven effective around the world. Experts recommend that we employ at least two of the following:

Life Cycle Assessment (LCA)

LCA [helps](#) design new eco-friendly devices. Better design means less e-waste. Germany, Japan, Korea, India, and the UK are using [this tool](#).

Material Flow Analysis (MFA)

[MFA](#) is a method of analysis. It helps plot the route of e-waste to disposal sites. Countries that use MFA include China, India and South Africa.

Multi Criteria Analysis (MCA)

Similarly, MCA assesses trade-offs between different waste disposal solutions. So, it is helpful with solving complex problems. Right now MCA is mostly used in managing regular solid waste.

Extended Producer Responsibility (EPR)

EPR uses the polluter-pays principle. It puts the onus back on to [manufacturers](#). Switzerland, Japan, and parts of the United States and Canada are taking the lead with this approach.

E-Waste Management Around the World

So, countries are creating their own e-waste disposal policies. However, the efficacy of each response varies greatly. Much depends on their economic and social conditions. Also, the sources of e-waste and the amounts produced play a part. Moreover, the degree of public awareness is key.

Australia

In Australia, Extended Producer Responsibility (EPR) led to the [Product Stewardship Act \(2011\)](#). The Act included three different levels of responsibility: voluntary, co-regulatory, and mandatory.

However, this Act doesn't apply directly to e-waste. Even so, the country has since created binding e-waste recycling targets. These fall under the National Television and Computer Recycling Scheme (NTCRS).

India

By comparison, India's rules for e-waste control are weak. This is despite the fact that India is the [5th largest e-waste producer](#) in the world.

Currently, India's e-waste management is mostly informal. The lack of control creates serious environmental and health concerns.

However, revisions to the law have at least created some rules for waste disposal. Though, even these are not mandatory.

Japan

Japan throws out about 650,000 tonnes of electronics every year. Even so, it is one of the first countries to install a formal e-waste program. Unfortunately, this covers less than a sixth of its output. In practice, Japan is guided by [two laws](#): The Law for the Promotion of Effective Utilisation of Resources (LPUR), and the Law for the Recycling of Specified Kinds of Home Appliances (LRHA).

USA

Globally, the USA is a major producer of e-waste. However, regulation is [poor](#). Landfill is still the main method of disposal. Even so, some awareness of the need for regulation is building.

Nepal

Likewise, [most e-waste in Nepal is dumped](#) in landfill. At present there are no laws for handling e-waste. However, new [Hazardous Waste Regulation](#) is being

drafted. As a result, its management should improve. There will also be bans on the illegal import of electronics.

Qatar

By 2026, Qatar's e-waste will grow to [45,708 tons](#). Currently, the country does have some e-waste and battery [facilities](#), but most of it is exported.

Zimbabwe

In Zimbabwe, e-waste isn't a big issue yet. However, companies and pressure groups are warning of the [potential hazards](#).

Nigeria

Equally, Nigeria doesn't have formal e-waste facilities either. Here, [backyard recycling](#) is common.

Even so, the Nigerian government passed [National Environmental Regulation](#) in 2011. This Act banned the import of e-waste and set rules for control.

Ghana

There are currently no laws for e-waste recycling [in Ghana](#). Still, the government has tried to [raise public awareness](#). At present, most recycling remains informal.

How Can We Reduce our Electronic Waste?

Firstly, e-waste management is a collaborative, multi-sector task. That means that [good public policies](#) are vital.

Also, eco-friendly [designs](#) and rules for [disposal](#) help cut e-waste at the source.

In addition, stores can provide discounts for returning old products. They can even provide a pick up service too. Moreover, governments can assist by giving subsidies for this kind of service.

How to recycle your e-waste at home

Care and Repair

Right now, limiting purchases remains the most valuable thing we can do.

So, we must re-evaluate before buying those extra gadgets. Also, we must take care of our e-devices, and make them last.

Finally, one of the best tools we have is research. You can find out more about [e-waste](#) and reducing consumption at the [THRIVE Project](#). THRIVE is a not-for-profit group that provides useful information on sustainability to consumers and business. Support THRIVE and join us on our mission to promote 'Thrivability' and a better world.