

## E-waste and ITAD

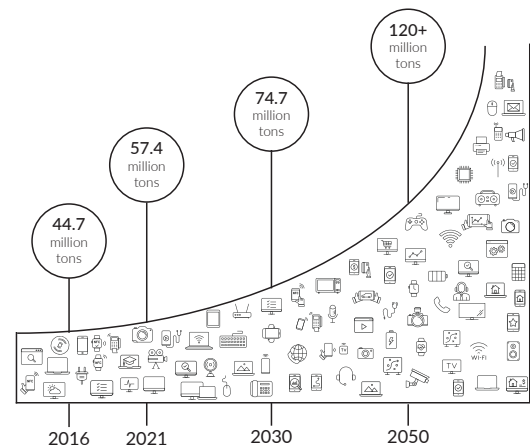
A comprehensive issue calls for a comprehensive solution



### A GROWING PROBLEM

Among one of the biggest threats to the health and safety of our planet, the growing problem of e-waste has quietly snuck through the ranks of our known environmental crises. Companies worldwide are having to quickly educate themselves on what exactly counts as e-waste, and why it is crucial they make its distinction from typical waste. Moreover, it is of the utmost importance they grasp how they can and need to be trained on the proper management of e-waste.

The Future Growth of E-waste



So, what is it? E-waste is defined as any discarded electrical or electronic device. As it stands, e-waste is the world's fastest growing waste stream; with humanity generating an estimated 50 million tons of e-waste every year (Forbes, 2021), a number that is expected to nearly double by 2030 (World Health Organization, 2020).

## THE PROBLEMS' PROBLEM

The trouble with e-waste lies in its recycling and/or disposal. The mishandling of e-waste can lead to a mass release of hazardous toxins into the environment; they seep into our air, water, soil, and bodies, bringing about a plethora of human health complications. Such impacts on humanity include: metabolic diseases; bone, liver, lung, kidney damages; cardiovascular and DNA damage; immune system diseases (including the development of different autoimmune diseases); adverse neonatal outcomes; long standing problems related to cognitive function; and negative neurological effects (World Health Organization, 2021).



Any health and environmental risks related to e-waste arise during informal, and sometimes illegal, recycling and disposal of electronics. Informal methods have workers utilizing crude recycling methods to retrieve precious raw materials; these techniques include burning plastic from electronic goods to isolate valuable metals, melting down lead in open pots, and dissolving circuit boards in acid, all in the pursuit of “recycling” valuable elements (World Economic Forum, 2019).

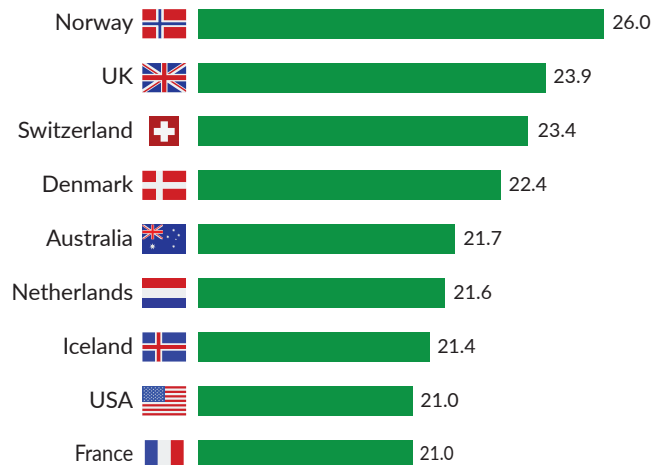
According to the Global E-Waste Statistics Partnership (GESP), only 17.4% of all e-waste is recycled responsibly (United Nations Institute for Training and Research, 2022). The rest is illegally shipped and dumped on the shores of countries without sufficient infrastructure or regulations to safely dispose of it, causing a more concentrated epicenter of the aforementioned environmental and health complications (Poritz, 2021). Damage done to the environment can leave a string of lasting negative effects even after such operations are shut down or formalized.

