

Technology Recycling vs. Reuse

With e-waste continuing to be an issue worldwide, and global data consumption accelerating, what is the most sustainable option when it comes time to retire data storage devices?



Risk-averse organizations can advance environmental sustainability—and protect their data. Here's how.

The amount of data we process around the globe is staggering, and each virtual bit requires physical resources: chips, drives, smart devices, laptops, servers, and more.

- ✓ Even before the COVID-sparked acceleration to cloud, [ComputerWorld](#) predicted that data centers could generate 3.2 percent of the total worldwide carbon emissions by 2025, and use at least a fifth of the world's electricity.
- ✓ By 2030, we could experience a deluge of Internet of Things (IoT) devices—around [50 billion of them](#). This IoT increase affects data processing, data storage, device manufacturing, and device and battery disposal.
- ✓ In 2020, [pandemic-sparked changes](#) resulted in accelerated creation and acquisition of devices to facilitate remote work, virtual classrooms and digital business worldwide.
- ✓ Devices are shrinking in size while expanding in storage capacity. Yet, [Global E-Waste Monitor 2020](#) reports that as of 2020, global e-waste is up 21 percent in five years.

All of this strains natural resources for enough new product to meet unprecedented demand. And, when new product becomes old, device disposal compounds the environmental impact.

For businesses, government, and other large enterprises, there are two primary, eco-friendly paths for device disposal: recycling and reuse. Both have data privacy and protection implications to address.

Technology Recycling Challenges in an Age of Miniaturization & Risk

The reality is that extracting recyclable materials is increasingly complex. In fact, the dynamics that shrank the processing capacity of yesteryear's mainframes to wristwatch size make extraction incredibly laborious. Increased miniaturization also makes data security harder to guarantee through physical means as chips get smaller and data gets more condensed.

In our 2020 research, we discovered that 35 percent of enterprises used physical destruction to sanitize end-of-life equipment because risk-averse leaders believed it to be better for the environment. Of these, 46 percent believed some resulting waste could be recycled or reused. Unsurprisingly, the rest still heads to the landfill.

Technology Reuse Benefits & Data Security Implications

Data erasure, particularly when automated, streamlines device readiness for the circular economy without fear of sensitive data being extracted.

When evaluating technology recycling vs. reuse when disposing of IT assets, the more sustainable option should win. In this case, a better first-line option is reuse. However, any remaining data could be discovered by the device's next user, so before redeployment, return, or resale, the device must be "sanitized." With the right methods and levels of software-based sanitization (data erasure), data is permanently rendered inaccessible while leaving the device intact.

Not only does this prevent usable devices from prematurely heading to landfill, it steers around the resource-taxing processes that first recycle only a portion of the device, then use energy to repurpose those materials for other things.

Data erasure, particularly when automated, streamlines device readiness for the circular economy without fear of sensitive data being extracted. This also supplies affordable technology for households, businesses, schools, and global communities—all without relying on new device creation.



Weighing Whether to Recycle or Reuse Your IT Assets? Discover the More Sustainable Choice

Blanco’s automated data erasure technologies allow enterprises to efficiently and securely prepare a multitude of devices for reuse. To date, more than 270 million Blanco erasures have occurred worldwide. New and innovative automation capabilities increase the sustainability impact that global enterprises, disposal vendors, and recyclers can have while decisively addressing the need for data protection.

These solutions are ready to demo across a variety of devices and technologies to show how enterprises can dramatically reduce their environmental impact—all while safeguarding their data.

This article based on Blanco’s submittal to present at the [World Trade Organization’s ITA Symposium: 25 Years of the Information Technology Agreement](#) on September 16-17, 2021. Blanco Vice President of Enterprise & Cloud Erasure Solutions Fredrik Forslund presented “The Use of Data Protection Technology in an ICT Circular Economy” at the event.



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