To make matters worse, technological advancements will more than likely plateau even in developed countries, as manufacturers struggle to keep up with an increasingly limited supply of virgin resources, forcing them to develop smaller, less sustainable products made primarily of plastic. While proper recycling processes can salvage most plastics, it is heavily dependent on the quantity of plastic used, rendering these smaller products nearly impossible to recycle (IISD, 2019).

Not only are these developments innately wasteful and costly to support, the improper recycling of e-waste is losing the global economy billions of dollars. The World Economic Forum states that “[the] earth’s richest deposits of valuable materials are sitting in landfill sites or people’s homes,” in their 2019 report on e-waste and its place in today’s world (2019). Altogether, the improper disposal of e-waste ultimately throws away that money, as the global material value of our spent devices amounts to approximately \$62.5 billion (IISD, 2019). In 2019 alone, it is estimated that \$57 billion of gold was either burned or thrown into landfills (WHO, 2020).

### The World’s Worst E-waste Offenders

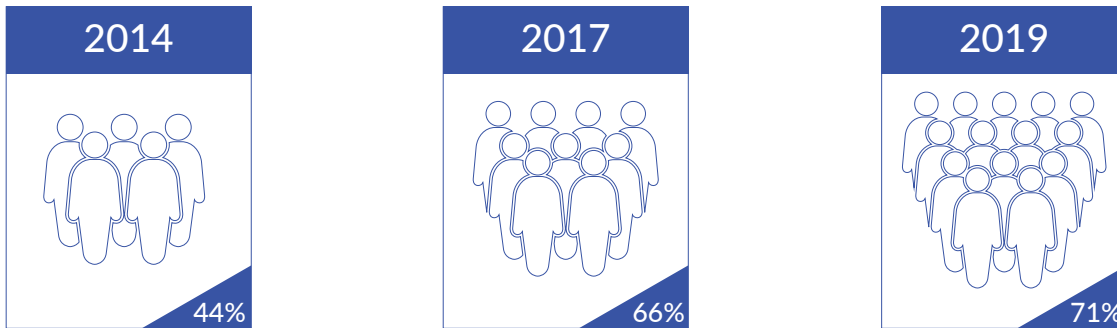
E-waste generated per capita in 2019 (kg)



Source: The Global E-waste Monitor, United Nations

## A JOINT EFFORT

It is evident that our growing pile of e-waste is a costly, egregious problem, however, not all hope is lost. Across the globe, treaties, committees, and conventions are being formed to address the problem with an intensive, transborder approach. The Basel Convention, the Organization for Economic Cooperation and Development (OECD), and the Stockholm Convention are just a few well known groups aiding in the global oversight of e-waste management. While major gaps still exist between the enforcement of conventions and the adaption e-waste legislation across the globe (World Economic Forum, 2019), great momentum can be found in current efforts, especially regarding those made on the commercial and consumer levels.



Population covered by legislation, policy, or regulation.

Despite the current trajectory for this issue, companies worldwide can join the effort to reduce global e-waste at any point in time and make a significant impact on the future of our planet. Both businesses in the tech and medical industries have been identified in having the ability to make the biggest difference in our world's growing e-waste problem (Ryder & Houlin, 2019).

Thankfully, making that difference is not too complicated. To broach reducing e-waste, companies can kick off their efforts by taking a solid look into their own technology assets, analyzing those assets' lifecycles, and sketching out what kind of headway they are able to make in addressing their own e-waste.

An estimated 50 million tons of e-waste each year, equal to:



46 pounds per person



125,000 Jumbo jets



4,500 Eiffel towers



Covering an area the size of Manhattan

## A CONSCIENTIOUS CONTENDER

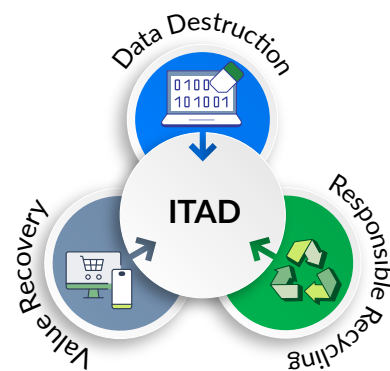
One of the biggest solutions proposed to tackle the trajectory of e-waste is the principle of circularity, where products are created with their own end-of-life taken into account during design, development, manufacturing, and use. By creating products with circularity in mind, companies can help advance a circular economy, where spent products go back into the supply chain instead of a landfill. According to the World Economic Forum, this can create a “closed-loop production in which all old products are collected and then the materials or components re-integrated into new ones” (2019).

A circular economy definitely sounds like a collective effort, and in many ways, it is – as it was a group failing in creating this problem, it’ll take a group effort to solve it. Partnerships need to be forged at every step in the solution in order to effectively eliminate the world’s e-waste problem. A key partnership to be made are those with ITAD service providers. ITAD, or IT Asset Disposition, is a “practice built around reusing, recycling, repurposing, repairing or disposing of unwanted IT equipment in a safe and environmentally responsible way” (Gillis, 2022). While this practice can be done internally, the processes to do so, as well as proper certifications, can be labor-intensive and expensive. Many in the business world tend to partner with third parties who have a certified focus on providing ITAD services.

Quite a few certifications exist within the ITAD world, though two widely regulated certifications are with eStewards (overseen by the Basel Action Network, a consumer watchdog for the Basel Convention), and with Responsible Recycling, also known as R2 (overseen by Sustainable Electronics Recycling International, SERI). Some differences exist between the two certifications, however, both share the primary goal of ensuring e-waste is handled in an environmentally responsible and sustainable manner.

## INCORPORATING ITAD

So why are these certifications so important? They guarantee risk- and worry-free services for their clients. Not only do these certifications consistently audit companies for compliance, they also require that all downstream partners within that ITAD service are also compliant. Without certifications, there is no way to ensure that ITAD service providers are not shipping, reselling, or illegally dumping your e-waste across the globe, leaving your company open to massive legal and security liabilities, as well as at fault for a number environmental and human health violations. Certified ITAD providers make the chain of custody for your e-waste transparent throughout the entire process, from when assets leave your location to where they travel downstream upon recycling.



ITAD is a quintessential reinforcement of a product’s circularity; once a user is finished with a product, through its rigorous services, ITAD services can reintroduce that product back into the supply chain (in one form or another), greatly reducing the environmental impact such a product would have had otherwise. In the event that a product is unable to reenter the supply chain, certified ITAD service providers ensure that all data on the device is securely destroyed and the materials that make up the device are safely recycled. Even if a product is deemed unfit to reenter the supply chain as-is, hope is not lost for the otherwise useless, discarded product; ITAD recycling methods can safely isolate raw materials and deliver them to manufacturers, where those materials can be worked back into the circular economy (Poritz, 2021).

## ONWARDS AND UPWARDS

Paramount to everything it can do for your company, ITAD services offer circularity to your e-waste and responsible recycling for products whose lives cannot be extended. E-waste is not an issue to be taken lightly; its current effects on our planet are devastating, and if left unchecked, the future implications of its impact are detrimental. However, the problem is not irreversible. At this very moment, there are practical, tangible solutions in place for collectively tackling this global issue on every level it affects – including your company's. Assessing the circularity of your IT assets and partnering with a certified ITAD service provider are two massive steps you can take today to contribute eradicating the global e-waste problem.

Humankind as a whole has already set its focus on addressing, solving, and progressing past our current environmental crises. The problem of e-waste, for as fast as its growing, is just one area where the business world can and is making strides to do better, though there is still much more to be done. The groundwork for leaving the planet better than it is now has already been laid – all that is left is to join in on the concerted effort.

### ABOUT INGRAM MICRO LIFECYCLE

Ingram Micro Lifecycle offers state-of-the-art solutions to address the return, refurbishment, repair and remarketing of technology products. These services enable operators, retailers, insurers, enterprises, and OEMs to maximize the life of technology products through a suite of environmentally responsible solutions. Ingram Micro Lifecycle will enable a circular and sustainable product lifecycle and include services such as configuration & fulfillment, returns management, repair & refurbishment, trade-in & buy back, asset management, IT asset disposition, and remarketing.

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